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Front cover: Buprestid beetle infected with *Sporothrix* sp. Specimen collected by Matt Hentz in Florida, 2018. Photograph and fungus identification by LA Castrillo.

New nomenclatural rules bring new challenges, and new taxonomic revisions for entomopathogenic fungi

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The previous (2007) version of this introductory material for ARSEF catalogs sought to explain some of the phylogenetically-based rationale for major changes to the taxonomy of many key fungal entomopathogens, especially those involving some key conidial and sexual genera of the ascomycete order Hypocreales. Phylogenetic revisions of the taxonomies of entomopathogenic fungi continued to appear, and the results of these revisions are reflected in the ARSEF catalog as quickly and completely as we can do so.

As many of people dealing with entomopathogenic fungi are already aware, there has been one still recent event that has a more far-reaching and pervasive influence whose magnitude still remains to be fully appreciated, but that leaves much of the mycological world (including insect mycology) semi paralyzed by uncertainty and worried about the extent and impacts of changes that still remain unformalized and, hence, a continuing subject for speculation and prediction. At the 2011 International Botanical Congress in Melbourne (Australia), however, a far-reaching nomenclatural revolution was imposed on the fungal world as the result of the abandonment of the existing dual nomenclatural standard that allowed separate, valid names for anamorphic and teleomorphic stages of pleomorphic fungi. This dual nomenclatural system was replaced by a new standard allowing only *one* correct name for any pleomorphic fungus regardless of how many morphs might have been previously and validly recognized for that fungus. The new rule (also known as One Fungus = One Name, or, even more concisely, 1F=1N) has deeply split mycologists into opposed camps greeting the new rules with either cheers or jeers. Whether one supports or opposes this change (for the record, I strongly object to this change), these basic points are indisputable and must be accepted (whether happily or not):

- Dual nomenclature is no longer recognized (now and for the indefinite future).
- 1F=1N is the **only** nomenclatural standard applicable for the nomenclature of pleomorphic fungi.
- The main impacts of 1F=1N are apparent at the rank of genera.
- After the competing possible names are evaluated, a **single** correct generic name will be chosen by decisions of committees as defined by the International Association for Plant Taxonomy (IAPT) which oversees the ***International Code of Nomenclature for algae, fungi and plants (ICN; McNeill et al. 2012*** or online at <http://www.iapt-taxon.org/nomen/main.php>).
- The use of the specified correct names, once fully confirmed, is obligatory and **must** be followed because all such names will be treated as if they have been conserved against all possible alternative names.
- Other taxonomic changes (especially below the generic level)—e.g., when the chosen correct generic name is of a different gender from that which it

replaces, specific epithets must be changed to reflect the newer generic gender as when *Paecilomyces farinosus* became *Isaria farinosa*.

- Some very familiar, cherished generic names will disappear, and the traditional generic circumscriptions for pleomorphic fungi will expand and be revised to reflect all phylogenetically related morphs for their included taxa.

How correct names will be chosen: The ultimate selection of correct names over all possible competing names will depend on a number of sequential actions by a significant number of persons in a series of committees, and will be subject to all of the difficulties that routinely accompany committee actions. The exact set of actions that will be occurring still remain uncertain in many quarters. For fungi in the Hypocreales (the entomopathogens most affected by the new rule and also raising the greatest concerns for insect pathologists), there is a world-wide group of mycologists with strong taxonomic/systematics expertise who will consider the demonstrated phylogenies of these fungi, assemble lists of generic names that appear to apply to monophyletic groups of taxa, and that will formally propose a set of choices of correct genera (and their synonyms) to the IAPT's Nomenclature Committee for Fungi. Once this committee has cast their votes to accept (or to modify) any of the proposed choices, the lists of accepted and rejected names will be sent forward to the General Committee of the IAPT for ratification, and then to the Nomenclature Session of the next International Botanical Congress (the next such meeting will be in 2017, in Beijing; any reports from the Committee for Fungi that miss the deadlines for this next Congress would be passed on to the following Congress in 2023 (wherever that may be held). No nomenclatural changes or decisions of any type become completely official until they have been accepted by majority votes during the Nomenclature Session at an International Botanical Congress and then ratified by a plenary vote of the Congress participants at that Congress. It is interesting to note that the only constitutive reason for holding any International Botanical Congress is actually for holding these Nomenclatural Sessions (before the main Congress) and the final, obligatory vote on the acceptance of the report from the Nomenclatural Session during the closing plenary session of the Congress.

The selection of which name among competing possibilities will be selected as correct is not entirely arbitrary, but it is also necessary to remember that it will be a matter of consensus opinion among the members of the committees that will consider the proposals coming to them. The criteria that are supposed to be used for ultimately choosing the names that will be used are to be based in the first place on priority of publication (which name is the oldest available name). There is no longer any automatic preference in the Code to choose names as correct that are typified by teleomorphs; names for conidial and sexual states are to be treated on an equal basis for purposes of selecting the correct name.

It is apparent that even now (early in 2014), there is still a great deal of uncertainty among mycologists about exactly how to handle names of pleomorphic fungi during this transitional period from the defunct dual nomenclatural system to the new rule. Hawksworth (2012) provides what may be the most comprehensive opinion about how to proceed from this point, but it is only one opinion about how the mechanics should proceed.

Changes to the International Code of Nomenclature (ICN) for botanical and related taxa are supposed to result in greater stability and predictability for the names of organisms covered by these rules. Whether the newly adopted rules do this remains a source of active and heated controversy. It probably is fair to say that a new stability will be an eventual result of these new rules, and that within another decade many of the fundamental arguments about the value of these changes will have been settled. I will note that the names for the entomopathogenic hypocrealean fungi (which comprise the vast majority of fungi in the ARSEF culture collection) are among the fungi most drastically affected by this dramatic change in the ICN rules. While nomenclatural stability will eventually come, it will still be a number of years before that stabilization process has been completed and before the resulting changes are fully incorporated into the scientific literature. It is probable that all or, at least, the great majority of the basic changes outlined here will be ready for final ratification during the 2017 International Botanical Congress in Beijing.

Just as there is enormous confusion and controversy still about whether the abandonment of dual nomenclature for the 1F=1N rule was a good and necessary change or will prove to be a superfluous and destructive catastrophe, there are many analyses covering a range of opinions from opposed to and troubled by the change (e.g., **Korf 2005** precedes the adoption of the new rules but raises important and pertinent issues; **Gams et al. 2011, 2012**) to those who seem to be cautiously and a bit vigilantly supportive (e.g., **Braun 2012**) to those leading full-throated cheers for these changes (**Hawksworth 2011; Hibbett & Taylor 2013**) to even a suggestion that the naming of fungi may cause more problems than it solves (**Money 2013**).

ARSEF responses to taxonomic revisions: The identifications in the ARSEF catalog have always incorporated new taxa and appropriately revised classifications as soon as the collection staff can confirm the correct new identifications for ARSEF holdings. We make every attempt in the catalog to note specifically when those identifications are based on genomic sequence data. For taxa where extensive molecular revisions have occurred, those isolates with genomically confirmed identifications—for example, for isolates of *Beauveria bassiana* and *Metarhizium anisopliae* in their molecularly redefined, phylogenetically narrowed, strict senses (**sensu stricto**)—are listed in the catalog as these species; isolates that have not been molecularly confirmed are placed in separate listings for these species in their broad senses (**sensu lato**).

GENERAL AND PHYLOGENETIC RECLASSIFICATIONS OF FUNGI

The results of a global cooperative effort involving dozens of mycologists (including the curator of this collection) to reclassify the fungi according to phylogenetically sound principles based on the DNA sequence data for multiple genes has recently resulted in the publication of two monumentally important publications that completely rework mycological systematics. The earlier publication was a phylogenetic overview of virtually all fungi (**James et al. 2006**). The second publication (**Hibbett et al. 2007**) provided many of the necessary taxonomic readjustments that were indicated by the phylogenetic studies. The ITS locus sequence has been adopted as a supposedly universal biological bar code gene (**Schoch et al. 2012**) because of its wide usefulness for a vast range of fungi; however, reality has consistently indicated that the ITS sequence has very little usefulness for the identification of fungi in some important groups of ascomycete (**especially including** taxa in the order Hypocreales). As is noted here, however, there have been many later phylogenetic studies that are important for the taxonomy and systematics of entomopathogenic fungi. Some of these major studies involving entomopathogens from the order Hypocreales are listed here by anamorphic or teleomorphic generic name:

- Beauveria* — **Rehner et al. 2011; Kepler et al. 2017, Khonsanit et al., 2020**
- Fusarium* — **O'Donnell et al. 2012**
- Isaria* - **Mongkolsamrit et al., 2018**
- Metarhizium* — **Bischoff et al. 2009; Kepler & Rehner 2013; Kepler et al. 2014**
- Metacordyceps* — **Kepler et al. 2012**
- Polycephalomyces* — **Kepler et al. 2013**

Table 1. UPDATES for probable outcomes under 1F=1N standards for which genera of entomopathogens in Hypocreales are likely to be treated as ‘correct’ differing (where underlined) from those suggested in RA Humber’s (2012) poster presented at the annual meeting of the Society for Invertebrate Pathology in Buenos Aires, AR.

Family Clavicipitaceae

Humber (2012)	<i>Metarhizium</i> (syn. <i>Metacordyceps</i> , <i>Nomuraea</i> , <i>Pochonia</i> , <i>Rotiferophthora</i> , etc.) <i>Aschersonia</i> (syn. <i>Hypocrella</i>) Other aschersonioid genera; <i>Moelleriella</i> , <i>Orbiocrella</i> , <i>Regiocrella</i> , <i>Samuelsia</i>
Updated (see Kepler et al. 2014)	<i>Metarhizium</i> (syn. <i>Chamaeleomyces</i> , <i>Metacordyceps</i> , <i>Nomuraea</i>) <i>Pochonia</i> <i>Metapochonia</i> <i>Rotiferophthora</i> <i>Aschersonia</i> (syn. <i>Hypocrella</i>) Other aschersonioid genera; <i>Moelleriella</i> , <i>Orbiocrella</i> , <i>Regiocrella</i> , <i>Samuelsia</i>

Family Cordycipitaceae

Humber (2012)	<i>Cordyceps</i> (syn. <i>Beauveria</i> , <i>Isaria</i> , <i>Lecanicillium</i> , <i>Evlachovaea</i> , <i>Microhilum</i> , <i>Simplicillium</i> , etc.) <i>Torrubiella</i> (syn. <i>Akanthomyces</i> , <i>Gibellula</i> , <i>Granulomanus</i> , <i>Pseudogibellula</i>) <i>Ascoplyporus</i> <i>Conidiocrella</i>
Updated (see Kepler et al. 2017)*	<i>Cordyceps</i> (synonyms <i>Isaria</i> , <i>Microhilum</i> , <i>Evlachovaea</i>) <i>Beauveria</i> <i>Gibellula</i> (synonym: <i>Granulomanus</i>) <i>Hevansia</i> <i>Ascoplyporus</i> <i>Conidiocrella</i> <i>Simplicillium</i>

Family Ophiocordycipitaceae

Humber (2012)	<i>Elaphocordyceps</i> (synonym <i>Tolypocladium</i>) <i>Ophiocordyceps</i> (synonyms <i>Hirsutella</i> ² , <i>Hymenostilbe</i> , <i>Paraisaria</i> , <i>Sorosporella</i> , <i>Syngliocladium</i>)
Updated (see Quandt et al. 2014)*	<i>Ophiocordyceps</i> (synonyms <i>Hirsutella</i> , <i>Hymenostilbe</i> , <i>Paraisaria</i> , <i>Sorosporella</i> , <i>Syngliocladium</i>) <i>Purpureocillium</i> <i>Tolypocladium</i> (synonym <i>Elaphocordyceps</i>)

Table 2. Phylum Entomophthoromycota (Humber 2012)

Class Basidiobolomycetes	
Order Basidiobolales	
Family Basidiolaceae	<i>Basidiobolus, Schizangiella</i> ¹ , <i>Drechslerosporium</i> ¹
Class Neozygitomycetes	
Order Neozygiales	
Family Neozygaceae	<i>Neozygites, Apterivorax, Thaxterosporium</i>
Class Entomophthoromycetes	
Order Entomophthorales	
Family Ancylistaceae	<i>Ancylistes, Conidiobolus</i> ² , <i>Macrobiotophthora</i>
Family Completoriaceae	<i>Completoeria</i>
Family Entomophthoraceae	
Subfamily Entomophthoroideae	<i>Entomophthora, Entomophaga, Eryniopsis, Massospora</i> ⁴
Subfamily Erynioideae ³	<i>Erynia, Furia, Orthomyces, Pandora, Strongwellsea, Zoophthora</i>
Family Meristacraceae ⁵	<i>Meristacrum, Tabanomyces</i>

¹ Genus with phylogenetic support but still awaiting formal description.

² Phylogenetic data indicate this genus must be revised and split.

³ Phylogenetic data support *Zoophthora*, but distinctions among other genera remain uncertain.

⁴ Subfamily Massosporoideae proposed by **Keller & Petrini (2005)** is not phylogenetically supported.

⁵ Two previously included genera—*Ballocephala* and *Zygnemomyces*—have been excluded from Entomophthoromycota and reclassified in subphylum Kickxellomycotina (see **Humber 2012**).

FLAGELLATE FUNGI AND FUNGAL ALLIES

The removal of the Oomycetes (biflagellate watermolds whose zoospores have one whiplash and one tinsel flagellum) from the true fungi to the class Peronosporomycetes in the kingdom Straminipila (also known as kingdom Chromista) has been widely accepted within mycology for several decades now. There are, however, a small number of watermolds that produce uniflagellate zoospores (with a single posterior whiplash flagellum) that have traditionally been treated in the Chytridiomycota. The massive phylogenetic review of fungi (**James et al. 2006**) known under the All-Fungal Tree of Life (AFTOL) Project resulted indicated that a large group of taxa—including the entomopathogenic genera *Coelomomyces*, *Coelomycidium*, and *Myiophagus*—needed to be removed from the Chytridiomycota; these semi-terrestrial chytrids with golden-brown resistant sporangia and complex life histories were reclassified by **Hibbett et al. (2007)** into the newer kingdom Blastocladiomycota.

ENTOMOPHTHOROMYCOTA: A NEW PHYLUM*

The phylogenetically driven reclassification of all fungi (**Hibbett et al., 2007**) resulted in the abandonment of the phylum Zygomycota (as well as the subphylum Zygomycotina and class Zygomycetes) because these long-recognized taxa were finally proven to be distinctly polyphyletic. A series of subphyla *not assigned to any phylum* were described in **Hibbett et al. (2007)** while placing arbuscular mycorrhizal fungi (Glomales) in a clearly distinct phylum, Glomeromycota. Since that initial formal dispersal of zygomycete fungi, the new (still unassigned) subphylum Mortierellomycotina was described (**Hoffmann et al. 2011**). It was always understood that it was probable that further phylogenetic studies on these unassigned subphyla of zygomycetous fungi could eventually result in raising each of these subphyla to phylum ranking. In the case of the Entomophthoromycotina, these ‘missing’ phylogenetic studies have been

completed in a sufficiently convincing manner (**Gryganskyi et al. 2012a,b**) to support the description of the phylum Entomophthoromycota (Humber 2012) with a new and phylogenetically revised classification of entomophthoroid fungi into three classes (see Table 2).

* A study by **Spatafora et al. (2016)** utilizing genome-scale data to analyze zygomycete fungi, proposed the creation of a new phylum, **Zoopagomycota**, with subphyla Entomophthoromycotina, Kickxellomycotina, and Zoopagomycotina. The authors rejected use of the name Zygomycota since zygosporic formation is not a synapomorphy, but a symplesiomorphic trait (i.e., trait shared by common ancestors of Zoopagomycota and other phyla). The phylum name Zoopagomycota was selected over other possible names, including Entomophthoromycota, because of its broader and more inclusive meaning. This new proposal retained the three classes in the subphylum Entomophthoromycotina proposed by **Humber (2012)**.

* Updates by LA Castrillo (June 2020)

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ARS Collection of Entomopathogenic Fungal Cultures

History and Purpose of the ARSEF Collection

The goal of the ARS Collection of Entomopathogenic Fungal Cultures (ARSEF) is to provide fundamental support for basic and applied research on the fungal pathogens of invertebrates. Since its establishment in the early 1970s, this collection has served as a general research resource for the isolation, collection, preservation, and distribution of fungal strains from insects, other arthropods, and nematodes. Emphasis has always been placed on acquiring and distributing strains under active study for use as potential biological control agents. Basic research associated with the collection includes fungal systematics, fungal cytology, pathobiology, and methodology for fungal cryopreservation. The culture collection and its associated collection of microscope slides and herbarium specimens provide invaluable support for taxonomic research on and the diagnoses of fungal pathogens of invertebrates. Identification services for specimens and cultures have always been available free of charge to any laboratories requesting them.

We strive to provide users with pure and accurately identified fungal cultures., and the taxonomies applied to the fungi in this collection are continuously updated to reflect their current accepted classifications. The curator of the collection welcomes all correspondence about nomenclatural or taxonomic changes or possible misidentifications involving any ARSEF strains.

The ARSEF collection began as Richard Soper's research collection in the USDA-ARS laboratory at the University of Maine (Orono; UMO) where its cultures were at initially designated by a UMO or RS prefix before adopting ARSEF in 1985. In 1978, the ARS Insect Pathology Research Unit relocated to Ithaca, NY, to work with the Boyce Thompson Institute (BTI) on the Cornell University campus. The Insect Pathology Research Unit became the Plant Protection Research Unit (PPRU) in 1985, and was renamed in 2016 as the Emerging Pests and Pathogens Research Unit (EPPRU). The ARSEF collection moved from BTI in 1990 into the US Plant, Soil & Nutrition Laboratory which was rededicated in 2008 as the Robert W. Holley Center for Agriculture & Health to commemorate Dr. Holley's work there to complete the first sequencing of any nucleic acid; he received the 1968 Nobel Prize for Medicine or Physiology for this work.

EPPRU operates the ARSEF culture collection for the USDA Agricultural Research Service; the collection is not now and has never been owned or controlled by the Boyce Thompson Institute. ARSEF is one of the largest germplasm collections in the ARS, and is widely recognized for its active support of research on fungal pathogens of invertebrates. ARSEF and its associated herbarium are registered under the ARSEF acronym since 1985 with the World Federation of Culture Collections' World Data Center on Microorganisms and the International Association of Plant Taxonomists' *Index Herbariorum*, respectively.

From 1977 through 2008, all strains in the collection were preserved by immersion in liquid nitrogen. A program to lyophilize those isolates that could tolerate such was begun in the 1990's, and has expanded in scope and pace. At the end of 2008 the vast majority of the collection was consolidated in a single large nitrogen dewar in a new facility adjacent to the current building. Requests for cultures are filled with either actively growing cultures on appropriate media or, if available, as freeze-dried units.

Identifying and Acknowledging ARSEF Strains in Publications

We request that all publications using or referring to strains obtained from ARSEF acknowledge the U.S. Department of Agriculture, ARS EPPRU and state the ARSEF accession numbers of these strains. We would greatly appreciate receiving reprints of all past, current, and future publications or even periodic notification about research in progress involving the use of ARSEF strains.

Accession numbers of strains from commercial culture collections such as the American Type Culture Collection (ATCC), Centraalbureau voor Schimmelcultures (CBS), CAB International Mycological Institute (IMI), and other registered general service collections are listed in this catalog to provide complete information about specific isolates. ***Representation of cultures obtained from ARSEF as being from ATCC, CBS, IMI or UAMH or other general service culture collections violates trademark laws, and persons doing so are subject to prosecution. Cultures received from ARSEF should be referred to by their ARSEF numbers only even if they are co-deposited in other culture collections.***

Depositing and Exchanging Cultures

EPPRU and ARSEF encourage deposition of entomopathogenic fungal cultures in the ARSEF collection—particularly strains used in published studies—and of voucher and reference specimens to its herbarium. Depositors may reserve the right to limit redistribution of any culture deposited with ARSEF for specified times upon consultation with the curator. Depositors can receive subcultures of their own depositions at any time; these cultures do not affect any allowances of free cultures. Exchanges of cultures between ARSEF and other research or general collections of fungal cultures are encouraged and are not subject to numerical limits.

Prior to shipping cultures from countries outside the United States contact the Curator to obtain the appropriate needed importation permit from the U.S. Department of Agriculture, Animal and Plant Health Inspection Services, Plant Protection and Quarantine.

When sending cultures and/or specimens to ARSEF, it is very important to include as much of the following information as possible:

1. Scientific name (and taxonomic authority) of the fungus.
2. Common and scientific name (with taxonomic authority) of the host.
3. Order and family of the host. (***This information is required***)
4. Date and site of collection. (*This information is required*)
5. Name of collector.
6. Date and name of isolator.
7. Any collection, accession, or other identifier number(s) applied by the collector or sender.
8. Medium on which a culture is sent.
9. Any special requirements or conditions for growth (such as medium, temperature, pH).

Diagnostic Services for Cultures and Specimens

Specimens and cultures of unidentified fungi from invertebrates can be submitted to ARSEF for diagnosis, after consultation with the curator. This service is an important function of ARSEF and is provided without charge, but is generally limited to initial identification based on morphological characters. *We do not provide free identification requiring multi-locus sequencing.*

Release of ARSEF Cultures from Containment or Quarantine

Neither the curator nor any employee of ARSEF or of the EPPRU is entitled to authorize the release of any culture it provides from laboratory containment or quarantine in the United States or elsewhere. Recipients of ARSEF cultures are responsible for obtaining appropriate and necessary permissions from or for providing official notifications to State and Federal regulatory agencies.

Ordering Information

Please send all requests for isolates directly to the Acting Curator (Louela A. Castrillo):

ARS Collection of Entomopathogenic Fungal Cultures
Robert W. Holley Center for Agriculture & Health
538 Tower Rd.
Ithaca, NY 14853-2901

Telephone: [+1] 607 255-7008
OR Email: Louela.Castrillo@usda.gov

Academic, Government, and Other Nonprofit Institutions

1–12 isolates [up to 24 per calendar year]

13 or more isolates per order [25 or more per calendar year]

contact Curator

Users from nonprofit institutions can receive up to twelve isolates in any 6 month period, and up to 24 cultures in any calendar year.

Commercial and Industrial Institutions

1–12 isolates [per calendar year]

Users from for profit institutions can receive up to twelve isolates in any calendar year.

Terms of Shipment

All recipients of cultures are requested to provide express shipper account numbers to allow shipping costs to be billed directly to recipients, thus assuring significant cost-savings to the ARSEF collection.

We request confirmation of receipt and viability of cultures shipped. Inviable strains will be replaced.

ARSEF reserves the right to refuse to ship isolates

- to recipients who cannot handle them using standard microbiological practices,
- to laboratories that cannot assure laboratory containment of isolates except after obtaining permissions from applicable State and Federal regulatory agencies, or
- if use of routine mailing or shipping procedures cannot assure the receipt of viable cultures.

Neither ARSEF nor EPPRU is liable for damages arising from the misidentification of strains.

Interpretation of Strain Accession Data

The following examples provide a guide to the arrangement and interpretation of collection data included in this catalog.

***Beauveria bassiana* (Balsamo) Vuillemin**

2828 M Feng (MD8903). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.

2828	ARSEF accession number.
M Feng (MD8903)	Depositor and depositor's reference or accession number.
<i>Metopolophium dirhodum</i> [Homoptera: Aphididae]	Original host [host's order and family]
On spring wheat	The substrate on which the host was found
21 Jul 89	Date of accession or receipt by ARSEF.
USA: Parma, Idaho	Country of origin followed by the locality and state.

***Conidiobolus thrombooides* Drechsler**

73 [CSIRO EM534; FPMI 28] RG Kenneth (3040)←ATCC (24419)←DM MacLeod←G Thoizon. *Rhopalosiphum insertum* [Homoptera: Aphididae]. Rec'd Jan 18 1976. France: Val-de-Marne, La Varenne.

73	ARSEF accession number.
[CSIRO EM534; FPMI 28]	Alternative depositions of this strain in other culture collections.
RG Kenneth (3040)	Depositor and depositor's reference or accession number.
←ATCC (24419)←DM MacLeod←G Thoizon	Culture provenance: RG Kenneth obtained the culture from ATCC, which received it from DM MacLeod, who received it from G Thoizon.
<i>Rhopalosiphum insertum</i> [Acari: Eriophyidae]	Original host [host's order and family]
Rec'd Jan 18 1976	Date of receipt by ARSEF.

***Hirsutella thompsonii* Fisher**

137 [ATCC 24874; CBS 952.73] CW McCoy (Fla. 68). *Phyllocoptuta oleivora* [Acari: Eriophyidae]. Jan 1 1970. USA: Orlando, Florida.

137	ARSEF accession number.
[ATCC 24874; CBS 952.73]	Alternative depositions of this strain in other culture collections.
CW McCoy (Fla. 68)	Depositor and depositor's reference or accession number.
<i>Phyllocoptuta oleivora</i> [Homoptera: Aphididae]	Original host together with the host's order and family.
Jan 1 1970	Date of accession or receipt by ARSEF. Note: January 1 is a default date if an exact date in a year is unknown; the first day of the month is the default if no specific day in a month is known.
USA: Orlando, Florida	Country of origin followed by the locality and state.

Abbreviations

Information about the world's officially registered culture collections, their registered acronyms (e.g., ARSEF), and more is available from the CCINFO database and from other resources available at the website of the World Data Center for Microbiology <http://wdcm.nig.ac.jp/WDCHomePage_text.html>

ARSEF	ARS Collection of Entomopathogenic Fungi, USDA-ARS EPPRU Research Unit, Robert W. Holley Center for Agriculture & Health, Tower Rd., Ithaca, New York, 14853-2901, USA
ATCC	American Type Culture Collection, PO Box 1549, Manassas, Virginia 20108, USA
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza, Proyecto UIP, Apdo. Postal 7170, Turrialba, Costa Rica.
CBS	Centraalbureau voor Schimmelcultures, Uppsalalaan 8, 3584 CT Utrecht, The Netherlands
CCF	Culture Collection of Fungi, Department of Botany, Charles University, Prague, Czech Republic
CCFC	Canadian Collection of Fungus Cultures, Centre for Land and Biological Resources Research, Room 1015, K.W. Neatby Bldg., Ottawa, Ontario K1A 0C6, Canada
CDC	Centers for Disease Control and Prevention, Atlanta, Georgia 30333, USA
CENARGEN	Centro Nacional de Pesquisa de Recursos Geéticos e Biotecnologia, S.A.I.N. Parque Rural, C.P. 102372, 70770 Brasília, D.F., Brazil
CIRI	Corn Insects Research Unit, USDA-ARS, R.R. Box 45B, Ankeny, Iowa 50021, USA
CNPAF	National Center for Agricultural Research on Rice and Beans, EMBRAPA, Goiânia, Goiás, Brazil
CNPS	National Center for Agricultural Research on Soybeans, EMBRAPA, Londrina, Paraná, Brazil
CP	Strains isolated during joint US-Brazil program funded by US-AID to study fungal biocontrol of the insect pests of cowpeas
DAOM	National Mycological Herbarium, Centre for Land and Biological Resources Research, Agriculture Canada, Central Experimental Farm, Ottawa, Ontario, K1A 0C6, Canada
DAR	New South Wales Department of Agriculture, Rydalmerle, NSW, Australia
EFCC	Korean Entomopathogenic Fungal Collection (JM Sung, Curator), Dept. of Agricultural Biology, Kangwon National University, Chuncheon, Rep. of Korea
FI	CSIRO Entomology Division, Collection of Entomopathogenic Fungi, Black Mountain Laboratories, Canberra, ACT, Australia. This collection, formerly curated by R. Milner, is now orphaned and is being transferred to ARSEF.
FPMI	Great Lakes Forestry Center (formerly Forest Pest Management Institute), 1219 Queen Street East, Sault Ste. Marie, Ontario P6A 5M7, Canada. This collection, formerly led by D MacLeod and D Tyrrell is orphaned and endangered. Its surviving isolates <i>may</i> be transferred to DAOM.

GCRI	Horticulture Research International (formerly, Glasshouse Crops Research Institute), Worthing Road, Littlehampton, W. Sussex BN17 6LP, England, UK
HACC	Hindustan Antibiotics Ltd., Pimpri, Poona, India
IMI	(Now incorporated in United Kingdom National Culture Collection [UKNCC]) CABI Bioscience, Bakeham Lane, Egham, Surrey TW20 9TY, UK
INRA	Station de Recherches de lutte Biologique et Biocoenotique, INRA (Institut National de la Recherche Agronomique), La Minière – 78280 Guyancourt, France
IPLB	Unité de Lutte Biologique, Institut Pasteur, 28 Rue de Dr. Roux, 75724 Paris, France
IRRI	International Rice Research Institute, P.O. Box 933, Manila, Philippines
KEFC	(see EFCC)
KSU	Kansas State University, Department of Entomology, Manhattan, Kansas 66506, USA
MAF	Ministry of Agriculture and Fisheries, Canterbury Agriculture and Science Centre, Ellesmere Junction Road, P.O. Box 24, Lincoln, New Zealand
MU	Miami University, Willard Sherman Turrell Herbarium, Department of Botany, 79 Upham Hall, Oxford, Ohio 45056, USA
NCTC	National Collection of Type Cultures, Public Health Laboratory Service, 61 Colindale Ave., London NW9 5HT, England, UK
NRRL	ARS Culture Collection, USDA-ARS National Center for Agricultural Utilization Research, 1815 N. University, Peoria, Illinois 61604, USA
PSU	The Pennsylvania State University, 211 Buckhout Laboratory, University Park, Pennsylvania 16802, USA
QEC	Queen Elizabeth College, University of London, Department of Biology, Campden Hill Road, London W8 7AH, England, UK
QM	U.S. Army Natick Laboratories (formerly, Quartermaster Research and Development Center), Natick Massachusetts. Note: This collection has been transferred to NRRL.
RSA	Rancho Santa Ana Botanic Garden, 1500 North College Ave., Claremont, California 91711, USA
SBI	Sugarcane Breeding Institute, Indian Council of Agricultural Research, Coimbatore – 641 007, Tamil Nadu, India
UAF	University of Arkansas, Department of Entomology, 321 Agriculture Building, Fayetteville, Arkansas 72701, USA
UAMH	University of Alberta Microfungus Collection, Devonian Botanic Garden, University of Alberta, Alberta T6G 2H7, Canada

List of isolates by insect host: order Coleoptera

Unidentified / Hyphomycetes

- 2225 [ARSEF 2210] MC Rombach (140486-1) ← H Beddu Rewa. [Coleoptera: Curculionidae] on palm tree. 22 Mar 1986. Indonesia: Baritiwurung (Butterfly Valley), nr. Ujungpandang, Sulawesi Selatan, Celebes.
- 2999 SV Krueger (MF-Ec). *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Feb 1990. USA: Geneva, New York. [Hemiascomyete].
- 3033 W Mechaber (weevil#2034). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Vaccinium vacillans*. 28 Apr 1990. USA: Carver, Massachusetts. [? *Phialocephala* sp.].
- 5223 LA Lacey (96001). *Popillia japonica* [Coleoptera: Scarabaeidae]. 13 May 1996. Japan: Golf course, Sapporo, Hokkaido.
- 5224 LA Lacey (96002). *Popillia japonica* [Coleoptera: Scarabaeidae]. 10 May 1996. Japan: Golf course, Sapporo, Hokkaido.
- 5225 LA Lacey (96003). *Popillia japonica* [Coleoptera: Scarabaeidae]. 10 May 1996. Japan: Golf course, Sapporo, Hokkaido.
- 5226 LA Lacey (96004). *Popillia japonica* [Coleoptera: Scarabaeidae]. 16 May 1996. Japan: Golf course, Sapporo, Hokkaido.
- 5227 LA Lacey (96005). *Popillia japonica* [Coleoptera: Scarabaeidae]. 16 May 1996. Japan: Golf course, Sapporo, Hokkaido.
- 5677 BL Parker (SPT-014). [Coleoptera: Coccinellidae]. 18 Jan 1998. Turkey: Hurbit Mountain, Hatay.
- 5695 JM Sung (KEFC-1087). [Coleoptera: Curculionidae]. 9 Jul 1997. Republic of Korea: Yongmoon Mt., Gyeonggi Province.
- 8155 LS Bauer and H Liu (MF-246). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 28 Jul 2006. USA: Brighton, Michigan.
- 8179 LS Bauer and H Liu (MF-273). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Summer 2006. USA: Lansing, Michigan.
- 8183 LS Bauer and H Liu (MF-281). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Summer 2006. USA: Lansing, Michigan.
- 8184 LS Bauer and H Liu (MF-282). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 10 Aug 2006. USA: Lansing, Michigan.
- 8264 RJ Pereault (Walton Spray pci#1). *Conotrachelus nenuphar* [Coleoptera: Curculionidae]. Aug 2006. USA: orchard B, Frankfort, Michigan.
- 8641 [CENARGEN CG 639] [Coleoptera]. Rec'd 18 Sep 2007. Ghana. **RESTRICTED ACCESS: consult Curator.**
- 11666 JL Hatting (TPC 019). *Cochliotis melolonthoides* [Coleoptera: Scarabaeidae]. 20 Jun 2011. Tanzania: Sugarcane field.

Unidentified sp.

These fungi were accessioned without verified identifications. Many strains listed here will be reassigned to known taxa as quickly as the opportunity allows. Some strains are undescribed new species; some are sterile and may not be identifiable to a level lower than the class.

- 1429 S Balazy (1567). Adult, *Rhagonycha lignosa* [Coleoptera: Cantharidae] attached to the leaves of arboraceous plants. 24 May 1983. Poland: Bialowieza National Park.
- 1430 S Balazy (1573). Larva, *Phytonomus punctatus* [Coleoptera: Curculionidae]. 12 Jun 1983. Poland: field nr. Puszczykowo, Wielkopolski National Park.
- 1437 DL Hostetter (AWL#2). Larva, *Hypera postica* [Coleoptera: Curculionidae]. Location not specified.
- 1634 [ARSEF 1667 (deaccessioned)] TJ Poprawski (0120). Nymph, [Coleoptera]. 27 Jun 1984. France: Saint-Étienne du Bois, Loire.
- 1667 [ARSEF 1634] TJ Poprawski (0120). Nymph, [Coleoptera]. 27 Jun 1984. France: Saint-Étienne du Bois, Loire.
- 3034 W Mechaber (weevil#2176). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Vaccinium angustifolium*. 20 May 1990. USA: Carver, Massachusetts.
- 3471 CENARGEN (CG 304). *Sternechus subsignatus* [Coleoptera: Curculionidae]. 1990. Brazil: Passo Fundo, Rio Grande do Sul.
- 3478 CENARGEN (CG 311). *Aracanthus* sp. [Coleoptera: Curculionidae]. 1990. Brazil: Santa Maria, Rio Grande do Sul.
- 3714 RA LeBrun ← J Hanula (C-5). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 1 Jul 1991. Location not specified.
- 3719 RA LeBrun ← J Hanula (W-2). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. Summer 1991. Location not specified.
- 3722 Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 21 Jun 1991. USA: Groton, Connecticut.
- 3724 S DeFazio. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd 18 May 1992. Location not specified.
- 3821 ERD Reyes (BbCO2) or (BbH). Adult, *Hippodamia convergens* [Coleoptera: Coccinellidae] OVERWIN-TERING SITE. 9 Oct 1992. Mexico: Guanajuato State.
- 3841 LA Lacey (92140). *Popillia japonica* [Coleoptera: Scarabaeidae]. Rec'd 24 Nov 1992. Portugal: Terceira Island, Azores.
- 3980 LA Lacey (93017) ← S Reichert. Adult, *Oulema melanopus* [Coleoptera: Chrysomelidae]. 19 Apr 1993. France: La Valette.
- 4037 T Steenberg (251). *Phyllotreta nigripes* [Coleoptera: Chrysomelidae]. Oct 1991. Denmark: Copenhagen, Tåstrup, Zealand.

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Unidentified sp.
Beauveria sp.

- 4140 [DAT 25] AC Rath (F025). *Aphodius tasmaniae* [Coleoptera: Scarabaeidae]. 1986. Australia: Hamilton, Tasmania.

- Acremonium alternatum*** Link : Fries
[Sordariomycetes: Hypocreales]

- 7282 FE Vega (CBB9-2). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 8 Jan 2004. Colombia: Chinchiná, Caldas.

- Acremonium furcatum*** F&R Moreau ex Gams
[Sordariomycetes: Microascales]
Microascaceae

- 1372 TJ Poprawski (083). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 21 Jun 1983. France: Choisy-en-Brie, Haute-Savoie.

- Aphanocladium album*** (Preuss) Gams
[Sordariomycetes: Hypocreales]
Nectriaceae

- 1329 TJ Poprawski (085). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 5 Jun 1983. France: Chichery.

- Aspergillus* sp.**
[Eurotiomycetes: Eurotiales]
Trichocomaceae

- 6571 LS Bauer. Egg mass, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd 23 May 2000. USA: from laboratory colony, USDA Forest Service, NCFS, East Lansing, Michigan.

- 7048 TM O'Neil and DW Spurgeon. *Anthonomus grandis* [Coleoptera: Curculionidae]. Rec'd 12 Aug 2002. USA: Southern Plains Agricultural Research Center, College Station, Texas.

- Aspergillus flavus*** Link:Fries
[Eurotiomycetes: Eurotiales]
Trichocomaceae

- 6454 Z G/Tsadik (5/03-BB). *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. 3 Oct 1999. Ethiopia: Northern Shoa.

- 6469 LS Bauer (2UIC1817). Larva, *Anoplophora glabripennis* [Coleoptera: Cerambycidae] from laboratory colony, USDA Forest Service, NCFS. Rec'd 19 Feb 2000. USA: East Lansing, Michigan.

- 9381 DI Shapiro Ilan. *Tenebrio molitor* [Coleoptera: Tenebrionidae] for rearing of entomopathogenic nematodes. Rec'd 6 Jan 2010.

- Aspergillus nidulans(?)*** (Eidam) Winter
[Eurotiomycetes: Eurotiales]
Trichocomaceae

- 6515 RT Mayer. Larva, *Diaprepes abbreviata* [Coleoptera: Curculionidae]. Rec'd 10 May 2000. USA: Florida.

- Aspergillus parasiticus*** Speare
[Eurotiomycetes: Eurotiales]
Trichocomaceae

- 2173 MC Rombach (140486-1) ← H Beddu Rewa. [Coleoptera: Curculionidae] on palm tree. 22 Mar 1986. Indonesia: Baritiwurung (Butterfly Valley), nr. Ujungpandang, Sulawesi Selatan, Celebes.

- Batkoia* sp.**
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 5810 RA Humber. [Coleoptera: Cantharidae]. 9 Aug 1998. Denmark.

- Beauveria* sp.**
[Sordariomycetes: Hypocreales]

Cordycipitaceae. Almost all strains listed here closely resemble *B. bassiana* (or *B. brongniartii*) but were not so identified because of small (and possibly insignificant) differences in conidia size and/or shape.

- 547 VA Dyck. *Pachybrachis pallicornis* [Coleoptera: Chrysomelidae]. Acc'd 17 Sep 1986. Malaysia.

- 1327 TJ Poprawski (082). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 16 May 1983. France: Saint-Laurent, Vosges.

- 1681 M Shimazu (F-333). *Shirahoshizo insidiosus* [Coleoptera: Curculionidae]. 27 Jan 1982. Japan: Takao, Tokyo Prefecture.

- 1682 M Shimazu (F-357(11)). *Anomala cuprea* [Coleoptera: Scarabaeidae]. 20 Nov 1980. Japan: Nagano Prefecture.

- 1835 SB Alves (295). *Anthonomus grandis* [Coleoptera: Curculionidae]. Rec'd 21 Jan 1985. Brazil.

- 2412 K Narayanan (9). *Xyloryctes jamaicensis* [Coleoptera: Scarabaeidae]. Acc'd 6 May 1987. India.

- 4027 T Steenberg (231) ← CW Riedel. *Coccinella septempunctata* [Coleoptera: Coccinellidae]. Nov 1990. Denmark: Slangerup, Zealand.

- 4390 LA Lacey (94132). *Popillia japonica* [Coleoptera: Scarabaeidae]. 27 Apr 1994. Japan: Sapporo, Hokkaido.

- 4391 LA Lacey (94133). *Popillia japonica* [Coleoptera: Scarabaeidae]. 27 Apr 1994. Japan: Sapporo, Hokkaido.

- 4392 LA Lacey (94134). *Popillia japonica* [Coleoptera: Scarabaeidae]. 27 Apr 1994. Japan: Sapporo, Hokkaido.

- 4853 JM Sung (C-332). Adult, [Coleoptera: Coccinellidae]. Jul 1994. Republic of Korea: KNU experiment Forest, Kangwon National University.

- 4909 LA Lacey (95011). Adult, *Tomicus pimperda* [Coleoptera: Scolytidae]. 8 Mar 1995. France: Auzon (River), Vaucluse.

- 4910 LA Lacey (95012). Adult, *Tomicus pimperda* [Coleoptera: Scolytidae]. 8 Mar 1995. France: Auzon (River), Vaucluse.

- 4911 LA Lacey (95013). Adult, *Tomicus pimperda* [Coleoptera: Scolytidae]. 8 Mar 1995. France: Auzon (River), Vaucluse.
- 4912 LA Lacey (95014). Adult, *Tomicus pimperda* [Coleoptera: Scolytidae]. 8 Mar 1995. France: Auzon (River), Vaucluse.
- 4913 LA Lacey (95015). Adult, *Tomicus pimperda* [Coleoptera: Scolytidae]. 8 Mar 1995. France: Auzon (River), Vaucluse.
- 4914 LA Lacey (95016). Adult, *Tomicus pimperda* [Coleoptera: Scolytidae]. 8 Mar 1995. France: Auzon (River), Vaucluse.
- 4915 LA Lacey (95017). Adult, *Tomicus pimperda* [Coleoptera: Scolytidae]. 8 Mar 1995. France: Auzon (River), Vaucluse.
- 4916 LA Lacey (95018). Adult, *Tomicus pimperda* [Coleoptera: Scolytidae]. 8 Mar 1995. France: Auzon (River), Vaucluse.
- 4917 LA Lacey (95019). Adult, *Tomicus pimperda* [Coleoptera: Scolytidae]. 8 Mar 1995. France: Auzon (River), Vaucluse.
- 4918 LA Lacey (95020). Adult, *Tomicus pimperda* [Coleoptera: Scolytidae]. 8 Mar 1995. France: Auzon (River), Vaucluse.
- 5186 S Gouli (GA-96). [Coleoptera: Lampyridae]. 2 Jun 1995. USA: Motyka's sugar maple stand, Williamstown, Vermont.
- 5697 JM Sung (KEFC-1105). [Coleoptera]. 28 Jun 1997. Republic of Korea: Mt. Gyaeryong, Chungnam Province.
- 5831 BL Parker (SPT 003). [Coleoptera]. 17 Jan 1998. Turkey: Karabiyikli, Narli, Kahraman Maras.
- 5833 BL Parker (SPT 013/1). [Coleoptera: Coccinellidae]. 18 Jan 1998. Turkey: Hursit Mt., Gaziantep, Gaziantep.
- 7463 [CEP 061] C López Lastra. [Coleoptera: Curculionidae] on *Eryngium* sp. (Apiaceae). 13 Jul 2004. Argentina: San Vicente, Buenos Aires.
- 7580 [SRCAMB B-22] V Likhovidov ← BA Borisov. Larva, [Coleoptera: Elateridae] Isolated from stroma of *Cordyceps* sp. 28 Jul 2001. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-172.
- 7591 [SRCAMB B-182] V Likhovidov ← BA Borisov. [Coleoptera: Coccinellidae]. Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-173.
- 7595 [SRCAMB B-405] V Likhovidov ← BA Borisov. [Coleoptera]. Oct 1990. Ukraine: Kherson Oblast. Field Collection Number F-207.
- 8110 LS Bauer and H Liu (MF-101). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 3 Mar 2003. USA: Northville, Michigan.
- 8111 LS Bauer and H Liu (MF-102). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 3 Mar 2003. USA: Northville, Michigan.
- 8112 LS Bauer and H Liu (MF-201). Pre-pupa, *Agrilus planipennis* [Coleoptera: Buprestidae]. 4 Dec 2005. USA: Brighton, Michigan.
- 8113 LS Bauer and H Liu (MF-202). Pre-pupa, *Agrilus planipennis* [Coleoptera: Buprestidae]. 14 Dec 2005. USA: Brighton, Michigan.
- 8116 LS Bauer and H Liu (MF-205). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 14 Dec 2005. USA: Brighton, Michigan.
- 8117 LS Bauer and H Liu (MF-206). Pre-pupa, *Agrilus planipennis* [Coleoptera: Buprestidae]. 14 Dec 2005. USA: Brighton, Michigan.
- 8119 LS Bauer and H Liu (MF-209). Pre-pupa, *Agrilus planipennis* [Coleoptera: Buprestidae]. 23 Jan 2006. USA: Brighton, Michigan.
- 8120 LS Bauer and H Liu (MF-210). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 23 Jan 2006. USA: Brighton, Michigan.
- 8121 LS Bauer and H Liu (MF-211). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 23 Jan 2006. USA: Brighton, Michigan.
- 8122 LS Bauer and H Liu (MF-212). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 23 Jan 2006. USA: Brighton, Michigan.
- 8123 LS Bauer and H Liu (MF-213). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 16 Dec 2005. USA: Brighton, Michigan.
- 8124 LS Bauer and H Liu (MF-214). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 2 Feb 2006. USA: Brighton, Michigan.
- 8125 LS Bauer and H Liu (MF-215). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 5 Mar 2006. USA: Brighton, Michigan.
- 8126 LS Bauer and H Liu (MF-216). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 5 Mar 2006. USA: Brighton, Michigan.
- 8127 LS Bauer and H Liu (MF-217). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 5 Mar 2006. USA: Brighton, Michigan.
- 8128 LS Bauer and H Liu (MF-218). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 5 Mar 2006. USA: Brighton, Michigan.
- 8129 LS Bauer and H Liu (MF-219). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 5 Mar 2006. USA: Brighton, Michigan.
- 8130 LS Bauer and H Liu (MF-220). Pre-pupa, *Agrilus planipennis* [Coleoptera: Buprestidae]. 1 Dec 2005. USA: Ann Arbor, Michigan.
- 8132 LS Bauer and H Liu (MF-222). Pre-pupa, *Agrilus planipennis* [Coleoptera: Buprestidae]. 1 Dec 2005. USA: Ann Arbor, Michigan.
- 8133 LS Bauer and H Liu (MF-223). Pre-pupa, *Agrilus planipennis* [Coleoptera: Buprestidae]. 1 Dec 2005. USA: Ann Arbor, Michigan.

Fungal Cultures

Beauveria sp.

- 8176 LS Bauer and H Liu (MF-270). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Summer 2006. USA: Lansing, Michigan.
- 8177 LS Bauer and H Liu (MF-271). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Summer 2006. USA: Lansing, Michigan.
- 8178 LS Bauer and H Liu (MF-272). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 10 Aug 2006. USA: Lansing, Michigan.
- 8180 LS Bauer and H Liu (MF-274). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Summer 2006. USA: Lansing, Michigan.
- 8181 LS Bauer and H Liu (MF-276). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Summer 2006. USA: Lansing, Michigan.
- 8182 LS Bauer and H Liu (MF-279). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Summer 2006. USA: Lansing, Michigan.
- 8185 LS Bauer and H Liu (MF-283). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Summer 2006. USA: Lansing, Michigan.
- 8186 LS Bauer and H Liu (MF-284). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Summer 2006. USA: Lansing, Michigan.
- 8187 LS Bauer and H Liu (MF-285). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Summer 2006. USA: Lansing, Michigan.
- 8188 LS Bauer and H Liu (MF-286). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Summer 2006. USA: Lansing, Michigan.
- 8250 P Narayanasamy. Adult, *Basilepta fulvicornis* [Coleoptera: Chrysomelidae] on *Elettaria cardamomum* (L.) Maton, cardamom crop. 30 Aug 2006. India: Tamil Nadu.
- 9272 Z Demirbag and E Tanyeli (Dm-6). *Dendroctonus micans* [Coleoptera: Scolytidae]. 24 Oct 2008. Turkey: Maçka-Zigana, Trabzon.
- 12793 [OKSTATE 54] EJ Rebek and JA Rodriguez-Contreras ← SR Sánchez Peña. Larva, *Phyllophaga* sp. [Coleoptera: Scarabaeidae]. Summer 2014. USA: Cimarron Valley Research Station, Oklahoma State University, Stillwater, Oklahoma.
- 12794 [OKSTATE 87] EJ Rebek and JA Rodriguez-Contreras ← SR Sánchez Peña. Larva, *Phyllophaga* sp. [Coleoptera: Scarabaeidae]. Summer 2014. USA: Lakeside Memorial Golf Course, Stillwater, Oklahoma.
- 12795 [OKSTATE 107] EJ Rebek and JA Rodriguez-Contreras ← SR Sánchez Peña. Larva, *Phyllophaga* sp. [Coleoptera: Scarabaeidae]. Summer 2014. USA: Cimarron Valley Research Station, Oklahoma State University, Stillwater, Oklahoma.
- 13370 [SP Wraight] Adult, [Coleoptera: Carabidae]. Apr 2017. USA: South Point, Island of Hawaii, Hawaii. 18.9111 -155.681111.
- 13377 [SP Wraight HI-65b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 30 Apr 2014. USA: feral coffee grove, Mamalahoa highway, Captain Cook, District of South Kona, Hawai'i. 19.39038, -155.87710.
- 13378 [SP Wraight HI-1639a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 29 Mar 2016. USA: Goschke Farm, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.86602.
- 13379 [SP Wraight HI-1653a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 29 Mar 2016. USA: Goschke Farm, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.86602.
- 13380 [SP Wraight HI-1655c] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 29 Mar 2016. USA: Goschke Farm, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.86602.
- 13381 [SP Wraight HI-2707b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 18 May 2016. USA: Goschke Farm, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.86602.
- 13382 [SP Wraight HI-1706b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13383 [SP Wraight HI-1708] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13384 [SP Wraight HI-1709] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13385 [SP Wraight HI-1713a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13386 [SP Wraight HI-1714] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13387 [SP Wraight HI-1717] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13388 [SP Wraight HI-1723] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13389 [SP Wraight HI-1746] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13390 [SP Wraight HI-1750] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra

- Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13391 [SP Wraight HI-1751] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13392 [SP Wraight HI-1754] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13393 Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd Nov 2017. USA: Kunia Research Farm, Hawai'i Agricultural Research Center, Oahu, Hawaii. collected in 2016 .
- 13394 Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 2 Jun 2017. USA: Maunawili Research Farm, Hawai'i Agricultural Research Center, Oahu, Hawaii.
- 13395 Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 2 Jun 2017. USA: Maunawili Research Farm, Hawai'i Agricultural Research Center, Oahu, Hawaii.
- 13397 [SP Wraight HI-1657b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee bean. 29 Mar 2016. USA: Goschke Farm, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.86602.
- 13398 [SP Wraight HI-1735] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee bean. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13399 [SP Wraight HI-1755] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee bean. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13407 [SP Wraight HI-1641d] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 29 Mar 2016. USA: Goschke Farm, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.86602.
- 13408 [SP Wraight HI-1641e] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 29 Mar 2016. USA: Goschke Farm, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.86602.
- 13409 [SP Wraight HI-1645b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 29 Mar 2016. USA: Goschke Farm, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.86602.
- 13410 [SP Wraight HI-1646b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 29 Mar 2016. USA: Goschke Farm, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.86602.
- 13411 [SP Wraight HI-1649b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 29 Mar 2016. USA: Goschke Farm, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.86602.
- 13412 [SP Wraight HI-1653a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 29 Mar 2016. USA: Goschke Farm, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.86602.
- 13413 [SP Wraight HI-1688b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13414 [SP Wraight HI-1716a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13415 [SP Wraight HI-1716b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13416 [SP Wraight HI-1728] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13417 [SP Wraight HI-1737] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13418 [SP Wraight HI-1738b1] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13419 [SP Wraight HI-1738b2] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13420 Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. Rec'd 14 Feb 2018. USA: Grenwell [sic] Farm, Captain Cook, District of South Kona, Hawai'i.
- 13421 Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. Rec'd 14 Feb 2018. USA: Big Tuki, Hawaii.
- 13422 Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. Rec'd 14 Feb 2018. USA: Andreas Farm, Hawaii.
- 13423 Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. Rec'd 14 Feb 2018. USA: Koa, Captain Cook, District of South Kona, Hawai'i.
- 13424 Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. Rec'd 14 Feb 2018. USA: Terry Farm, Hawaii.
- 13595 [SP Wraight HI-1668] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 29 Mar 2016. USA: Scarr Farm, Island of Hawaii, Hawaii.
- 13661 [A Khan plam weevil Bb2] *Rhynchophorus palmarum* [Coleoptera: Curculionidae] Coconut Palm. Acc'd 30 Sep 2018. Trinidad: Ceneno.

- Beauveria amorpha*** (von Hoehnel) Minnick, SA
Rehner & Humber
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Replaces *B. amorpha* (von Hoehnel) Samson & Evans.
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- 1676 M Shimazu (F-77). *Anomala costata* [Coleoptera: Scarabaeidae]. 11 Oct 1971. Japan: Daimon, Nagano Prefecture.
- 1680 M Shimazu (F-313). *Psacothea hilaris* [Coleoptera: Cerambycidae]. Oct 1981. Japan: Takao, Tokyo Prefecture.
- 1969 KV Raman. *Premnotypes suturicallus* [Coleoptera: Curculionidae]. 1985. Peru: Andes Mountains. Identification verified genomically.
- 4149 [DAT 142] AC Rath (F142). Pre-pupa, *Adoryphorus coulonii* [Coleoptera: Scarabaeidae]. 23 Jun 1989. Australia: Glen Morey, Woodbury, Tasmania. Identification verified genomically.
- 4990 LA Lacey (95048). Adult, *Popillia japonica* [Coleoptera: Scarabaeidae]. 7 Sep 1995. Azores: Teceira.

- Beauveria amorpha(?)*** (van Hoehnel) Samson & HC Evans
[Sordariomycetes: Hypocreales]
Cordycipitaceae
-

- 6827 TL Dubois (WU 20 (2)). *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. 25 Jul 2000. PR China: Wuhe, Anhui.

- Beauveria asiatica*** SA Rehner & Humber
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Defined primarily by genotypic characters
-

- 4384 LA Lacey (94135). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 5 May 1994. China: Cangzhou. Identification verified genomically.
- 4474 LA Lacey (94152). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou. Identification verified genomically.

- Beauveria bassiana*** (Balsamo-Crivelli) Vuillemin
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Major synonym: *Beauveria densa* (Link:Fries) Picard
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- 33 R Vollock. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 13 Nov 1973. USA: greenhouse, Orono, Maine.
- 149 M Wojciechowska (28). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd 18 Jul 1977. France.
- 150 M Wojciechowska (24). [Coleoptera: Elateridae]. Rec'd 18 Jul 1977. France.

- 201 JD Vandenberg. *Diabrotica undecimpunctata* [Coleoptera: Chrysomelidae] on greenbeans. 22 Oct 1977. USA: greenhouse, Corvallis, Oregon. Mycotech's GHA (US Patent 5,939,065; 17 Aug 1999), the active ingredient in Mycotrol products, is a reisolate of this strain.
- 252 C Madore. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 14 Sep 1978. USA: greenhouse, Orono, Maine.
- 293 DW Roberts ← CW McCoy. [Coleoptera]. Acc'd 4 Jan 1979. Location not specified.
- 301 DW Roberts ← B Schaerffenberg. [Coleoptera]. Acc'd 23 Mar 1979. Poland.
- 317 RA LeBrun. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd 27 Feb 1979. USA: Rhode Island.
- 318 RA LeBrun. [Coleoptera: Cerambycidae]. Rec'd 27 Feb 1979. USA: Rhode Island.
- 319 RA LeBrun. [Coleoptera: Cerambycidae]. Rec'd 27 Feb 1979. Mexico.
- 325 [CSIRO FI49] RS Soper. [Coleoptera: Nitidulidae] on maize. 14 Feb 1979. Australia: Atherton, Queensland.
- 336 C Russel. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 25 Aug 1978. USA: Georgia.
- 337 C Russel. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 25 Aug 1978. USA: Georgia.
- 340 DW Roberts ← G Zimmermann. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 1965. Germany: Darmstadt, Hesse.
- 344 J Lindegren. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Feb 1979. USA: Yakima, Washington.
- 350 IM Abalis. [Coleoptera]. Acc'd 8 Jun 1979. USA: Ithaca, New York.
- 353 C Gordon. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. May 1978. USA: laboratory colony, Orono, Maine.
- 384 INRA. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd Sep 1979. France.
- 412 CW McCoy. *Diaprepes abbreviata* [Coleoptera: Curculionidae]. 27 Jul 1979. USA: Apopka, Florida.
- 413 CW McCoy. *Araecerus fasciculatus* [Coleoptera: Anthribidae]. 8 May 1979. USA: Fruitland Park, Florida.
- 416 CW McCoy. *Diaprepes abbreviata* [Coleoptera: Curculionidae]. 20 Jul 1979. USA: Apopka, Florida.
- 433 *Diaprepes abbreviata* [Coleoptera: Curculionidae]. 14 Jan 1980. Location not specified.
- 504 RS Soper. [Coleoptera: Chrysomelidae]. 12 Aug 1980. Yugoslavia: orchard behind bus station, Zabari, Serbia.
- 505 RA Humber. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 14 Aug 1980. Yugoslavia: potato field at road marker 119 on M22, nr. Srbobran.

- 506 RA Humber and RS Soper. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 14 Aug 1980. Yugoslavia: road marker 82 on M22, nr. Srbovan, Freketic.
- 507 C Sidor and RS Soper. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 16 Aug 1980. Yugoslavia: between Putnici and Indjija.
- 508 C Sidor and RS Soper. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 16 Aug 1980. Yugoslavia: E of Ruma, nr. Krajljvci, Voyvodina.
- 509 C Sidor. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 18 Aug 1980. Yugoslavia: nr. Varazdin by transformer in field, Nedeljanec, Croatia.
- 510 RA Humber and RS Soper. Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 26 Aug 1980. Yugoslavia: Forestry Inst. Nursery, E of Pec, nr. Crno Brdo.
- 534 MG Ward. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd Oct 1980. USA: established laboratory colony, Boyce Thompson Institute, Ithaca, New York.
- 535 MG Ward. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd Oct 1980. USA: newly established laboratory colony, Boyce Thompson Institute, Ithaca, New York.
- 721 TB Clark. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Feb 1982. Colombia: ?CIAT, Cali, Valle del Cauca.
- 731 [CNPAF 81-11-25-05; CP 5] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 25 Nov 1981. Brazil: Costa do Surubin, Cristo Rei, Amazonas.
- 732 [CNPAF 81-11-25-07; CP 6] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 25 Nov 1981. Brazil: Costa do Surubin, Cristo Rei, Amazonas.
- 733 [CNPAF 82-1-6-01; CP 7] RA Daoust. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 6 Jan 1982. Brazil: CNPAF, Goiânia, Goiás.
- 734 [CNPAF 82-1-6-03; CP 9] RA Daoust ← G Pereira Rios. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 6 Jan 1982. Brazil: CNPAF, Goiânia, Goiás.
- 735 [CNPAF 82-1-15-02; CP 14] RA Daoust. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. Jan 1982. Brazil: CNPAF, Goiânia, Goiás.
- 736 [CNPAF 82-1-6-04; CP 10] RA Daoust ← G Pereira Rios. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 6 Jan 1982. Brazil: CNPAF, Goiânia, Goiás.
- 738 [CNPAF 82-2-9-01; CP 23] RA Daoust. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 9 Feb 1982. Brazil: CNPAF, Goiânia, Goiás.
- 739 [CNPAF 82-2-3-01; CP 27] RA Daoust. *Diabrotica paranaensis* [Coleoptera: Chrysomelidae]. 3 Feb 1982. Brazil: CNPAF, Goiânia, Goiás.
- 752 [CNPAF 82-2-15-01; CP 34] RA Daoust. *Diabrotica paranaensis* [Coleoptera: Chrysomelidae]. Feb 1982. Brazil: CNPAF, Goiânia, Goiás.
- 753 [CNPAF 82-3-24-01; CP 36] RS Soper. *Aracanthus* sp. [Coleoptera: Curculionidae]. 24 Mar 1982. Brazil: Brejo Santo, Ceará.
- 754 [CNPAF 82-4-4-01; CP 38] RA Daoust. [Coleoptera]. 4 Apr 1982. Brazil: CNPAF, Goiânia, Goiás.
- 756 [CNPAF 81-11-25-04; CP 4] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 25 Nov 1981. Brazil: Costa do Surubin, Cristo Rei, Amazonas.
- 757 [CNPAF 82-3-23-01; CP 35] RA Daoust. [Coleoptera: Tenebrionidae]. 23 Mar 1982. Brazil: Missão Velha, Ceará.
- 758 [CNPAF 82-3-1-03; CP 29] RA Daoust. *Diabrotica paranaensis* [Coleoptera: Chrysomelidae]. 1 Mar 1982. Brazil: CNPAF, Goiânia, Goiás.
- 783 [CNPAF 82-5-6-02; CP 59] RA Daoust ← JPP de Araújo. Adult, [Coleoptera: Tenebrionidae]. 6 May 1982. Brazil: Barbalha, Ceará.
- 784 [CNPAF 82-4-30-01C; CP 47] RA Daoust and JPP de Araújo. Adult, [Coleoptera: Elateridae]. 30 Apr 1982. Brazil: Novo Oriente, Ceará.
- 785 [CNPAF 82-4-29-01; CP 46] RA Daoust. Adult, [Coleoptera: Cerambycidae]. 29 Apr 1982. Brazil: Caucaia, Ceará.
- 786 [CNPAF 82-5-3-03B; CP 51] RA Daoust and FE de Araújo. *Crimissa* sp. [Coleoptera: Chrysomelidae]. 3 May 1982. Brazil: 20 km N of Pacajus, Ceará.
- 787 [CNPAF 82-5-6-01; CP 58] RA Daoust ← JPP de Araújo. Adult, [Coleoptera: Tenebrionidae]. 6 May 1982. Brazil: Barbalha, Ceará.
- 788 [CNPAF 82-5-3-03A; CP 50] RA Daoust and FE de Araújo. *Crimissa* sp. [Coleoptera: Chrysomelidae]. 3 May 1982. Brazil: 20 km N of Pacajus, Ceará.
- 804 [CNPAF 82-4-30-01D; CP 48] RA Daoust and JPP de Araújo. Adult, [Coleoptera: Elateridae]. 30 Apr 1982. Brazil: Novo Oriente, Ceará.
- 805 [CNPAF 82-5-3-01; CP 49] RA Daoust ← LS Teixeira. *Crimissa* sp. [Coleoptera: Chrysomelidae]. 3 May 1982. Brazil: Pacajus, Ceará.
- 809 [CNPAF 82-6-28-01; CP 61] RA Daoust ← SM dos Santos. *Diabrotica paranaensis* [Coleoptera: Chrysomelidae]. 28 Jun 1982. Brazil: CNPAF, Goiânia, Goiás.
- 815 GG Soares (12). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 1982. France: Plougastel-Daoulas, Finistere.
- 816 GG Soares (20) ← JP Aeschlimann. 5th instar larva, *Sitona discoideus* [Coleoptera: Curculionidae]. 29 Mar 1982. France: Montpellier, Hérault.
- 842 *Metamasius* sp. [Coleoptera: Curculionidae]. Acc'd 6 Jun 1983. Colombia.
- 928 [CNPAF 82-07-27-01; CP 63] RA Daoust ← SM dos Santos. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 27 Jul 1982. Brazil: CNPAF, Goiânia, Goiás.

- 930 [CNPAF 82-12-15-02; CP 68] RA Daoust ← SM dos Santos. [Coleoptera: Curculionidae]. Dec 1982. Brazil: CNPAF, Goiânia, Goiás.
- 931 [CNPAF 82-12-20-01; CP 69] RA Daoust ← H da Silva Coelho. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 20 Dec 1982. Brazil: CNPAF, Goiânia, Goiás.
- 934 [CNPAF 83-1-25-01; CP 72] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 25 Jan 1983. Brazil: CNPAF, Goiânia, Goiás.
- 937 [CNPAF 83-3-3-01; CP 76] RA Daoust ← E Ferreira. *Diabrotica paranaensis* [Coleoptera: Chrysomelidae]. 3 Mar 1983. Brazil: F. Itamaraty, Ponta Porã, Mato Grosso.
- 938 [CNPAF 83-3-3-02; CP 77] RA Daoust ← E Ferreira. *Diabrotica paranaensis* [Coleoptera: Chrysomelidae]. 3 Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 941 [CNPAF 83-03-16C; CP 82] RA Daoust and BP Magalhães. *Chalcodermus* sp. [Coleoptera: Curculionidae]. 16 Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 942 [CNPAF 83-03-16D; CP 83] RA Daoust and BP Magalhães. *Chalcodermus* sp. [Coleoptera: Curculionidae]. 16 Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 943 [CNPAF 83-03-16E; CP 84] RA Daoust and BP Magalhães. *Chalcodermus* sp. [Coleoptera: Curculionidae]. 16 Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 946 [CNPAF 83-03-15E; CP 87] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 947 [CNPAF 83-03-15-M; CP 88] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 948 [CNPAF 83-03-15-O; CP 89] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 949 [CNPAF 83-03-15-P; CP 90] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 950 [CNPAF 83-03-15-Q; CP 91] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 951 [CNPAF 83-03-15B; CP 92] RA Daoust and BP Magalhães. *Cerotoma* sp. [Coleoptera: Chrysomelidae]. Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 952 [CNPAF 83-03-15H; CP 93] RA Daoust and BP Magalhães. Adult, [Coleoptera: Carabidae]. Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 953 [CNPAF 83-03-16K; CP 98] RA Daoust and BP Magalhães. *Chalcodermus* sp. [Coleoptera: Curculionidae]. 16 Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 956 [CNPAF 83-5-27; CP 101] RA Daoust ← SM dos Santos. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 27 May 1983. Brazil: CNPAF, Goiânia, Goiás.
- 958 [CNPAF 83-01-06A (CB 97); CP 104] RA Daoust ← SM de Carvalho. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 6 Jan 1983. Brazil: Londrina, Paraná.
- 982 [CNPAF 83-03-17B; CP 95] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 17 Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 1016 ME McGiffen. *Conotrachelus nenuphar* [Coleoptera: Curculionidae]. Nov 1983. Location not specified.
- 1039 L Allee. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 1983. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1041 J Aoki (Isa. 1) ← S Miyajima. *Psacothea hilaris* [Coleoptera: Cerambycidae]. Oct 1981. Japan: Nagakute, Aichi Prefecture.
- 1060 [CNPS 31] F Moscardi. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 1983. Brazil: Londrina, Paraná.
- 1061 [CNPS 32] F Moscardi ← Francisco. [Coleoptera: Curculionidae]. 1983. Brazil: Londrina, Paraná.
- 1073 TJ Poprawski (83-48). Adult, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Jul 1983. France: tree nursery containers, Les Thilliers-en-Vexin, Eure.
- 1074 TJ Poprawski (83-49). Adult, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Jul 1983. France: tree nursery containers, Les Thilliers-en-Vexin, Eure.
- 1075 TJ Poprawski (83-54). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 21 Jul 1983. France: tree nursery containers, Les Thilliers-en-Vexin, Eure.
- 1079 *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Acc'd Feb 1984. USA: Washington.
- 1081 L Allee. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 1983. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1106 KV Deseö (25) ← Chianella. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Feb 1982. Italy: Sicily.
- 1153 TJ Poprawski (074). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Jan 1984. Morocco: Jramma.
- 1154 TJ Poprawski (072). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 25 Jan 1984. Morocco: Jramma.
- 1155 TJ Poprawski (073). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Jan 1984. Morocco: Jramma.
- 1156 TJ Poprawski (83-639). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. 22 Oct 1983. France: Guyancourt, Yvelines.
- 1157 TJ Poprawski (83-619). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 1983. France: Senneville.

- 1158 TJ Poprawski (83-634). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 1983. France: Vernon, Eure.
- 1159 TJ Poprawski (83-615). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 1983. France: Senneville.
- 1160 TJ Poprawski (83-614). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 1983. France: Senneville.
- 1161 TJ Poprawski (83-626). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 1983. France: Mantes-la-Jolie, Yvelines.
- 1162 TJ Poprawski (83-623). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 1983. France: Limay, Yvelines.
- 1163 TJ Poprawski (071A). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Jan 1984. Morocco: Jramma.
- 1164 TJ Poprawski (070). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Jan 1984. Morocco: Jramma.
- 1165 TJ Poprawski (83-621). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 1983. France: Senneville.
- 1167 TJ Poprawski (83-701). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Nov 1983. France: Senneville.
- 1168 TJ Poprawski (83-702). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. 10 Oct 1983. France: Senneville.
- 1169 TJ Poprawski (83-703). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 1983. France: Senneville.
- 1170 TJ Poprawski (83-704). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. 23 Nov 1983. France: Senneville.
- 1171 TJ Poprawski (A2). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 1984. Morocco: Achouria.
- 1172 TJ Poprawski (A4). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 1984. Morocco: Achouria.
- 1173 TJ Poprawski (A5). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 16 Feb 1984. Morocco: Achouria.
- 1174 TJ Poprawski (A6). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Feb 1984. Morocco: Achouria.
- 1175 TJ Poprawski (A7). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 10 Feb 1984. Morocco: Achouria.
- 1176 TJ Poprawski (J1). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Jan 1984. Morocco: Jorf.
- 1177 TJ Poprawski (J2). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Jan 1984. Morocco: Jorf.
- 1178 TJ Poprawski (J3). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 7 Feb 1984. Morocco: Jorf.
- 1179 TJ Poprawski (J4). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 2 Dec 1983. Morocco: Jorf.
- 1180 TJ Poprawski (J5). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 2 Dec 1983. Morocco: Jorf.
- 1181 TJ Poprawski (J6). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 10 Feb 1984. Morocco: Jorf.
- 1182 TJ Poprawski (83-616). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 1983. France: Senneville.
- 1183 TJ Poprawski (J7). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 16 Feb 1984. Morocco: Jorf.
- 1185 [INRA Bb-142] TJ Poprawski. *Sitona discoideus* [Coleoptera: Curculionidae]. May 1977. France: Viols-le-Fort, Hérault.
- 1186 [INRA Bb-195] TJ Poprawski. Adult, *Caryedon serratus* [Coleoptera: Bruchidae]. 6 Jun 1983. France: La Minière.
- 1188 TJ Poprawski (E1). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Feb 1984. Morocco: Elbaya.
- 1189 TJ Poprawski (A1). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Feb 1984. Morocco: Achouria.
- 1190 TJ Poprawski (A3). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Feb 1984. Morocco: Achouria.
- 1191 TJ Poprawski (645). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Dec 1983. France: Orléans, Loiret.
- 1192 TJ Poprawski (646). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 1983. France: Anet, Eure-et-Loir.
- 1193 TJ Poprawski (647). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 1983. France: Ecos, Eure.
- 1194 TJ Poprawski (648). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 1983. France: Meulan, Yvelines.
- 1306 TJ Poprawski (83-611). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 1983. France: Senneville.
- 1309 TJ Poprawski (A8). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 1984. Morocco: Achouria.
- 1311 TJ Poprawski (A10). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 1984. Morocco: Achouria.
- 1312 TJ Poprawski (A11). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 1984. Morocco: Achouria.
- 1313 TJ Poprawski (A12). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 1984. Morocco: Achouria.
- 1389 TJ Poprawski (088). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 May 1984. France: Baron.

- 1398 TJ Poprawski (086). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 May 1984. France: Marsanne, Drôme.
- 1399 TJ Poprawski (087). Adult, *Hypera postica* [Coleoptera: Curculionidae]. Mar 1984. France: Marsanne, Drôme.
- 1450 [CNPAF 52; CP 125] F Moscardi. *Sternechus sub-signatus* [Coleoptera: Curculionidae]. 27 Mar 1984. Brazil: Londrina, Paraná.
- 1451 [CNPAF 84-3-12; CP 124] H da Silva Coelho. [Coleoptera: Chrysomelidae]. 12 Mar 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1453 [CNPAF 84-02-30-2; CP 143] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 30 Mar 1984. Brazil: Francisco Beltrão, Paraná.
- 1454 [CNPAF 84-03-28-1F; CP 144] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 1984. Brazil: Cascavel, Paraná.
- 1455 [CNPAF 84-03-28-D; CP 145] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 1984. Brazil: Cascavel, Paraná.
- 1456 [CNPAF 84-04-03-6A; CP 146] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 30 Apr 1984. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1458 [CNPAF 84-03-28-1E; CP 148] RA Daoust. *Cerotoma* sp. [Coleoptera: Chrysomelidae]. 28 Mar 1984. Brazil: Cascavel, Paraná.
- 1459 [CNPAF 84-04-03-1E; CP 149] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 1984. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1460 [CNPAF 84-04-03-1B; CP 150] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 1984. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1461 [CNPAF 84-03-29-1; CP 151] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 29 Mar 1984. Brazil: Capitão Leônidas Marques, Paraná.
- 1462 [CNPAF 84-03-28-1G; CP 152] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 1984. Brazil: Cascavel, Paraná.
- 1463 [CNPAF 84-03-28-1L; CP 153] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 1984. Brazil: Cascavel, Paraná.
- 1464 [CNPAF 84-04-03-6B; CP 154] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 1984. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1465 [CNPAF 84-04-03-1A; CP 155] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 1984. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1466 [CNPAF 84-03-31-6; CP 156] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 31 Mar 1984. Brazil: Sto. Antonio do Sudoeste, Paraná.
- 1467 [CNPAF 84-04-02-5A; CP 157] RA Daoust and BP Magalhães. *Cerotoma* sp. [Coleoptera: Chrysomelidae]. 2 Apr 1984. Brazil: São Carlos, Santa Catarina.
- 1469 [CNPAF 84-03-31-2; CP 159] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 31 Mar 1984. Brazil: Sto. Antonio do Sudoeste, Paraná.
- 1470 [CNPAF 84-04-02-3; CP 160] RA Daoust, BP Magalhães and M Pinat. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 2 Apr 1984. Brazil: Chapecó, Santa Catarina.
- 1471 [CNPAF 84-04-02-4; CP 161] RA Daoust, BP Magalhães and M Pinat. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 2 Apr 1984. Brazil: Chapecó, Santa Catarina.
- 1472 [CNPAF 84-04-02-2; CP 162] RA Daoust, BP Magalhães and M Pinat. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 2 Apr 1984. Brazil: Chapecó, Santa Catarina.
- 1473 [CNPAF 84-04-02-1B; CP 163] RA Daoust, BP Magalhães and M Pinat. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 2 Apr 1984. Brazil: Chapecó, Santa Catarina.
- 1475 [CNPAF 84-04-03-1C; CP 165] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 1984. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1476 [CNPAF 84-04-25-1; CP 166] SM dos Santos. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 25 Apr 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1480 SB Alves (252). *Hypothenemus hampei* [Coleoptera: Scolytidae] on coffee. Rec'd 6 Jul 1984. Brazil: São Paulo.
- 1483 SB Alves (61). *Cosmopolites sordidus* [Coleoptera: Curculionidae] on banana. Rec'd 6 Jul 1984. Brazil: Espírito Santo.
- 1491 [INRA Bb-169] GG Soares. *Sitona humeralis* [Coleoptera: Curculionidae]. Mar 1981. France: Lusignan, Vienne.
- 1509 I Majchrowicz (56) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 1983. France: Entraigues, Vaucluse.
- 1510 I Majchrowicz (58) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 1983. France: Entraigues, Vaucluse.
- 1511 I Majchrowicz (75) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 1983. France: Entraigues, Vaucluse.
- 1515 TJ Poprawski (0107). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 13 Jun 1984. France.

- 1518 TJ Poprawski (0111). Adult, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. 27 Jun 1984. France: Entraigues, Vaucluse.
- 1519 TJ Poprawski (0112). Adult, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. 27 Jun 1984. France: Entraigues, Vaucluse.
- 1559 KV Deseö (88) ← Campadelli. Larva, *Aromia moschata* [Coleoptera: Cerambycidae]. Feb 1984. Italy: Solarolo.
- 1560 KV Deseö (89) ← Campadelli. *Aromia moschata* [Coleoptera: Cerambycidae]. Feb 1984. Italy: Solarolo.
- 1561 KV Deseö (90) ← Campadelli. Larva, *Aromia moschata* [Coleoptera: Cerambycidae]. Feb 1984. Italy: Solarolo.
- 1562 KV Deseö (91) ← Campadelli. Larva, *Aromia moschata* [Coleoptera: Cerambycidae]. Feb 1984. Italy: Solarolo.
- 1563 KV Deseö (92) ← Campadelli. Larva, *Aromia moschata* [Coleoptera: Cerambycidae]. Feb 1984. Italy: Solarolo.
- 1566 S Keller (D155). [Coleoptera: Scolytidae]. 14 Aug 1984. Switzerland: Siblingen, Schaffhausen.
- 1619 L Allee. Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 6 Aug 1984. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1620 L Allee. Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 6 Aug 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1621 L Allee. Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 6 Aug 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1622 L Allee. Larva, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 27 Jul 1984. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1623 L Allee. Larva, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 27 Jul 1984. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1624 L Allee. Larva, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 30 Jul 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1647 TJ Poprawski (0143). Adult, *Sitona* sp. [Coleoptera: Curculionidae]. 22 Aug 1984. France: Orval, Ardennes.
- 1678 M Shimazu (F-237). *Moechotypa diphysis* [Coleoptera: Cerambycidae]. Aug 1978. Japan: Tsushima, Nagasaki Prefecture.
- 1679 M Shimazu (F-263). *Monochamus alternatus* [Coleoptera: Cerambycidae]. 25 Aug 1978. Japan: Kumamoto Prefecture.
- 1683 M Shimazu (F-359(30)). *Anomala cuprea* [Coleoptera: Scarabaeidae]. 20 Nov 1980. Japan: Nagano Prefecture.
- 1704 L Allee (84-1). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Aug 1984. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1705 L Allee (84-3). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 1984. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1706 L Allee (84-4). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 1984. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1707 L Allee (84-5). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Aug 1984. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1708 L Allee (84-7). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 1984. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1709 L Allee (84-8). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1710 L Allee (84-9). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1711 L Allee (84-10). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1712 L Allee (84-11). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Aug 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1713 L Allee (84-12). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Aug 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1721 L Allee (84-13). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 17 Aug 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1722 L Allee (84-19). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 31 Aug 1984. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1723 L Allee (84-20). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 31 Aug 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

- 1749 L Allee (84-16). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 17 Aug 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1750 L Allee (84-18). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 31 Aug 1984. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1775 L Allee (84-22). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 1984. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1776 L Allee (84-23). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 1984. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1777 L Allee (84-24). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 1984. USA: insecticide-treated plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1778 L Allee (84-25). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 1984. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1779 L Allee (84-26). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 1984. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1780 L Allee (84-27). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1781 L Allee (84-28). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 1984. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1811 TJ Poprawski (0167C). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 1985. Morocco: Jorf. Identification verified genomically.
- 1815 TJ Poprawski (0165). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 1985. Morocco: Jorf.
- 1816 TJ Poprawski (0166A). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 1985. Morocco: Hauteban.
- 1817 TJ Poprawski (0166B). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 1985. Morocco: Hauteban.
- 1818 TJ Poprawski (0166C). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 1985. Morocco: Hauteban.
- 1819 TJ Poprawski (0166D). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 1985. Morocco: Hauteban.
- 1820 TJ Poprawski (0167A). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 1985. Morocco: Jorf.
- 1821 TJ Poprawski (0167B). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 1985. Morocco: Jorf.
- 1833 SB Alves (267). *Cosmopolites* sp. [Coleoptera: Curculionidae]. Rec'd 21 Jan 1985. Brazil.
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- 3447 [CATIE 11] TG Zoebisch. *Notonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Jul 1991. Costa Rica: Turrialba, Cartago.
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- 3453 [CATIE 17] TG Zoebisch. *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica*. Rec'd 28 Oct 1991. Nicaragua: Managua.
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- 3457 [CATIE 21] TG Zoebisch. [Coleoptera: Languriidae] on *Macadamia integrifolia*. Sep 1991. Costa Rica: Turrialba, Cartago.
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- 3716 RA LeBrun ← J Hanula (C-2). Adult, *Popillia japonica* [Coleoptera: Scarabaeidae]. Summer 1992. Location not specified.
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- 4013 T Steenberg (195) ← A Kirkeby-Thomse. *Sitona lineatus* [Coleoptera: Curculionidae]. Sep 1993. Denmark: Copenhagen, Tåstrup, Zealand.
- 4015 T Steenberg (196) ← HP Ravn. *Sitona lineatus* [Coleoptera: Curculionidae]. Sep 1989. Denmark: Falster, Storstrøm.
- 4016 T Steenberg (201) ← V Langer. *Sitona lineatus* [Coleoptera: Curculionidae] on white clover. Mar 1990. Denmark: Ringsted, Zealand.
- 4018 T Steenberg (202) ← J Eilenberg. *Coccinella septempunctata* [Coleoptera: Coccinellidae]. Mar 1990. Denmark: Jægerspris, Zealand.
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- 4052 T Steenberg (355). [Coleoptera: Curculionidae]. Oct 1992. Denmark: Copenhagen, Tåstrup, Zealand.
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- 4135 [DAT 15] AC Rath (F015). Larva, *Adoryphorus coulonii* [Coleoptera: Scarabaeidae]. 9 Mar 1986. Australia: Laboratory, Newtown, Tasmania.
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- 4973 J McManus (HcBbV64 2p). Adult, *Hippodamia convergens* [Coleoptera: Coccinellidae]. Rec'd 30 Oct 1995. USA: Laboratory conditions, Ithaca, New York.
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- 5148 DL Hostetter (T090). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae] soil, pasture. 29 Jan 1996. Portugal: Terceira Island, Azores.
- 5150 DL Hostetter (T103). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae] soil, pasture. 29 Jan 1996. Portugal: Terceira Island, Azores.
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- 5436 TJ Poprawski (TJP901) ← G Mercadier (EBCL 97001). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 10 Jan 1997. Ivory Coast: RCI.5, Abengourou.
- 5437 TJ Poprawski (TJP902) ← G Mercadier (EBCL 97002). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 10 Jan 1997. Ivory Coast: RCI.5, Abengourou.
- 5438 TJ Poprawski (TJP903) ← G Mercadier (EBCL 97003). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 10 Jan 1997. Ivory Coast: RCI.5, Abengourou.
- 5439 TJ Poprawski (TJP904) ← G Mercadier (EBCL 97004). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 10 Jan 1997. Ivory Coast: RCI.5, Abengourou.
- 5440 TJ Poprawski (TJP905) ← G Mercadier (EBCL 97005). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 10 Jan 1997. Ivory Coast: RCI.5, Abengourou.
- 5441 TJ Poprawski (TJP906) ← G Mercadier (EBCL 97027). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 9 Jan 1997. Ivory Coast: RCI.3, Ayenoua.
- 5442 TJ Poprawski (TJP907) ← G Mercadier (EBCL 97028). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 14 Jan 1997. Ivory Coast: RCI.7, Bozi.
- 5443 TJ Poprawski (TJP908) ← G Mercadier (EBCL 97016). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 24 Jan 1997. Togo: T.3, Gbadi-Gaodo.
- 5444 TJ Poprawski (TJP909) ← G Mercadier (EBCL 97017). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 24 Jan 1997. Togo: T.3, Gbadi-Gaodo.
- 5445 TJ Poprawski (TJP910) ← G Mercadier (EBCL 97018). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 24 Jan 1997. Togo: T.3, Gbadi-Gaodo.
- 5446 TJ Poprawski (TJP911) ← G Mercadier (EBCL 97019). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 24 Jan 1997. Togo: T.3, Gbadi-Gaodo.
- 5447 TJ Poprawski (TJP912) ← G Mercadier (EBCL 97020). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 24 Jan 1997. Togo: T.3, Gbadi-Gaodo.
- 5448 TJ Poprawski (TJP913) ← G Mercadier (EBCL 97021). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 24 Jan 1997. Togo: T.3, Gbadi-Gaodo.
- 5449 TJ Poprawski (TJP914) ← G Mercadier (EBCL 97022). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 24 Jan 1997. Togo: T.3, Gbadi-Gaodo.
- 5450 TJ Poprawski (TJP915) ← G Mercadier (EBCL 97023). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 24 Jan 1997. Togo: T.3, Gbadi-Gaodo.

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- 5478 G Mercadier (EBCL 97007). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 26 Jan 1997. Togo: T.3, Gbadi-Gaodo.
- 5479 G Mercadier (EBCL 97008). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 26 Jan 1997. Togo: T.3, Gbadi-Gaodo.
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- 5481 G Mercadier (EBCL 97010). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 26 Jan 1997. Togo: T.3, Gbadi-Gaodo.
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- 6483 BL Parker (SPT-KZ-406). Adult, [Coleoptera: Tenebrionidae] overwintering in soil. 5 Feb 2000. Kazakhstan: GPS Coordinates N 44°13.034' E 077°41.315'. **RESTRICTED ACCESS:**
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- 7166 H Liu (MSUFS-016). 1st instar larva, *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. 27 Jul 2002. PR China: Bazhou County, Hebei Province.
- 7167 H Liu (MSUFS-017). 1st instar larva, *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. 27 Jul 2002. PR China: Bazhou County, Hebei Province.
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- 10468 G Kyei-Poku (SY16A). Adult, *Agrilus planipennis* [Coleoptera: Buprestidae]. 9 Jul 2009. Canada: Sarnia, Ontario.
- 10471 MB Bondera. *Hypothenemus hampei* [Coleoptera: Scolytidae]. Dec 2010. USA: Kanalani Ohana Farm, Honaunau, Hawaii. 1600 ft elevation.
- 11660 [NCRI 245/02] K Westrum. *Tetropium fuscum* [Coleoptera: Cerambycidae]. 21 Oct 2001. Norway: Kroer, Ås, Akershus. **RESTRICTED ACCESS: consult Curator.**
- 11844 [ERL 2025] S Gouli and V Gouli (THR-11-15). [Coleoptera: Chrysomelidae]. 2011. USA: Rupert, Vermont.
- 11878 DW Roberts (DWR 1941). [Coleoptera: Coccinellidae] as bait. Rec'd 30 Apr 2012.
- 12573 SP Wraight (HI-3A). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS: contact Curator.**
- 12574 SP Wraight (HI-6). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS: contact Curator.**
- 12575 SP Wraight (HI-8). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS: contact Curator.**
- 12576 SP Wraight (HI-12A). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS: contact Curator.**
- 12577 SP Wraight (HI-14). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS: contact Curator.**
- 12578 SP Wraight (HI-15). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS: contact Curator.**
- 12579 SP Wraight (HI-16). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS: contact Curator.**
- 12580 SP Wraight (HI-18). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS: contact Curator.**
- 12581 SP Wraight (HI-20A). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS: contact Curator.**
- 12582 SP Wraight (HI-21C). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS: contact Curator.**
- 12583 SP Wraight (HI-22A). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS: contact Curator.**
- 12584 SP Wraight (HI-25). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS: contact Curator.**
- 12585 SP Wraight (HI-27). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 14 Apr 2014. USA: Smith Farms, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43256, W 155.86946. **RESTRICTED ACCESS: contact Curator.**
- 12586 SP Wraight (HI-43). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee.

- 14 Apr 2014. USA: Smith Farms, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43256, W 155.86946. **RESTRICTED ACCESS:** contact Curator.
- 12587 SP Wraight (HI-46). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 14 Apr 2014. USA: Smith Farms, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43256, W 155.86946. **RESTRICTED ACCESS:** contact Curator.
- 12588 SP Wraight (HI-47). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 14 Apr 2014. USA: Smith Farms, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43256, W 155.86946. **RESTRICTED ACCESS:** contact Curator.
- 12589 SP Wraight (HI-49A). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Ma-malahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12590 SP Wraight (HI-52A). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Ma-malahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12591 SP Wraight (HI-53A). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Ma-malahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12592 SP Wraight (HI-54). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Ma-malahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12593 SP Wraight (HI-56). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Ma-malahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12594 SP Wraight (HI-57). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Ma-malahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12595 SP Wraight (HI-58). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Ma-malahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12596 SP Wraight (HI-60). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Ma-malahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12597 SP Wraight (HI-61). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Ma-malahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12598 SP Wraight (HI-62). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Ma-malahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12599 SP Wraight (HI-63). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Ma-malahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12600 SP Wraight (HI-65A). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 30 Apr 2014. USA: Ma-malahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12601 SP Wraight (HI-67). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 22 Apr 2014. USA: Onaka Farm, northwest field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. N 19.43122, W 155.89108. **RESTRICTED ACCESS:** contact Curator.
- 12602 SP Wraight (HI-68). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 16 Apr 2014. USA: Onaka Farm, southwest field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. N 19.43072, W 155.89090. **RESTRICTED ACCESS:** contact Curator.
- 12603 SP Wraight (HI-70). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 18 Apr 2014. USA: OK Farms, north field, Amauulu Road, Hilo, Hawai'i. N 19.72794, W 155.11320. **RESTRICTED ACCESS:** contact Curator.
- 12604 SP Wraight (HI-72). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 16 Apr 2014. USA: Kirkland Farm, north-east field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43493, W 155.87320. **RESTRICTED ACCESS:** contact Curator.

- 12605 SP Wraight (HI-74). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 16 Apr 2014. USA: Kirkland Farm, northeast field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43493, W 155.87320. **RESTRICTED ACCESS:** contact Curator.
- 12606 SP Wraight (HI-75). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 16 Apr 2014. USA: Kirkland Farm, northeast field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43493, W 155.87320. **RESTRICTED ACCESS:** contact Curator.
- 12607 SP Wraight (HI-79). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 16 Apr 2014. USA: Kirkland Farm, northeast field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43493, W 155.87320. **RESTRICTED ACCESS:** contact Curator.
- 12608 SP Wraight (HI-81). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 16 Apr 2014. USA: Kirkland Farm, northeast field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43493, W 155.87320. **RESTRICTED ACCESS:** contact Curator.
- 12609 SP Wraight (HI-84). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 16 Apr 2014. USA: Kirkland Farm, northeast field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43493, W 155.87320. **RESTRICTED ACCESS:** contact Curator.
- 12610 SP Wraight (HI-90). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 16 Apr 2014. USA: Kirkland Farm, northeast field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43493, W 155.87320. **RESTRICTED ACCESS:** contact Curator.
- 12611 SP Wraight (HI-99). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 14 Apr 2014. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43257, W 155.86932. **RESTRICTED ACCESS:** contact Curator.
- 12612 SP Wraight (HI-109). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 14 Apr 2014. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43257, W 155.86932. **RESTRICTED ACCESS:** contact Curator.
- 12613 SP Wraight (HI-121). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 14 Apr 2014. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43253, W 155.86915. **RESTRICTED ACCESS:** contact Curator.
- 12614 SP Wraight (HI-122). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee.
- 14 Apr 2014. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43253, W 155.86915. **RESTRICTED ACCESS:** contact Curator.
- 12615 SP Wraight (HI-123). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 14 Apr 2014. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43253, W 155.86915. **RESTRICTED ACCESS:** contact Curator.
- 12616 SP Wraight (HI-204). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 7 May 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12617 SP Wraight (HI-205). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 7 May 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12618 SP Wraight (HI-206B). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 7 May 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12619 SP Wraight (HI-211). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 7 May 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12620 SP Wraight (HI-805). Adult, *Xylosandrus compactus* [Coleoptera: Curculionidae: Scolytinae] from feral grove of *Coffea arabica* L., coffee. 7 May 2014. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.87710. **RESTRICTED ACCESS:** contact Curator.
- 12805 SP Wraight (HI-514). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 May 2014. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43257, W 155.86932. **RESTRICTED ACCESS:** contact Curator.
- 12806 SP Wraight (HI-528). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 May 2014. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43257, W 155.86932. **RESTRICTED ACCESS:** contact Curator.
- 12807 SP Wraight (HI-548). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 May 2014. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South

- Kona, Hawai'i. N 19.43253, W 155.86915. **RESTRICTED ACCESS:** contact Curator.
- 12808 SP Wraight (HI-552). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 May 2014. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43253, W 155.86915. **RESTRICTED ACCESS:** contact Curator.
- 12809 SP Wraight (HI-685). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 21 May 2014. USA: Smith Farms, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43256, W 155.86946. **RESTRICTED ACCESS:** contact Curator.
- 12810 SP Wraight (HI-695). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 21 May 2014. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43257, W 155.86932. **RESTRICTED ACCESS:** contact Curator.
- 12811 SP Wraight (HI-711). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 21 May 2014. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43253, W 155.86915. **RESTRICTED ACCESS:** contact Curator.
- 12812 SP Wraight (HI-720). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 21 May 2014. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43253, W 155.86915. **RESTRICTED ACCESS:** contact Curator.
- 12813 SP Wraight (HI-751). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 7 May 2014. USA: Smith Farms, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43256, W 155.86946. **RESTRICTED ACCESS:** contact Curator.
- 12814 SP Wraight (HI-783). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 21 May 2014. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43253, W 155.86915. **RESTRICTED ACCESS:** contact Curator.
- 12815 SP Wraight (HI-785). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 21 May 2014. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43253, W 155.86915. **RESTRICTED ACCESS:** contact Curator.
- 12816 SP Wraight (HI-793). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 21 May 2014. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43253, W 155.86915. **RESTRICTED ACCESS:** contact Curator.
- 12821 SP Wraight (HI-519). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 May 2014. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43257, W 155.86932.
- 12891 SP Wraight (HI-520). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 May 2014. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43257, W 155.86932. **RESTRICTED ACCESS:** contact Curator.
- 12892 SP Wraight (HI-539). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 May 2014. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43253, W 155.86915. **RESTRICTED ACCESS:** contact Curator.
- 12893 SP Wraight (HI-516). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 May 2014. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43257, W 155.86932. **RESTRICTED ACCESS:** contact Curator.
- 12894 SP Wraight (HI-742). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 21 May 2014. USA: Smith Farms, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. N 19.43256, W 155.86946. **RESTRICTED ACCESS:** contact Curator.
- 12957 M Barta (IK10) ← I Kautmanova. *Ips typographus* [Coleoptera: Scolytidae]. 5 Apr 2012. Slovakia: Michalovo. N 48.99945, E 19.76410. **RESTRICTED ACCESS:** contact Curator.
- 12958 M Barta (IK31) ← I Kautmanova. *Ips typographus* [Coleoptera: Scolytidae]. 9 Apr 2012. Slovakia: Zbojská. N 48.74650, E 19.84096.
- 12960 M Barta (IK44) ← I Kautmanova. *Ips typographus* [Coleoptera: Scolytidae]. 25 Apr 2012. Slovakia: Nebrová. N 49.11863, E 18.12467.
- 12961 M Barta (IK57) ← I Kautmanova. *Ips typographus* [Coleoptera: Scolytidae]. 12 May 2012. Slovakia: Oravská Polhora. N 49.52668, E 19.46842.
- 12962 M Barta (MK8) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 7 May 2012. Slovakia: Vysoké Tatry-Start. N 49.17913, E 20.25763.
- 12964 M Barta (MK16) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 4 May 2012. Slovakia: Stará Lesná. N 49.13860, E 20.29696.
- 12965 M Barta (MK26) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 10 May 2012. Slovakia: Stará Lesná. N 49.13860, E 20.29696.
- 12966 M Barta (MK39) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 14 May 2012. Slovakia: Stará Lesná. N 49.13860, E 20.29696.

- 12967 M Barta (MK124) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 16 May 2012. Slovakia: Branisko. N 49.02545, E 20.86159.
- 12968 M Barta (MK129) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 16 May 2012. Slovakia: Spissky Hrhov. N 48.99840, E 20.63610. **RE-STRICKED ACCESS:** contact Curator.
- 12970 M Barta (MK207) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 5 Jun 2012. Slovakia: Hnilcik. N 48.85239, E 20.57028.
- 12971 M Barta (MK236) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 5 Jun 2012. Slovakia: Mlynky. N 48.85187, E 20.43762.
- 12973 M Barta (MK274) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 6 Jun 2012. Slovakia: Oravice. N 49.26698, E 19.74311.
- 12974 M Barta (MK299) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 6 Jun 2012. Slovakia: Oravice. N 49.31831, E 19.74380.
- 12975 M Barta (MK311) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 6 Jun 2012. Slovakia: Pod Sivym vrchom. N 49.20911, E 19.64951.
- 12977 M Barta (MK336) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 6 Jun 2012. Slovakia: Bobroveck. N 49.28109, E 19.75058.
- 12978 M Barta (MK341) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 6 Jun 2012. Slovakia: Rackova dolina. N 49.13691, E 19.79901.
- 12979 M Barta (MK380) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 1 Jul 2012. Slovakia: Pod Chocom, Lúky. N 49.13844, E 19.39812.
- 12980 M Barta (MK387) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 1 Jul 2012. Slovakia: Demänovská dolina. N 49.00610, E 19.56816.
- 13402 [SP Wraight PR TA-1] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 21 Sep 2016. USA: Tres Angeles farm, Adjuntas, Puerto Rico.
- 13403 [SP Wraight PR TA-4] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 21 Sep 2016. USA: Tres Angeles farm, Adjuntas, Puerto Rico.
- 13404 [SP Wraight PR TP-5] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 22 Sep 2016. USA: Tres Pecachos farm, Jayuya, Puerto Rico.
- 13405 [SP Wraight PR TP-7] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 22 Sep 2016. USA: Tres Pecachos farm, Jayuya, Puerto Rico.
- 13506 [A Khan palm weevil Beauvaria] *Rhynchophorus palmarum* [Coleoptera: Curculionidae]. Rec'd 6 Apr 2018. Trinidad.
- 13515 [SP Wraight HI-1753] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 29 Jul 2015. USA: Obra farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13516 [SP Wraight HI-1679A] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13517 [SP Wraight HI-1679b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13518 [SP Wraight HI-1686a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13519 [SP Wraight HI-1743b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13520 [SP Wraight HI-1747] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra Farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13521 [SP Wraight HI-1748] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: Obra farm, Ka'u, Island of Hawaii, Hawaii. 19.19927, -155.52651.
- 13522 [SP Wraight HI-1647c] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 29 Mar 2016. USA: Goschke farm, South Kona, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.52651.
- 13523 [SP Wraight HI-1657c] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 29 Mar 2016. USA: Goschke farm, South Kona, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.52651.
- 13524 [SP Wraight HI-1661a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 29 Mar 2016. USA: Goschke farm, South Kona, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.52651.
- 13525 [SP Wraight HI-1661b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 29 Mar 2016. USA: Goschke farm, South Kona, Captain Cook, District of South Kona, Hawai'i. 19.29130, -155.52651.
- 13526 [SP Wraight HI-1047] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 7 Apr 2015. USA: Smith farm, South Kona, Captain Cook, District of South Kona, Hawai'i. 19.43257, -155.86932.
- 13527 [SP Wraight HI-1048] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 7 Apr 2015. USA: Smith farm, South Kona, Captain Cook, District of South Kona, Hawai'i. 19.43257, -155.86932.
- 13528 [SP Wraight HI-1049] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 7 Apr 2015. USA: Smith farm, South Kona, Captain Cook, District of South Kona, Hawai'i. 19.43257, -155.86932.
- 13529 [SP Wraight HI-1052] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 7 Apr 2015. USA: Smith farm, South Kona, Captain Cook, District of South Kona, Hawai'i. 19.43257, -155.86932.

- 13530 [SP Wraight HI-1055] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 7 Apr 2015. USA: Smith farm, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. 19.43257, -155.86932.
- 13531 [SP Wraight HI-1063] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 9 Apr 2015. USA: Onaka farm, northeast field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. 19.43151, -155.89051.
- 13532 [SP Wraight HI-1072] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 9 Apr 2015. USA: Onaka farm, northeast field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. 19.43151, -155.89051.
- 13533 [SP Wraight HI-1198] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 13 Apr 2015. USA: Onaka farm, northwest field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. 19.43122, -155.89108.
- 13534 [SP Wraight HI-1199] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 13 Apr 2015. USA: Onaka farm, northwest field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. 19.43122, -155.89108.
- 13535 [SP Wraight HI-1117] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 13 Apr 2015. USA: Smith Farm, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. 19.43256, -155.86946.
- 13536 [SP Wraight HI-1534] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 2 Mar 2016. USA: Kelleher farm, Island of Hawaii, Hawaii.
- 13541 [SP Wraight PR-TA6] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 21 Sep 2016. USA: Tres Angeles Farm, Adjuntas, Puerto Rico.
- 13542 [SP Wraight HI-1536] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 2 Mar 2016. USA: Kelleher farm, Island of Hawaii, Hawaii.
- 13543 [SP Wraight HI-1541] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 2 Mar 2016. USA: Koontz farm, Island of Hawaii, Hawaii.
- 13544 [SP Wraight HI-1543] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 2 Mar 2016. USA: Koontz farm, Island of Hawaii, Hawaii.
- 13545 [SP Wraight HI-1545] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 2 Mar 2016. USA: Kunitake farm, Island of Hawaii, Hawaii.
- 13546 [SP Wraight HI-1784] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 1 Apr 2016. USA: Shatz farm, Island of Hawaii, Hawaii.
- 13547 [SP Wraight HI-1785] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 1 Apr 2016. USA: Shatz farm, Island of Hawaii, Hawaii.
- 13548 [SP Wraight HI-1827] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 14 Apr 2016. USA: Sugiyama farm, Island of Hawaii, Hawaii.
- 13549 [SP Wraight HI-1828] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 14 Apr 2016. USA: Sugiyama farm, Island of Hawaii, Hawaii.
- 13550 [SP Wraight HI-1380] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 14 Apr 2016. USA: Sugiyama farm, Island of Hawaii, Hawaii.
- 13551 [SP Wraight HI-1832] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 14 Apr 2016. USA: Sugiyama farm, Island of Hawaii, Hawaii.
- 13552 [SP Wraight HI-1836] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 14 Apr 2016. USA: Sugiyama farm, Island of Hawaii, Hawaii.
- 13553 [SP Wraight HI-2688] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 18 May 2016. USA: Goschke farm, Captain Cook, District of South Kona, Hawai'i.
- 13554 [SP Wraight HI-2720a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 18 May 2016. USA: Manuka farm, Island of Hawaii, Hawaii.
- 13555 [SP Wraight HI-2720b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 18 May 2016. USA: Manuka farm, Island of Hawaii, Hawaii.
- 13556 [SP Wraight HI-2721] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 18 May 2016. USA: Manuka farm, Island of Hawaii, Hawaii.
- 13557 [SP Wraight HI-2722a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 18 May 2016. USA: Manuka farm, Island of Hawaii, Hawaii.
- 13558 [SP Wraight HI-2722b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 18 May 2016. USA: Manuka farm, Island of Hawaii, Hawaii.
- 13559 [SP Wraight HI-2724] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 18 May 2016. USA: Manuka farm, Island of Hawaii, Hawaii.
- 13560 [SP Wraight HI-2745] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 21 May 2016. USA: Ah-San farm, Island of Hawaii, Hawaii.
- 13561 [SP Wraight HI-2748a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 21 May 2016. USA: Ah-San farm, Island of Hawaii, Hawaii.
- 13562 [SP Wraight HI-2748b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 21 May 2016. USA: Ah-San farm, Island of Hawaii, Hawaii.
- 13563 [SP Wraight HI-2752] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 21 May 2016. USA: Ah-San farm, Island of Hawaii, Hawaii.
- 13564 [SP Wraight HI-2754] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 21 May 2016. USA: D. Dacalio farm, Island of Hawaii, Hawaii.
- 13565 [SP Wraight HI-2754] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 21 May 2016. USA: D. Dacalio farm, Island of Hawaii, Hawaii.
- 13566 [SP Wraight HI-2760] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 21 May 2016. USA: Matsui farm, Island of Hawaii, Hawaii.

Beauveria bassiana
Beauveria bassiana sensu lato

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- 13567 [SP Wraight HI-2761] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 21 May 2016. USA: Matsui farm, Island of Hawaii, Hawaii.
- 13568 [SP Wraight HI-2903a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 26 May 2016. USA: Matsui farm, Island of Hawaii, Hawaii.
- 13569 [SP Wraight HI-2903b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 26 May 2016. USA: Matsui farm, Island of Hawaii, Hawaii.
- 13572 [SP Wraight HI-2904] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 26 May 2016. USA: Matsui farm, Island of Hawaii, Hawaii.
- 13573 [SP Wraight HI-2906] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 26 May 2016. USA: Matsui farm, Island of Hawaii, Hawaii.
- 13574 [SP Wraight HI-1399] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 4 May 2015. USA: Sullivan farm, Island of Hawaii, Hawaii.
- 13575 [SP Wraight HI-1400] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 4 May 2015. USA: Sullivan farm, Island of Hawaii, Hawaii.
- 13576 [SP Wraight HI-1408b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 6 May 2015. USA: Sullivan farm, Island of Hawaii, Hawaii.
- 13577 [SP Wraight HI-1409b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 6 May 2015. USA: Sullivan farm, Island of Hawaii, Hawaii.
- 13578 [SP Wraight HI-1766] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: J. Dacalio farm, Island of Hawaii, Hawaii.
- 13579 [SP Wraight HI-1768] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: J. Dacalio farm, Island of Hawaii, Hawaii.
- 13580 [SP Wraight HI-1769a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: J. Dacalio farm, Island of Hawaii, Hawaii.
- 13581 [SP Wraight HI-1769b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: J. Dacalio farm, Island of Hawaii, Hawaii.
- 13582 [SP Wraight HI-1776b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: J. Dacalio farm, Island of Hawaii, Hawaii.
- 13583 [SP Wraight HI-1776c] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: J. Dacalio farm, Island of Hawaii, Hawaii.
- 13584 [SP Wraight HI-1777b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: J. Dacalio farm, Island of Hawaii, Hawaii.
- 13585 [SP Wraight HI-1777c] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: J. Dacalio farm, Island of Hawaii, Hawaii.
- 13586 [SP Wraight HI-1780b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: J. Dacalio farm, Island of Hawaii, Hawaii.
- 13587 [SP Wraight HI-1780c] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: J. Dacalio farm, Island of Hawaii, Hawaii.
- 13588 [SP Wraight HI-1781b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 31 Mar 2016. USA: J. Dacalio farm, Island of Hawaii, Hawaii.
- 13589 [SP Wraight HI-1394] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 4 May 2015. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. 19.43253, -155.86915.
- 13590 [SP Wraight HI-1422] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 11 May 2015. USA: Smith Farms, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. 19.43256, -155.86946.
- 13591 [SP Wraight HI-1426] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 11 May 2015. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. 19.43257, -155.86932.
- 13592 [SP Wraight HI-1559b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 8 Mar 2016. USA: Smith Farms, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. 19.43256, -155.86946.
- 13593 [SP Wraight HI-1427] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 11 May 2015. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. 19.43257, -155.86932.
- 13594 [SP Wraight HI-1565b] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 8 Mar 2016. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. 19.43257, -155.86932.
- 13596 [SP Wraight HI-1533a] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 2 Mar 2016. USA: Kelleher Farm, Island of Hawaii, Hawaii.
- 13597 [SP Wraight HI-1540] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 2 Mar 2016. USA: Koontz Farm, Island of Hawaii, Hawaii.
- 13598 [SP Wraight HI-1546] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 2 Mar 2016. USA: Kunitake Farm, Island of Hawaii, Hawaii.
- Beauveria bassiana sensu lato* (Balsamo-Crivelli)**
Vuillemin
[Sordariomycetes: Hypocreales]
Cordycipitaceae
-
- 12434 ST Jaronski (11AW452). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 20 Jun 2011. USA: Roosevelt County, Montana. N 48.01999, W 104.08204.
- 12435 ST Jaronski (11AW479). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 20 Jun 2011. USA: Richland County, Montana. N 47.74546, W 104.12953.

- 12436 ST Jaronski (12AW323). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 6 Jun 2012. USA: Richland County, Montana. N 47.64180, W 104.19949.
- 12437 ST Jaronski (12AW332). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 6 Jun 2012. USA: Richland County, Montana. N 47.78444, W 104.08774.
- 12438 ST Jaronski (12AW336). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 6 Jun 2012. USA: Roosevelt County, Montana. N 48.01487, W 103.81691.
- 12439 ST Jaronski (12AW457). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 6 Jun 2012. USA: Richland County, Montana. N 47.495, W 104.295.
- 12440 ST Jaronski (12AW457-1). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 6 Jun 2012. USA: Richland County, Montana. N 47.495, W 104.295.
- 12441 ST Jaronski (12AW457-2). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 6 Jun 2012. USA: Richland County, Montana. N 47.495, W 104.295.
- 12442 ST Jaronski (12AW457-3). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 6 Jun 2012. USA: Richland County, Montana. N 47.495, W 104.295.
- 12443 ST Jaronski (12AW491-1). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 6 Jun 2012. USA: Richland County, Montana. N 47.39831, W 104.38053.
- 12444 ST Jaronski (12AW491-2). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 6 Jun 2012. USA: Williams County, North Dakota. N 47.39831, W 104.38053.
- 12445 ST Jaronski (13AW336). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 Jun 2013. USA: Roosevelt County, Montana. N 48.01487, W 103.81691.
- 12446 ST Jaronski (13AW340-1A). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 Jun 2013. USA: McKenzie County, North Dakota. N 47.95783, W 103.94684.
- 12447 ST Jaronski (13AW340-2). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 Jun 2013. USA: McKenzie County, North Dakota. N 47.95783, W 103.94684.
- 12448 ST Jaronski (13AW344). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 Jun 2013. USA: Richland County, Montana.
- 12449 ST Jaronski (13AW447). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 Jun 2013. USA: Richland County, Montana. N 47.46772.
- 12450 ST Jaronski (13AW473). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 Jun 2013. USA: Richland County, Montana. N 47.57947, W 104.26116.
- 12451 ST Jaronski (13AW483). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 Jun 2013. USA: Richland County, Montana. N 47.91715, W 103.94075.
- 12517 ST Jaronski (12AW323-4 f3). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 6 Jun 2012. USA: Richland County, Montana. N 47.64180, W 104.19949.
- 12518 ST Jaronski (12AW462-1 f3). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 8 Jun 2012. USA: Roosevelt County, Montana. N 48.01999, W 104.08204.
- 12519 ST Jaronski (12AW483-2 f3). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 2012. USA: Richland County, Montana. N 47.91715, W 103.94075.
- 12520 ST Jaronski (12AW483-5 f3). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 2012. USA: Richland County, Montana. N 47.91715, W 103.94075.
- 12521 ST Jaronski (12AW483-6 f3). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 2012. USA: Richland County, Montana. N 47.91715, W 103.94075.
- 12522 ST Jaronski (12AW483-8 f3). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 2012. USA: Richland County, Montana. N 47.91715, W 103.94075.
- 12982 SP Wraight (HI-806). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 11 Mar 2015. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.8771. **RESTRICTED ACCESS:** contact Curator.
- 12983 SP Wraight (HI-807A). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 11 Mar 2015. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.8771. **RESTRICTED ACCESS:** contact Curator.
- 12984 SP Wraight (HI-807B). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 11 Mar 2015. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.8771. **RESTRICTED ACCESS:** contact Curator.
- 12985 SP Wraight (HI-809). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 11 Mar 2015. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.8771. **RESTRICTED ACCESS:** contact Curator.
- 12986 SP Wraight (HI-810). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 11 Mar 2015. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.8771. **RESTRICTED ACCESS:** contact Curator.
- 12987 SP Wraight (HI-811). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] from feral grove of *Coffea arabica* L., coffee. 11 Mar 2015. USA: Mamalahoa Highway, Captain Cook, District of South Kona, Hawai'i. N 19.39038, W 155.8771. **RESTRICTED ACCESS:** contact Curator.
- 12988 SP Wraight (HI-815A). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 9 Mar 2015. USA: Smith Farms, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i.

Fungal Cultures

Beauveria bassiana sensu lato

- 13051 SP Wraight (HI-856). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 9 Mar 2015. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. HI-856. **RESTRICTED ACCESS:** contact Curator.
- 13052 SP Wraight (Hi-859). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 9 Mar 2015. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. HI-859. **RESTRICTED ACCESS:** contact Curator.
- 13053 SP Wraight (HI-860). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 9 Mar 2015. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. . **RESTRICTED ACCESS:** contact Curator.
- 13054 SP Wraight (HI-861). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 11 Mar 2015. USA: Onaka Farm, northwest field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. . **RESTRICTED ACCESS:** contact Curator.
- 13055 SP Wraight (HI-862). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 11 Mar 2015. USA: Onaka Farm, northwest field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. . **RESTRICTED ACCESS:** contact Curator.
- 13056 SP Wraight (HI-863). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 11 Mar 2015. USA: Onaka Farm, northwest field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. HI-863. **RESTRICTED ACCESS:** contact Curator.
- 13057 SP Wraight (HI-867). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 19 Mar 2015. USA: Onaka Farm, northeast field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. HI-867. **RESTRICTED ACCESS:** contact Curator.
- 13058 SP Wraight (HI-868). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 19 Mar 2015. USA: Onaka Farm, northeast field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. HI-868. **RESTRICTED ACCESS:** contact Curator.
- 13059 SP Wraight (HI-869). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 19 Mar 2015. USA: Onaka Farm, northeast field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. HI-869. **RESTRICTED ACCESS:** contact Curator.
- 13060 SP Wraight (HI-870). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 19 Mar 2015. USA: Onaka Farm, northeast field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. HI-870. **RESTRICTED ACCESS:** contact Curator.
- 13061 SP Wraight (HI-871). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 19 Mar 2015. USA: Onaka Farm, northeast field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. HI-871. **RESTRICTED ACCESS:** contact Curator.
- 13062 SP Wraight (HI-872). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 19 Mar 2015. USA: Onaka Farm, northeast field, Honaunau Road, Captain Cook, District of South Kona, Hawai'i. HI-872. **RESTRICTED ACCESS:** contact Curator.
- 13063 SP Wraight (HI-873). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-873. **RESTRICTED ACCESS:** contact Curator.
- 13064 SP Wraight (HI-874). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-874. **RESTRICTED ACCESS:** contact Curator.
- 13065 SP Wraight (HI-875). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-875. **RESTRICTED ACCESS:** contact Curator.
- 13066 SP Wraight (HI-876). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-876. **RESTRICTED ACCESS:** contact Curator.
- 13067 SP Wraight (HI-877). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-877. **RESTRICTED ACCESS:** contact Curator.
- 13068 SP Wraight (HI-878). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-878. **RESTRICTED ACCESS:** contact Curator.
- 13069 SP Wraight (HI-879). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-879. **RESTRICTED ACCESS:** contact Curator.
- 13070 SP Wraight (HI-880). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-880. **RESTRICTED ACCESS:** contact Curator.

- 13071 SP Wraight (HI-881). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-881. **RESTRICTED ACCESS:** contact Curator.
- 13072 SP Wraight (HI-882A). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-882A. **RESTRICTED ACCESS:** contact Curator.
- 13073 SP Wraight (HI-882B). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-882B. **RESTRICTED ACCESS:** contact Curator.
- 13074 SP Wraight (HI-883). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-883. **RESTRICTED ACCESS:** contact Curator.
- 13075 SP Wraight (HI-884). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-884. **RESTRICTED ACCESS:** contact Curator.
- 13076 SP Wraight (HI-885). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-885. **RESTRICTED ACCESS:** contact Curator.
- 13077 SP Wraight (HI-886A). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-886A. **RESTRICTED ACCESS:** contact Curator.
- 13078 SP Wraight (HI-886B). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-886B. **RESTRICTED ACCESS:** contact Curator.
- 13079 SP Wraight (HI-887). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-887. **RESTRICTED ACCESS:** contact Curator.
- 13080 SP Wraight (HI-888). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-888. **RESTRICTED ACCESS:** contact Curator.
- 13081 SP Wraight (HI-889). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-889. **RESTRICTED ACCESS:** contact Curator.
- 13082 SP Wraight (HI-890). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-890. **RESTRICTED ACCESS:** contact Curator.
- 13083 SP Wraight (HI-891). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 13 Mar 2015. USA: OK Farms, Amauulu Road, Hilo, Hawai'i. HI-891. **RESTRICTED ACCESS:** contact Curator.
- 13084 SP Wraight (HI-892). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 16 Mar 2015. USA: Smith Farms, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. HI-892. **RESTRICTED ACCESS:** contact Curator.
- 13085 SP Wraight (HI-894). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 16 Mar 2015. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. HI-894. **RESTRICTED ACCESS:** contact Curator.
- 13086 SP Wraight (HI-895). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 16 Mar 2015. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. HI-895. **RESTRICTED ACCESS:** contact Curator.
- 13087 SP Wraight (HI-896). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 16 Mar 2015. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. HI-896. **RESTRICTED ACCESS:** contact Curator.
- 13089 SP Wraight (HI-899). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 22 Mar 2015. USA: Smith Farms, west field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. HI-899. **RESTRICTED ACCESS:** contact Curator.
- 13090 SP Wraight (HI-900). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 22 Mar 2015. USA: Smith Farms, west field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. HI-900. **RESTRICTED ACCESS:** contact Curator.
- 13091 SP Wraight (HI-901). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 22 Mar 2015. USA: Smith Farms, north field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. HI-901. **RESTRICTED ACCESS:** contact Curator.
- 13092 SP Wraight (HI-902). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 22 Mar 2015. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona,

Hawai'i. HI-902. **RESTRICTED ACCESS:**
contact Curator.

- 13093 SP Wraight (HI-904). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 22 Mar 2015. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. HI-904. **RESTRICTED ACCESS:**
contact Curator.
- 13094 SP Wraight (HI-905). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 22 Mar 2015. USA: Smith Farms, south field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. HI-905. **RESTRICTED ACCESS:**
contact Curator.
- 13257 [AS Lestari FD] [Coleoptera: Curculionidae]. 7 Oct 2013. USA: Polk County, Oregon.
- 14001 ST Jaronski (NEB159). Adult, *Diabrotica virgifera virgifera* [Coleoptera: Chrysomelidae]. 1986. USA: Nebraska.
- 14002 ST Jaronski (IL197-5A). Adult, *Diabrotica virgifera virgifera* [Coleoptera: Chrysomelidae]. 1986. USA: Illinois.

Beauveria bassiana sensu stricto (Balsamo-Crivelli)

Vuillemin
 [Sordariomycetes: Hypocreales]

These isolates have been genomically confirmed to be *Beauveria bassiana* in the strict sense asdesignated by Rehner et al. (2011. *Mycologia* 103: 1055-1073).

- 751 P Jolivet. [Coleoptera: Chrysomelidae]. Apr 1982. Vietnam: Cuc Phuong Forest. Identification verified genomically.
- 13750 [M Burjanadze MB-094] [Coleoptera]. Rec'd 17 Sep 2018. Republic of Georgia: Sartichala, Kvemo Kartli.
- 13751 [M Burjanadze MB-095] [Coleoptera]. Rec'd 17 Sep 2018. Republic of Georgia: Sartichala, Kvemo Kartli.

Beauveria bassiana(?) (Balsamo-Crivelli) Vuillemin

[Sordariomycetes: Hypocreales]
 Cordycipitaceae

- 6890 H Cortez Madrigal (B1). [Coleoptera: Chrysomelidae] on *Eucalyptus* sp. 30 Sep 1999. Mexico: Huimanguillo, Tabasco.
- 6891 H Cortez Madrigal (B2). [Coleoptera: Chrysomelidae] on weeds. 10 Oct 2000. Mexico: Cárdenas, Tabasco.
- 9271 Z Demirbag and E Tanyeli (Dm-5). *Dendroctonus micans* [Coleoptera: Scolytidae]. 24 Oct 2008. Turkey: Maçka-Zigana, Trabzon.

Beauveria brongniartii (Saccardo) Petch

[Sordariomycetes: Hypocreales]
 Cordycipitaceae. Major synonym: *Beauveria tenella* (Saccardo) MacLeod.

- 617 ATCC (26156) ← P Ferron (6). Larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Rec'd 27 May 1981. France. Identification verified genomically.

CULTURE EX TYPE from specimen proposed for conservation as species type.

- 979 [GCRI 64-82] RA Hall ← J Fargues. *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Acc'd 17 Oct 1983. France. Identification verified genomically.
- 985 J Aoki (Beau. 22) ← K Katagiri ← T Kushida. *Anomala costata* [Coleoptera: Scarabaeidae]. Nov 1971. Japan: Hachioji, Tokyo Prefecture. Identification verified genomically.
- 1067 TJ Poprawski ← S Keller (117). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 10 May 1982. Switzerland: Buhwil, Thurgau.
- 1068 TJ Poprawski ← S Keller (118). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 10 May 1982. Switzerland: Buhwil, Thurgau.
- 1069 TJ Poprawski ← S Keller (119). *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Acc'd Feb 1984. Switzerland. Mixture of 3 strains.
- 1070 TJ Poprawski ← S Keller (120). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Jul 1982. Switzerland: Breitenloo, Thurgau.
- 1071 TJ Poprawski ← S Keller (125). 2nd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 6 Jan 1983. Switzerland: Bleiken, Thurgau.
- 1072 TJ Poprawski ← S Keller (126). 2nd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 6 Jan 1983. Switzerland: Bleiken, Thurgau.
- 1076 S Keller (131). 2nd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 6 Jan 1983. Switzerland: Istighofen, Thurgau.
- 1077 S Keller (134). 2nd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 8 Dec 1983. Switzerland: Bleiken, Thurgau.
- 1431 MC Rombach (A). *Niphonoclea* sp. [Coleoptera: Cerambycidae] on forest litter. Apr 1984. Philippines: UPLB Botanical Garden, Los Baños, Manila.
- 2271 BT Forschler (RF-3). Adult, *Cyrtepistomus castaneus* [Coleoptera: Curculionidae]. Sep 1986. USA: Robinson Forest, Univ. of Kentucky, Breathitt County, Kentucky. Identification verified genomically.
- 2660 C Gopalakrishnan (31). Adult, [Coleoptera]. Rec'd Nov 1988. India.
- 3054 [MAF F1] T Glare. *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd Oct 1990. New Zealand: South Island.
- 4024 T Steenberg (226) ← A Kirkeby-Thomse. *Ips typographus* [Coleoptera: Scolytidae] on Sitka spruce. Rec'd Nov 1993. Denmark.
- 4380 LA Lacey (94141) ← CAAS (CZN.9301). [Coleoptera: Scarabaeidae]. 7 May 1994. Location not specified.
- 4381 LA Lacey (94142) ← CAAS (4pl). [Coleoptera: Scarabaeidae]. 7 May 1994. Location not specified.
- 4385 LA Lacey (94136). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 5 May 1994. China: Cangzhou.

- 4386 LA Lacey (94137). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 5 May 1994. China: Cangzhou.
- 4388 LA Lacey (94139). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 5 May 1994. China: Cangzhou.
- 4389 LA Lacey (94131). *Popillia japonica* [Coleoptera: Scarabaeidae]. 27 Apr 1994. Japan: Sapporo, Hokkaido.
- 4458 LA Lacey (94127). *Popillia japonica* [Coleoptera: Scarabaeidae]. 27 Apr 1994. Japan: Sapporo Golf Course, Sapporo, Hokkaido.
- 4465 LA Lacey (94143). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4466 LA Lacey (94144). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4467 LA Lacey (94145). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4468 LA Lacey (94146). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4469 LA Lacey (94147). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4470 LA Lacey (94148). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4471 LA Lacey (94149). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4472 LA Lacey (94150). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4473 LA Lacey (94151). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4475 LA Lacey (94153). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4476 LA Lacey (94154). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4477 LA Lacey (94155). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4478 LA Lacey (94156). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 4 May 1994. China: Cangzhou.
- 4991 LA Lacey (95049). Adult, *Popillia japonica* [Coleoptera: Scarabaeidae]. 7 Sep 1995. Azores: Teceira.
- 4992 LA Lacey (95050). Adult, *Popillia japonica* [Coleoptera: Scarabaeidae]. 7 Sep 1995. Azores: Teceira.
- 4993 LA Lacey (95052). Adult, *Popillia japonica* [Coleoptera: Scarabaeidae]. 7 Sep 1995. Azores: Teceira.
- 4994 LA Lacey (95053). Adult, *Popillia japonica* [Coleoptera: Scarabaeidae]. 7 Sep 1995. Azores: Teceira.
- 4995 LA Lacey (95054). Adult, *Popillia japonica* [Coleoptera: Scarabaeidae]. 7 Sep 1995. Azores: Teceira.
- 5355 LA Lacey (96015). *Melolontha* sp. [Coleoptera: Scarabaeidae]. 30 May 1996. Germany: Lampertheim, Hesse.
- 5356 LA Lacey (96016). *Melolontha* sp. [Coleoptera: Scarabaeidae]. 30 May 1996. Germany: Lampertheim, Hesse.
- 5357 LA Lacey (96017). *Melolontha* sp. [Coleoptera: Scarabaeidae]. 30 May 1996. Germany: Lampertheim, Hesse.
- 5358 LA Lacey (96018). *Melolontha* sp. [Coleoptera: Scarabaeidae]. 30 May 1996. Germany: Lampertheim, Hesse.
- 5359 LA Lacey (96019). *Melolontha* sp. [Coleoptera: Scarabaeidae]. 30 May 1996. Germany: Lampertheim, Hesse.
- 5360 LA Lacey (96020). *Melolontha* sp. [Coleoptera: Scarabaeidae]. 30 May 1996. Germany: Lampertheim, Hesse.
- 5361 LA Lacey (96021). *Melolontha* sp. [Coleoptera: Scarabaeidae]. 30 May 1996. Germany: Lampertheim, Hesse.
- 5362 LA Lacey (96022). *Melolontha* sp. [Coleoptera: Scarabaeidae]. 30 May 1996. Germany: Lampertheim, Hesse.
- 5363 LA Lacey (96023). *Melolontha* sp. [Coleoptera: Scarabaeidae]. 30 May 1996. Germany: Lampertheim, Hesse.
- 5364 LA Lacey (96024). *Melolontha* sp. [Coleoptera: Scarabaeidae]. 30 May 1996. Germany: Lampertheim, Hesse.
- 6213 AE Hajek (1). Adult, *Barypeithes pellucida* [Coleoptera: Curculionidae] in leaf litter. Jun 1998. USA: Yellow Barn State Forest, Dryden, New York. Identification verified genomically.
- 6214 AE Hajek (2A). Adult, *Barypeithes pellucida* [Coleoptera: Curculionidae]. Jun 1998. USA: Yellow Barn State Forest, Dryden, New York. Identification verified genomically.
- 6215 AE Hajek (3A). Adult, *Barypeithes pellucida* [Coleoptera: Curculionidae]. Jun 1998. USA: Yellow Barn State Forest, Dryden, New York. Identification verified genomically.
- 6235 [RCEF 0385] *Anoplophora malasiaca* [Coleoptera: Cerambycidae]. Rec'd 24 Aug 1999. Japan.
- 6412 M Shimazu (F-1101). *Anoplophora malasiaca* [Coleoptera: Cerambycidae]. 8 Dec 1993. Japan: Kukisaki, Ibaraki Prefecture.
- 7268 JM Sung (EFCC 5119). [Coleoptera: Carabidae]. 14 Jul 2000. Republic of Korea: Undooryung, Kangwon-do. Identification verified genomically.
- 7528 S Keller (812). 3rd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 23 Oct 2002. Switzerland: Innertkirchen, Bern.
- 7761 [CBS 326.67; IMI 232818] *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd 10 Jun 2005. Netherlands.
- 9452 [SRCAMB VL-1582] V Likhovidov. Larva, [Coleoptera: Elateridae]. 14 Sep 2004. Russian Federation: Caucasus Mountains, Karachayev-Cherkessiya Republ. Field Collection Number F-508.

Beauveria caledonica
Beauveria pseudobassiana

Fungal Cultures

Beauveria caledonica Bissett & Widden

[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 1567 S Keller (D156). [Coleoptera: Scolytidae]. 14 Aug 1984. Switzerland: Siblingen, Schaffhausen. Identification verified genomically.
- 2251 IMI ← HC Evans (Ro 596). Adult, [Coleoptera]. Feb 1980. Brazil: Belém, Pará. Identification verified genomically.
- 8024 NV Meyling (KVL 03-70). *Amphimallon solstitiale* [Coleoptera: Scarabaeidae] from soil. 12 Jul 2000. Denmark: Jægerspris, Zealand. Identification verified genomically.
- 12963 M Barta (MK11) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 7 May 2012. Slovakia: Vysoké Tatry-Start. N 49.17913, E 20.25763.
- 12969 M Barta (MK205) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 5 Jun 2012. Slovakia: Hnilcik. N 48.85239, E 20.57028.
- 12972 M Barta (MK263) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 5 Jun 2012. Slovakia: Biele Vody. N 48.86796, E 20.40474.

Beauveria hoplocheli sp. nov.

[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 13021 [MNHN RF-06107] L Costet. *Hoplochelus marginalis* [Coleoptera: Melolonthidae]. 1993. France: Sainte-Thérèse, Reunion Island. CULTURE EX TYPE.

Beauveria lii S. L. Zhang, B. Huang (sp. nov., unpublished)

[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 11741 [RCEF 5500] B Huang. Larva, *Henosepilachna vigintioctopunctata* [Coleoptera: Coccinellidae] (XY20100923-63). 23 Sep 2010. PR China: Xunyi County, Xianyang City, Shaanxi Province. CULTURE EX TYPE. Sequence data: GenBank.

Beauveria malawiensis SA Rehner & Aquino de Muro

[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 7760 [IMI 228343] *Phoracantha semipunctata* [Coleoptera: Cerambycidae]. 4 May 1978. Malawi: Zomba, Southern. CULTURE EX TYPE.

Beauveria pseudobassiana SA Rehner & Humber

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Defined primarily by genotypic characters

- 157 M Wojciechowska (1110). *Anthicus floralis* [Coleoptera: Anthicidae]. Rec'd 18 Jul 1977. Poland.

- 813 GG Soares (6). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 1982. France: Plougastel-Daoulas, Finistere.

- 814 GG Soares (10). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 1982. France: Plougastel-Daoulas, Finistere.

- 1855 P Spencer and HS Whitney (R640). Adult, *Ips* sp. [Coleoptera: Scolytidae]. Jul 1984. Canada: Christina Lake, British Columbia. Identification verified genomically.

- 2557 S Sandoval (95). Adult, [Coleoptera: Cerambycidae]. Acc'd 18 Mar 1988. Ecuador.

- 3055 [MAF F6] T Glare. *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd Oct 1990. New Zealand: South Island.

- 3063 [MAF F13] T Glare. *Sitona* sp. [Coleoptera: Curculionidae]. Rec'd Oct 1990. New Zealand: South Island.

- 3065 [MAF F28] T Glare. *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Rec'd Oct 1990. New Zealand: South Island.

- 3066 [MAF F29] T Glare. *Paropsis charybdis* [Coleoptera: Chrysomelidae]. Rec'd Oct 1990. New Zealand: South Island.

- 3070 [MAF F33] T Glare. *Aphodius tasmaniae* [Coleoptera: Scarabaeidae]. Rec'd Oct 1990. New Zealand: Christchurch, South Island.

- 4274 [DAT 143] AC Rath (F143). Adult, *Adoryphorus coulonii* [Coleoptera: Scarabaeidae]. 23 Jun 1989. Australia: Glen Morey, Woodbury, Tasmania.

- 4721 [DAT 140] AC Rath (F140). Adult, *Adoryphorus coulonii* [Coleoptera: Scarabaeidae]. Spring 1989. Australia: Glen Morey, Woodbury, Tasmania.

- 4933 LA Lacey (95035). *Tomicus minor* [Coleoptera: Scolytidae] Pinus nigra. 4 Apr 1995. France: Saint-Etienne, de Gourgas.

- 5070 LA Lacey (95062). *Tomicus minor* [Coleoptera: Scolytidae]. 5 Oct 1995. France: Lodéve, Hérault.

- 5622 I Vänninen (SF85-2). Larva, *Tribolium castaneum* [Coleoptera: Tenebrionidae] as bait from soil. 18 Jul 1985. Finland: Pernaja.

- 5668 BL Parker (SPT-010). [Coleoptera]. 18 Jan 1998. Turkey: Hurbit Mountain, Hatay.

- 5669 BL Parker (SPT-018). [Coleoptera: Scarabaeidae]. 19 Jan 1998. Turkey: Karadao Mountain, Yavuzeli, Gaziantep.

- 5678 BL Parker (SPT-020). [Coleoptera: Coccinellidae]. 19 Jan 1998. Turkey: Karadao Mountain, Yavuzeli, Gaziantep.

- 6229 [RCEF 0231] Adult, [Coleoptera: Scolytidae (Tribe Ipini)]. 8 Aug 1996. PR China: Guizhou Province. Identification verified genomically.

- 12959 M Barta (IK38) ← I Kautmanova. *Ips typographus* [Coleoptera: Scolytidae]. 9 Apr 2012. Slovakia: Kykula. N 48.92580, E 17.87810.

- 12976 M Barta (MK331) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. 6 Jun 2012. Slovakia: Bobrovec. N 49.28109, E 19.75058.

Fungal Cultures

Beauveria pseudobassiana *Conidiobolus osmodes*

- 12981 M Barta (MK504) ← M Kozanek. *Ips typographus* [Coleoptera: Scolytidae]. Summer 2012. Slovakia: Vrátna dolina. N 49.21028, E 19.0498.
- Beauveria sungii** SA Rehner & Humber
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Defined primarily by genotypic characters
- 1685 M Shimazu (F-450). *Lachnostenra morosa* [Coleoptera: Scarabaeidae]. Acc'd 2 Nov 1984. Japan: Ibaraki Prefecture. CULTURE EX TYPE.
- 5689 JM Sung (KEFC-251). [Coleoptera: Scarabaeidae]. 20 Aug 1993. Republic of Korea: Gal-Cheon, Kangwon-do. From teleomorph morphologically resembling *Cordyceps scarabaeicola*. Identification of anamorph verified genomically.
- 7279 JM Sung (EFCC 5014). [Coleoptera: Chrysomelidae]. 11 Jul 2000. Republic of Korea: Guryungryung, Kangwon-do. From teleomorph morphologically resembling *Cordyceps scarabaeicola*. Identification of anamorph verified genomically.
- 7280 JM Sung (EFCC 5657). [Coleoptera: Chrysomelidae]. Aug 2000. Republic of Korea: Guryungryung, Kangwon-do. From teleomorph morphologically resembling *Cordyceps scarabaeicola*. Identification of anamorph verified genomically.
- Beauveria varroae** SA Rehner & Humber
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Defined primarily by genotypic characters
- 2694 [IMI 328059] C Prior. *Larinus* sp. [Coleoptera: Curculionidae]. Rec'd 19 Mar 1989. Switzerland. Identification verified genomically.
- Candida** sp.
[Saccharomycetes: Saccharomycetales]
All of these strains grow as yeasts with facultative capacities to attack cockroaches. It remains uncertain whether they can be primary pathogens or depend upon the host to be stressed, wounded, or otherwise compromised.
- 5729 TJ Poprawski. *Hypothenemus hampei* [Coleoptera: Scolytidae] from laboratory colony. Rec'd 20 May 1998. USA: Weslaco, Texas.
- Cladosporium sphaerospermum** Penzig
[Dothideomycetes: Capnodiales]
Mycosphaerellaceae
- 6516 RT Mayer. Larva, *Diaprepes abbreviata* [Coleoptera: Curculionidae]. Rec'd 10 May 2000. USA: Florida.
- Clonostachys rosea** (Link : Fries) Schroers, Samuels, Seifert & W Gams
[Sordariomycetes: Hypocreales]
Bionectriaceae
- 9491 [SRCAMB B-46] V Likhovidov ← BA Borisov.

Larva, [Coleoptera: Scarabaeidae]. Jul 2001. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-279.

- 11678 Z Demirbag (As11) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. 25 Jan 2011. Turkey: Trabzon City, Trabzon.
- 11682 Z Demirbag (As15) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. 25 Jan 2011. Turkey: Trabzon City, Trabzon.
- 11687 Z Demirbag (As20) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. 25 Jan 2011. Turkey: Trabzon City, Trabzon.

Conidiobolus sp.

[Entomophthoromycotina: Entomophthorales]

Ancylistaceae. These strains include a heterogeneous assortment of fungi isolated as saprobes and as zoopathogens. Some may represent undescribed new species. Identifications of *Conidiobolus* species are made difficult by the relative lack of taxonomic characters and of any modern taxonomic attention.

Caution: Strains derived from mammalian mycoses should be treated as potentially hazardous; observe handling precautions noted for *Conidiobolus coronatus*.

- 80 RG Kenneth (3081) or (C.o. 15) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Mar 1976. Israel: alfalfa field, Sedé Eliyahu.
- 81 RG Kenneth (3082) or (C.o. 10) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Mar 1976. Israel: Sedé Eliyahu.

Conidiobolus coronatus (Costantin) Batko

[Entomophthoromycotina: Entomophthorales]

Ancylistaceae. Major synonyms: *Entomophthora coronata* (Costantin) Kevorkian, *Conidiobolus villosus* Martin.

Caution: This species is known to cause human mycoses that are primarily tropical in occurrence and confined to the nasal passages and adjacent superficial areas. Avoid inhalation of conidia and do not handle cultures without gloves if unhealed cuts or abrasions are present. This species has low pathogenicity for mammals and should be relatively safe if handled with good microbiological technique.

- 1572 S Keller (490). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 1984. Switzerland.
- 1573 S Keller (491). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 1984. Switzerland.
- 1574 S Keller (493). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 1984. Switzerland.
- 1575 S Keller (494). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 1984. Switzerland.

Conidiobolus osmodes Drechsler

[Entomophthoromycotina: Entomophthorales]

Ancylistaceae

- 79 [FPMI 695] RG Kenneth (3080) or (3) ← A Uziel.

Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Mar 1976. Israel: Sedé Eliyahu.

Cordyceps sp.

[Sordariomycetes: Hypocreales]

Family cannot be determined since this genus in its old, broad sense is now segregated among several genera in three families

- 3718 RA LeBrun ← J Hanula (C-4). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. Summer 1991. Location not specified.
- 4852 JM Sung (C-331). Adult, *Sitophilus oryzae* [Coleoptera: Curculionidae]. Jul 1994. Republic of Korea: KNU experiment Forest, Kangwon National University.
- 7848 [SRCAMB B-47] V Likhovidov ← BA Borisov. Larva, [Coleoptera: Scarabaeidae] Isolated from stroma. Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-200.

Cordyceps brongniartii Shimazu

[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 7516 M Shimazu (F-621). Larva, *Anomala cuprea* [Coleoptera: Scarabaeidae]. 27 Jul 1987. Japan: Nishidake, Nagano Prefecture. Isolated from a peritheciun. Anamorph is Beauveria brongniartii. Identification verified genomically.
- 7517 M Shimazu (F-638). Larva, *Anomala cuprea* [Coleoptera: Scarabaeidae]. 16 Apr 1988. Laboratory manipulation. Isolated from an ascospore. Anamorph is Beauveria brongniartii. Identification verified genomically.

Cordyceps scarabaeicola Kobayasi

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Anamorph: *Beauveria*

- 7277 JM Sung (EFCC 2533). [Coleoptera: Chrysomelidae]. 6 Aug 1998. Nepal.
- 7278 JM Sung (EFCC 2535). [Coleoptera: Chrysomelidae]. 6 Aug 1998. Nepal.

Engyodontium rectidentatum (Matsush.) W. Gams, de Hoog, Samson & H.C. Evans
[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 7805 [SRCAMB B-158] V Likhovidov ← BA Borisov. [Coleoptera: Scarabaeidae] Isolated from unripened stroma. 9 Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-269.

Erynia sp.

[Entomophthoromycotina: Entomophthorales]

Entomophthoraceae. Strains included here were not sufficiently identifiable to the species and have not been reidentified since publication of the entomophthoralean taxonomy used here (see Humber, 1989, Mycotaxon 34:441-460). In this classification these strains would be reassigned to *Pandora* Humber, *Furia* (Batko) Humber, *Erynia* (Nowakowski ex Batko) Remaudière & Hennebert, or *Zoophthora* Batko.

- 2525 J Eilenberg (KVL 34). *Rhagonycha fulva* [Coleoptera: Cantharidae]. Aug 1987. Denmark: Holmegaards Mose, Zealand.
- 2536 J Eilenberg (KVL 18). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zealand.
- 2537 J Eilenberg (KVL 23). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zealand.
- 2538 J Eilenberg (KVL 20). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zealand.
- 2539 J Eilenberg (KVL 22). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zealand.
- 2553 [ARSEF 2662 (deaccessioned)] J Eilenberg (KVL 19) and J Martin. *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zealand.
- 2662 [ARSEF 2553] J Eilenberg (KVL 19) and J Martin. *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zealand.
- 2663 J Eilenberg (KVL 33) ← J Martin. *Rhagonycha fulva* [Coleoptera: Cantharidae]. Aug 1987. Denmark: Holmegaards Mose, Zealand.
- 2664 J Eilenberg (KVL 40). [Coleoptera: Cantharidae]. Jun 1987. Denmark: Brogaard, Lammfjorden.
- 5352 KT Hodge. Adult, [Coleoptera: Cantharidae] Willow. 18 Jun 1996. USA: German Cross Road, Dryden, New York.

Evlachovaea sp.

[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 1017 HS Whitney (R599). Adult, *Dendroctonus rufipennis* [Coleoptera: Scolytidae]. Jun 1975. Canada: nr. Hixon, British Columbia.
- 7403 G Zimmermann (E 1622/01) ← U Heimbach. Larva, *Agriotes* sp. [Coleoptera: Elateridae]. Oct 2001. Germany: Neustadt an der Weinstrasse, Rheinhessen-Pfalz.
- 7551 [CIAT 301] A Gaigl. *Phyllophaga menetriesi* [Coleoptera: Scarabaeidae]. 14 Jan 2004. Colombia: Caldono, Cauca. 1500 m elevation.

Fungal Cultures

Evlachovaea kintrischica *Fusarium commune*

- Evlachovaea kintrischica*** Borisov & Tarasov
[Sordariomycetes: Hypocreales]
Cordycipitaceae
-
- 7218 [CMPPB 150; SRCAMB B-184] V Likhovidov ← BA Borisov (B.B. 2). *Agelastica alni* [Coleoptera: Chrysomelidae] in litter. 21 Sep 1991. Republic of Georgia: Kintrishi Valley, near Cordon Tskhemlovani, Kintrishskiy Nature Reserve, Autonomous Republic of Adjara. 360 m elevation. Field Collection Number F-306. CULTURE EX TYPE.
- 8058 [CMPPB 150; SRCAMB B-184] V Likhovidov ← BA Borisov (B.B. 2). *Agelastica alni* [Coleoptera: Chrysomelidae] in litter. 21 Sep 1991. Republic of Georgia: Kintrishi Valley, near Cordon Tskhemlovani, Kintrishskiy Nature Reserve, Autonomous Republic of Adjara. 360 m elevation. Field Collection Number F-306. CULTURE EX TYPE.
- Fusarium sp.***
[Sordariomycetes: Hypocreales]
Nectriaceae
-
- 3030 [NRRL 25097] W Mechaber (weevil#1318). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Lyonia mariana*. 1 Jun 1990. USA: Pemberton, New Jersey.
- 3031 [NRRL 25098] W Mechaber (weevil#1334). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Lyonia mariana*. 1 Jun 1990. USA: Pemberton, New Jersey.
- 3032 [NRRL 25099] W Mechaber (weevil#1354). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Lyonia mariana*. 1 Jun 1990. USA: Pemberton, New Jersey.
- 4011 [NRRL 25123] T Steenberg (193) ← J Martin. *Lilioceris lili* [Coleoptera: Chrysomelidae]. Jun 1989. Denmark: Garden of Agricultural University, Zealand.
- 5461 TJ Poprawski (TJP926) ← G Mercadier (EBCL 97031). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 14 Jan 1997. Ivory Coast: RCI.7, Bozi. 89099.
- 5875 FE Vega (EBCL 98004). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. Oct 1997. Benin: Niaouli.
- 5878 FE Vega (EBCL 98011). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. Oct 1997. Benin: Niaouli.
- 5879 FE Vega (EBCL 98012). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. 19 Oct 1997. Uganda: Chesogok.
- 7063 RA Humber (2A). *Hypothenemus hampei* [Coleoptera: Scolytidae]. 13 Jul 2001. Indonesia: Konaweha, Sulawesi.
- 8131 [NRRL 52740] LS Bauer and H Liu (MF-221). Pre-pupa, *Agrylus planipennis* [Coleoptera: Buprestidae]. 1 Dec 2005. USA: Ann Arbor, Michigan.

- 8266 [NRRL 52741] RJ Pereault (Walton Spray pci#3). *Conotrachelus nenuphar* [Coleoptera: Curculionidae]. Aug 2006. USA: orchard B, Frankfort, Michigan.
- 9273 Z Demirbag and E Tanyeli (Dm-7). *Dendroctonus micans* [Coleoptera: Scolytidae]. 20 Jun 2009. Turkey: Maçka-Zigana, Trabzon.
- 9274 Z Demirbag and E Tanyeli (Dm-8). *Dendroctonus micans* [Coleoptera: Scolytidae]. 20 Jun 2009. Turkey: Maçka-Zigana, Trabzon.
- 11670 Z Demirbag (As3) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. Jan 2011. Turkey: Trabzon City, Trabzon.
- 11671 Z Demirbag (As4) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. Jan 2011. Turkey: Trabzon City, Trabzon.
- 11672 Z Demirbag (As5) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. Jan 2011. Turkey: Trabzon City, Trabzon.
- 11673 Z Demirbag (As6) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. Jan 2011. Turkey: Trabzon City, Trabzon.
- 11674 Z Demirbag (As7) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. Jan 2011. Turkey: Trabzon City, Trabzon.
- 11675 Z Demirbag (As8) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. Jan 2011. Turkey: Trabzon City, Trabzon.
- 11677 Z Demirbag (As10) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. 25 Jan 2011. Turkey: Trabzon City, Trabzon.
- 11679 Z Demirbag (As12) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. 25 Jan 2011. Turkey: Trabzon City, Trabzon.
- 11680 Z Demirbag (As13) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. 25 Jan 2011. Turkey: Trabzon City, Trabzon.
- 11684 Z Demirbag (As17) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. 25 Jan 2011. Turkey: Trabzon City, Trabzon.
- 12461 S Simeto (1380). *Hylurgus ligniperda* [Coleoptera: Curculionidae] on pine. Rec'd 5 Nov 2013. Uruguay.
- Fusarium commune*** Skovgaard, O'Donnell & Nierenberg
[Sordariomycetes: Hypocreales]
Family Nectriaceae. Family Nectriaceae. Identification of these isolates were genetically determined (see O'Donnell et al., 2012, Mycologia 104: 427-445; doi 10.3852/11-179).
-
- 4825 [NRRL 52764] JD Vandenberg (27-2). Adult, *Oti-orrhynchus ligustici* [Coleoptera: Curculionidae] on *Medicago sativa* L., alfalfa. 26 Jun 1994. USA: Alfalfa field, Great Bend, New York.

Fusarium nygamai
Isaria cateniolobliqua

Fungal Cultures

Fusarium nygamai Burgess & Trimboli
[Sordariomycetes: Hypocreales]

Nectriaceae

- 6602 [NRRL 52701] FE Vega. *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 28 Sep 2000. Colombia: Caldas.

Fusarium proliferatum (Matsushima) Nirenberg ex Gerlach & Nirenberg
[Sordariomycetes: Hypocreales]

Family Nectriaceae. Family Nectriaceae. Identification of these isolates were genetically determined (see O'Donnell et al., 2012, Mycologia 104: 427-445; doi 10.3852/11-179).

- 1310 [NRRL 25082] TJ Poprawski (A9). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 1984. Morocco: Achouria.

- 2568 [NRRL 25091] F Agudelo-Silva ← RL Bugg. Larva, *Chalcodermus aeneus* [Coleoptera: Curculionidae]. Nov 1987. USA: Tifton, Georgia.

- 2569 [NRRL 25092] F Agudelo-Silva ← RL Bugg. Larva, *Chalcodermus aeneus* [Coleoptera: Curculionidae]. Nov 1987. USA: Tifton, Georgia.

- 8267 [NRRL 52743] RJ Pereault (Walton Control pci#1). *Conotrachelus nenuphar* [Coleoptera: Curculionidae]. Aug 2006. USA: orchard B, Frankfort, Michigan.

Harposporium janus Shimazu & Glockling
[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

- 5601 SL Glockling. Larva, [Coleoptera: Cerambycidae] on tree trunk. Rec'd 2 Dec 1997. Japan.

Hirsutella eleutherorum (Nees) Petch
[Sordariomycetes: Hypocreales]

- 13375 [SP Wraight] Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] green coffee berry. 29 Jun 2017. USA: Smith Farm, Captain Cook, District of South Kona, Hawai'i.

Hirsutella fusiformis Speare
[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

- 5474 [ATCC 32804; CBS 205.33] *Brachyderes incanus* [Coleoptera: Curculionidae]. Rec'd 13 May 1997. Netherlands.

Hirsutella thompsonii Fisher
[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae. The separation of *H. thompsonii* into two varieties based on whether synnemata may or may not form in culture is unreliable and probably artificial. Some strains included may form synnemata but do not do so consistently; these strains could be recognized as *Hirsutella thompsonii* var. *synnematos* Samson, McCoy & O'Donnell if accepting this variety as a legitimate taxon.

- 11819 [ERL 2033] S Gouli and V Gouli (THR-11-22).

[Coleoptera: Carabidae]. 2011. USA: Underhill, Vermont.

Isaria sp.

[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 9519 [SRCAMB VL-1914/1] V Likhovidov. Larva, [Coleoptera]. 22 Aug 2005. Belarus: Belavezhskaya Puscha National Park. Field Collection Number F-853.

Isaria amoenerosea P. Hennings

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Major synonym: *Paecilomyces amoeneroseus* (Hennings) Samson. Reclassified during a phylogenetically necessary reclassification of *Paecilomyces* Section *Isarioidea*.

- 741 [CNPAF 82-1-15-06; CP 19] RA Daoust. *Lagria vilosa* [Coleoptera: Lagriidae]. Jan 1982. Brazil: CNPAF, Goiânia, Goiás.

- 744 [CNPAF 82-2-15-05; CP 26] RA Daoust. *Lagria vilosa* [Coleoptera: Lagriidae]. Feb 1982. Brazil: CNPAF, Goiânia, Goiás.

- 2220 [CNPAF 86-06-05-4; CP 216] DW Roberts ← GS da Silva. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 1986. Brazil: CNPAF, Goiânia, Goiás.

- 2958 CENARGEN (CG 162). *Lagria vilosa* [Coleoptera: Lagriidae]. Rec'd 14 Mar 1990. Brazil: Formosa, Goiás.

- 2959 CENARGEN (CG 163). *Lagria vilosa* [Coleoptera: Lagriidae]. Rec'd 14 Mar 1990. Brazil: Formosa, Goiás.

- 2960 CENARGEN (CG 164). *Lagria vilosa* [Coleoptera: Lagriidae]. Rec'd 14 Mar 1990. Brazil: Formosa, Goiás.

- 4097 LA Lacey (94007). *Lagria vilosa* [Coleoptera: Lagriidae]. Rec'd 28 Mar 1994. Brazil.

- 4849 JM Sung (C-321). Adult, [Coleoptera: Meloidae]. 14 Jul 1994. Republic of Korea: Chiag Mt., Kangwon-do.

Isaria catenianulata (ZQ Liang) Samson & Hywel-Jones

[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 6241 [RCEF 0464] [Coleoptera: Curculionidae]. 8 Jul 1998. PR China: Anhui.

- 6243 [RCEF 0516] *Brachyderes incanus* [Coleoptera: Curculionidae]. 27 Jan 1999. PR China: Anhui.

Isaria cateniolobliqua (ZQ Liang) Samson & Hywel-Jones

[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 6244 [RCEF 0189] Adult, [Coleoptera]. Rec'd 24 Aug 1999. PR China: Anhui.

Fungal Cultures

Isaria coleopterorum (Samson & HC Evans) Samson & Hywel-Jones
[Sordariomycetes: Hypocreales]
Cordycitaceae

9509 [SRCAMB VL-2091] V Likhovidov. [Coleoptera: Lampyridae]. 25 Aug 2006. Russian Federation: Moscow Region. Field Collection Number F-1086.

Isaria farinosa (Holmsk.) Fries
[Sordariomycetes: Hypocreales]
Cordycitaceae. Major synonym: *Paecilomyces farinosus* (Holmsk. ex Gray) Brown & Smith. Reclassified during a phylogenetically necessary reclassification of *Paecilomyces* Section *Isarioidea*. Teleomorph: *Cordyceps memorabilis* Ces.

799 DA Rodriguez Sierra ← A López. Pupa, *Premnotrypes vorax* [Coleoptera: Curculionidae]. Nov 1981. Colombia: Tibaitata, Mosquera, Nariño.

1507 I Majchrowicz (61) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 1983. France: Entraigues, Vaucluse.

1508 I Majchrowicz (76) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 1983. France: Entraigues, Vaucluse.

1957 [CNPAF 85-7-22-1; CP 182] JC Lord and BP Magalhães. *Lagria villosa* [Coleoptera: Lagriidae]. 22 Jul 1985. Brazil: União dos Palmares, Alagoas.

2355 [ARSEF 2379 (never frozen)] MC Rombach (201286-7). [Coleoptera]. 20 Dec 1986. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.

2379 [ARSEF 2355] MC Rombach (201286-7). [Coleoptera]. 20 Dec 1986. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.

2431 F Agudelo-Silva (10S87). *Otiorhynchus sulcatus* [Coleoptera: Curculionidae] on cranberries. 1987. USA: Oregon.

2937 EcoScience Corporation (32-51) ← LJ Dapsis. *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Aug 1989. USA: Oregon.

2973 C López Lastra. Larva, *Cylcocephala signaticolis* [Coleoptera: Scarabaeidae]. 10 Sep 1986. Argentina: Salto, Buenos Aires.

4029 T Steenberg (234) ← CW Riedel. *Agonum dorsale* [Coleoptera: Carabidae]. Jan 1991. Denmark: Menstrup, Zealand.

4039 T Steenberg (259). *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 1991. Denmark: Copenhagen, Tåstrup, Zealand.

4040 T Steenberg (260) ← L Øgaard. *Staphylinus olens* [Coleoptera: Staphylinidae]. Oct 1991. Denmark: Bagsværd, Zealand.

4043 T Steenberg (269) ← CW Riedel. *Bembidion lampros* [Coleoptera: Carabidae]. Jan 1991. Denmark.

4044 T Steenberg (270). *Agonum dorsale* [Coleoptera: Carabidae]. Jan 1991. Denmark.

4045 T Steenberg (274) ← V Langer. Larva, *Hapalus sp.* [Coleoptera: Carabidae]. Nov 1991. Denmark: Copenhagen, Tåstrup, Zealand.

5073 LA Lacey (95065). [Coleoptera: Cerambycidae]. 6 Oct 1995. France: Lodéve, Hérault.

5074 LA Lacey (95066). [Coleoptera: Cerambycidae]. 6 Oct 1995. France: Lodéve, Hérault.

5075 LA Lacey (95067). [Coleoptera: Cerambycidae]. 6 Oct 1995. France: Lodéve, Hérault.

5080 LA Lacey (95069). [Coleoptera: Cerambycidae]. 16 Nov 1995. France: Saint-Etienne, de Gourgas.

5699 JM Sung (KEFC-1170). [Coleoptera: Tenebrionidae]. 9 Jul 1997. Republic of Korea: Yongmoon Mt., Gyeonggi Province.

5754 BL Parker (SPT 012). [Coleoptera: Coccinellidae]. 18 Jan 1998. Turkey: Hirshito Ht., Gaziantep, Gaziantep.

5834 BL Parker (SPT 013/2). [Coleoptera: Coccinellidae]. 18 Jan 1998. Turkey: Hursit Mt., Gaziantep, Gaziantep.

5858 T Steenberg (SSL 610). Larva, *Alphitobius diaperinus* [Coleoptera: Tenebrionidae]. Feb 1997. Denmark: Broiler house, Øster Sottrup, Jutland.

6488 BL Parker (SPT-KZ-418). Adult, [Coleoptera: Scarabaeidae] overwintering in soil. 6 Feb 2000. Kazakhstan: GPS Coordinates N 43°08.530' E 076°36.526'. **RESTRICTED ACCESS:**

contact Curator

6489 BL Parker (SPT-KZ-419). Adult, [Coleoptera: Scarabaeidae] overwintering in soil. 6 Feb 2000. Kazakhstan: GPS Coordinates N 43°08.530' E 076°36.526'. **RESTRICTED ACCESS:**

contact Curator

6491 BL Parker (SPT-KZ-423). Adult, [Coleoptera: Chrysomelidae] overwintering in soil. 4 Feb 2000. Kazakhstan: GPS Coordinates N 43°23.081' E 077°34.126'. **RESTRICTED ACCESS:**

contact Curator

7276 JM Sung (EFCC 9251). [Coleoptera: Cerambycidae]. 23 Aug 2002. Republic of Korea: Seolag Mt., Kangwon-do.

8411 AE Hajek (02 NY 5-6-1). Adult, cadaver, *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. 10 Sep 2002. USA: Quarantine colony, Ithaca, New York.

8917 [ERL 253] BL Parker (AVRDC 0482B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.

9269 Z Demirbag and E Tanyeli (Dm-3). *Dendroctonus micans* [Coleoptera: Scolytidae]. 24 Oct 2008. Turkey: Maçka-Zigana, Trabzon.

9270 Z Demirbag and E Tanyeli (Dm-4). *Dendroctonus micans* [Coleoptera: Scolytidae]. 24 Oct 2008. Turkey: Maçka-Zigana, Trabzon.

Isaria farinosa
Isaria fumosorosea

Fungal Cultures

- 9275 Z Demirbag and E Tanyeli (Dm-9). *Dendroctonus micans* [Coleoptera: Scolytidae]. 20 Jun 2009. Turkey: Maçka-Zigana, Trabzon.
- 9276 Z Demirbag and E Tanyeli (Dm-10). *Dendroctonus micans* [Coleoptera: Scolytidae]. 20 Jun 2009. Turkey: Maçka-Zigana, Trabzon.
- 9277 Z Demirbag and E Tanyeli (Dm-11). *Dendroctonus micans* [Coleoptera: Scolytidae]. 20 Jun 2009. Turkey: Maçka-Zigana, Trabzon.
- 9278 Z Demirbag and E Tanyeli (Dm-12). *Dendroctonus micans* [Coleoptera: Scolytidae]. 20 Jun 2009. Turkey: Maçka-Zigana, Trabzon.
- 9511 [SRCAMB VL-1587/3] V Likhovidov. [Coleoptera: Silphidae]. 14 Sep 2004. Russian Federation: Caucasus region, Karachayevo-Cherkessiya Republ. Field Collection Number F-525.
- 9516 [SRCAMB B-405/2] V Likhovidov ← BA Borisov. [Coleoptera]. Oct 2003. Ukraine: Kherson Oblast. Field Collection Number F-930.
- 9944 LS Bauer (Legg Park 1). Larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Rec'd 14 Apr 2010. USA: Legg Park, Okemos, Michigan.
- 9945 LS Bauer (Legg Park 2). Larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. Rec'd 14 Apr 2010. USA: Legg Park, Okemos, Michigan.
- 11827 [ERL 2039] S Gouli and V Gouli (THR-11-28). [Coleoptera: Tenebrionidae]. 2011. USA: Richford, Vermont.
- 11830 [ERL 2042] S Gouli (THR-11-31) and V Gouli. [Coleoptera: Curculionidae]. 2011. USA: Richford, Vermont.
- 11831 [ERL 2043] S Gouli and V Gouli (THR-11-32). [Coleoptera: Carabidae]. 2011. USA: Richford, Vermont.
- Isaria fumosorosea* Wize
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Major synonym: *Paecilomyces fumosoroseus* (Wize) Brown & Smith. Reclassified during a phylogenetically necessary reclassification of *Paecilomyces* Section *Isarioidea*.
- 722 [CNPAF 82-1-15-05; CP 18] RA Daoust. *Lagria vilosa* [Coleoptera: Lagriidae]. Jan 1982. Brazil: CNPAF, Goiânia, Goiás.
- 1506 I Majchrowicz (71) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 1983. France: Entraigues, Vaucluse.
- 2216 [CNPAF 86-06-05-1; CP 212] DW Roberts ← PMOJ Neves. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 1986. Brazil: CNPAF, Goiânia, Goiás.
- 2217 [CNPAF 86-06-02-2; CP 213] DW Roberts ← OS Ohashi. *Lagria vilosa* [Coleoptera: Lagriidae]. 2 Jun 1986. Brazil: CNPAF, Goiânia, Goiás.
- 2219 [CNPAF 86-06-05-3; CP 215] DW Roberts ← DMF Capalbo. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 1986. Brazil: CNPAF, Goiânia, Goiás.

- 2221 [CNPAF 86-06-05-1; CP 217] DW Roberts ← OS Ohashi. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 1986. Brazil: CNPAF, Goiânia, Goiás.
- 2679 AS Martins. 3rd instar larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 13 Oct 1988. Portugal: Terceira Island, Azores.
- 2956 CENARGEN (CG 123). *Spaethiella* sp. [Coleoptera: Chrysomelidae]. Rec'd 14 Mar 1990. Brazil: Manaus, Amazonas.
- 5627 I Vänninen (SF86-82). Larva, *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. Aug 1986. Finland: Kymenlaakso.
- 5694 JM Sung (KEFC-919). [Coleoptera]. 28 Jun 1996. Republic of Korea: Book-Bang, Hong-Cheon Kun, Kangwon-do.
- 5844 T Steenberg (SSL 58). Larva, *Alphitobius diaperinus* [Coleoptera: Tenebrionidae]. Rec'd 26 Aug 1998. Originally isolated from soil.
- 5845 T Steenberg (SSL 59). Larva, *Alphitobius diaperinus* [Coleoptera: Tenebrionidae]. Rec'd 26 Aug 1998. Originally isolated from soil.
- 5846 T Steenberg (SSL 61). Larva, *Alphitobius diaperinus* [Coleoptera: Tenebrionidae]. Rec'd 26 Aug 1998. Originally isolated from soil.
- 5847 T Steenberg (SSL 62). Larva, *Alphitobius diaperinus* [Coleoptera: Tenebrionidae]. Rec'd 26 Aug 1998. Originally isolated from soil.
- 6730 FE Vega (EBCL 97054). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 23 Feb 2001. Ivory Coast.
- 7284 FE Vega (MPM-5). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 8 Jan 2004. Mexico: Tapachula, Chiapas.
- 7716 [SRCAMB B-173] V Likhovidov ← BA Borisov. [Coleoptera]. Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-189.
- 8142 LS Bauer and H Liu (MF-233). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 28 Jul 2006. USA: Brighton, Michigan.
- 8840 [CSIRO FI-1275] [Coleoptera: Chrysomelidae]. 5 Aug 1998. Australia: Tasmania.
- 8892 [CSIRO FI-1296] *Rhopaea magnicornis* [Coleoptera: Scarabaeidae] from insect A11. 22 Dec 1998. Australia: Condong, New South Wales.
- 9521 [SRCAMB VL-2057] V Likhovidov. *Coccinella septempunctata* [Coleoptera: Coccinellidae]. Aug 2000. Ukraine: Kherson Oblast. Field Collection Number F-749.
- 9602 X Zou (9). [Coleoptera]. Rec'd 19 Jan 2010. PR China: Guizhou Province.

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Isaria javanica *Lecanicillium muscarium*

Isaria javanica (Friederichs & Bally) Samson & Hywel-Jones

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Major synonym: *Paecilomyces javanicus* (Friederichs & Bally) Brown & Smith. Reclassified during a phylogenetically necessary reclassification of *Paecilomyces* Section *Isarioidea*.

322 GR Buckingham. *Litodactylus leucogaster* [Coleoptera: Curculionidae]. Dec 1978. USA: Gainesville, Florida.

7119 HE Cabanillas. Adult, [Coleoptera] on wild olive tree. 29 Oct 2002. USA: Weslaco, Texas.

***Lecanicillium* sp.**

[Sordariomycetes: Hypocreales]

Cordycipitaceae

7635 [SRCAMB B-255] V Likhovidov ← BA Borisov. Larva, [Coleoptera: Elateridae] Isolated from stroma of *Cordyceps corallomyces*. 12 Aug 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-323.

7636 [SRCAMB B-260] V Likhovidov ← BA Borisov. Larva, [Coleoptera: Elateridae] Isolated from stroma of *Cordyceps stylophora*. 11 Jul 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-340.

9459 [SRCAMB VL-1587/2] V Likhovidov. [Coleoptera: Silphidae]. 14 Sep 2004. Russian Federation: Caucasus region, Karachayevо-Cherkessiya Republ. Field Collection Number F-524.

***Lecanicillium evansii*(?)** Zare & W. Gams

[Sordariomycetes: Hypocreales]

Cordycipitaceae

11805 [ERL 2063] S Gouli and V Gouli (THR-11-52). Larva, [Coleoptera]. 2011. USA: Debry, Vermont.

Lecanicillium fungicola (Preuss) Zare & W Gams

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Synonym: *Lecanicillium fungicola* (Preuss) Hassebrauk

9483 [SRCAMB VL-2063] V Likhovidov. Larva, [Coleoptera: Elateridae] Isolated from *Cordyceps* sp. Aug 2005. Belarus: Belavezhskaya Puscha National Park. Field Collection Number F-928.

Lecanicillium lecanii (Zimmermann) Zare & W Gams

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Segregate species in *Lecanicillium lecanii* species complex; formerly classified as *Verticillium lecanii* (Zimmermann) Viégas. Teleomorph: *Cordyceps confragosa* (Mains) GH Sung, JM Sung, Hywel-Jones & Spatafora [basionym: *Torrubiella confragosa* Mains]

1505 I Majchrowicz (70) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 1983. France: Entraigues, Vaucluse.

7181 H Liu (MSUFS-701). Adult, *Plectrodera scalaris* [Coleoptera: Cerambycidae] from laboratory colony. 18 Dec 2001. USA: East Lansing, Michigan.

7182 H Liu (MSUFS-702). Adult, *Plectrodera scalaris* [Coleoptera: Cerambycidae] from laboratory colony. 18 Dec 2001. USA: East Lansing, Michigan.

8115 LS Bauer and H Liu (MF-204). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 14 Dec 2005. USA: Brighton, Michigan.

Lecanicillium longisporum (Petch) Zare & W Gams

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Segregate species in *Lecanicillium lecanii* species complex; formerly classified as *Verticillium lecanii* (Zimmermann) Viégas

4050 T Steenberg (299). *Tachyporus hypnorum* [Coleoptera: Staphylinidae]. Mar 1992. Denmark: Copenhagen, Tåstrup, Zealand.

Lecanicillium muscarium (Petch) Zare & W Gams

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Segregate species in *Lecanicillium lecanii* species complex; formerly classified as *Verticillium lecanii* (Zimmermann) Viégas

1328 TJ Poprawski (084). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 17 May 1983. France: Chichery.

1335 S Balazy (1539). Larva, *Malachius bipustulatus* [Coleoptera: Melyridae] under the stem bark of *Quercus robur* in leafy forest. 24 Apr 1983. Poland: Wielkopolski National Park.

1401 TJ Poprawski (089). Egg, *Hypera postica* [Coleoptera: Curculionidae]. Jun 1983. France.

1402 TJ Poprawski (090). Egg, *Hypera postica* [Coleoptera: Curculionidae]. Jun 1983. France.

1403 TJ Poprawski (091). Egg, *Hypera postica* [Coleoptera: Curculionidae]. Jun 1983. France.

4033 T Steenberg (239). *Sitona lineatus* [Coleoptera: Curculionidae]. Mar 1991. Denmark: Næstved, Zealand.

4036 T Steenberg (244). Pupa, *Dendroctonus micans* [Coleoptera: Scolytidae]. Rec'd Nov 1993. Denmark.

7248 JM Sung (EFCC 2011). [Coleoptera: Curculionidae]. 20 May 1998. Republic of Korea: Guryungryung, Kangwon-do.

8048 HH Kope (PFC 5). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Eve River, Vancouver Island, British Columbia. 50°17' N, 126°18' W.

8049 HH Kope (PFC 6). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Eve River, Vancouver Island, British Columbia. 50°17' N, 126°18' W.

8050 HH Kope (PFC 9). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Pacific Forestry Centre Arboretum, Vancouver Island, British Columbia. 48°28' N, 124°24' W.

- 8051 HH Kope (PFC 10). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Nimpkish, Vancouver Island, British Columbia. 50°19' N, 126°54' W.
- 8052 HH Kope (PFC 11). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Nimpkish, Vancouver Island, British Columbia. 50°19' N, 126°54' W.
- 8053 HH Kope (PFC 12). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Cowichan Lake, Vancouver Island, British Columbia. 48°50' N, 124°06' W.
- 8054 HH Kope (PFC 15). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Pacific Forestry Centre Arboretum, Vancouver Island, British Columbia. 48°28' N, 124°24' W.
- 8114 LS Bauer and H Liu (MF-203). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 14 Dec 2005. USA: Brighton, Michigan.
- 8118 LS Bauer and H Liu (MF-208). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 14 Dec 2005. USA: Brighton, Michigan.
- 8157 LS Bauer and H Liu (MF-248). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 28 Jul 2006. USA: Brighton, Michigan.
- 8163 LS Bauer and H Liu (MF-254). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 28 Jul 2006. USA: Ann Arbor, Michigan.
- 8165 LS Bauer and H Liu (MF-257). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 10 Aug 2006. USA: Ann Arbor, Michigan.
- 8923 [ERL 281] BL Parker (AVRDC 0588B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 9267 Z Demirbag and E Tanyeli (Dm-1). *Dendroctonus micans* [Coleoptera: Scolytidae]. 24 Oct 2008. Turkey: Maçka-Zigana, Trabzon.
- 9268 Z Demirbag and E Tanyeli (Dm-2). *Dendroctonus micans* [Coleoptera: Scolytidae]. 24 Oct 2008. Turkey: Maçka-Zigana, Trabzon.
- 11803 [ERL 2061] S Gouli and V Gouli (THR-11-50). *Ips* sp. [Coleoptera: Scolytidae]. 2011. USA: Orford, New Hampshire.
- Lecanicillium muscarium(?)*** (Petch) Zare & Gams
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Segregate species in *Lecanicillium lecanii* species complex; formerly classified as *Verticillium lecanii* (Zimmermann) Viégas.
- 8162 LS Bauer and H Liu (MF-253). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 28 Jul 2006. USA: Ann Arbor, Michigan.
- 8265 RJ Pereault (Walton Spray pci#2). *Conotrachelus nenuphar* [Coleoptera: Curculionidae]. Aug 2006. USA: orchard B, Frankfort, Michigan.

Lecanicillium nr. aranearum (Petch) Zare & Gams
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Reclassified from *Verticillium* Section Prostrata for phylogenetically required reasons.

- 9460 [SRCAMB VL-2092] V Likhovidov. [Coleoptera: Lampyridae]. 25 Aug 2006. Russian Federation: Moscow Region. Field Collection Number F-1104.
- 11799 [ERL 2057] S Gouli and V Gouli (THR-11-46). *Ips* sp. [Coleoptera: Scolytidae]. 2011. USA: Debry, Vermont.
- 11811 [ERL 2071] S Gouli and V Gouli (THR-11-60). [Coleoptera: Elateridae]. 2011. USA: Sharon Springs, New York.
- Lecanicillium pissodis*** Kope & I. Leal
[Sordariomycetes: Hypocreales]
Cordycipitaceae
- 8055 [DAVFP 29230] HH Kope (PFC 17). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Pacific Forestry Centre Arboretum, Vancouver Island, British Columbia. 48°28' N, 124°24' W.
- 8056 [DAVFP 29231] HH Kope (PFC 18). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Pacific Forestry Centre Arboretum, Vancouver Island, British Columbia. 48°28' N, 124°24' W.
- 8057 [CBS 118231; DAVFP 29232] HH Kope (PFC 19). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Pacific Forestry Centre Arboretum, Vancouver Island, British Columbia. 48°28' N, 124°24' W. CULTURE EX TYPE.

***Lecanicillium* sp. 2(?)** sensu W. Gams & Zare
[Sordariomycetes: Hypocreales]
Cordycipitaceae

- 2832 SR Sánchez Peña (2). [Coleoptera]. Jul 1987. Mexico: elev. 2900 m, Pseudotsuga-Abies forest, Pueblo Nuevo, Durango.

Metapochonia bulbillosa(?) (W Gams & Malla) Zare & W Gams
[Sordariomycetes: Hypocreales]
Clavicipitaceae.

- 3035 W Mechaber (weevil#2209). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Gaylussacia baccata*. 20 May 1990. USA: Carver, Massachusetts.

***Metarhizium* sp.**
[Sordariomycetes: Hypocreales]
Clavicipitaceae

- 3863 LA Lacey (92140). *Popillia japonica* [Coleoptera: Scarabaeidae]. 22 Oct 1992. Portugal: Terceira Island, Azores.

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Metarhizium sp. *Metarhizium anisopliae* sensu lato

- 3865 LA Lacey (92143). *Popillia japonica* [Coleoptera: Scarabaeidae]. 22 Oct 1992. Portugal: Terceira Island, Azores.
- 7493 [CSIRO FI-1358] *Dermolepida albohirtum* [Coleoptera: Scarabaeidae]. 23 Jul 1999. Laboratory infection.
- 7495 [CSIRO FI-1395] *Rhopaea magnicornis* [Coleoptera: Scarabaeidae]. 27 Dec 1999. Australia: Condong, New South Wales.
- 7643 [SRCAMB VL-271] V Likhovidov. *Agelastica alni* [Coleoptera: Chrysomelidae]. Sep 2001. Russian Federation: Caucasus region, Krasnaya Polyan, Krasnodarsky Krai. Field Collection Number F-231.
- 8851 [CSIRO FI-1342] *Rhopaea magnicornis* [Coleoptera: Scarabaeidae] from Condong insect A4. Jun 1999. Australia: Condong, New South Wales.
- 8852 [CSIRO FI-1345] *Rhopaea magnicornis* [Coleoptera: Scarabaeidae] from Condong insect 71. Jun 1999. Australia: Condong, New South Wales.
- 8855 [CSIRO FI-1352] *Rhopaea magnicornis* [Coleoptera: Scarabaeidae] from Condong insect 420. 23 Jul 1999. Australia: Condong, New South Wales.
- 8856 [CSIRO FI-1353] *Rhopaea magnicornis* [Coleoptera: Scarabaeidae] from Condong insect 334. 23 Jul 1999. Australia: Condong, New South Wales.
- 8857 [CSIRO FI-1354] *Rhopaea magnicornis* [Coleoptera: Scarabaeidae] from Condong insect 349. 23 Jul 1999. Australia: Condong, New South Wales.
- 11685 Z Demirbag (As18) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. 25 Jan 2011. Turkey: Trabzon City, Trabzon.
- 11686 Z Demirbag (As19) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. 25 Jan 2011. Turkey: Trabzon City, Trabzon.
- 11849 [ERL 2030] S Gouli (THR-11-20) and V Gouli. [Coleoptera: Chrysomelidae]. 2011. USA: Underhill, Vermont.
- 12796 [OKSTATE Sd] EJ Rebek and JA Rodriguez-Contreras ← SR Sánchez Peña. Larva, *Phyllophaga* sp. [Coleoptera: Scarabaeidae]. Summer 2014. USA: Cimarron Valley Research Station, Oklahoma State University, Stillwater, Oklahoma.
- 13088 SP Wraight (HI-897). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica* L., coffee. 22 Mar 2015. USA: Smith Farms, middle field, Bruner Road, Captain Cook, District of South Kona, Hawai'i. HI-897. **RESTRICTED ACCESS: contact Curator.**
- Metarhizium anisopliae* sensu lato** (Metschnikoff)
- Sorokin
[Sordariomycetes: Sordariomycetes]
- Clavicipitaceae. These isolates were identified morphologically and have not yet been reidentified under the genomic classification of Bischoff et al. (2009).
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- 347 *Aphodius tasmaniae* [Coleoptera: Scarabaeidae].
- Australia: Adelaide, South Australia.
- 725 [CNPAF 82-1-6-02; CP 8] RA Daoust. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 6 Jan 1982. Brazil: CNPAF, Goiânia, Goiás.
- 726 [CNPAF 82-1-6-05; CP 11] RA Daoust. [Coleoptera: Bruchidae]. 6 Jan 1982. Brazil: CNPAF, Goiânia, Goiás.
- 760 [CNPAF 82-2-15-03; CP 31] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. Feb 1982. Brazil: CNPAF, Goiânia, Goiás.
- 808 [CNPAF 82-7-23-01; CP 62] RA Daoust ← SM dos Santos. *Coleomegilla maculata* [Coleoptera: Coccinellidae]. 23 Jul 1982. Brazil: CNPAF, Goiânia, Goiás.
- 818 GG Soares (19). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 1982. France: Plougastel-Daoulas, Finistere.
- 929 [CNPAF 82-12-15-01; CP 67] RA Daoust ← SM dos Santos. Larva, *Chalcodermus aeneus* [Coleoptera: Curculionidae]. Dec 1982. Brazil: CNPAF, Goiânia, Goiás.
- 932 [CNPAF 82-12-20-02; CP 70] RA Daoust. [Coleoptera: Bruchidae]. 20 Dec 1982. Brazil: CNPAF, Goiânia, Goiás.
- 939 [CNPAF 83-3-3-03; CP 78] RA Daoust ← SM dos Santos. [Coleoptera: Carabidae]. 3 Mar 1983. Brazil: CNPAF, Goiânia, Goiás.
- 954 [CNPAF 83-03-16L; CP 99] RA Daoust and BP Magalhães. [Coleoptera: Bruchidae]. 16 Mar 1983. Brazil: Ponta Porã, Mato Grosso.
- 1056 [CNPS 25] F Moscardi. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 1983. Brazil: Londrina, Paraná.
- 1078 KJ Marschall. *Brontispa longissima* [Coleoptera: Chrysomelidae]. Western Samoa: Upolu Island.
- 1280 DW Roberts (MaT3JB-C) or (single spore isolate #1). *Popillia japonica* [Coleoptera: Scarabaeidae]. 1978. USA: Clinton Corners, New York.
- 1377 [ARSEF ?396] S Keller (48). *Agriotes sputator* [Coleoptera: Elateridae]. 4 May 1977. Switzerland.
- 1452 [ARSEF 1989; CNPAF 53; CP 126] F Moscardi. *Sternechus subsignatus* [Coleoptera: Curculionidae]. 27 Mar 1984. Brazil: Soybean Center, Londrina, Paraná.
- 1885 [CP 174] DW Roberts ← SM dos Santos. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 23 Apr 1985. Brazil: CNPAF, Goiânia, Goiás.
- 1901 DW Roberts ← MA Naves (CG-6). [Coleoptera: Carabidae]. Jan 1980. Brazil: Pará.
- 1903 DW Roberts (103a). *Conoderus* sp. [Coleoptera: Elateridae]. Acc'd 11 Jun 1985. USA.
- 1958 [CNPAF 85-7-24-1; CP 184] JC Lord and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 24 Jul 1985. Brazil: Ribeira do Pombal, Bahia.

- 1989 [ARSEF 1452 (deaccessioned); CNPAF 53; CP 126] F Moscardi. *Sternechus subsignatus* [Coleoptera: Curculionidae]. 27 Mar 1984. Brazil: Soybean Center, Londrina, Paraná.
- 2076 [CP 194] JC Lord and BP Magalhães. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 1985. Brazil: CNPAF, Goiânia, Goiás.
- 2077 [CP 195] JC Lord and BP Magalhães. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 1985. Brazil: CNPAF, Goiânia, Goiás.
- 2135 T Searle (F). *Phyllophaga ?anxia* [Coleoptera: Scarabaeidae]. Jul 1985. Canada: Southern Québec.
- 2136 T Searle (K). *Phyllophaga ?anxia* [Coleoptera: Scarabaeidae]. Jul 1985. Canada.
- 2137 T Searle (Q). *Phyllophaga ?anxia* [Coleoptera: Scarabaeidae]. Jul 1985. Canada: Southern Québec.
- 2138 T Searle (W). *Phyllophaga ?anxia* [Coleoptera: Scarabaeidae]. Jul 1985. Canada: Southern Québec.
- 2139 T Searle (Z). *Phyllophaga ?anxia* [Coleoptera: Scarabaeidae]. Aug 1985. Canada: Southern Québec.
- 2156 BN Muthappa (PNG 12711). Adult, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Rec'd 12 May 1986. Papua New Guinea.
- 2163 BN Muthappa (PNG 12722). Larva, [Coleoptera: Scarabaeidae]. Rec'd 12 May 1986. Papua New Guinea.
- 2165 BN Muthappa (PNG 12724). Larva, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Rec'd 12 May 1986. Papua New Guinea.
- 2166 BN Muthappa (PNG 12726). Larva, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Rec'd 12 May 1986. Papua New Guinea.
- 2167 BN Muthappa (PNG 12727). Larva, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Rec'd 12 May 1986. Papua New Guinea.
- 2331 PI Espinosa Camarena. *Rhynchophorus palmarum* [Coleoptera: Curculionidae]. 1986. Mexico: Zapotlanejo, Jalisco.
- 2432 F Agudelo-Silva (20S87). *Otiorhynchus sulcatus* [Coleoptera: Curculionidae] on cranberries. 1987. USA: Oregon.
- 2513 [CP 236A] SM dos Santos. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Oct 1986. Brazil: CNPAF, Goiânia, Goiás.
- 2548 SV Krueger ← FL Consolie and MG Villani. *Popillia japonica* [Coleoptera: Scarabaeidae]. Oct 1987. USA: Sleepy Hollow, New York.
- 2635 [CNPAF 88-5-6B; CP 253] DW Roberts ← E Dias Quintela. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 6 May 1988. Brazil: CNPAF, Goiânia, Goiás.
- 2941 [CP 272] SP Wraight ← DR Sosa-Gómez. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 8 Nov 1988. Brazil: CNPAF, Goiânia, Goiás.
- 3057 [MAF F12] T Glare. *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd Oct 1990. New Zealand: South Island.
- 3148 INRA (Ma-181) ← A Caudal. *Haphochelus marginalis* [Coleoptera]. May 1983. France: Réunion.
- 3305 J Gutierrez Samperio (21) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Colima.
- 3306 J Gutierrez Samperio (22) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Colima.
- 3308 J Gutierrez Samperio (24) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Colima.
- 3329 DW Roberts ← AS Martins (A-1). 3rd instar larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. Spring 1988. Portugal: Terceira Island, Azores.
- 3330 SV Krueger (MaJB1). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 1989. USA: Syracuse, New York.
- 3331 SV Krueger (MaJB2). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 1989. USA: Syracuse, New York.
- 3332 SV Krueger (MaJB3). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 1989. USA: Syracuse, New York.
- 3333 SV Krueger (MaJB6). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 1989. USA: Syracuse, New York.
- 3334 SV Krueger (MaJB7). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 1989. USA: Syracuse, New York.
- 3335 SV Krueger (MaJB8). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 1989. USA: Syracuse, New York.
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- 4780 [DAT 513] AC Rath (F513). Larva, *Sericesthis nigrolineata* [Coleoptera: Scarabaeidae]. 10 Mar 1994. Australia: Glen Innes, New England, New South Wales.
- 4819 JD Vandenberg (63). Adult, *Otiorhynchus ligustici* [Coleoptera: Curculionidae] on *Medicago sativa* L., alfalfa. 26 Jun 1994. USA: Alfalfa field, Great Bend, New York.
- 4820 JD Vandenberg (18). Adult, *Otiorhynchus ligustici* [Coleoptera: Curculionidae] on *Medicago sativa* L., alfalfa. 26 Jun 1994. USA: Alfalfa field, Great Bend, New York.
- 4821 JD Vandenberg (29). Adult, *Otiorhynchus ligustici* [Coleoptera: Curculionidae] on *Medicago sativa* L., alfalfa. 26 Jun 1994. USA: Alfalfa field, Great Bend, New York.
- 4822 JD Vandenberg (JP1). Adult, *Otiorhynchus ligustici* [Coleoptera: Curculionidae] on *Medicago sativa* L., alfalfa. 26 Jun 1994. USA: Alfalfa field, Great Bend, New York.
- 4823 JD Vandenberg (21). Adult, *Otiorhynchus ligustici* [Coleoptera: Curculionidae] on *Medicago sativa* L., alfalfa. 26 Jun 1994. USA: Alfalfa field, Great Bend, New York.

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- 5624 I Vänninen (SF85-60). Larva, *Tribolium castaneum* [Coleoptera: Tenebrionidae] as bait from soil. 18 Jul 1985. Finland: Lapinjärvi, Uudenmaan Lääni.
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- 5841 T Steenberg (SSL 32). Larva, *Alphitobius diaperinus* [Coleoptera: Tenebrionidae]. Rec'd 26 Aug 1998. Originally isolated from *Anotylus* spp. [Coleoptera: Staphylinidae].
- 5842 T Steenberg (SSL 50). Larva, *Alphitobius diaperinus* [Coleoptera: Tenebrionidae]. Rec'd 26 Aug 1998. Originally isolated from soil.
- 5848 T Steenberg (SSL 75). Larva, *Alphitobius diaperinus* [Coleoptera: Tenebrionidae]. Rec'd 26 Aug 1998. Originally isolated from larvae of an unidentified beetle [Coleoptera].
- 5850 T Steenberg (SSL 84). Larva, *Alphitobius diaperinus* [Coleoptera: Tenebrionidae]. Rec'd 26 Aug 1998. Originally isolated from an unidentified beetle [Coleoptera].
- 6388 TL Dubois (FS 3 # 1 (3)) ← SM Smith ← V D'Amico. Larva, late instar, *Anoplophora glabripennis* [Coleoptera: Cerambycidae] on twig. 19 Mar 1999. USA: Laboratory colony, USDA Forest Service, Hamden, Connecticut. Laboratory colony started from host originally obtained from infested maple wood collected in Chicago, Illinois, USA 5 March 1999.
- 6389 TL Dubois (SS 1 # 2 (1)) ← SM Smith. Larva, early instar, *Anoplophora glabripennis* [Coleoptera: Cerambycidae] from wood of *Acer* sp. 23 Mar 1999. USA: USDA APHIS ANG Base, Otis, Massachusetts. Laboratory colony started from host originally obtained from infested maple wood collected in Chicago, Illinois, USA 5 March 1999.
- 6549 D Chandler (HRI 189.83). *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Rec'd 13 Jul 2000. United Kingdom.
- 6551 D Chandler (HRI 335.92). Larva, *Agriotes* sp. [Coleoptera: Elateridae]. Rec'd 13 Jul 2000. United Kingdom.
- 6670 *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. Rec'd 17 Jan 2001. Ethiopia: Harae, Northern Shoa.
- 6671 *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. Rec'd 17 Jan 2001. Ethiopia: Shewa Robin, Northern Shoa.
- 6672 *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. Rec'd 17 Jan 2001. Ethiopia: Kewot, Northern Shoa.
- 6673 *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. Rec'd 17 Jan 2001. Ethiopia: Dedeaa, Northern Shoa.
- 6674 *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. Rec'd 17 Jan 2001. Ethiopia: Rufe Kure, Northern Shoa.
- 6675 *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. Rec'd 17 Jan 2001. Ethiopia: Rober, Northern Shoa.
- 6677 *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. Rec'd 17 Jan 2001. Ethiopia: Dedeaa, Northern Shoa.
- 6678 *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. Rec'd 17 Jan 2001. Ethiopia: Gobenaytu, Northern Shoa.
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- 6680 *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. Rec'd 17 Jan 2001. Ethiopia: Shewa Robin, Northern Shoa.
- 6682 *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. Rec'd 17 Jan 2001. Ethiopia: Rufe Kure, Northern Shoa.
- 6683 *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. Rec'd 17 Jan 2001. Ethiopia: Awaketu, Northern Shoa.
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- 6685 *Pachnoda interrupta* [Coleoptera: Scarabaeidae]. Rec'd 17 Jan 2001. Ethiopia: Kewot, Northern Shoa.
- 6901 I Klingen (NCRI 1/01/Ma). Larva, *Phyllopertha horticola* [Coleoptera: Scarabaeidae] in lawn. 23 May 2001. Norway: Moss, Østfold. **RESTRICTED ACCESS: consult Curator.**
- 7000 LA Lacey (YARL 020128-1). Adult, *Limonius canus* [Coleoptera: Elateridae] reared in laboratory. Fall 2001. USA: Yakima Agricultural Research Laboratory, Wapato, Washington.
- 7001 LA Lacey (YARL 020128-2). Adult, *Limonius canus* [Coleoptera: Elateridae] reared in laboratory. Fall 2001. USA: Yakima Agricultural Research Laboratory, Wapato, Washington.
- 7002 LA Lacey (YARL 020128-3). Adult, *Limonius canus* [Coleoptera: Elateridae] reared in laboratory. Fall 2001. USA: Yakima Agricultural Research Laboratory, Wapato, Washington.
- 7003 LA Lacey (YARL 020128-4). Adult, *Limonius canus* [Coleoptera: Elateridae] reared in laboratory. Fall 2001. USA: Yakima Agricultural Research Laboratory, Wapato, Washington.

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- 7005 LA Lacey (YARL 011219-9). *Limonius canus* [Coleoptera: Elateridae] reared in laboratory. Fall 2001. USA: Yakima Agricultural Research Laboratory, Wapato, Washington.
- 7006 LA Lacey (YARL 011219-10). *Limonius canus* [Coleoptera: Elateridae] reared in laboratory. Fall 2001. USA: Yakima Agricultural Research Laboratory, Wapato, Washington.
- 7007 LA Lacey (YARL 011219-11). *Limonius canus* [Coleoptera: Elateridae] reared in laboratory. Fall 2001. USA: Yakima Agricultural Research Laboratory, Wapato, Washington.
- 7008 LA Lacey (YARL 011219-14). *Limonius canus* [Coleoptera: Elateridae] reared in laboratory. Fall 2001. USA: Yakima Agricultural Research Laboratory, Wapato, Washington.
- 7009 LA Lacey (YARL 011219-15). *Limonius canus* [Coleoptera: Elateridae] reared in laboratory. Fall 2001. USA: Yakima Agricultural Research Laboratory, Wapato, Washington.
- 7180 H Liu (MSUFS-500). Adult, *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. 5 Feb 2002. USA: Ravenswood, Chicago, Illinois.
- 7451 [CSIRO FI-0993] *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 28 Apr 1993. Australia: Larsen, Kingaroy, Queensland.
- 7492 [CSIRO FI-1350] *Dermolepida albohirtum* [Coleoptera: Scarabaeidae]. 2 Jun 1999. Laboratory experiment.
- 7494 [CSIRO FI-1363] CBS (316.51). *Agriotes* sp. [Coleoptera: Elateridae]. 23 Aug 1999. USA: Forest Grove, Oregon.
- 7496 [CSIRO FI-1402] *Antitrogus parvulus* [Coleoptera: Scarabaeidae]. 13 Apr 2000. Australia: Bundaberg, Queensland.
- 7498 [CSIRO FI-1410] *Agrianome spinicollis* [Coleoptera: Cerambycidae]. 26 Apr 2000. Australia: Moree, New South Wales.
- 7499 [CSIRO FI-1412] *Agrianome spinicollis* [Coleoptera: Cerambycidae]. 12 May 2000. Australia: Moree, New South Wales.
- 7500 [CSIRO FI-1414] *Agrianome spinicollis* [Coleoptera: Cerambycidae]. 1 Jun 2000. Australia: Moree, New South Wales.
- 7504 [CSIRO FI-1425] *Lepidiota noxia* [Coleoptera: Scarabaeidae]. 18 Aug 2000. Australia: Bundaberg, Queensland.
- 7524 S Keller (714). Larva, *Agriotes* sp. [Coleoptera: Elateridae]. 28 Aug 2001. Switzerland: Jenaz, Graubünden.
- 7527 S Keller (800). Larva, [Coleoptera: Scarabaeidae]. 31 May 2002. Nepal: Parbat District.
- 7529 S Keller (885). Larva, [Coleoptera: Scarabaeidae]. Winter 2003. Nepal: Pang, Parbat District.
- 7532 S Keller (500). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 16 Jan 1995. Switzerland: Uri.
- 7814 [CSIRO FI-0014] *Sericesthis nigrolineata* [Coleoptera: Scarabaeidae]. 16 Oct 1979. Australia: Anderson, Guyra, New South Wales.
- 7815 [CSIRO FI-0038] *Adoryphorus coulonii* [Coleoptera: Scarabaeidae]. 1 Jun 1981. Australia: Ballarat, Victoria.
- 7816 [CSIRO FI-0083] *Lepidiota squamulata* [Coleoptera: Scarabaeidae]. 5 Aug 1985. Australia: Mackay, Queensland.
- 7819 [CSIRO FI-0111] *Antitrogus parvulus* [Coleoptera: Scarabaeidae]. 30 Oct 1985. Australia: The Hummock, Bundaberg, Queensland.
- 7824 [CSIRO FI-0126] *Lepidiota gibbifrons* [Coleoptera: Scarabaeidae]. Jan 1986. Australia: Yeppoon, Queensland.
- 7825 [CSIRO FI-0143] *Lepidiota gibbifrons* [Coleoptera: Scarabaeidae]. 2 Apr 1986. Australia: Yeppoon, Queensland.
- 7826 [CSIRO FI-0144] *Lepidiota gibbifrons* [Coleoptera: Scarabaeidae]. 2 Apr 1986. Australia: Yeppoon, Queensland.
- 7827 [CSIRO FI-0148] *Lepidiota consobrina* [Coleoptera: Scarabaeidae]. 17 Jun 1986. Australia: Mossman, Queensland.
- 7828 [CSIRO FI-0150] *Lepidiota consobrina* [Coleoptera: Scarabaeidae]. 17 Jun 1986. Australia: Mossman, Queensland.
- 7829 [CSIRO FI-0154] *Lepidiota frenchi* [Coleoptera: Scarabaeidae]. 28 Jul 1986. Australia: Gordonvale, Queensland.
- 7830 [CSIRO FI-0157] *Lepidiota frenchi* [Coleoptera: Scarabaeidae]. 28 Jul 1986. Australia: Gordonvale, Queensland.
- 7831 [CSIRO FI-0160] *Lepidiota frenchi* [Coleoptera: Scarabaeidae]. 28 Jul 1986. Australia: Gordonvale, Queensland.
- 7832 [CSIRO FI-0165] *Lepidiota negatoria* [Coleoptera: Scarabaeidae]. 26 Nov 1986. Australia: Maryborough, Queensland.
- 7839 [CSIRO FI-0191] *Antitrogus parvulus* [Coleoptera: Scarabaeidae]. 5 Feb 1987. Australia: Maryborough, Queensland.
- 7842 [CSIRO FI-0205] *Antitrogus mussoni* [Coleoptera: Scarabaeidae]. 23 Mar 1987. Australia: Yandaren, Bundaberg, Queensland.
- 7843 [CSIRO FI-0912] *Heteronyx* sp. [Coleoptera: Scarabaeidae]. 23 Jun 1992. Australia: Queensland.

- 7844 [CSIRO FI-0913] *Heteronyx* sp. [Coleoptera: Scarabaeidae]. 23 Jun 1992. Australia: Queensland.
- 7845 [CSIRO FI-0024] *Aphodius tasmaniae* [Coleoptera: Scarabaeidae]. 2 Jan 1981. Australia: South Australia.
- 7846 [CSIRO FI-0149] *Lepidiota consobrina* [Coleoptera: Scarabaeidae]. 17 Jun 1986. Australia: Mossman, Queensland.
- 7854 [CSIRO FI-0190] Adult, *Antitrogus parvulus* [Coleoptera: Scarabaeidae]. 5 Feb 1987. Australia: Maryborough, Queensland.
- 7863 [CSIRO FI-0211] *Sericesthis nigrolineata* [Coleoptera: Scarabaeidae]. 22 May 1987. Australia: Canberra, Australian Capital Territory.
- 7864 [CSIRO FI-0214] *Antitrogus parvulus* [Coleoptera: Scarabaeidae]. 22 May 1987. Australia: Childers, Queensland.
- 7865 [CSIRO FI-0218] *Antitrogus mussoni* [Coleoptera: Scarabaeidae]. 10 Jun 1987. Australia: Calavos, Bundaberg, Queensland.
- 7931 [CSIRO FI-0377] *Antitrogus mussoni* [Coleoptera: Scarabaeidae]. 10 Mar 1989. Australia: Maidements, Bundaberg, Queensland.
- 7932 [CSIRO FI-0378] Adult, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 28 Mar 1989. Australia: Busselton, Western Australia.
- 7933 [CSIRO FI-0380] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 28 Mar 1989. Australia: Busselton, Western Australia.
- 7934 [CSIRO FI-0381] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 28 Mar 1989. Australia: Busselton, Western Australia.
- 7935 [CSIRO FI-0382] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 28 Mar 1989. Australia: Busselton, Western Australia.
- 7936 [CSIRO FI-0383] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 28 Mar 1989. Australia: Busselton, Western Australia.
- 8098 [CSIRO FI-0658] [Coleoptera: Curculionidae]. 29 May 1990. CSIRO, Nematodes Laboratory.
- 8099 [CSIRO FI-0659] [Coleoptera: Curculionidae]. 29 May 1990. CSIRO, Nematodes Laboratory.
- 8492 [CSIRO FI-0012] *Rhopaea magnicornis* [Coleoptera: Scarabaeidae]. 16 Oct 1979. Australia: McKemeys, Guyra, New South Wales.
- 8495 [CSIRO FI-0019] Pupa, *Rhopaea verreauxii* [Coleoptera: Scarabaeidae]. 13 Feb 1980. Australia: Dorrigo, New South Wales.
- 8499 [CSIRO FI-0396] *Phyllophaga anxia* [Coleoptera: Scarabaeidae]. 29 Mar 1989. Canada: Southern Québec.
- 8501 [CSIRO FI-0529] *Lepidiota picticollis* [Coleoptera: Scarabaeidae]. 28 Jul 1989. Laboratory experiment.
- 8564 [CSIRO FI-0871] *Heteronyx rugosipennis* [Coleoptera: Scarabaeidae]. 8 Jan 1992. Australia: Clermont, Queensland.
- 8568 [CSIRO FI-0881] *Desiantha diversipes* [Coleoptera: Curculionidae] from root of *Echium* sp. (Boraginaceae). 8 Jan 1992.
- 8569 [CSIRO FI-0882] *Desiantha diversipes* [Coleoptera: Curculionidae]. 8 Jan 1992.
- 8610 [CSIRO FI-0868] *Heteronyx rugosipennis* [Coleoptera: Scarabaeidae]. 8 Jan 1992. Australia: Clermont, Queensland.
- 8620 [CSIRO FI-0953] Larva, *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 22 Jul 1992. Australia: Queensland.
- 8733 [CSIRO FI-0153] *Lepidiota frenchi* [Coleoptera: Scarabaeidae]. 28 Jul 1986. Australia: Gordonvale, Queensland.
- 8734 [CSIRO FI-0454] [Coleoptera: Staphylinidae]. 26 Apr 1989. Australia: Parissi pupation study site, Bundaberg, Queensland.
- 8744 [CSIRO FI-1040] *Dermolepida albohirtum* [Coleoptera: Scarabaeidae]. 5 Mar 1994. Australia: Tully, Queensland.
- 8745 [CSIRO FI-1081] *Brontispa longissima* [Coleoptera: Chrysomelidae]. 20 May 1994. Australia: Darwin, Northern Territory.
- 8746 [CSIRO FI-1082] *Brontispa longissima* [Coleoptera: Chrysomelidae]. 20 May 1994. Australia: Darwin, Northern Territory.
- 8747 [CSIRO FI-1083] *Brontispa longissima* [Coleoptera: Chrysomelidae]. 20 May 1994. Australia: Darwin, Northern Territory.
- 8748 [CSIRO FI-1107] *Papuana* sp. [Coleoptera: Scarabaeidae]. 14 Dec 1994. Papua New Guinea.
- 8754 [CSIRO FI-1151] *Dermolepida albohirtum* [Coleoptera: Scarabaeidae]. 17 Aug 1995. Australia: Burdekin, Queensland.
- 8755 [CSIRO FI-1152] *Dermolepida albohirtum* [Coleoptera: Scarabaeidae]. 17 Aug 1995. Australia: Burdekin, Queensland.
- 8761 [CSIRO FI-1160] Larva, *Antitrogus consanguineus* [Coleoptera: Scarabaeidae]. May 1996. Australia: Bundaberg, Queensland.
- 8762 [CSIRO FI-1161] Adult, *Rhabdoscelus obscurus* [Coleoptera: Curculionidae]. May 1996. Australia: Northern Queensland, Queensland.
- 8764 [CSIRO FI-1163] Larva, *Anoplognathus* sp. [Coleoptera: Scarabaeidae]. May 1996. Australia: Cooma, New South Wales.
- 8765 [CSIRO FI-1240] 3rd instar larva, *Rhopaea magnicornis* [Coleoptera: Scarabaeidae]. 1 Sep 1997. Australia: Condong, New South Wales.
- 8766 [CSIRO FI-1241] 3rd instar larva, *Rhopaea magnicornis* [Coleoptera: Scarabaeidae]. 1 Sep 1997. Australia: Condong, New South Wales.

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- 8775 [ERL 194] BL Parker (AVRDC 0005B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8776 [ERL 195] BL Parker (AVRDC 0009B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8777 [ERL 203] BL Parker (0207B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8778 [ERL 204] BL Parker (AVRDC 0214B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8779 [ERL 205] BL Parker (AVRDC 0216B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8780 [ERL 206] BL Parker (AVRDC 0224B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8781 [ERL 209] BL Parker (AVRDC 0244B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8782 [ERL 211] BL Parker (AVRDC 0260B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8783 [ERL 215] BL Parker (AVRDC 0293B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8784 [ERL 216] BL Parker (AVRDC 0295B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8785 [ERL 218] BL Parker (AVRDC 0312B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8786 [ERL 220] BL Parker (AVRDC 0331B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8787 [ERL 221] BL Parker (AVRDC 0338B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8788 [ERL 222] BL Parker (AVRDC 0344B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8789 [ERL 223] BL Parker (AVRDC 0346B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8790 [ERL 224] BL Parker (AVRDC 0350B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8791 [ERL 225] BL Parker (AVRDC 0355B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8792 [ERL 227] BL Parker (AVRDC 0373B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8793 [ERL 228] BL Parker (AVRDC 0374B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8794 [ERL 229] BL Parker (AVRDC 0377B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8795 [ERL 329] BL Parker (AVRDC 0193B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 2008. Republic of China: Taiwan.
- 8796 [ERL 330] BL Parker (AVRDC 0205B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8797 [ERL 331] BL Parker (AVRDC 0246B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8798 [ERL 333] BL Parker (AVRDC 0153B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8799 [ERL 334] BL Parker (AVRDC 0168B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8828 [CSIRO FI-1228] *Rhabdoscelus obscurus* [Coleoptera: Curculionidae]. 4 Jun 1997. Australia: Innisfail, Queensland.
- 8829 [CSIRO FI-1242] 3rd instar larva, *Rhopaea magnicornis* [Coleoptera: Scarabaeidae] field infection. 1 Sep 1997. Australia: Condong, New South Wales.
- 8830 [CSIRO FI-1245] *Lepidiota consobrina* [Coleoptera: Scarabaeidae]. 2 Sep 1997. Laboratory infection.
- 8831 [CSIRO FI-1246] *Lepidiota consobrina* [Coleoptera: Scarabaeidae]. 2 Sep 1997. Laboratory infection.
- 8832 [CSIRO FI-1249] *Antitrogus parvulus* [Coleoptera: Scarabaeidae]. 22 Oct 1997. Laboratory experiment. Dose 5 after 1 week.
- 8833 [CSIRO FI-1256] *Antitrogus parvulus* [Coleoptera: Scarabaeidae]. 2 Sep 1997. Australia: Bundaberg, Queensland.
- 8834 [CSIRO FI-1257] *Antitrogus parvulus* [Coleoptera: Scarabaeidae]. 2 Sep 1997. Australia: Bundaberg, Queensland.
- 8837 [CSIRO FI-1263] *Cyclocephala* sp. [Coleoptera: Scarabaeidae]. 2 May 1998. Australia: Canberra, Australian Capital Territory.
- 8838 [CSIRO FI-1264] *Cyclocephala* sp. [Coleoptera: Scarabaeidae]. 2 May 1998. Australia: Canberra, Australian Capital Territory.
- 8839 [CSIRO FI-1267] *Dasygnathus dejani* [Coleoptera: Scarabaeidae]. 12 May 1998. Australia: Burdekin, Queensland.
- 8844 [CSIRO FI-1313] *Rhopaea magnicornis* [Coleoptera: Scarabaeidae]. 1 Apr 1999. Australia: Condong, New South Wales.

Metarhizium anisopliae* sensu lato*Fungal Cultures**

- 8845 [CSIRO FI-1314] *Lepidiota consobrina* [Coleoptera: Scarabaeidae]. 4 May 1999. Australia: Mackay, Queensland.
- 8847 [CSIRO FI-1316] *Rhabdoscelus obscurus* [Coleoptera: Curculionidae]. 4 May 1999. Australia: Mackay, Queensland.
- 8848 [CSIRO FI-1320] *Heteronychus arator* [Coleoptera: Scarabaeidae]. 4 May 1999. Australia: Western Australia.
- 8849 [CSIRO FI-1321] *Heteronychus arator* [Coleoptera: Scarabaeidae]. 4 May 1999. Australia: Western Australia.
- 8850 [CSIRO FI-1323] *Lepidiota consobrina* [Coleoptera: Scarabaeidae]. 6 May 1999. Australia: Mackay, Queensland.
- 8858 [ERL 230] BL Parker (AVRDC 0381B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8859 [ERL 231] BL Parker (AVRDC 0383B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8860 [ERL 234] BL Parker (AVRDC 0390B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8861 [ERL 235] BL Parker (AVRDC 0393B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8862 [ERL 236] BL Parker (AVRDC 0399B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8863 [ERL 237] BL Parker (AVRDC 0402B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8864 [ERL 238] BL Parker (AVRDC 0408B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8865 [ERL 239] BL Parker (AVRDC 0410B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8866 [ERL 240] BL Parker (AVRDC 0411B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8867 [ERL 241] BL Parker (AVRDC 0414B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8868 [ERL 337] BL Parker (AVRDC 0382B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8869 [ERL 338] BL Parker (AVRDC 0384B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8870 [ERL 340] BL Parker (AVRDC 0388B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8871 [ERL 342] BL Parker (AVRDC 0392B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8872 [ERL 343] BL Parker (AVRDC 0394B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8873 [ERL 345] BL Parker (AVRDC 0397B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8874 [ERL 347] BL Parker (AVRDC 0404B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8875 [ERL 348] BL Parker (AVRDC 0419B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8876 [ERL 349] BL Parker (AVRDC 0420B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8877 [ERL 350] BL Parker (AVRDC 0423B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8878 [ERL 352] BL Parker (AVRDC 0432B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8879 [ERL 353] BL Parker (AVRDC 0437B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8880 [ERL 354] BL Parker (AVRDC 0439B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8881 [ERL 355] BL Parker (AVRDC 0440B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8882 [ERL 356] BL Parker (AVRDC 0441B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8883 [ERL 357] BL Parker (AVRDC 0442B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8884 [ERL 358] BL Parker (AVRDC 0449B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8885 [ERL 359] BL Parker (AVRDC 0450B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8886 [ERL 360] BL Parker (AVRDC 0451B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8887 [ERL 361] BL Parker (AVRDC 0458B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8893 [CSIRO FI-1244] *Antitrogus parvulus* [Coleoptera: Scarabaeidae]. 2 Sep 1997. Laboratory infection.
- 8894 [ERL 246] BL Parker (AVRDC 0467B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.

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Metarhizium anisopliae sensu lato

- 8955 [ERL 346] BL Parker (AVRDC 0398B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 9217 B Kumashiro. *Blosyrus asellus* [Coleoptera: Curculionidae]. Rec'd 8 Jul 2009. USA: Pearl City, Hawaii.
- 9218 B Kumashiro. *Blosyrus asellus* [Coleoptera: Curculionidae]. Rec'd 8 Jul 2009. USA: sweet potato farm, Waipio, Hawaii.
- 9235 [ERL 276] BL Parker (AVRDC 0561B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 9236 [ERL 328] BL Parker (AVRDC 0076B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 9372 A Morales (#1B). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 5 Nov 2004. USA: Battle Island State Park Golf Course, Fulton, New York.
- 9373 A Morales (#3). Larva, *Amphimallon majale* [Coleoptera: Scarabaeidae]. 2 Nov 2004. USA: Wayne Hills Country Club, Lyons, New York.
- 9374 A Morales (#6). Adult, *Listronotus maculicollis* [Coleoptera: Curculionidae]. 29 Jun 2005. USA: Robert Trent Jones Golf Course at Cornell University, Ithaca, New York.
- 10469 [CSIRO FI-1045] *Dermolepida albohirtum* [Coleoptera: Scarabaeidae]. 5 Mar 1994. Australia: Tully, Queensland. Patented, commercialized strain (Bio-Cane). **RESTRICTED ACCESS:** consult Curator.
- 11850 [ERL 2031] S Gouli and V Gouli (THR-11-21). [Coleoptera: Elateridae]. 2011. USA: Sharon Springs, New York.
- 11945 R Casique and SR Sánchez Peña (2M10). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. Rec'd 20 Feb 2013. Mexico: General Terán, Nuevo León.
- 11946 R Casique and SR Sánchez Peña (FM4). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. Rec'd 20 Feb 2013. Mexico: Tecolutla, Veracruz.
- 11947 R Casique and SR Sánchez Peña (FM6). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. Rec'd 20 Feb 2013. Mexico: Tecolutla, Veracruz.
- 11951 KS Halat and DI Shapiro Ilan. *Cotinis nitida* [Coleoptera: Scarabaeidae]. 24 Oct 2012. USA: pecan orchard, Fort Valley, Georgia.
- 12798 [OKSTATE 80] EJ Rebek and JA Rodriguez-Contreras ← SR Sánchez Peña. Larva, *Phyllophaga* sp. [Coleoptera: Scarabaeidae]. Summer 2014. USA: Lakeside Memorial Golf Course, Stillwater, Oklahoma.
- 13219 MA Ansari (BNL102). Larva, *Agriotes* sp. [Coleoptera: Elateridae]. Rec'd 17 Mar 2016. United Kingdom: Kington, Wales, Hertfordshire, England.
- 13220 MA Ansari (BNL103). *Agriotes* sp. [Coleoptera: Elateridae]. Rec'd 17 Mar 2016. Wales: National Botanical Gardens of Wales, Carmarthenshire.
- 13221 MA Ansari (BNL104). *Agriotes* sp. [Coleoptera: Elateridae]. Rec'd 17 Mar 2016. United Kingdom: Kington, Wales, Hertfordshire, England.
- Metarhizium anisopliae* sensu stricto** (Metschnikoff) Sorokin
[Sordariomycetes: Hypocreales]
Clavicipitaceae. These isolates have been genomically confirmed to belong in this narrowly redefined species (Bischoff et al. 2009)
- 2223 KJ Marschall. *Brontispa longissima* [Coleoptera: Chrysomelidae] from artificial production. Jun 1986. Western Samoa: Vaoala, Apia.
- 2518 [CP 224] *Conoderus* sp. [Coleoptera: Elateridae]. Acc'd 8 Dec 1987. New Zealand.
- 3924 DR Sosa-Gómez (CNPSO-Ma58) ← LJ Oliveira. *Phyllophaga cuyabana* [Coleoptera: Scarabaeidae]. 22 Nov 1990. Brazil: Boa Esperança, Paraná.
- 6546 D Chandler (HRI 36.79). *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Rec'd 13 Jul 2000. United Kingdom.
- 7450 [CSIRO FI-0976] Larva, *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 11 Jun 1992. Australia: Queensland.
- 8500 [CSIRO FI-0522] *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 27 Jun 1989. Australia: Kingaroy, Queensland.
- 8586 [CSIRO FI-0910] *Heteronyx* sp. [Coleoptera: Scarabaeidae]. 23 Jun 1992. Australia: Queensland.
- 8615 [CSIRO FI-0947] Larva, *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 22 Jul 1992. Australia: Laboratory infection S465, 610, Queensland.
- 8616 [CSIRO FI-0948] Larva, *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 22 Jul 1992. Australia: Laboratory infection S465, 610, Queensland.
- 8617 [CSIRO FI-0950] Larva, *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 22 Jul 1992. Australia: Laboratory infection S465, 610, Queensland.
- 8738 [CSIRO FI-1007] *Anomola* sp. [Coleoptera: Scarabaeidae]. 1990. Myanmar: Magwe.
- 10472 C Thamarai Chelvi (1). *Holotrichia serrata* [Coleoptera: Scarabaeidae]. 25 Aug 2009. India: Bannari Amman Sugar Mill area, Sathyamangalam, Tamil Nadu.
- 10475 C Thamarai Chelvi (4). *Holotrichia consanguinea* [Coleoptera: Scarabaeidae]. 6 Apr 2010. India: Timiri village, Vellore Sugar Mill area, Vellore, Tamil Nadu.
- 10476 C Thamarai Chelvi (5). *Holotrichia serrata* [Coleoptera: Scarabaeidae]. 2 Mar 2010. India: Salem Sugar Mill area, Rasipuram, Tamil Nadu.

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Metarhizium anisopliae var. *lepidiotae* *Metarhizium carneum*

- Metarhizium anisopliae* var. *lepidiotae*** Driver, Milner & Trueman [Sordariomycetes: Hypocreales]
Clavicipitaceae. Species remaining here need genomic confirmation before reclassification under the emergent classification of Bischoff et al. (2009), presumably to *M. lepidiotae*.
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- 7453 [ARSEF 7488; CSIRO FI-1042] *Dermolepida albohirtum* [Coleoptera: Scarabaeidae]. 5 Mar 1994. Australia: Tully, Queensland.
- 8732 [CSIRO FI-0147] *Lepidiota consobrina* [Coleoptera: Scarabaeidae]. 29 May 1986. Australia: Mossman, Queensland. CULTURE EX TYPE.
- Metarhizium brunneum*** Petch [Sordariomycetes: Hypocreales]
Clavicipitaceae. Restored from synonymy variously with *M. anisopliae* and *M. album* as part of the genomic classification of Bischoff et al. (2009).
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- 346 [CSIRO FI24] *Aphodius tasmaniae* [Coleoptera: Scarabaeidae]. Acc'd 4 Apr 1980. Australia: Adelaide, South Australia.
- 472 [CSIRO FI55; DAR 29768] J Walker ← A Wescott. [Coleoptera: Scarabaeidae]. Sep 1977. Australia: BCRI, R.D. 66, Rydalmerne, New South Wales.
- 817 GG Soares (17). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 1982. France: Plougastel-Daoulas, Finistere.
- 820 GG Soares (A7) ← M Marchal. 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Jan 1982. France: Angers, Maine-et-Loire.
- 1066 [ARSEF ?397] TJ Poprawski ← S Keller (92). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 29 May 1981. Switzerland: Iselisberg.
- 2107 [CBS 316.51; IMI 014746; NRRL 1944; QM 191] MC Rombach ← KB Raper and LP Rockwood. Larva, *Agriotes* sp. [Coleoptera: Elateridae]. 29 Jun 1933. USA: Forest Grove, Oregon. CULTURE EX TYPE.
- 2210 [ARSEF 2225] MC Rombach (140486-1) ← H Beddu Rewa. [Coleoptera: Curculionidae] on palm tree. 22 Mar 1986. Indonesia: Baritiwurung (Butterfly Valley), nr. Ujungpandang, Sulawesi Selatan, Celebes.
- 2224 MC Rombach (140486). [Coleoptera: Curculionidae]. 14 Apr 1986. Indonesia.
- 3864 LA Lacey (92141). *Popillia japonica* [Coleoptera: Scarabaeidae]. 22 Oct 1992. Portugal: Terceira Island, Azores.
- 4020 T Steenberg (211) ← HP Ravn. *Sitona lineatus* [Coleoptera: Curculionidae]. Jul 1990. Denmark: Silkeborg, Århus.
- 4125 [DAT 2] AC Rath (Fl24). *Aphodius tasmaniae* [Coleoptera: Scarabaeidae]. 2 May 1986. Australia.
- 4131 [DAT 10] AC Rath (F010). *Aphodius tasmaniae* [Coleoptera: Scarabaeidae]. 1983. Australia: Waitpinga, South Australia.

- 4228 [CRI 35-79; DAT 120] AC Rath (F120) ← AT Gillespie. Larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 28 Jan 1988. Australia: Crops Research Inst..
- 5198 RA LeBrun (Bio 1020). *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Rec'd 20 May 1996. Germany.
- 5625 I Vänninen (SF85-56). Larva, *Tribolium castaneum* [Coleoptera: Tenebrionidae] as bait from soil. 10 Aug 1985. Finland: Toholampi, Vaasan Lääni.
- 5626 I Vänninen (SF86-38). Larva, *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. Aug 1986. Finland: Pälkäne, Hämeen Lääni.
- 6120 C López Lastra. Larva, *Diloboderus abderus* [Coleoptera: Scarabaeidae] from soil. Nov 1996. Argentina: Lincoln, Buenos Aires.
- 6392 TL Dubois (VD 5 rep b) ← V D'Amico. Adult, *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. Rec'd 22 Dec 1999. USA: Laboratory colony, USDA Forest Service, Ansonia, Connecticut.
- 6477 I Klingen (HAG.99). Larva, *Phyllopertha horticola* [Coleoptera: Scarabaeidae] in lawn. 18 Sep 1999. Norway: Moss, Østfold.
- 7234 AE Hajek (VD-1) ← V D'Amico. Adult, *Anoplophora glabripennis* [Coleoptera: Cerambycidae] reared from wood collected in Chicago, IL. Rec'd 5 Jan 2004. USA: Laboratory colony, USDA Forest Service, Ansonia, Connecticut.
- 8415 AE Hajek (FS6). Larva, *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. 5 Mar 1999. USA: Quarantine colony, USDA Forest Service, Ansonia, Connecticut.
- 8416 AE Hajek (VD3). Adult, *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. 26 Sep 1999. USA: Quarantine colony, USDA Forest Service, Ansonia, Connecticut.
- 8417 AE Hajek (VD7). Adult, *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. 20 Jul 1999. USA: Quarantine colony, USDA Forest Service, Ansonia, Connecticut.
- 8418 AE Hajek (VD8). Adult, *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. 10 Jul 1999. USA: Quarantine colony, USDA Forest Service, Ansonia, Connecticut.
- 8419 AE Hajek (VD9). Adult, *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. 8 Jul 1999. USA: Quarantine colony, Ansonia, Connecticut.
- Metarhizium carneum*** (Duché & R Heim) A.H.S. Br. & G. Sm.
[Sordariomycetes: Hypocreales]
Clavicipitaceae. Synonyms: *Spicaria carnea* Duché & R Heim; *Paecilomyces carneus* (Duché & R Heim) AHS Br. & G. Sm.
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- 11836 [ERL 2048] S Gouli (THR-11-37) and V Gouli.

Metarhizium carneum
Metarhizium majus

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[Coleoptera: Staphylinidae]. 2011. USA: Sharon Springs, New York.

Metarhizium flavoviride W Gams & Rozsypal
[Sordariomycetes: Hypocreales]
Clavicipitaceae

- 1184 [ARSEF 2024; CBS 700.74; INRA Mf-88] TJ Poprawski ← P Ferron. *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Jan 1974. France: Brittany, Morbihan. Genomically verified (see Bischoff et al. 2009).
- 2024 [ARSEF 1184; INRA Mf-88] CBS (700.74) ← P Ferron. *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Acc'd 23 Oct 1985. France: Brittany, Morbihan. Genomically verified (see Bischoff et al. 2009).
- 2133 [CBS 218.56; IMI 170146] ATCC (32969) ← J Rozsypal. Larvae & pupae, *Ceutorhynchus macula-alba* [Coleoptera: Curculionidae]. 1956. Czech Republic. CULTURE EX TYPE. Never observed to sporulate.
- 4719 [DAT 130] AC Rath (F130). Adult, *Adoryphorus coulonii* [Coleoptera: Scarabaeidae]. 1 Sep 1988. Australia: Campbelltown, Tasmania. Genomically verified (see Bischoff et al. 2009).
- 4720 [DAT 133] AC Rath (F133). Adult, *Adoryphorus coulonii* [Coleoptera: Scarabaeidae]. 1 Sep 1988. Australia: Mt. Morriston, Ross, Tasmania. Not genomically verified by sequence data.
- 8737 [CSIRO FI-1002] *Lachnostenra bidentata* [Coleoptera: Scarabaeidae]. 11 May 1993. Malaysia: Tapah. Not verified by gene sequence data.

Metarhizium frigidum Bischoff & Rehner in Bischoff, SA Rehner & Humber
[Sordariomycetes: Hypocreales]
Clavicipitaceae. See Mycologia 98: 737-745 (2006). Genomically verified by at least 5'-TEF sequence data

- 4124 [DAT 1] AC Rath (F001) ← Reinganum (124). Larva, *Adoryphorus* sp. [Coleoptera: Scarabaeidae]. 10 Jun 1994. Australia: Ballarat, Victoria. CULTURE EX TYPE.

Metarhizium guizhouense QT Chen & HL Guo
[Sordariomycetes: Hypocreales]
Clavicipitaceae. Segregated from the *M. anisopliae* species complex as part of genomic reclassification of Bischoff et al. (2009), and all isolates genomically verified. Synonym: *M. taiti* ZQ Liang & AY Liu. Teleomorph: *Cordyceps taiti* ZQ Liang & AY Liu. Isolates genomically verified by at least 5'-TEF sequence data

- 683 [QEC 433.0] DW Roberts (102381-9). Larva, [Coleoptera: Scarabaeidae] in sugar cane. 23 Oct 1981. PR China: Guangzhou, Kwon Tung.
- 819 GG Soares (21) ← JP Aeschlimann. 5th instar larva, *Sitona discoideus* [Coleoptera: Curculionidae]. 29 Mar 1982. France: Montpellier, Hérault.

977 [GCRI 134-82] RA Hall ← A Vey. *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Acc'd 17 Oct 1983. France.

- 3603 IMI (152222) ← Deshpande. *Mylocerus discolor* [Coleoptera: Curculionidae]. Rec'd 26 Feb 1992. India: Mudigere.

4604 [DAT 473] AC Rath (F473) ← W Theunis (PNG 1). *Papuana woodlarkiana* [Coleoptera: Scarabaeidae]. 22 Jun 1993. Papau New Guinea: Lae, Morobe Province.

11668 Z Demirbag (As1) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. Jan 2011. Turkey: Trabzon City, Trabzon.

11669 Z Demirbag (As2) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. Jan 2011. Turkey: Trabzon City, Trabzon.

Metarhizium lepidiotae (Driver & Milner) JF Bischoff, SA Rehner & Humber
[Sordariomycetes: Hypocreales]

Clavicipitaceae. Synonym: *M. anisopliae* var. *lepidiotae* Driver et al. (2000; as var. *lepidiotum*). Identifications genomically verified by at least 5'-TEF sequence data.

7411 [CSIRO FI-0151] *Lepidiota consobrina* [Coleoptera: Scarabaeidae]. 17 Jun 1986. Australia: Mossman, Queensland.

7412 [CSIRO FI-0152] *Lepidiota consobrina* [Coleoptera: Scarabaeidae]. 17 Jun 1986. Australia: Mossman, Queensland.

7488 [ARSEF 7453; CSIRO FI-1042] *Dermolepida albohirtum* [Coleoptera: Scarabaeidae]. 5 Mar 1994. Australia: Tully, Queensland. CULTURE EX TYPE used by Driver et al. (2000) to describe *Metarhizium anisopliae* var. *lepidiotae*.

Metarhizium majus (JR Johnston) JF Bischoff, SA Rehner & Humber
[Sordariomycetes: Hypocreales]

Clavicipitaceae. Synonym: *M. anisopliae* var. *majus* (JR Johnston) MC Tulloch. If this taxon is verified to be the anamorphic state of the teleomorph now classified as *Metarhizium brittlebankisoides* (Zuo Y Liu, ZQ Liang, Whalley, YJ Yao & AY Liu) Kepler, SA Rehner & Humber, the latter name would hold nomenclatural priority as the correct name for this fungus. Isolates verified genomically by at least 5'-TEF sequence data.

297 KJ Marschall. Larva, *Xyloryctes jamaicensis* [Coleoptera: Scarabaeidae]. 22 Nov 1978. Western Samoa: Apia.

298 RS Soper. Larva, *Xyloryctes jamaicensis* [Coleoptera: Scarabaeidae]. Acc'd 22 Feb 1979. Western Samoa: Apia.

978 [GCRI 148-82] RA Hall ← A Vey. *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. Acc'd 17 Oct 1983. France.

1858 DW Roberts (Pol-42). [Coleoptera: Scarabaeidae]. Acc'd 19 Mar 1985. Poland.

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Metarhizium majus *Metarhizium pingshaense*

- 1859 DW Roberts (Pol-32). [Coleoptera: Scarabaeidae]. Acc'd 19 Mar 1985. Poland.
- 1914 MC Rombach. Larva, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Apr 1985. Philippines: nr. Tiaong Experimental Station, Quezon. Ex-epitype isolate for this species.
- 1946 MC Rombach (MMQ). *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. Acc'd 11 Sep 1985. Philippines: Tiaong Experimental Station, Quezon.
- 2151 MC Rombach (170386-1). Larva, *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. 17 Mar 1986. Indonesia: Ciamis, Jawa Barat, Java.
- 3145 INRA (Ma-51) ← A Gandard. *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. Jan 1971. France: La Minière.
- 4566 [DAT 514] AC Rath (F514). Larva, *Anoplognathus* sp. [Coleoptera: Scarabaeidae]. 10 Mar 1994. Australia: Leighlands, New England, New South Wales.
- 4601 [DAT 515] AC Rath (F515). Larva, *Anoplognathus* sp. [Coleoptera: Scarabaeidae]. 10 Mar 1994. Australia: Glen Innes, New South Wales.
- 7505 [CSIRO FI-1449] *Anoplognathus* sp. [Coleoptera: Scarabaeidae]. 12 Jun 2001. Australia: Northern Queensland, Queensland.
- 12557 O Nishi (Hn1) and S Shimizu. *Protaetia orientalis submarumoreo* [Coleoptera: Scarabaeidae]. Mar 2010. Japan: Fukuoka Prefecture.

Metarhizium novozealandicum Kepler, SA Rehner & Humber
[Sordariomycetes: Hypocreales]

Clavicipitaceae. Basionym: *Metarhizium flavoviride* var. *novozealandicum* Driver & RJ Milner. Isolates with genomic confirmation of this identification are noted individually.

- 3056 [MAF F11] T Glare. *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd Oct 1990. New Zealand: Canterbury Plains, South Island. Genomically verified by at least 5'-TEF sequence data.

Metarhizium pingshaense QT Chen & HL Guo
[Sordariomycetes: Hypocreales]

Clavicipitaceae. Genomically confirmed in accord with the reclassification of Bischoff et al. (2009).

- 538 DW Roberts. *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. 20 Aug 1980. Thailand.
- 2162 BN Muthappa (PNG 12721). Larva, [Coleoptera: Scarabaeidae]. Rec'd 12 May 1986. Papua New Guinea.
- 2231 K Narayanan (7). *Zygomgramma bicolorata* [Coleoptera: Chrysomelidae]. Rec'd 27 Aug 1986. India.
- 3210 RC Rajak (49). [Coleoptera]. Rec'd 3 Jun 1991. India.
- 3604 IMI (298059). *Scapanes australis* [Coleoptera: Scarabaeidae]. Rec'd 26 Feb 1992. Papua New Guinea.

- 4290 [DAT 493] AC Rath (F493) ← W Theunis (SOL IS 17). Adult, [Coleoptera]. Rec'd 6 Jun 1994. Solomon Islands.
- 4340 [DAT 489] AC Rath (F489) ← W Theunis (SOL IS 14). Pupa, [Coleoptera]. Rec'd 6 Jun 1994. Solomon Islands.
- 4342 [DAT 491] AC Rath (F491) ← W Theunis (SOL IS 15). Larva(L3), [Coleoptera]. Rec'd 6 Jun 1994. Solomon Islands.
- 4557 [DAT 481] AC Rath (F481). Pupa, [Coleoptera]. 22 Jun 1993. Solomon Islands.
- 4610 [DAT 480] AC Rath (F480) ← W Theunis (SOL IS 4). Pupa, [Coleoptera]. 22 Jun 1993. Solomon Islands.
- 5197 M Browning ← RA LeBrun ← CW McCoy (Mada). *Diaprepes abbreviata* [Coleoptera: Curculionidae]. Rec'd 20 May 1996. USA: Florida.
- 7410 [CSIRO FI-0114] *Antitrogus parvulus* [Coleoptera: Scarabaeidae]. 30 Oct 1985. Australia: The Hummock, Bundaberg, Queensland.
- 7417 [CSIRO FI-0295] *Antitrogus mussoni* [Coleoptera: Scarabaeidae]. 13 Oct 1988. Australia: Bundaberg, Queensland.
- 7435 [CSIRO FI-0700] *Costelytra zealandica* [Coleoptera: Scarabaeidae]. 8 Oct 1990. New Zealand: South Island.
- 7452 [CSIRO FI-1041] *Dermolepida albohirtum* [Coleoptera: Scarabaeidae]. 5 Mar 1994. Australia: Tully, Queensland.
- 8420 AE Hajek (WU19). Adult, *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. 25 Jul 2000. PR China: Wuhe, Anhui.
- 8555 [CSIRO FI-0817] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 19 Feb 1991. Australia: Busselton, Western Australia.
- 8566 [CSIRO FI-0875] *Heteronyx rugosipennis* [Coleoptera: Scarabaeidae]. 26 Aug 1991. Australia: Clermont, Queensland.
- 8618 [CSIRO FI-0951] Larva, *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 22 Jul 1992. Australia: Laboratory infection S465, FI-0686, Queensland.
- 8619 [CSIRO FI-0952] Larva, *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 22 Jul 1992. Australia: Laboratory infection S465, FI-0686, Queensland.
- 8621 [CSIRO FI-0954] *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 22 Jul 1992. Australia: Queensland.
- 8739 [CSIRO FI-1008] *Anomola* sp. [Coleoptera: Scarabaeidae]. 1990. Myanmar: Magwe.
- 8740 [CSIRO FI-1009] *Anomola* sp. [Coleoptera: Scarabaeidae]. 1990. Myanmar: Magwe.
- 8741 [CSIRO FI-1010] *Anomola* sp. [Coleoptera: Scarabaeidae]. 1990. Myanmar: Magwe.
- 8742 [CSIRO FI-1011] *Anomola* sp. [Coleoptera: Scarabaeidae]. 1990. Myanmar: Magwe.
- 8743 [CSIRO FI-1012] *Anomola* sp. [Coleoptera: Scarabaeidae]. 1990. Myanmar: Magwe.

- Metarhizium robertsii*** JF Bischoff, SA Rehner & Humber
[Sordariomycetes: Hypocreales]
Clavicipitaceae. Segregated from *M. anisopliae* as part of a genomic reclassification by Bischoff et al. (2009). A complete genomic sequence of ARSEF 8820 (a single-spored reisolate of ARSEF 2575) is being compiled.
- 23 RS Soper (F84-1-1) ← RL Rabb. *Conoderus* sp. [Coleoptera: Elateridae]. 1961. USA: North Carolina.
- 724 [CNPAF 82-2-15-04; CP 25] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. Feb 1982. Brazil: CNPAF, Goiânia, Goiás.
- 797 DA Rodriguez Sierra. Larva, *Ancognatha scarabaeoides* [Coleoptera: Scarabaeidae]. Jun 1981. Colombia: Madrid, Cundinamarca.
- 1046 J Aoki (Met. 6) ← K Yanase. *Popillia japonica* [Coleoptera: Scarabaeidae]. Jul 1977. Japan: Fuchu, Tokyo Prefecture.
- 1298 DW Roberts (MaT3JB-B) or (single spore isolate #9). *Popillia japonica* [Coleoptera: Scarabaeidae]. Feb 1978. USA: Clinton Corners, New York.
- 1878 DW Roberts (MaT3JB-A). *Popillia japonica* [Coleoptera: Scarabaeidae]. 1978. USA: Clinton Corners, New York.
- 1897 DW Roberts (V-14 (F84 mutant)). *Conoderus* sp. [Coleoptera: Elateridae]. Acc'd 11 Jun 1985. USA: California.
- 1910 DW Roberts ← S Keller (Ma52(S4)). *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Acc'd 18 Jun 1985. Germany.
- 1968 DR Smitley. *Strigoderma arboricola* [Coleoptera: Scarabaeidae]. Aug 1985. USA: East Lansing, Michigan.
- 2134 T Searle (E). *Phyllophaga ?anxia* [Coleoptera: Scarabaeidae]. Jul 1985. Canada: Southern Québec.
- 2469 JK Liebherr. Larva, [Coleoptera: Carabidae]. 24 Aug 1987. Mexico: 10.5 km S of Amecameca, Tepetlixpa, Mexico.
- 2514 [CP 236B] SM dos Santos. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Oct 1986. Brazil: CNPAF, Goiânia, Goiás.
- 2547 SV Krueger ← FL Consolie and MG Villani. *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Oct 1987. USA: Syracuse, New York.
- 2575 [ATCC MYA-3093; IMI I91-613] RJ St. Leger (ME-1) ← Tate and Lyle Ltd (Batch No. B1830). *Curculio caryae* [Coleoptera: Curculionidae]. Acc'd 21 Jul 1988. USA: South Carolina. Ex-type culture; a complete genomic sequencing is being obtained for a single-spored reisolate (ARSEF 8820) of this isolate.
- 2981 T Searle (CWMA). Larva, *Listronotus oregonensis* [Coleoptera: Curculionidae]. 1988. Canada: Saint-Jean, Québec.
- 3108 SV Krueger (MaEC1). *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Nov 1989. USA: Syracuse, New York.

- 3211 SV Krueger (MaEC2). *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Nov 1989. USA: Syracuse, New York.
- 3388 I Majchrowicz (3a). *Tribolium castaneum* [Coleoptera: Tenebrionidae] on asparagus. 16 Jul 1991. USA: Orchard Farm, Yakima, Washington.
- 3608 [ARSEF 2575] IMI (I91-613) ← RJ St. Leger (ME-1) ← Tate and Lyle Ltd (Batch No. B1830). *Curculio caryae* [Coleoptera: Curculionidae]. Rec'd 26 Feb 1992. USA.
- 3721 RA LeBrun ← J Hanula. Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 3 Jun 1991. USA: Clinton, Connecticut.
- 4123 [ARSEF 2547] L Marold (ARSEF2547). *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Rec'd 2 May 1994. USA: Syracuse, New York. Replaces ARSEF 2547.
- 5149 DL Hostetter (T100) ← IOB Armas. Larva, *Popillia japonica* [Coleoptera: Scarabaeidae] soil, pasture. 23 Jan 1996. Portugal: Terceira Island, Azores.
- 6472 SR Grugel. *Dectes texanus* [Coleoptera: Cerambycidae]. 3 Nov 1998. USA: Goodland, Kansas.
- 7424 [CSIRO FI-0358] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 8 Feb 1989. Australia: Busselton, Western Australia.
- 7449 [CSIRO FI-0911] *Heteronyx* sp. [Coleoptera: Scarabaeidae]. 23 Jun 1992. Australia: Queensland.
- 8543 [CSIRO FI-0804] [Coleoptera: Elateridae]. 19 Feb 1991. Australia: Melbourne, Victoria.
- 8544 [CSIRO FI-0805] [Coleoptera: Elateridae]. 19 Feb 1991. Australia: Melbourne, Victoria.
- 8545 [CSIRO FI-0806] [Coleoptera: Elateridae]. 19 Feb 1991. Australia: Melbourne, Victoria.
- 8546 [CSIRO FI-0807] [Coleoptera: Elateridae]. 19 Feb 1991. Australia: Melbourne, Victoria.
- 8547 [CSIRO FI-0808] [Coleoptera: Elateridae]. 19 Feb 1991. Australia: Melbourne, Victoria.
- 8548 [CSIRO FI-0809] [Coleoptera: Elateridae]. 19 Feb 1991. Australia: Melbourne, Victoria.
- 8549 [CSIRO FI-0810] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 19 Feb 1991. Australia: Busselton, Western Australia.
- 8550 [CSIRO FI-0811] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 19 Feb 1991. Australia: Busselton, Western Australia.
- 8551 [CSIRO FI-0812] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 19 Feb 1991. Australia: Busselton, Western Australia.
- 8552 [CSIRO FI-0814] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 19 Feb 1991. Australia: Busselton, Western Australia.
- 8553 [CSIRO FI-0815] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 19 Feb 1991. Australia: Busselton, Western Australia.

Fungal Cultures

Metarhizium robertsii *Paecilomyces canadensis*

- 8554 [CSIRO FI-0816] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 19 Feb 1991. Australia: Busselton, Western Australia.
- 8556 [CSIRO FI-0818] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 19 Feb 1991. Australia: Busselton, Western Australia.
- 8557 [CSIRO FI-0819] Larva, *Heteronychus arator* [Coleoptera: Scarabaeidae]. 19 Feb 1991. Australia: Busselton, Western Australia.
- 8558 [CSIRO FI-820] *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 18 Feb 1991. Australia: Kingaroy, Queensland.
- 8559 [CSIRO FI-0821] *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 18 Feb 1991. Australia: Kingaroy, Queensland.
- 8563 [CSIRO FI-0870] *Heteronyx rugosipennis* [Coleoptera: Scarabaeidae]. 1 Jul 1991. Australia: Clermont, Queensland.
- 8565 [CSIRO FI-0873] *Heteronyx rugosipennis* [Coleoptera: Scarabaeidae]. 26 Aug 1991. Australia: Clermont, Queensland.
- 8567 [CSIRO FI-0877] *Heteronyx rugosipennis* [Coleoptera: Scarabaeidae]. 26 Aug 1991. Australia: Clermont, Queensland.
- 8576 [CSIRO FI-0894] *Heteronychus arator* [Coleoptera: Scarabaeidae]. 11 Apr 1992. Australia: Perth, Western Australia.
- 8577 [CSIRO FI-0872] *Heteronyx rugosipennis* [Coleoptera: Scarabaeidae]. 26 Aug 1991. Australia: Clermont, Queensland.
- 8582 [CSIRO FI-0903] Larva, *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 27 Apr 1992. Australia: Kingaroy, Queensland.
- 8583 [CSIRO FI-0904] Larva, *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 27 Apr 1992. Australia: Kingaroy, Queensland.
- 8592 [CSIRO FI-0920] *Heteronyx piceus* [Coleoptera: Scarabaeidae]. 1 Jul 1992. Australia: Queensland.
- 12797 [OKSTATE 18] EJ Rebek and JA Rodriguez-Contreras ← SR Sánchez Peña. Larva, *Phyllophaga* sp. [Coleoptera: Scarabaeidae]. Summer 2014. USA: Golf Course, Oklahoma State University, Oklahoma City, Oklahoma.
- 12799 [OKSTATE 102] EJ Rebek and JA Rodriguez-Contreras ← SR Sánchez Peña. Larva, *Phyllophaga* sp. [Coleoptera: Scarabaeidae]. Summer 2014. USA: Cimarron Valley Research Station, Oklahoma State University, Stillwater, Oklahoma.

Mixed Culture sp.

The two members in these mixed cultures have not been successfully separated.

- 1043 J Aoki (Paec. 1). *Pyrrhalta fuscipennis* [Coleoptera: Chrysomelidae]. May 1973. Japan: Towada City, Aomori Prefecture. Single Spore Isolation attempted 8vi95. Mixture of PAESP @ VERTSP.

- 4387 LA Lacey (94138). *Holotrichia parallela* [Coleoptera: Scarabaeidae]. 5 May 1994. China: Cangzhou. Paecilomyces fumosoroseus and Beauveria brongniartii.
- 5188 S Gouli (GA-98). [Coleoptera: Lampyridae]. 26 May 1995. USA: Motyka's sugar maple stand, Williamstown, Vermont.
- 11676 Z Demirbag (As9) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. Jan 2011. Turkey: Trabzon City, Trabzon.
- 11718 T Wen (BB-10). Larva, [Coleoptera]. 2011. PR China: Kunming, Yunnan Province.

Mucor circinelloides van Tieghem

[Mucormycotina: Mucorales]

Mucoraceae

- 6470 LS Bauer (2UIC2463). Larva, *Anoplophora glabripennis* [Coleoptera: Cerambycidae] from laboratory colony, USDA Forest Service, NCFS. Rec'd 19 Feb 2000. USA: East Lansing, Michigan.

- Ophiocordyceps aphodii*** (Mathieson) GH Sung, JM Sung, Hywel-Jones & Spatafora
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae. Synonym: *Cordyceps aphodii* Mathieson

- 5498 [ATCC 34178; CBS 150.47] Larva, *Aphodius howitti* [Coleoptera: Scarabaeidae]. Rec'd 5 Jun 1997. Location not specified.

***Paecilomyces* sp.**

[Sordariomycetes: Hypocreales]

These still unidentified species has yet been assigned to a correct genus after the recent gene-based reclassification of species out of *Paecilomyces* Section *Isarioidea*; this original generic identification remains provisional until a more thorough analyses of these isolates are completed.

- 5184 S Gouli (GA-94). [Coleoptera: Curculionidae]. 25 Jun 1995. USA: Motyka's sugar maple stand, Williamstown, Vermont.
- 5193 S Gouli (GA-103). [Coleoptera: Curculionidae]. 23 Jun 1995. USA: R. Angellillo's sugar maple stand, North Field, Vermont.
- 5196 M Browning ← RA LeBrun. Adult, *Galerucella calamariensis* [Coleoptera: Chrysomelidae]. Rec'd 20 May 1996. USA: URI, Kingston, Rhode Island.

Paecilomyces canadensis (Vuillemin) Brown & Smith [Sordariomycetes: Hypocreales]

This species is usually treated as a synonym of *Isaria farinosa* but both this and any ultimate reclassification remain to be determined.

- 984 [FPMI 757] J Aoki (Paec. 6) ← K Katajiri ← T Kushida. *Heptophylla picea* [Coleoptera: Scarabaeidae]. Feb 1972. Japan: Hachioji, Tokyo Prefecture.

Pandora blunckii
Purpureocillium lilacinum

Fungal Cultures

Pandora blunckii (Lakon ex Zimmerman) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 915 S Keller (426). *Athalia rosae* [Coleoptera: Elateridae].
1 Sep 1982. Switzerland.
917 S Keller (425). *Athalia rosae* [Coleoptera: Elateridae].
1 Sep 1982. Switzerland: Zürich.
920 S Keller (430). *Athalia rosae* [Coleoptera: Elateridae].
1 Sep 1982. Switzerland: Zürich.
1715 S Keller (514). *Athalia rosae* [Coleoptera: Elateridae].
3 Oct 1984. Switzerland: Reckenholz, Zurich.
1716 S Keller (515). *Athalia rosae* [Coleoptera: Elateridae].
3 Oct 1984. Switzerland: Reckenholz, Zurich.
1717 S Keller (516). *Athalia rosae* [Coleoptera: Elateridae].
3 Oct 1984. Switzerland: Reckenholz, Zurich.
1718 S Keller (517). *Athalia rosae* [Coleoptera: Elateridae].
3 Oct 1984. Switzerland: Reckenholz, Zurich.

Paraisaria dubia Samson & BL Brady
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae

- 5764 DG Holdom (900118-01). Larva, *Antitrogus rugulosus*
[Coleoptera: Scarabaeidae: Melolonthinae] under
sugar cane, in sandy soil. Sep 1990. Australia: On
the coastal plain south of Brisbane, Rocky Point,
Queensland.

Penicillium sp.

[Eurotiomycetes: Eurotiales]

Trichocomaceae. No species of this genus have been
satisfactorily demonstrated to be a primary pathogen of
insects. Its presence on or in insect cadavers should be
interpreted as necrophytic or accidental.

- 348 *Aphodius tasmaniae* [Coleoptera: Scarabaeidae].
Australia: Adelaide, South Australia.
2950 [CP 278] SP Wraight ← E Dias Quintela. *Chalcodermus bimaculatus* [Coleoptera: Curculionidae]. 23 Jun
1989. Brazil: CNPAF, Goiânia, Goiás.
3036 W Mechaber (weevil#2272). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Vaccinium angustifolium*. 20 May 1990. USA: Carver, Massachussetts.
11681 Z Demirbag (As14) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. 25 Jan 2011.
Turkey: Trabzon City, Trabzon.
11683 Z Demirbag (As16) ← S Kocaçevik. *Amphimallon solstitiale* [Coleoptera: Scarabaeidae]. 25 Jan 2011.
Turkey: Trabzon City, Trabzon.

Pochonia chlamydosporia (Goddard) Zare & W Gams
[Sordariomycetes: Hypocreales]
Clavicipitaceae. Major synonym: *Verticillium chlamydosporium* Goddard

- 3314 M Brownbridge. Larva, [Coleoptera: Scarabaeidae].

Rec'd 19 Mar 1991. USA: Perry's sugar maple stand,
Orange County, Vermont.

Pochonia chlamydosporia var. **chlamydosporia**
[Sordariomycetes: Hypocreales]
Clavicipitaceae. Synonym: *Verticillium chlamydosporium*
Goddard

- 2218 [CNPAF 86-06-05-6; CP 214] DW Roberts ← DMF Capalbo. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 1986. Brazil: CNPAF, Goiânia, Goiás.

Polycephalomyces sp.
[Sordariomycetes: Hypocreales]

- 9496 [SRCAMB VL-1325/1] V Likhovidov. [Coleoptera].
8 Jul 2003. Russian Federation: Vladivostok, Primorsky Krai. Field Collection Number F-619.
9497 [SRCAMB VL-1951] V Likhovidov. [Coleoptera:
Carabidae]. 25 Aug 2005. Belarus: Belavezhskaya Puscha National Park. Field Collection Number F-1106.

Polycephalomyces formosus Kobayasi
[Sordariomycetes: Hypocreales]

- 1424 S Balazy (1431). Larva, *Calosoma* sp. [Coleoptera:
Carabidae] at ground level in deciduous forest. 29 Jul 1981. Poland: Wielkopolski National Park. Received
as *Acremonium terricola* (Miller et al.) W. Gams.

Purpureocillium lilacinum (Thom) Luangsa-ard,
Houbraken, Hywel-Jones & Samson
[Sordariomycetes: Hypocreales]

Synonym: *Paecilomyces lilacinus*. Ophiocordycipitaceae.
This species is the type of a monotypic new genus erected
following the phylogenetic reclassification of *Paecilomyces*
Section *Isarioidea*. WARNING: This species can cause
human mycoses, mainly of the eye, but probably presents
little or no risk if handled with routine sterile microbiological
techniques for transfers or bioassay procedures,
etc. Avoid chronic and/or large-scale exposure to airborne
conidia to minimize any health risks.

- 410 CW McCoy. *Diaprepes abbreviata* [Coleoptera:
Curculionidae]. 20 Jul 1979. USA: Apopka, Florida.
723 [CNPAF 82-1-6-10; CP 17] RA Daoust. *Lagria vilosa*
[Coleoptera: Lagriidae]. 6 Jan 1982. Brazil: CNPAF,
Goiânia, Goiás.
1951 [CENARGEN CG 301; CNPAF 85-05-02; CP 176] R Pereira. *Cerotoma* sp. [Coleoptera: Chrysomelidae].
2 May 1985. Brazil: Campos, Rio de Janeiro.
2952 [CP 273] SP Wraight ← CA da Silva. *Lagria vilosa*
[Coleoptera: Lagriidae]. 8 Nov 1988. Brazil: CNPAF,
Goiânia, Goiás.
5876 FE Vega (EBCL 98005). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. Oct 1997. Benin:
Niaouli.
5877 FE Vega (EBCL 98008). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. Oct 1997. Benin:
Niaouli.

Fungal Cultures

Purpureocillium lilacinum *Stilbella buquetii*

- 5880 FE Vega (EBCL 98015). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. Oct 1997. Benin: Niaouli.
- 5882 FE Vega (EBCL 98022). Adult, *Hypothenemus hampei* [Coleoptera: Scolytidae]. Oct 1997. Benin: Niaouli.
- 6110 BL Parker (SPT-2-279). Adult, [Coleoptera: Scarabaeidae]. 24 Jan 1999. Syria: Al Kseabiia.
- 6188 FE Vega (EBCL 99024). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Dec 1998. Benin: Site 3, Niaouli.
- 6190 FE Vega (EBCL 99027). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Dec 1998. Benin: Site 2, Niaouli.
- 8918 [ERL 196] BL Parker (AVRDC 0058B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8919 [ERL 213] BL Parker (AVRDC 0286B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8920 [ERL 267] BL Parker (AVRDC 0527B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8921 [ERL 268] BL Parker (AVRDC 0529B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 8922 [ERL 280] BL Parker (AVRDC 0587B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 9371 A Morales (#1A). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 5 Nov 2004. USA: Battle Island State Park Golf Course, Fulton, New York.
- 9524 [SRCAMB VL-2059] V Likhovidov. Larva, [Coleoptera: Elateridae] Isolated from *Cordyceps* sp. Aug 2005. Belarus: Belavezhskaya Puscha National Park. Field Collection Number F-882.

Scopulariopsis sp.

[Sordariomycetes: Microascales]

- 2169 BN Muthappa (PNG 12725). [Coleoptera: Curculionidae]. Rec'd 12 May 1986. Papua New Guinea.
- 2327 TJ Poprawski (8651). Nymph, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 6 Nov 1986. France: Cognac, Charente.
- 8421 AE Hajek (WU6). *Anoplophora glabripennis* [Coleoptera: Cerambycidae]. Jul 2000. PR China: Wuhe, Anhui.
- 11652 [ERL 264] BL Parker (AVRDC 0518B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.

- Simplicillium lamellicola*** (FEV Smith) Zare & W Gams
[Sordariomycetes: Hypocreales]
Cordycitaceae. Major synonym: *Verticillium lamellicola* (F.E.V. Smith) W Gams

- 9479 [SRCAMB VL-1786] V Likhovidov. *Carabus* sp. [Coleoptera: Carabidae]. 29 Aug 2005. Ukraine: Autonomous Republic of Crimea. Field Collection Number F-738.

- Sorosporella uvella*** (Krassiltschik) Giard
[Sordariomycetes: Hypocreales]

Sorosporella is the chlamydosporic state of fungi whose conidial states are classified as *Syngliocladium* species. Clumps of chlamydospores germinate and produce fasciculate synnemata bearing clusters of *Syngliocladium* phialides.

- 1123 PP Sikorowski ← J Kuhre. 4th instar larva, *Curculio caryae* [Coleoptera: Curculionidae] pecan tree. 14 Dec 1983. USA: West Helena, Arkansas.

Sporothrix sp.

[Sordariomycetes: Ophiostomatales]
Ophiostomataceae

- 13426 *Chrysobothris chryseola* [Coleoptera: Buprestidae]. 8 Jan 2017. USA: Pete Spyke's Grove 1330 Okeechobee Road, Fort Pierce, Florida. 27.39128, -80.46181.

- Sporothrix insectorum*** de Hoog & HC Evans
[Sordariomycetes: Ophiostomatales]
Ophiostomataceae

- 9502 [SRCAMB VL-2052] V Likhovidov. Adult, *Carabus* sp. [Coleoptera: Carabidae]. 1993. Russian Federation: Kunashir Island, Sakhalin Region. Field Collection Number F-890.

Sterile mycelium

- 3038 W Mechaber (weevil#2482). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Vaccinium macrocarpon*. 8 Jun 1990. USA: Wareham, Massachusetts.
- 4009 T Steenberg (135) ← A Kirkeby-Thomse. Pupa, [Coleoptera: Cerambycidae] on spruce. Sep 1988. Denmark: Grib Skov, Zealand.
- 4243 [DAT 26] AC Rath (F26). *Adoryphorus coulonii* [Coleoptera: Scarabaeidae]. 1986. Australia: Newtown, Tasmania.

- Stilbella buquetii*** (Montagne & Robin) Samson & HC Evans
[Sordariomycetes: Hypocreales]

- 2915 CBS (511.88). *Artipes* sp. [Coleoptera: Curculionidae]. 1988. USA: Florida.

Synnematium jonesii Speare
[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

- 5664 [ATCC 44767; IMI 205309] *Promecotheca papuana* [Coleoptera: Hispinae]. Rec'd 10 Feb 1998. Papua New Guinea.

Tilachlidium sp.
[Hyphomycetes]

- 2415 M Shimazu (F-545). [Coleoptera: Elateridae]. 14 Jul 1986. Japan: Hachioji, Tokyo Prefecture.
10132 [ERL 1790] S Gouli and W Reid (BS-2010-1). [Coleoptera: Chrysomelidae]. 2010. USA: Florida.

Tolypocladium cylindrosporum W Gams
[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

- 7456 GM Duke and MS Goettel (LRC 172). [Coleoptera: Elateridae]. 12 May 2003. Canada: Agassiz, British Columbia.
7812 [SRCAMB VL-389] V Likhovidov. Larva, [Coleoptera: Elateridae] Isolated from stroma. 8 Aug 2001. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-268.

Tolypocladium inflatum W Gams
[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae. Major synonym: *Tolypocladium niveum* (Rostrup) Bissett. Teleomorph: *Elaphocordyceps subsessilis* (Pitch) GH Sung, JM Sung, Hywel-Jones & Spatafora

- 4877 KT Hodge (kth30A). [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
4878 KT Hodge (kth30B). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
4879 KT Hodge (kth30C). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
4880 KT Hodge (kth30D). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.

- 4881 KT Hodge (kth30E). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485. .
4882 KT Hodge (kth30F). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
4883 KT Hodge (kth30G). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485. .
4884 [ATCC 200994; CBS 305.95; CCFC 006988; UAMH 8723] KT Hodge (kth30H). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485 .
4885 KT Hodge (kth30I). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
4886 KT Hodge (kth30J). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
4887 KT Hodge (kth30K). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
4888 KT Hodge (kth30L). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
4889 KT Hodge (kth30M). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.

Fungal Cultures

Tolyocladium inflatum *Verticillium lecanii*

- 4890 KT Hodge (kth30N). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4891 KT Hodge (kth30O). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4892 KT Hodge (kth30P). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4893 KT Hodge (kth30Q). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4894 KT Hodge (kth30R). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4895 KT Hodge (kth30S). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4896 KT Hodge (kth30T). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4897 KT Hodge (kth30U). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4898 KT Hodge (kth30V). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.

Verticillium sp.

[Sordariomycetes: Hypocreales]

These species are being reclassified to the appropriate genus and species as they are being re-examined after the phylogenetically based reclassification of *Verticillium* Section *Prostrata*.

- 6484 BL Parker (SPT-KZ-412). Adult, [Coleoptera: Dermestidae] overwintering in soil. 3 Feb 2000. Kazakhstan: GPS Coordinates N 43°08.534' E 076°36.541'. **RESTRICTED ACCESS:**

contact Curator

- 6486 BL Parker (SPT-KR-415/2). Adult, [Coleoptera: Scarabaeidae] overwintering in soil. 11 Feb 2000. Kyrgyz Republic: GPS Coordinates N 43°40.597' E 075°02.855'. **RESTRICTED ACCESS:**

contact Curator

- 6501 BL Parker (SPT-KZ-458). Adult, [Coleoptera: Carabidae] overwintering in soil. 6 Feb 2000. Kazakhstan: GPS Coordinates N 43°08.530' E 076°36.526'. **RESTRICTED ACCESS:**

contact Curator

Verticillium insectorum (Petch) W Gams [Sordariomycetes: Hypocreales]

- 3715 RA LeBrun ← J Hanula (C-1). Adult, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Summer 1991. Location not specified.

Verticillium lecanii (Zimmerman) Viégas [Sordariomycetes: Hypocreales]

Cordycipitaceae. A species complex now reclassified in *Lecanicillium* and distributed among three species. Isolates remaining here are being transferred to the appropriate species as they are re-examined.

- 4022 T Steenberg (216) ← A Kirkeby-Thomse. *Agelastica alni* [Coleoptera: Chrysomelidae] on *Alnus* spp. Aug 1990. Denmark.

- 4047 T Steenberg (295). *Aphodius fimetarius* [Coleoptera: Scarabaeidae]. Mar 1992. Denmark: Copenhagen, Tåstrup, Zealand.

- 4048 T Steenberg (297). Larva, [Coleoptera: Cantharidae]. Mar 1992. Denmark: Copenhagen, Tåstrup, Zealand.

- 5849 T Steenberg (SSL 82). Larva, *Alphitobius diaperinus* [Coleoptera: Tenebrionidae]. Rec'd 26 Aug 1998. Originally isolated from *Myzus persicae* [Homoptera: Aphididae].

- 5856 T Steenberg (SSL 607). Adult, *Carcinops pumilio* [Coleoptera: Histeridae]. Feb 1997. Denmark: Broiler house, Kværs, Jutland.

- 6487 BL Parker (SPT-KZ-417). Adult, [Coleoptera: Tenebrionidae] overwintering in soil. 6 Feb 2000. Kazakhstan: GPS Coordinates N 43°08.530' E 076°36.526'. **RESTRICTED ACCESS:**

contact Curator

6545 D Chandler (HRI 33.79). *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Rec'd 13 Jul 2000. United Kingdom.

Zoophthora sp.

[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae.

2623 FX Susilo (HM15). *Hypera postica* [Coleoptera: Curculionidae]. May 1988. USA: Spindletop Farm, Henry County, Kentucky.

Zoophthora anglica (Petch) Ben-Ze'ev & RG Kenneth
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

396 [ARSEF ?1377] S Keller (48). *Agriotes sputator* [Coleoptera: Elateridae]. 4 May 1977. Switzerland.

918 S Keller (470). *Agriotes sputator* [Coleoptera: Elateridae]. 6 May 1983. Switzerland.

1739 N Wilding (85). *Trechus quadristriatus* [Coleoptera: Carabidae]. 5 Sep 1978. United Kingdom: Rothamsted Experimental Station, Hertfordshire, England.

2505 J Eilenberg (KVL 12). *Agriotes sputator* [Coleoptera: Elateridae]. 2 Jun 1986. Denmark: Brogaard, Fårevejle, Vestsjælland.

Zoophthora phytonomi (Arthur) Humber, Ben-Ze'ev
& RG Kenneth in Humber & Ben-Ze'ev
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

82 [ARSEF 113; ATCC 34292; FPMI 951] RG Kenneth (3085) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae] on alfalfa. Apr 1976. Israel: Sedé Eliyahu.

113 [ARSEF 82 (lost); ATCC 34292; FPMI 951] RG Kenneth (3085) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae] on alfalfa. Apr 1976. Israel: Sedé Eliyahu.

191 RG Kenneth (3095) or (E.p. 2) ← I Ben-Ze'ev. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Apr 1976. Israel: Sedé Eliyahu.

192 RG Kenneth (3133) ← I Ben-Ze'ev. Larva, *Hypera variabilis* [Coleoptera: Curculionidae] on alfalfa. 2 Mar 1977. Israel: Sedé Eliyahu.

202 [RG Kenneth 3178] AA Muka ← JP Kramer. *Hypera punctata* [Coleoptera: Curculionidae]. Jul 1977. USA: Ithaca, New York.

544 PD Van Buskirk. *Hypera postica* [Coleoptera: Curculionidae]. 25 Jun 1979. USA: Preston County, West Virginia.

545 GL Nordin. *Hypera postica* [Coleoptera: Curculionidae]. Location not specified.

546 GL Nordin. *Hypera punctata* [Coleoptera: Curculionidae]. Location not specified.

2188 RJ Dysart. Larva, *Hypera punctata* [Coleoptera: Curculionidae]. 29 Apr 1986. USA: Farmington, Delaware.

3342 S Roberts. *Hypera postica* [Coleoptera: Curculionidae]. Spring 1991. USA: Eddyville, Illinois.

3343 S Roberts. *Hypera postica* [Coleoptera: Curculionidae]. Spring 1991. USA: LaSalle County, Illinois.

3344 S Roberts. *Hypera postica* [Coleoptera: Curculionidae]. Spring 1991. USA: Albion, Illinois.

Host by Fungus

Unidentified / Hyphomycetes *Beauveria bassiana*

Unidentified / Hyphomycetes

- [Coleoptera]
Unknown species 8641
- [Coleoptera: Buprestidae]
Agrilus planipennis 8155 8179 8183
8184
- [Coleoptera: Coccinellidae]
Unknown species 5677
- [Coleoptera: Curculionidae]
Unknown species 2225 5695
Anthonomus musculus 3033
Conotrachelus nenuphar 8264
- [Coleoptera: Scarabaeidae]
Cochliotis melolonthoides 11666
Popillia japonica 5223 5224 5225 5226
5227
Rhizotrogus majalis 2999

Unidentified sp.

- [Coleoptera]
Unknown species 1634 1667
- [Coleoptera: Cantharidae]
Rhagonycha lignosa 1429
- [Coleoptera: Chrysomelidae]
Leptinotarsa decemlineata 3724
Oulema melanopus 3980
Phyllotreta nigripes 4037
- [Coleoptera: Coccinellidae]
Hippodamia convergens 3821
- [Coleoptera: Curculionidae]
Anthonomus musculus 3034
Aracanthus 3478
Hypera postica 1437
Phytonomus punctatus 1430
Sternechus subsignatus 3471
- [Coleoptera: Scarabaeidae]
Aphodius tasmaniae 4140
Popillia japonica 3714 3719 3722 3841

Acremonium alternatum

- [Coleoptera: Scolytidae]
Hypothenemus hampei 7282

Acremonium furcatum

- [Coleoptera: Curculionidae]
Hypera postica 1372

Aphanocladium album

- [Coleoptera: Curculionidae]
Hypera postica 1329

Aspergillus sp.

- [Coleoptera: Chrysomelidae]
Leptinotarsa decemlineata 6571
- [Coleoptera: Curculionidae]
Anthonomus grandis 7048

Aspergillus flavus

- [Coleoptera: Cerambycidae]
Anoplophora glabripennis 6469
- [Coleoptera: Scarabaeidae]
Pachnoda interrupta 6454
- [Coleoptera: Tenebrionidae]
Tenebrio molitor 9381

Aspergillus nidulans(?)

- [Coleoptera: Curculionidae]
Diaprepes abbreviata 6515

Aspergillus parasiticus

- [Coleoptera: Curculionidae]
Unknown species 2173

Batkoia sp.

- [Coleoptera: Cantharidae]
Unknown species 5810

Beauveria sp.

- [Coleoptera]
Unknown species 5697 5831 7595

- [Coleoptera: Buprestidae]

- Agrilus planipennis* 8110 8111 8112
8113 8116 8117 8119 8120 8121
8122 8123 8124 8125 8126 8127
8128 8129 8130 8132 8133 8134
8135 8136 8137 8138 8139 8140
8141 8143 8144 8145 8146 8147
8148 8149 8150 8151 8152 8153
8154 8156 8158 8159 8160 8161
8164 8166 8167 8168 8169 8170
8171 8172 8173 8174 8175 8176
8177 8178 8180 8181 8182 8185
8186 8187 8188

- [Coleoptera: Carabidae]

- Unknown species 13370

- [Coleoptera: Chrysomelidae]

- Basilepta fulvicornis* 8250
Pachybrachis pallicornis 547

- [Coleoptera: Coccinellidae]

- Unknown species 4853 5833 7591
Coccinella septempunctata 4027

- [Coleoptera: Curculionidae]

- Unknown species 7463
Anthonomus grandis 1835
Hypera postica 1327
Rhynchophorus palmarum 13661
Shirahoshizo insidiosus 1681

- [Coleoptera: Elateridae]

- Unknown species 7580

- [Coleoptera: Lampyridae]

- Unknown species 5186

- [Coleoptera: Scarabaeidae]

- Anomala cuprea* 1682
Phyllophaga 12793 12794 12795
Popillia japonica 4390 4391 4392
Xyloryctes jamaicensis 2412

- [Coleoptera: Scolytidae]

- Dendroctonus micans* 9272
Hypothenemus hampei 13377 13378
13379 13380 13381 13382 13383
13384 13385 13386 13387 13388
13389 13390 13391 13392 13393
13394 13395 13397 13398 13399
13407 13408 13409 13410 13411
13412 13413 13414 13415 13416
13417 13418 13419 13420 13421
13422 13423 13424 13595

- Tomicus pimpla* 4909 4910 4911
4912 4913 4914 4915 4916 4917
4918

Beauveria amorpha

- [Coleoptera: Cerambycidae]
Psacothea hilaris 1680

- [Coleoptera: Curculionidae]
Premnotrypes suturicallus 1969

- [Coleoptera: Scarabaeidae]
Adoryphorus coulonii 4149

- Anomala costata* 1676

- Popillia japonica* 4990

Beauveria amorpha(?)

- [Coleoptera: Cerambycidae]
Anoplophora glabripennis 6827

Beauveria asiatica

- [Coleoptera: Scarabaeidae]
Holotrichia parallela 4384 4474

Beauveria bassiana

- [Coleoptera]
Unknown species 293 301 350 754 1980
3197 3198 3199 4382 5979 6559
6560 6692 6693 6695 6696 6697
7164 7470 7972 9444 10347

- [Coleoptera: Anthribidae]
Araecerus fasciculatus 413

- [Coleoptera: Bruchidae]
Caryedon serratus 1186

- [Coleoptera: Buprestidae]
Unknown species 6499

- Agrilus planipennis* 8771 8772 8773
8774 10393 10394 10395 10396

- 10397 10398 10399 10400 10401
10402 10403 10404 10405 10406

- 10407 10408 10409 10410 10411
10412 10413 10414 10415 10416

- 10417 10418 10419 10420 10421
10422 10423 10424 10425 10426

- 10427 10428 10429 10430 10431
10432 10433 10434 10435 10436

- 10437 10438 10439 10440 10441
10442 10443 10444 10445 10446

- 10447 10448 10449 10450 10451
10452 10453 10454 10455 10456

- 10457 10458 10459 10460 10461
10462 10463 10464 10465 10466

- 10467 10468

- [Coleoptera: Carabidae]

- Unknown species 952 1975 3386 6059
6099 6689 7241 7270 7581

- Amara familiaris* 4034

- Amara plebeja* 4031

- Bembidion lampros* 4032

- [Coleoptera: Cerambycidae]
Unknown species 318 319 785 5072
6721 7251 7261 7266 7275 9442

- Anoplophora glabripennis* 6387 6390
6391 6393 7152 7153 7154 7155

- 7156 7157 7158 7159 7166 7167

- 7168 7169 7170 7171 7172 7173

- 7174 7175 7176 7177 7178 7179

- 8412 8413 8414

- Aromia moschata* 1559 1560 1561 1562
1563

- Dectes texanus* 6471

- Enaphalodes rufulus* 7404

- Moechotypa diphysis* 1678

<i>Monochamus alternatus</i> 1679	<i>Cyclonedda sanguinea</i> 2010 8372 8462	[Coleoptera: Curculionidae: Scolytinae]
<i>Monochamus scutellatus</i> 7162 7163	8463	<i>Xylosandrus compactus</i> 12620
<i>Ortholeptura valida</i> 5997	<i>Hippodamia convergens</i> 4973 4974	[Coleoptera: Elateridae]
<i>Plectrodera scalarata</i> 7160 7161 7165	4975	Unknown species 150 784 804 5670
<i>Psacothea hilaris</i> 1041	[Coleoptera: Cucujidae: Silvaninae]	[Coleoptera: Lagriidae]
<i>Tetropium fuscum</i> 11660	<i>Ahasverus advena</i> 5857	<i>Lagria vilosa</i> 2961
[Coleoptera: Chrysomelidae]	[Coleoptera: Curculionidae]	[Coleoptera: Lampyridae]
Unknown species 504 1451 1971 7244	Unknown species 930 1061 2040 3667	<i>Cratomorphus diaphanus</i> 8464
7247 7271 7272 8835 8836 10350	4052 6216 6217 7202 7466 7471	[Coleoptera: Languriidae]
11844	7769 7978 8520 8521 8522 8523	Unknown species 3457
<i>Cerotoma</i> 951 1458 1467	8524 8525 8526 8530 8705	[Coleoptera: Nitidulidae]
<i>Cerotoma arcuata</i> 731 732 756 931 934	<i>Anthonomus grandis</i> 1966 2559 2638	Unknown species 325
2075	2639 2945 2946 3097 7795	[Coleoptera: Pythidae]
<i>Crimissa</i> 786 788 805	<i>Anthonomus musculus</i> 3037	<i>Pytho</i> 1854
<i>Crimissa cruralis</i> 4001	<i>Apion</i> 4023	[Coleoptera: Rhizophagidae]
<i>Diabrotica</i> 721 946 947 948 949 950	<i>Aracanthus</i> 753	<i>Rhizophagus grandis</i> 1848
956 982 2512 2938 2942 3219 3287	<i>Ceutorhynchus litura</i> 3403	[Coleoptera: Scarabaeidae]
<i>Diabrotica balteata</i> 3309	<i>Chalcodermus</i> 941 942 943 953	Unknown species 6058 6686 7264
<i>Diabrotica barberi</i> 2579	<i>Chalcodermus aeneus</i> 336 337 733 734	<i>Adoryphorus coulonii</i> 4135 4136 4642
<i>Diabrotica paranaensis</i> 739 752 758	735 736 738	<i>Ancognatha scarabaeoides</i> 2249 2250
809 937 938	<i>Conotrachelus nenuphar</i> 1016 8260	<i>Anomala cuprea</i> 1683
<i>Diabrotica speciosa</i> 928 958 1060 1453	8261 8262 8263	<i>Anoplognathus</i> 8763
1454 1455 1456 1459 1460 1461	<i>Cosmopolites</i> 1833	<i>Aphodius tasmaniae</i> 8079
1462 1463 1464 1465 1466 1469	<i>Cosmopolites sordidus</i> 1483 4798 4799	<i>Pachnoda interrupta</i> 6669 6676 6681
1470 1471 1472 1473 1475 1476	<i>Curculio caryae</i> 2676	<i>Phyllophaga</i> 5740 5741 5742 5743 5744
1954 1961 2511 2515 2520 2625	<i>Cyrtepistomus castaneus</i> 2270	5745
2626 8373	<i>Diaprepes abbreviata</i> 412 416 433	<i>Popillia japonica</i> 3716 3717 5148 5150
<i>Diabrotica undecimpunctata</i> 201	<i>Geraeus senilis</i> 3310 3311	<i>Rhopaea magnicornis</i> 4130 7813 8853
<i>Diabrotica virgifera</i> 2330 3111	<i>Heilipodus erythropus</i> 8461	8854
<i>Diabrotica virgifera virgifera</i> 9297	<i>Hypera postica</i> 1389 1398 1399 1515	<i>Sericesthis nigrolineata</i> 7853
9298 9299 9300 9301 9302	2199 2200 4038 4049	[Coleoptera: Scolytidae]
<i>Galerucella</i> sp. 5465	<i>Listronotus oregonensis</i> 2983 2984	Unknown species 1566 3040
<i>Galerucina</i> 2463	2985 2986	<i>Dendroctonus ponderosae</i> 1849 1853
<i>Leptinotarsa decemlineata</i> 33 149 252	<i>Metamasius</i> 842	<i>Dryocoetes confusus</i> 1852 9184
317 340 344 353 384 505 506 507	<i>Metamasius callizona</i> 5986	<i>Hypothenemus hampei</i> 1480 2685 2686
508 509 510 534 535 1039 1079	<i>Metamasius hemipterus</i> 2642	2687 2688 2689 2690 2691 2692
1081 1106 1619 1620 1621 1622	<i>Oryzophagus oryzae</i> 3098	2693 3440 3443 3445 3448 3453
1623 1624 1704 1705 1706 1707	<i>Otiorhynchus ligustici</i> 6884 6885	3818 3819 5436 5437 5438 5439
1708 1709 1710 1711 1712 1713	<i>Otiorhynchus sulcatus</i> 815 1073 1074	5440 5441 5442 5443 5444 5445
1721 1722 1723 1749 1750 1775	1075 6552 7763 8078	5446 5447 5448 5449 5450 5451
1776 1777 1778 1779 1780 1781	<i>Phlyctinus callosus</i> 8756 8757	5452 5453 5454 5455 5456 5457
1982 2030 2031 2032 2695 2987	<i>Premnotrypes latithorax</i> 5983 5984	5458 5459 5460 5477 5478 5479
2988 2989 2990 2991 5286 5533	<i>Premnotrypes vorax</i> 2248	5480 5481 5482 5483 5484 5485
5534 5535 5536 5537 5807 5813	<i>Rhynchites aequatus</i> 8037	5486 5487 5488 5489 5490 6526
6986 6987 6988 8998 9441	<i>Rhynchites baccus</i> 8668	6527 6528 6529 6530 6531 6532
<i>Lilioceris lilii</i> 5195	<i>Rhynchophorus ferrugineus</i> 6903	7758 10471 12573 12574 12575
<i>Macrolaspis monrosi</i> 2509	<i>Rhynchophorus palmarum</i> 13506	12576 12577 12578 12579 12580
<i>Notonata</i> 3437 3438 3439 3441 3442	<i>Sitona</i> 1647 8077	12581 12582 12583 12584 12585
3444 3446 3447 3450 3451 3452	<i>Sitona discoideus</i> 816 1153 1154 1155	12586 12587 12588 12589 12590
3455	1163 1164 1171 1172 1173 1174	12591 12592 12593 12594 12595
<i>Odontota dorsalis</i> 5553	1175 1176 1177 1178 1179 1180	12596 12597 12598 12599 12600
<i>Pyrrhalta luteola</i> 1509 1510 1511 1518	1181 1183 1185 1188 1189 1190	12601 12602 12603 12604 12605
1519	1191 1309 1311 1312 1313 1811	12606 12607 12608 12609 12610
<i>Pyrrhalta viburni</i> 9449	1815 1816 1817 1818 1819 1820	12611 12612 12613 12614 12615
<i>Systema</i> 2079	1821	12616 12617 12618 12619 12805
<i>Xanthogaleruca luteola</i> 5501	<i>Sitona humeralis</i> 1491	12806 12807 12808 12809 12810
[Coleoptera: Chrysomelidae: Hispinae]	<i>Sitona lineatus</i> 1156 1157 1158 1159	12811 12812 12813 12814 12815
Unknown species 8494	1160 1161 1162 1165 1167 1168	12816 12821 12891 12892 12893
[Coleoptera: Coccinellidae]	1169 1170 1182 1192 1193 1194	12894 13402 13403 13404 13405
Unknown species 6055 6061 6062 6063	1306 4013 4015 4016 4019 4021	13515 13516 13517 13518 13519
6074 6075 6092 6095 6111 6112	4041	13520 13521 13522 13523 13524
11878	<i>Sitophilus</i> 7764 7773 7774	13525 13526 13527 13528 13529
<i>Coccinella</i> 2033 2034	<i>Sternechus subsignatus</i> 1450	13530 13531 13532 13533 13534
<i>Coccinella septempunctata</i> 2580 3534	[Coleoptera: Curculionidae: Apioninae]	13535 13536 13541 13542 13543
4018	<i>Cylas formicarius elegantulus</i> 5981	13544 13545 13546 13547 13548
<i>Coleomegilla maculata</i> 1956	5982	13549 13550 13551 13552 13553

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13554 13555 13556 13557 13558	[Coleoptera: Chrysomelidae]
13559 13560 13561 13562 13563	Unknown species 751
13564 13565 13566 13567 13568	
13569 13572 13573 13574 13575	
13576 13577 13578 13579 13580	
13581 13582 13583 13584 13585	
13586 13587 13588 13589 13590	
13591 13592 13593 13594 13596	
13597 13598	
<i>Ips stenographus</i> 6900	
<i>Ips typographus</i> 7525 7526 12957 12958	
12960 12961 12962 12964 12965	
12966 12967 12968 12970 12971	
12973 12974 12975 12977 12978	
12979 12980	
<i>Tomicus minor</i> 4980 5071	
[Coleoptera: Staphylinidae]	
Unknown species 3112 4055	
<i>Anotylus rugosus</i> 4051 4056	
<i>Anotylus</i> sp. 4046	
<i>Gyrohypnus angustatus</i> 4054	
<i>Tachyporus</i> sp. 4028	
[Coleoptera: Tenebrionidae]	
Unknown species 757 783 787 6057	
6064 6077 6078 6096 6113 6478	
6483	
<i>Alphitobius diaperinus</i> 5836 5838 5839	
5840 5843 7941	
<i>Pterohelaeus darlingensis</i> 8065	
<i>Tenebrio molitor</i> 5623 8038	
Beauveria bassiana sensu lato	
[Coleoptera: Chrysomelidae]	
<i>Diabrotica virgifera virgifera</i> 14001	
14002	
[Coleoptera: Curculionidae]	
Unknown species 13257	
<i>Hypera postica</i> 12434 12435 12436	
12437 12438 12439 12440 12441	
12442 12443 12444 12445 12446	
12447 12448 12449 12450 12451	
12517 12518 12519 12520 12521	
12522	
[Coleoptera: Scolytidae]	
<i>Hypothenemus hampei</i> 12982 12983	
12984 12985 12986 12987 12988	
12989 12990 12991 12992 12993	
12994 12995 12996 12997 12998	
12999 13000 13001 13002 13003	
13004 13005 13006 13007 13008	
13009 13010 13011 13012 13013	
13014 13015 13016 13017 13018	
13019 13020 13046 13047 13048	
13049 13050 13051 13052 13053	
13054 13055 13056 13057 13058	
13059 13060 13061 13062 13063	
13064 13065 13066 13067 13068	
13069 13070 13071 13072 13073	
13074 13075 13076 13077 13078	
13079 13080 13081 13082 13083	
13084 13085 13086 13087 13089	
13090 13091 13092 13093 13094	
Beauveria bassiana sensu stricto	
[Coleoptera]	
Unknown species 13750 13751	

[Coleoptera: Chrysomelidae]	Beauveria pseudobassiana
Unknown species 751	[Coleoptera]
	Unknown species 5668
	[Coleoptera: Anthicidae]
	<i>Anthicus floralis</i> 157
	[Coleoptera: Cerambycidae]
	Unknown species 2557
	[Coleoptera: Chrysomelidae]
	<i>Paropsis charybdis</i> 3066
	[Coleoptera: Coccinellidae]
	Unknown species 5678
	[Coleoptera: Curculionidae]
	<i>Otiorrhynchus sulcatus</i> 813 814 3065
	<i>Sitona</i> 3063
	[Coleoptera: Scarabaeidae]
	Unknown species 5669
	<i>Adoryphorus coulonii</i> 4274 4721
	<i>Aphodius tasmaniae</i> 3070
	<i>Costelytra zealandica</i> 3055
	[Coleoptera: Scolytidae]
	<i>Ips</i> 1855
	<i>Ips typographus</i> 12959 12976 12981
	<i>Tomicus minor</i> 4933 5070
	[Coleoptera: Scolytidae (Tribe Ipini)]
	Unknown species 6229
	[Coleoptera: Tenebrionidae]
	<i>Tribolium castaneum</i> 5622
Beauveria sunpii	
[Coleoptera: Chrysomelidae]	
Unknown species 7279 7280	
[Coleoptera: Scarabaeidae]	
Unknown species 5689	
<i>Lachnostenus morosa</i> 1685	
Beauveria varroae	
[Coleoptera: Curculionidae]	
<i>Larinus</i> 2694	
Candida sp.	
[Coleoptera: Scolytidae]	
<i>Hypothenemus hampei</i> 5729	
Cladosporium sphaerospermum	
[Coleoptera: Curculionidae]	
<i>Diaprepes abbreviata</i> 6516	
Clonostachys rosea	
[Coleoptera: Scarabaeidae]	
Unknown species 9491	
<i>Amphimallon solstitiale</i> 11678 11682	
11687	
Conidiobolus sp.	
[Coleoptera: Curculionidae]	
<i>Hypera variabilis</i> 80 81	
Conidiobolus coronatus	
[Coleoptera: Curculionidae]	
<i>Ceutorhynchus napi</i> 1572 1573 1574	
1575	
Conidiobolus osmodes	
[Coleoptera: Curculionidae]	
<i>Hypera variabilis</i> 79	

Cordyceps sp.
Lecanicillium longisporum

Host by Fungus

Cordyceps sp.	Harposporium janus	[Coleoptera: Scolytidae] <i>Dendroctonus micans</i> 9269 9270 9275 9276 9277 9278
[Coleoptera: Curculionidae] <i>Sitophilus oryzae</i> 4852	Unknown species 5601	
[Coleoptera: Scarabaeidae] Unknown species 7848		
<i>Popillia japonica</i> 3718		
Cordyceps brongniartii	Hirsutella eleutherorum	[Coleoptera: Silphidae] Unknown species 9511
[Coleoptera: Scarabaeidae] <i>Anomala cuprea</i> 7516 7517	[Coleoptera: Scolytidae] <i>Hypothenemus hampei</i> 13375	[Coleoptera: Staphylinidae] <i>Staphylinus olens</i> 4040
Cordyceps scarabaeicola	Hirsutella fusiformis	[Coleoptera: Tenebrionidae] Unknown species 5699 11827
[Coleoptera: Chrysomelidae] Unknown species 7277 7278	[Coleoptera: Curculionidae] <i>Brachyderes incanus</i> 5474	<i>Alphitobius diaperinus</i> 5858
Engyodontium rectidentatum	Hirsutella thompsonii	<i>Tenebrio molitor</i> 8917
[Coleoptera: Scarabaeidae] Unknown species 7805	[Coleoptera: Carabidae] Unknown species 11819	
Erynia sp.	Isaria sp.	Isaria fumosorosea
[Coleoptera: Cantharidae] Unknown species 2664 5352	[Coleoptera] Unknown species 9519	[Coleoptera] Unknown species 5694 7716 9602
<i>Rhagonycha fulva</i> 2525 2536 2537 2538 2539 2553 2662 2663		[Coleoptera: Buprestidae] <i>Agrilus planipennis</i> 8142
Evlachovaea sp.	Isaria amoenerosea	[Coleoptera: Chrysomelidae] Unknown species 8840
[Coleoptera: Elateridae] <i>Agriotes</i> 7403	[Coleoptera: Lagriidae] <i>Lagria vilosa</i> 741 744 2220 2958 2959 2960 4097	<i>Pyrrhalta luteola</i> 1506
[Coleoptera: Scarabaeidae] <i>Phyllophaga metentriesi</i> 7551	[Coleoptera: Meloidae] Unknown species 4849	<i>Spaethiella</i> 2956
[Coleoptera: Scolytidae] <i>Dendroctonus rufipennis</i> 1017		[Coleoptera: Coccinellidae] <i>Coccinella septempunctata</i> 9521
Evlachovaea kintrischica	Isaria cateniannullata	[Coleoptera: Lagriidae] <i>Lagria vilosa</i> 722 2216 2217 2219 2221
[Coleoptera: Chrysomelidae] <i>Agelastica alni</i> 7218 8058	[Coleoptera: Curculionidae] Unknown species 6241 <i>Brachyderes incanus</i> 6243	[Coleoptera: Scarabaeidae] <i>Popillia japonica</i> 2679
Fusarium sp.	Isaria cateniobliqua	<i>Rhopaea magnicornis</i> 8892
[Coleoptera: Buprestidae] <i>Agrilus planipennis</i> 8131	[Coleoptera] Unknown species 6244	[Coleoptera: Scolytidae] <i>Hypothenemus hampei</i> 6730 7284
[Coleoptera: Chrysomelidae] <i>Lilioceris lilii</i> 4011		[Coleoptera: Tenebrionidae] <i>Alphitobius diaperinus</i> 5844 5845 5846 5847
[Coleoptera: Curculionidae] <i>Anthonomus musculus</i> 3030 3031 3032		<i>Tenebrio molitor</i> 5627
<i>Conotrachelus nenuphar</i> 8266		
<i>Hyllurgus ligniperda</i> 12461		
[Coleoptera: Scarabaeidae] <i>Amphimallon solstitiale</i> 11670 11671 11672 11673 11674 11675 11677 11679 11680 11684	Isaria farinosa	Isaria javanica
[Coleoptera: Scolytidae] <i>Dendroctonus micans</i> 9273 9274	[Coleoptera] Unknown species 2355 2379 9516	[Coleoptera] Unknown species 7119
<i>Hypothenemus hampei</i> 5461 5875 5878 5879 7063	[Coleoptera: Buprestidae] <i>Agrilus planipennis</i> 9944 9945	[Coleoptera: Curculionidae] <i>Litodactylus leucogaster</i> 322
Fusarium commune	[Coleoptera: Carabidae] Unknown species 11831 <i>Agonum dorsale</i> 4029 4044 <i>Bembidion lampros</i> 4043 <i>Hapalus sp.</i> 4045	
[Coleoptera: Curculionidae] <i>Otiorrhynchus ligustici</i> 4825	[Coleoptera: Cerambycidae] Unknown species 5073 5074 5075 5080 7276	Lecanicillium sp.
Fusarium nygamai	<i>Anoplophora glabripennis</i> 8411	[Coleoptera: Elateridae] Unknown species 7635 7636
[Coleoptera: Scolytidae] <i>Hypothenemus hampei</i> 6602	[Coleoptera: Chrysomelidae] Unknown species 6491 <i>Pyrrhalta luteola</i> 1507 1508	[Coleoptera: Silphidae] Unknown species 9459
Fusarium proliferatum	[Coleoptera: Coccinellidae] Unknown species 5754 5834	
[Coleoptera: Curculionidae] <i>Chalcodermus aeneus</i> 2568 2569	[Coleoptera: Curculionidae] Unknown species 11830 <i>Otiorrhynchus sulcatus</i> 2431 2937 <i>Premnotrypes vorax</i> 799 <i>Sitona lineatus</i> 4039	
<i>Conotrachelus nenuphar</i> 8267	[Coleoptera: Lagriidae] <i>Lagria vilosa</i> 1957	
<i>Sitona discoideus</i> 1310	[Coleoptera: Scarabaeidae] Unknown species 6488 6489 <i>Cylcocephala signaticolis</i> 2973	
		Lecanicillium evansii(?)
		[Coleoptera] Unknown species 11805
		Lecanicillium fungicola
		[Coleoptera: Elateridae] Unknown species 9483
		Lecanicillium lecanii
		[Coleoptera: Buprestidae] <i>Agrilus planipennis</i> 8115 [Coleoptera: Cerambycidae] <i>Plectrodera scalator</i> 7181 7182
		[Coleoptera: Chrysomelidae] <i>Pyrrhalta luteola</i> 1505
		Lecanicillium longisporum
		[Coleoptera: Staphylinidae] <i>Tachyporus hypnorum</i> 4050

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Lecanicillium muscarium Metarhizium anisopliae sensu stricto

Lecanicillium muscarium

[Coleoptera: Buprestidae]
Agrylus planipennis 8114 8118 8157
 8163 8165

[Coleoptera: Curculionidae]
 Unknown species 7248
Hypera postica 1328 1401 1402 1403
Pissodes strobi 8048 8049 8050 8051
 8052 8053 8054
Sitona lineatus 4033

[Coleoptera: Melyridae]
Malachius bipustulatus 1335

[Coleoptera: Scolytidae]
Dendroctonus micans 4036 9267 9268
Ips 11803

[Coleoptera: Tenebrionidae]
Tenebrio molitor 8923

Lecanicillium muscarium(?)

[Coleoptera: Buprestidae]
Agrylus planipennis 8162
 [Coleoptera: Curculionidae]
Conotrachelus nenuphar 8265

Lecanicillium nr. aranearum

[Coleoptera: Elateridae]
 Unknown species 11811
 [Coleoptera: Lampyridae]
 Unknown species 9460
 [Coleoptera: Scolytidae]
Ips 11799

Lecanicillium pissodis

[Coleoptera: Curculionidae]
Pissodes strobi 8055 8056 8057

Lecanicillium sp. 2(?)

[Coleoptera]
 Unknown species 2832

Metapochonia bulbillosa(?)

[Coleoptera: Curculionidae]
Anthonomus musculus 3035

Metarhizium sp.

[Coleoptera: Chrysomelidae]
 Unknown species 11849
Agelastica alni 7643
 [Coleoptera: Scarabaeidae]
Amphimallon solstitiale 11685 11686
Dermolepida albohirtum 7493
Phyllophaga 12796
Popillia japonica 3863 3865
Rhopaea magnicornis 7495 8851 8852
 8855 8856 8857
 [Coleoptera: Scolytidae]
Hypothenemus hampei 13088

Metarhizium anisopliae sensu lato

[Coleoptera]
 Unknown species 4333 4334 4335 4336
 4337 4338 4339 4341 4558 4572
 4582
Haphochelus marginalis 3148
 [Coleoptera: Bruchidae]
 Unknown species 726 932 954
 [Coleoptera: Carabidae]
 Unknown species 939 1901

[Coleoptera: Cerambycidae]

Agriancome spinicollis 7498 7499 7500
Anoplophora glabripennis 6388 6389
 7180

[Coleoptera: Chrysomelidae]

Brontispa longissima 1078 8745 8746
 8747
Cerotoma arcuata 760 2076 2077 2635
 2941

Diabrotica 1885 2513

Diabrotica speciosa 1056 1958

[Coleoptera: Coccinellidae]

Coleomegilla maculata 808

[Coleoptera: Curculionidae]

Unknown species 8098 8099
Blosyrus asellus 9217 9218

Chalcodermus aeneus 725 929

Desiantha diversipes 8568 8569

Geraeus senilis 3305 3306 3308

Listronotus maculicollis 9374

Otiorhynchus ligustici 4819 4820 4821

4822 4823 4824

Otiorhynchus sulcatus 818 2432 6549

Rhabdoscelus obscurus 8762 8828 8847

Rhynchosphorus palmarum 2331

Sternechus subsignatus 1452 1989

[Coleoptera: Elateridae]

Unknown species 11850

Agriotes 6551 7494 7524 13219 13220
 13221

Agriotes sputator 1377

Conoderus 1903

Limonius canus 7000 7001 7002 7003

7004 7005 7006 7007 7008 7009

[Coleoptera: Scarabaeidae]

Unknown species 2163 3479 7527 7529

Adoryphorus coulonii 4137 4138 4141
 4142 4239 4346 4677 4716 4722
 7815

Amphimallon majale 9373

Anoplognathus 8764

Anoplognathus hirsutus 4574 4779

Antitrogus consanguineus 8761

Antitrogus mussoni 7842 7865 7931

Antitrogus parvulus 7496 7819 7839

7854 7864 8832 8833 8834 8893

Aphodius tasmaniae 347 4132 4133

4139 7845

Costelytra zealandica 3057

Cotinis nitida 11951

Cyclocephala 8837 8838

Dasygnathus dejeani 8839

Dermolepida albohirtum 7492 8744

8754 8755 10469

Heteronychus arator 7932 7933 7934

7935 7936 8848 8849

Heteronyx 7843 7844

Heteronyx piceus 7451 8620

Heteronyx rugosipennis 8564 8610

Lepidiota consobrina 7827 7828 7846

8830 8831 8845 8850

Lepidiota frenchi 7829 7830 7831 8733

Lepidiota gibbifrons 7824 7825 7826

Lepidiota negatoria 7832

Lepidiota noxia 7504

Lepidiota picticollis 8501

Lepidiota squamulata 7816

Melolontha melolontha 7532

Oryctes 2156 2165 2166 2167

Pachnoda interrupta 6670 6671 6672
 6673 6674 6675 6677 6678 6679
 6680 6682 6683 6684 6685

Papuana 8748

Phyllopertha horticola 6901

Phyllophaga 12798

Phyllophaga ?anxia 2135 2136 2137
 2138 2139

Phyllophaga anxia 8499

Popillia japonica 1280 2548 3329 3330
 3331 3332 3333 3334 3335 3336
 3337 3338 3339 3340 3713 3720
 4907 4908 9372

Rhopaea magnicornis 8492 8765 8766
 8767 8829 8844

Rhopaea verreauxii 8495

Sericesthis micans 4568 4777 4778
Sericesthis nigrolineata 4780 7814
 7863

Sericethis 4134 4236

[Coleoptera: Staphylinidae]

Unknown species 8734

[Coleoptera: Tenebrionidae]

Alphitobius diaperinus 5837 5841 5842
 5848 5850

Tenebrio molitor 8775 8776 8777 8778

8779 8780 8781 8782 8783 8784

8785 8786 8787 8788 8789 8790

8791 8792 8793 8794 8795 8796

8797 8798 8799 8858 8859 8860

8861 8862 8863 8864 8865 8866

8867 8868 8869 8870 8871 8872

8873 8874 8875 8876 8877 8878

8879 8880 8881 8882 8883 8884

8885 8886 8887 8894 8895 8896

8897 8898 8899 8900 8901 8902

8903 8904 8905 8906 8907 8908

8909 8910 8911 8912 8913 8914

8915 8916 8941 8942 8943 8944

8945 8946 8947 8948 8949 8950

8951 8952 8953 8954 8955 9235

9236 11945 11946 11947

Tribolium castaneum 3389 5624

Metarhizium anisopliae sensu stricto

[Coleoptera: Chrysomelidae]

Brontispa longissima 2223

[Coleoptera: Curculionidae]

Otiorhynchus sulcatus 6546

[Coleoptera: Elateridae]

Conoderus 2518

[Coleoptera: Scarabaeidae]

Anomola 8738

Heteronyx 8586

Heteronyx piceus 7450 8500 8615 8616

8617

Holotrichia consanguinea 10475

Holotrichia serrata 10472 10476

Phyllophaga cuyabana 3924

Metarhizium anisopliae var. *lepidiotae*
Polycephalomyces formosus

Host by Fungus

Metarhizium anisopliae var. *lepidiotae*

[Coleoptera: Scarabaeidae]
Dermolepida albohirtum 7453
Lepidiota consobrina 8732

Metarhizium brunneum

[Coleoptera: Cerambycidae]
Anoplophora glabripennis 6392 7234
 8415 8416 8417 8418 8419
 [Coleoptera: Curculionidae]
 Unknown species 2210 2224
Otiorhynchus sulcatus 817 820 4228
 5198
Sitona lineatus 4020
 [Coleoptera: Elateridae]
Agriotes 2107
 [Coleoptera: Scarabaeidae]
 Unknown species 472
Aphodius tasmaniae 346 4125 4131
Diloboderus abderus 6120
Melolontha melolontha 1066
Phyllopertha horticola 6477
Popillia japonica 3864
 [Coleoptera: Tenebrionidae]
Tenebrio molitor 5626
Tribolium castaneum 5625

Metarhizium carneum

[Coleoptera: Staphylinidae]
 Unknown species 11836

Metarhizium flavoviride

[Coleoptera: Curculionidae]
Ceutorhynchus macula-alba 2133
Otiorhynchus sulcatus 1184 2024
 [Coleoptera: Scarabaeidae]
Adoryphorus coulonii 4719 4720
Lachnostenra bidentata 8737

Metarhizium frigidum

[Coleoptera: Scarabaeidae]
Adoryphorus 4124

Metarhizium guizhouense

[Coleoptera: Curculionidae]
Myllocerus discolor 3603
Sitona discoideus 819
 [Coleoptera: Scarabaeidae]
 Unknown species 683
Amphimallon solstitiale 11668 11669
Melolontha melolontha 977
Papuana woodlarkiana 4604

Metarhizium lepidiotae

[Coleoptera: Scarabaeidae]
Dermolepida albohirtum 7488
Lepidiota consobrina 7411 7412

Metarhizium majus

[Coleoptera: Scarabaeidae]
 Unknown species 1858 1859
Anoplognathus 4566 4601 7505
Oryctes 1914
Oryctes rhinoceros 978 1946 2151 3145
Protaetia orientalis *submarumoreana*
 12557
Xyloryctes jamaicensis 297 298

Metarhizium novozealandicum

[Coleoptera: Scarabaeidae]
Costelytra zealandica 3056

Metarhizium pingshaense

[Coleoptera]
 Unknown species 3210 4290 4340 4342
 4557 4610
 [Coleoptera: Cerambycidae]
Anoplophora glabripennis 8420
 [Coleoptera: Chrysomelidae]
Zygogramma bicolorata 2231
 [Coleoptera: Curculionidae]
Diaprepes abbreviata 5197
 [Coleoptera: Scarabaeidae]
 Unknown species 2162
Anomala 8739 8740 8741 8742 8743
Antitrogus mussoni 7417
Antitrogus parvulus 7410
Costelytra zealandica 7435
Dermolepida albohirtum 7452
Heteronychus arator 8555
Heteronyx piceus 8618 8619 8621
Heteronyx rugosipennis 8566
Oryctes rhinoceros 538
Scapanes australis 3604

Metarhizium robertsii

[Coleoptera: Carabidae]
 Unknown species 2469
 [Coleoptera: Cerambycidae]
Decetes texanus 6472
 [Coleoptera: Chrysomelidae]
Cerotoma arcuata 724
Diabrotica 2514
 [Coleoptera: Curculionidae]
Curculio caryae 2575 3608
Listronotus oregonensis 2981
Otiorhynchus sulcatus 1910
 [Coleoptera: Elateridae]
 Unknown species 8543 8544 8545 8546
 8547 8548
Conoderus 23 1897
 [Coleoptera: Scarabaeidae]
Ancognatha scarabaeoides 797
Heteronychus arator 7424 8549 8550
 8551 8552 8553 8554 8556 8557
 8576
Heteronyx 7449
Heteronyx piceus 8558 8559 8582 8583
 8592
Heteronyx rugosipennis 8563 8565
 8567 8577
Phyllophaga 12797 12799
Phyllophaga ?anxia 2134
Popillia japonica 1046 1298 1878 3721
 5149
Rhizotrogus majalis 2547 3108 3211
 4123
Strigoderma arboricola 1968
 [Coleoptera: Tenebrionidae]
Tribolium castaneum 3388

Mixed Culture sp.

[Coleoptera]
 Unknown species 11718
 [Coleoptera: Chrysomelidae]
Pyrrhalta fuscipennis 1043
 [Coleoptera: Lampyridae]
 Unknown species 5188
 [Coleoptera: Scarabaeidae]
Amphimallon solstitiale 11676
Holotrichia parallela 4387

Mucor circinelloides

[Coleoptera: Cerambycidae]
Anoplophora glabripennis 6470

Ophiocordyceps aphodii

[Coleoptera: Scarabaeidae]
Aphodius howitti 5498

Paecilomyces sp.

[Coleoptera: Chrysomelidae]
Galerucella calamariensis 5196
 [Coleoptera: Curculionidae]
 Unknown species 5184 5193

Paecilomyces canadensis

[Coleoptera: Scarabacidae]
Heptophylla picea 984

Pandora blunckii

[Coleoptera: Elateridae]
Athalia rosae 915 917 920 1715 1716
 1717 1718

Paraisaria dubia

[Coleoptera: Scarabaeidae: Melolonthinae]
Antitrogus rugulosus 5764

Penicillium sp.

[Coleoptera: Curculionidae]
Anthonomus musculus 3036
Chalcodermus bimaculatus 2950
 [Coleoptera: Scarabaeidae]
Amphimallon solstitiale 11681 11683
Aphodius tasmaniae 348

Pochonia chlamydosporia

[Coleoptera: Scarabaeidae]
 Unknown species 3314

Pochonia chlamydosporia var.
chlamydosporia

[Coleoptera: Lagriidae]
Lagria vilosa 2218

Polycephalomyces sp.

[Coleoptera]
 Unknown species 9496
 [Coleoptera: Carabidae]
 Unknown species 9497

Polycephalomyces formosus

[Coleoptera: Carabidae]
Calosoma 1424

Purpureocillium lilacinum

- [Coleoptera: Chrysomelidae]
Cerotoma 1951
- [Coleoptera: Curculionidae]
Diaprepes abbreviata 410
- [Coleoptera: Elateridae]
 Unknown species 9524
- [Coleoptera: Lagriidae]
Lagria vilosa 723 2952
- [Coleoptera: Scarabaeidae]
 Unknown species 6110
Popillia japonica 9371
- [Coleoptera: Scolytidae]
Hypothenemus hampei 5876 5877 5880
 5882 6188 6190
- [Coleoptera: Tenebrionidae]
Tenebrio molitor 8918 8919 8920 8921
 8922

Scopulariopsis sp.

- [Coleoptera: Cerambycidae]
Anoplophora glabripennis 8421
- [Coleoptera: Chrysomelidae]
Leptinotarsa decemlineata 2327
- [Coleoptera: Curculionidae]
 Unknown species 2169
- [Coleoptera: Tenebrionidae]
Tenebrio molitor 11652

Simplicillium lamellicola

- [Coleoptera: Carabidae]
Carabus 9479

Sorosporella uvella

- [Coleoptera: Curculionidae]
Curculio caryae 1123

Sporothrix sp.

- [Coleoptera: Buprestidae]
Chrysobothris chryseola 13426

Sporothrix insectorum

- [Coleoptera: Carabidae]
Carabus 9502

Sterile mycelium

- [Coleoptera: Cerambycidae]
 Unknown species 4009
- [Coleoptera: Curculionidae]
Anthonomus musculus 3038
- [Coleoptera: Scarabaeidae]
Adoryphorus coulonii 4243

Stilbella bouquetii

- [Coleoptera: Curculionidae]
Artipes 2915

Synnematium jonesii

- [Coleoptera: Hispinae]
Promecotheca papuana 5664

Tilachlidium sp.

- [Coleoptera: Chrysomelidae]
 Unknown species 10132
- [Coleoptera: Elateridae]
 Unknown species 2415

Tolypocladium cylindrosporum

- [Coleoptera: Elateridae]
 Unknown species 7456 7812

Tolypocladium inflatum

- [Coleoptera: Scarabaeidae: Aphodiinae]
 Unknown species 4877 4878 4879 4880
 4881 4882 4883 4884 4885 4886
 4887 4888 4889 4890 4891 4892
 4893 4894 4895 4896 4897 4898

Verticillium sp.

- [Coleoptera: Carabidae]
 Unknown species 6501
- [Coleoptera: Dermestidae]
 Unknown species 6484
- [Coleoptera: Scarabaeidae]
 Unknown species 6486

Verticillium insectorum

- [Coleoptera: Curculionidae]
Otiorhynchus sulcatus 3715

Verticillium lecanii

- [Coleoptera: Cantharidae]
 Unknown species 4048
- [Coleoptera: Chrysomelidae]
Agelastica alni 4022
- [Coleoptera: Curculionidae]
Otiorhynchus sulcatus 6545
- [Coleoptera: Histeridae]
Carcinops pumilio 5856
- [Coleoptera: Scarabaeidae]
Aphodius fimetarius 4047
- [Coleoptera: Tenebrionidae]
 Unknown species 6487
Alphitobius diaperinus 5849

Zoophthora sp.

- [Coleoptera: Curculionidae]
Hypera postica 2623

Zoophthora anglica

- [Coleoptera: Carabidae]
Trechus quadrifasciatus 1739
- [Coleoptera: Elateridae]
Agriotes sputator 396 918 2505

Zoophthora phytonomi

- [Coleoptera: Curculionidae]
Hypera postica 544 545 3342 3343 3344
Hypera punctata 202 546 2188
Hypera variabilis 82 113 191 192

Coleoptera**Coleoptera: Carabidae****Animalia****Arthropoda • Insecta****Coleoptera**

- Argentina
 - Beauveria bassiana* 7470
- Belarus
 - Isaria* sp. 9519
- Brazil, Pará
 - Beauveria caledonica* 2251
- Brazil, Goiás
 - Beauveria bassiana* 754
- Canada, British Columbia
 - Beauveria bassiana* 7972
- Ethiopia
 - Beauveria bassiana* 6692 6693 6695
6696 6697
- France
 - Beauveria bassiana* 1980
 - Unidentified sp. 1634 1667
- Ghana
 - Unidentified / Hyphomycetes 8641
- India
 - Beauveria brongniartii* 2660
 - Metarhizium pingshaense* 3210
- Location not specified
 - Beauveria bassiana* 293 4382
- Mexico
 - Lecanicillium* sp. 2(?) 2832
- Philippines
 - Beauveria bassiana* 3197 3198 3199
 - Isaria farinosa* 2355 2379
- Poland
 - Beauveria bassiana* 301
- PR China
 - Beauveria bassiana* 7164
 - Isaria catenobliqua* 6244
 - Isaria fumosorosea* 9602
 - Mixed Culture* sp. 11718
 - Beauveria bassiana* sensu stricto
13750 13751
- Republic of Korea
 - Beauveria* sp. 5697
 - Isaria fumosorosea* 5694
- Russian Federation
 - Beauveria bassiana* 9444
 - Isaria fumosorosea* 7716
 - Polycephalomyces* sp. 9496
- Turkey
 - Beauveria bassiana* 10347
 - Beauveria pseudobassiana* 5668
 - Beauveria* sp. 5831
- Ukraine
 - Beauveria* sp. 7595
 - Isaria farinosa* 9516
- United Kingdom
 - Beauveria bassiana* 6559 6560
- USA, Florida
 - Beauveria bassiana* 5979

Fungus by Host and Location

- USA, Texas
 - Isaria javanica* 7119
- USA, Vermont
 - Lecanicillium evansii(?)* 11805
- USA, New York
 - Beauveria bassiana* 350
- Solomon Islands
 - Metarhizium anisopliae* sensu lato
4333 4334 4335 4336 4337 4338
4339 4341 4558 4572 4582
 - Metarhizium pingshaense* 4290
4340 4342 4557 4610
- Haphochelus marginalis*
 - France
 - Metarhizium anisopliae* sensu lato
3148
- Coleoptera: Anthicidae**
 - Anthicus floralis*
 - Poland
 - Beauveria pseudobassiana* 157
- Coleoptera: Anthribidae**
 - Araecerus fasciculatus*
 - USA, Florida
 - Beauveria bassiana* 413
- Coleoptera: Bruchidae**
 - Brazil, Goiás
 - Metarhizium anisopliae* sensu lato
726 932
 - Brazil, Mato Grosso
 - Metarhizium anisopliae* sensu lato
954
 - Caryedon serratus*
 - France
 - Beauveria bassiana* 1186
- Coleoptera: Buprestidae**
 - Kyrgyz Republic
 - Beauveria bassiana* 6499
 - Agrilus planipennis*
 - Canada, Ontario
 - Beauveria bassiana* 10393 10394
10395 10396 10397 10398 10399
10400 10401 10402 10403 10404
10405 10406 10407 10408 10409
10410 10411 10412 10413 10414
10415 10416 10417 10418 10419
10420 10421 10422 10423 10424
10425 10426 10427 10428 10429
10430 10431 10432 10433 10434
10435 10436 10437 10438 10439
10440 10441 10442 10443 10444
10445 10446 10447 10448 10449
10450 10451 10452 10453 10454
10455 10456 10457 10458 10459
10460 10461 10462 10463 10464
10465 10466 10467 10468
 - Beauveria bassiana* 10393 10394
10395 10396 10397 10398 10399
10400 10401 10402 10403 10404
10405 10406 10407 10408 10409
10410 10411 10412 10413 10414
10415 10416 10417 10418 10419
10420 10421 10422 10423 10424
10425 10426 10427 10428 10429
10430 10431 10432 10433 10434
10435 10436 10437 10438 10439
10440 10441 10442 10443 10444
10445 10446 10447 10448 10449
10450 10451 10452 10453 10454
10455 10456 10457 10458 10459
10460 10461 10462 10463 10464
10465 10466 10467 10468
 - USA, Michigan
 - Beauveria bassiana* 8771 8772 8773
8774
 - Beauveria* sp. 8110 8111 8112 8113
8116 8117 8119 8120 8121 8122
8123 8124 8125 8126 8127 8128
8129 8130 8132 8133 8134 8135
8136 8137 8138 8139 8140 8141
8143 8144 8145 8146 8147 8148
- Denmark
 - Batkoia* sp. 5810 2664
 - Verticillium lecanii* 4048
- USA, New York
 - Erynia* sp. 5352
- Rhagonycha fulva*
 - Denmark
 - Erynia* sp. 2525 2536 2537 2538
2539 2553 2662 2663
 - Rhagonycha lignosa*
 - Poland
 - Unidentified sp. 1429
- Coleoptera: Cantharidae**
 - Rhagonycha* sp.
 - Denmark
 - Erynia* sp. 2525 2536 2537 2538
2539 2553 2662 2663
- Coleoptera: Carabidae**
 - Belarus
 - Polycephalomyces* sp. 9497
 - Brazil, Goiás
 - Metarhizium anisopliae* sensu lato
939
 - Brazil, Mato Grosso
 - Beauveria bassiana* 952
 - Brazil, Pará
 - Metarhizium anisopliae* sensu lato
1901
 - Ethiopia
 - Beauveria bassiana* 6689
 - France
 - Beauveria bassiana* 1975
 - Kazakhstan
 - Verticillium* sp. 6501
 - Mexico
 - Metarhizium robertsii* 2469
 - Republic of Korea
 - Beauveria bassiana* 7241 7270
 - Beauveria brongniartii* 7268
 - Russian Federation
 - Beauveria bassiana* 7581
 - USA, Washington
 - Beauveria bassiana* 3386
 - USA, Hawaii
 - Beauveria* sp. 13370
 - USA, Vermont
 - Hirsutella thompsonii* 11819
 - Isaria farinosa* 11831
 - Uzbekistan
 - Beauveria bassiana* 6059 6099

Fungus by Host and Location

Coleoptera: Carabidae Coleoptera: Chrysomelidae

<i>Agonum dorsale</i>	USA, Connecticut	Coleoptera: Chrysomelidae
Denmark	<i>Beauveria bassiana</i> 6393	Australia
<i>Isaria farinosa</i> 4029 4044	USA, Illinois	<i>Beauveria bassiana</i> 8835 8836
<i>Amara familiaris</i>	<i>Isaria fumosorosea</i> 8840	Brazil, Goiás
Denmark	<i>Beauveria bassiana</i> 7152 7153 7154	<i>Beauveria bassiana</i> 1971 1451
<i>Beauveria bassiana</i> 4034	USA, New York	Kazakhstan
<i>Amara plebeja</i>	<i>Beauveria bassiana</i> 7158 7159 7179	<i>Isaria farinosa</i> 6491
Denmark	8412 8413	Mexico
<i>Beauveria bassiana</i> 4031	<i>Isaria farinosa</i> 8411	<i>Beauveria bassiana</i> (?) 6890 6891
<i>Bembidion lampros</i>	USA, Connecticut	Nepal
Denmark	<i>Metarhizium anisopliae</i> sensu lato	<i>Cordyceps scarabaeicola</i> 7277 7278
<i>Beauveria bassiana</i> 4032	6388	Republic of Kazakhstan
<i>Isaria farinosa</i> 4043	USA, Massachusetts	<i>Beauveria bassiana</i> 10350
<i>Calosoma</i> sp.	<i>Metarhizium anisopliae</i> sensu lato	Republic of Korea
Poland	6389	<i>Beauveria bassiana</i> 7244 7247 7271
<i>Polycephalomyces formosus</i> 1424	USA, Illinois	7272
<i>Carabus</i> sp.	<i>Metarhizium anisopliae</i> sensu lato	<i>Beauveria sungii</i> 7279 7280
Russian Federation	7180	USA, Vermont
<i>Sporothrix insectorum</i> 9502	USA, Connecticut	<i>Beauveria bassiana</i> 11844
Ukraine	<i>Metarhizium brunneum</i> 6392 7234	<i>Metarhizium</i> sp. 11849
<i>Simplicillium lamellicola</i> 9479	8415 8416 8417 8418 8419	USA, Florida
<i>Hapalus</i> sp.	USA, Michigan	<i>Tilachlidium</i> sp. 10132
Denmark	<i>Mucor circinelloides</i> 6470	Vietnam
<i>Isaria farinosa</i> 4045	<i>Anoplophora malasiaca</i>	<i>Beauveria bassiana</i> sensu stricto
<i>Trechus quadristriatus</i>	Japan	751
United Kingdom	<i>Beauveria brongniartii</i> 6235 6412	Yugoslavia, Serbia
<i>Zoophthora anglica</i> 1739	<i>Aromia moschata</i>	<i>Beauveria bassiana</i> 504
Coleoptera: Cerambycidae	Italy	<i>Agelastica alni</i>
Brazil, Ceará	<i>Beauveria bassiana</i> 1559 1560 1561	Denmark
<i>Beauveria bassiana</i> 785	1562 1563	<i>Verticillium lecanii</i> 4022
Denmark	<i>Dectes texanus</i>	Republic of Georgia
Sterile mycelium 4009	USA, Kansas	<i>Evlachovaea kintrischchica</i> 7218 8058
Ecuador	<i>Beauveria bassiana</i> 6471	Russian Federation
<i>Beauveria pseudobassiana</i> 2557	<i>Metarhizium robertsii</i> 6472	<i>Metarhizium</i> sp. 7643
France	<i>Enaphalodes rufulus</i>	<i>Basilepta fulvicornis</i>
<i>Beauveria bassiana</i> 5072	USA, Arkansas	India
<i>Isaria farinosa</i> 5073 5074 5075 5080	<i>Beauveria bassiana</i> 7404	<i>Beauveria</i> sp. 8250
Japan	<i>Moechotypa diphysis</i>	<i>Brontispa longissima</i>
<i>Harposporium janus</i> 5601	Japan	Australia
Mexico	<i>Beauveria bassiana</i> 1678	<i>Metarhizium anisopliae</i> sensu lato
<i>Beauveria bassiana</i> 319	<i>Monochamus alternatus</i>	8745 8746 8747
Republic of Korea	Japan	Western Samoa
<i>Beauveria bassiana</i> 6721 7251 7261	<i>Beauveria bassiana</i> 1679	<i>Metarhizium anisopliae</i> sensu lato
7266 7275	<i>Monochamus scutellatus</i>	1078
Russian Federation	USA, Michigan	stricto 2223
<i>Beauveria bassiana</i> 9442	<i>Beauveria bassiana</i> 7162 7163	<i>Cerotoma</i> sp.
USA, Rhode Island	<i>Niphonoclea</i> sp.	Brazil, Mato Grosso
<i>Beauveria bassiana</i> 318	Philippines	<i>Beauveria bassiana</i> 951
<i>Agriancome spinicollis</i>	<i>Beauveria brongniartii</i> 1431	Brazil, Paraná
Australia	<i>Ortholeptura valida</i>	<i>Beauveria bassiana</i> 1458
<i>Metarhizium anisopliae</i> sensu lato	USA, Oregon	Brazil, Rio de Janeiro
7498 7499 7500	<i>Beauveria bassiana</i> 5997	<i>Purpureocillium lilacinum</i> 1951
<i>Anoplophora glabripennis</i>	<i>Phoracantha semipunctata</i>	Brazil, Santa Catarina
PR China	Malawi	<i>Beauveria bassiana</i> 1467
<i>Beauveria amorpha</i> (?) 6827	<i>Beauveria malawiensis</i> 7760	<i>Cerotoma arcuata</i>
<i>Beauveria bassiana</i> 6387 6390 7155	<i>Plectrodera scalaris</i>	Brazil, Amazonas
7156 7157 7166 7167 7168 7169	USA, Michigan	<i>Beauveria bassiana</i> 731 732 756
7170 7171 7172 7173 7174 7175	<i>Beauveria bassiana</i> 7160 7161 7165	Brazil, Bahia
7176 7177 7178 8414	<i>Lecanicillium lecanii</i> 7181 7182	<i>Beauveria bassiana</i> 2075
<i>Metarhizium pingshaense</i> 8420	<i>Psacothaea hilaris</i>	Brazil, Goiás
<i>Scopulariopsis</i> sp. 8421	Japan	<i>Beauveria bassiana</i> 931 934
USA, Michigan	<i>Beauveria amorpha</i> 1680	<i>Metarhizium anisopliae</i> sensu lato
<i>Aspergillus flavus</i> 6469	<i>Beauveria bassiana</i> 1041	760 2076 2077 2635 2941
USA, New York	<i>Tetropium fuscum</i>	<i>Metarhizium robertsii</i> 724
<i>Beauveria bassiana</i> 6391	Norway	
	<i>Beauveria bassiana</i> 11660	

Coleoptera: Chrysomelidae
Coleoptera: Chrysomelidae: Hispinae

Fungus by Host and Location

Crimissa sp.
 Brazil, Ceará
Beauveria bassiana 786 788 805

Crimissa cruralis
 Brazil, Ceará
Beauveria bassiana 4001

Diabrotica sp.
 Brazil
Beauveria bassiana 3219

Brazil, Amazonas
Beauveria bassiana 2512

Brazil, Goiás
Beauveria bassiana 956 2938 2942
Metarhizium anisopliae sensu lato
 1885 2513

Metarhizium robertsii 2514

Brazil, Mato Grosso
Beauveria bassiana 946 947 948 949
 950 982

Colombia
Beauveria bassiana 721

Mexico
Beauveria bassiana 3287

Diabrotica balteata
 Mexico
Beauveria bassiana 3309

Diabrotica barberi
 USA, South Dakota
Beauveria bassiana 2579

Diabrotica paranaensis
 Brazil, Goiás
Beauveria bassiana 739 752 758 809

Brazil, Mato Grosso
Beauveria bassiana 937 938

Diabrotica speciosa
 Argentina
Beauveria bassiana 2515 8373

Brazil, Alagoas
Beauveria bassiana 1954

Brazil, Bahia
Beauveria bassiana 1961
Metarhizium anisopliae sensu lato
 1958

Brazil, Goiás
Beauveria bassiana 928 1476 2625
 2626

Brazil, Paraná
Beauveria bassiana 958 1060 1453
 1454 1455 1461 1462 1463 1466
 1469 2511 2520

Metarhizium anisopliae sensu lato
 1056

Brazil, Rio Grande do Sul
Beauveria bassiana 1456 1459 1460
 1464 1465 1475

Brazil, Santa Catarina
Beauveria bassiana 1470 1471 1472
 1473

Diabrotica undecimpunctata
 USA, Oregon
Beauveria bassiana 201

Diabrotica virgifera
 Mexico
Beauveria bassiana 2330

USA, Nebraska
Beauveria bassiana 3111

Diabrotica virgifera virgifera
 Mexico
Beauveria bassiana 9297 9298 9299
 9300 9301 9302

USA, Nebraska
Beauveria bassiana sensu lato
 14001

USA, Illinois
Beauveria bassiana sensu lato
 14002

Galerucella calamariensis
 USA, Rhode Island
Paecilomyces sp. 5196

Galerucella sp.
 USA, Texas
Beauveria bassiana 5465

Galericina sp.
 France
Beauveria bassiana 2463

Leptinotarsa decemlineata
 Canada, Ontario
Beauveria bassiana 5807

Canada, Québec
Beauveria bassiana 2987 2988 2989
 2990 2991

Commonwealth of Independent States
Beauveria bassiana 2695

France
Beauveria bassiana 149 384 1982
Scopulariopsis sp. 2327

Germany
Beauveria bassiana 340

Italy
Beauveria bassiana 1106

Location not specified
Beauveria bassiana 5286
 Unidentified sp. 3724

Russian Federation
Beauveria bassiana 9441

USA, Michigan
Aspergillus sp. 6571

USA, New York
Beauveria bassiana 534 535 1039

USA, Washington
Beauveria bassiana 1079

USA, New York
Beauveria bassiana 1081 1619 1620
 1621 1622 1623 1624 1775 1776
 1777 1778 1779 1780 1781 2030
 2031 2032 5533 5534 5535 5536
 5537

USA, Michigan
Beauveria bassiana 5813

USA, New York
Beauveria bassiana 6986 6987 6988

USA, Maryland
Beauveria bassiana 8998

USA, Maine
Beauveria bassiana 33 252 353

USA, New York
Beauveria bassiana 1704 1705 1706
 1707 1708 1709 1710 1711 1712
 1713 1721 1722 1723 1749 1750

USA, Rhode Island
Beauveria bassiana 317

USA, Washington
Beauveria bassiana 344

Yugoslavia
Beauveria bassiana 505 506 507 510

Yugoslavia, Croatia
Beauveria bassiana 509

Yugoslavia, Voyvodina
Beauveria bassiana 508

Lilioceris lilii
Beauveria bassiana 5195

Denmark
Fusarium sp. 4011

Macrolaspis monrosi
 Argentina
Beauveria bassiana 2509

Notonata sp.
 Costa Rica
Beauveria bassiana 3437 3438 3439
 3441 3442 3444 3446 3447 3450
 3451 3452 3455

Odontota dorsalis
Beauveria bassiana 5553

Oulema melanopus
 France
 Unidentified sp. 3980

Pachybrachis pallicornis
 Malaysia
Beauveria sp. 547

Paropsis charybdis
 New Zealand
Beauveria pseudobassiana 3066

Phyllotreta nigripes
 Denmark
 Unidentified sp. 4037

Pyrrhalta fuscipennis
 Japan
Mixed Culture sp. 1043

Pyrrhalta luteola
 France
Beauveria bassiana 1509 1510 1511
 1518 1519

Isaria farinosa 1507 1508

Isaria fumosorosea 1506

Lecanicillium lecanii 1505

Pyrrhalta viburni
 Russian Federation
Beauveria bassiana 9449

Spaethiella sp.
 Brazil, Amazonas
Isaria fumosorosea 2956

Systema sp.
 Brazil, Goiás
Beauveria bassiana 2079

Xanthogaleruca luteola
 Argentina
Beauveria bassiana 5501

Zyogramma bicolorata
 India
Metarhizium pingshaense 2231

Coleoptera: Chrysomelidae: Hispinae
Beauveria bassiana 8494

Fungus by Host and Location

Coleoptera: Coccinellidae
Coleoptera: Curculionidae

Coleoptera: Coccinellidae

- Beauveria bassiana* 11878
Republic of Korea
- Beauveria* sp. 4853
Russian Federation
- Beauveria* sp. 7591
Turkey
- Beauveria pseudobassiana* 5678
Beauveria sp. 5833
Isaria farinosa 5754 5834
Unidentified / Hyphomycetes 5677
Uzbekistan
- Beauveria bassiana* 6055 6061 6062
6063 6074 6075 6092 6095 6111
6112

Coccinella sp.

- USA, New York
Beauveria bassiana 2033 2034

Coccinella septempunctata

- Denmark
- Beauveria bassiana* 4018
Beauveria sp. 4027
- Location not specified
- Beauveria bassiana* 3534
- Ukraine
- Isaria fumosorosea* 9521
- USA, Michigan
- Beauveria bassiana* 2580

Coleomegilla maculata

- Brazil, Alagoas
- Beauveria bassiana* 1956
- Brazil, Goiás
- Metarhizium anisopliae* sensu lato 808

Cycloneda sanguinea

- Argentina
- Beauveria bassiana* 2010 8372 8462
8463

Henosepilachna vigintioctopunctata

- PR China
- Beauveria lii* 11741
- Hippodamia convergens*
- Mexico
- Unidentified sp. 3821
- USA, New York
- Beauveria bassiana* 4973 4974 4975

Coleoptera: Cucujidae: Silvaninae

- Ahasverus advena*
Denmark
- Beauveria bassiana* 5857

Coleoptera: Curculionidae

- Metarhizium anisopliae* sensu lato 8098 8099
- Argentina
- Beauveria bassiana* 7202 7466 7471
8520 8521 8522 8523 8524 8525
8526 8530
- Beauveria* sp. 7463
- Brazil, Goiás
- Beauveria bassiana* 930
- Brazil, Paraná
- Beauveria bassiana* 1061
- Denmark
- Beauveria bassiana* 4052

- Indonesia, Sulawesi Selatan, Celebes
- Aspergillus parasiticus* 2173
- Metarhizium brunneum* 2210
- Unidentified / Hyphomycetes 2225

- Papua New Guinea
- Scopulariopsis* sp. 2169

- PR China
- Isaria cateriannulata* 6241

- Republic of Korea
- Beauveria bassiana* 2040

- Lecanicillium muscarium* 7248
- Unidentified / Hyphomycetes 5695

- USA, New York
- Beauveria bassiana* 6216 6217

- USA, Hawai'i
- Beauveria bassiana* 8705

- USA, Oregon
- Beauveria bassiana* sensu lato 13257

- USA, Vermont
- Isaria farinosa* 11830

- Paecilomyces* sp. 5184 5193

- Canada, British Columbia
- Beauveria bassiana* 7978

- Indonesia
- Metarhizium brunneum* 2224

- United Kingdom
- Beauveria bassiana* 7769

- USA, New York
- Beauveria bassiana* 3667

Anthonomus grandis

- Brazil
- Beauveria* sp. 1835

- Brazil, São Paulo
- Beauveria bassiana* 1966 2559 2638
2639 2945 2946

- USA, Texas

- Aspergillus* sp. 7048
- Beauveria bassiana* 3097 7795

Anthonomus musculus

- USA, Massachusetts
- Beauveria bassiana* 3037

- Penicillium* sp. 3036

- Metapochonia bulbillosa*(?) 3035

- Sterile mycelium 3038 3034

- Unidentified / Hyphomycetes 3033

- USA, New Jersey

- Fusarium* sp. 3030 3031 3032

Apion sp.

- Denmark

- Beauveria bassiana* 4023

Aracanthus sp.

- Brazil, Ceará

- Beauveria bassiana* 753

- Brazil, Rio Grande do Sul

- Unidentified sp. 3478

Artipes sp.

- USA, Florida

- Stilbella buquetii* 2915

Barypeithes pellucida

- USA, New York

- Beauveria brongniartii* 6213 6214

- 6215

Blosyrus asellus

- USA, Hawaii
- Metarhizium anisopliae* sensu lato 9217 9218

Brachyderes incanus

- Netherlands
- Hirsutella fusiformis* 5474

PR China

- Isaria cateniannulata* 6243

Ceutorhynchus litura

- Location not specified
- Beauveria bassiana* 3403

Ceutorhynchus macula-alba

- Czech Republic
- Metarhizium flavoviride* 2133

Ceutorhynchus napi

- Switzerland
- Conidiobolus coronatus* 1572 1573
1574 1575

Chalcodermus sp.

- Brazil, Mato Grosso
- Beauveria bassiana* 941 942 943
953

Chalcodermus aeneus

- Brazil, Goiás
- Beauveria bassiana* 733 734 735 736
738

- Metarhizium anisopliae* sensu lato 725 929

USA, Georgia

- Beauveria bassiana* 336 337
- Fusarium proliferatum* 2568 2569

Chalcodermus bimaculatus

- Brazil, Goiás
- Penicillium* sp. 2950

Conotrachelus nenuphar

- Location not specified
- Beauveria bassiana* 1016

USA, Michigan

- Beauveria bassiana* 8260 8261 8262
8263
- Fusarium proliferatum* 8267

- Fusarium* sp. 8266

- Lecanicillium muscarium*(?) 8265

- Unidentified / Hyphomycetes 8264
8264

Cosmopolites sp.

- Brazil

- Beauveria bassiana* 1833

Cosmopolites sordidus

- Brazil, Espírito Santo

- Beauveria bassiana* 1483

West Africa

- Beauveria bassiana* 4798 4799

Curculio caryae

- USA, South Carolina
- Metarhizium robertsii* 2575

- USA

- Metarhizium robertsii* 3608

- USA, Arkansas

- Sorosporella uvella* 1123

USA, Georgia

- Beauveria bassiana* 2676

Cyrtopistomus castaneus

- USA, Kentucky

- Beauveria bassiana* 2270

Coleoptera: Curculionidae

Fungus by Host and Location

Beauveria brongniartii 2271
Desiantha diversipes
Metarhizium anisopliae sensu lato
8568 8569
Diaprepes abbreviata
Location not specified
Beauveria bassiana 433
USA, Florida
Aspergillus nidulans(?) 6515
Cladosporium sphaerospermum
6516
Metarhizium pingshaense 5197
Beauveria bassiana 412 416
Purpureocillium lilacinum 410
Geraeus senilis
Mexico
Beauveria bassiana 3310 3311
Metarhizium anisopliae sensu lato
3305 3306 3308
Heilipodus erythropus
Argentina
Beauveria bassiana 8461
Hylurgus ligniperda
Uruguay
Fusarium sp. 12461
Hypera postica
Denmark
Beauveria bassiana 4038 4049
France
Acremonium furcatum 1372
Aphanocladium album 1329
Beauveria bassiana 1389 1398 1399
1515
Beauveria sp. 1327
Lecanicillium muscarium 1328 1401
1402 1403
Location not specified
Unidentified sp. 1437
Zoophthora phytonomi 545
USA, Nebraska
Beauveria bassiana 2199
USA, South Carolina
Beauveria bassiana 2200
USA, Montana
Beauveria bassiana sensu lato
12434 12435 12436 12437 12438
12439 12440 12441 12442 12443
USA, North Dakota
Beauveria bassiana sensu lato
12444
USA, Montana
Beauveria bassiana sensu lato
12445
USA, North Dakota
Beauveria bassiana sensu lato
12446 12447
USA, Montana
Beauveria bassiana sensu lato
12448 12449 12450 12451 12517
12518 12519 12520 12521 12522
USA, West Virginia
Zoophthora phytonomi 544
USA, Illinois
Zoophthora phytonomi 3342 3343
3344

USA, Kentucky
Zoophthora sp. 2623
Hypera punctata
Location not specified
Zoophthora phytonomi 546
USA, Delaware
Zoophthora phytonomi 2188
USA, New York
Zoophthora phytonomi 202
Hypera variabilis
Israel
Conidiobolus osmodes 79
Conidiobolus sp. 80 81
Zoophthora phytonomi 82 113 191
192
Larinus sp.
Switzerland
Beauveria varroae 2694
Listronotus maculicollis
USA, New York
Metarhizium anisopliae sensu lato
9374
Listronotus oregonensis
Canada, Québec
Beauveria bassiana 2983 2984 2985
2986
Metarhizium robertsii 2981
Litodactylus leucogaster
USA, Florida
Isaria javanica 322
Metamasius sp.
Colombia
Beauveria bassiana 842
Metamasius californicus
USA, Florida
Beauveria bassiana 5986
Metamasius hemipterus
Brazil, Paraná
Beauveria bassiana 2642
Myllocerus discolor
India
Metarhizium guizhouense 3603
Oryzophagus oryzae
Brazil, Rio Grande do Sul
Beauveria bassiana 3098
Otiorrhynchus ligustici
Hungary
Beauveria bassiana 6884 6885
USA, New York
Fusarium commune 4825
Metarhizium anisopliae sensu lato
4819 4820 4821 4822 4823 4824
Otiorrhynchus sulcatus
Australia
Metarhizium brunneum 4228
France
Beauveria bassiana 815 1073 1074
1075
Beauveria pseudobassiana 813 814
Metarhizium anisopliae sensu lato
818
Metarhizium brunneum 817 820
Metarhizium flavoviride 1184 2024
Germany
Metarhizium brunneum 5198
Metarhizium robertsii 1910
Location not specified
Verticillium insectorum 3715
New Zealand
Beauveria bassiana 8078
Beauveria pseudobassiana 3065
United Kingdom
Beauveria bassiana 6552 7763
Metarhizium anisopliae sensu lato
6549
Metarhizium anisopliae sensu
stricto 6546
Verticillium lecanii 6545
USA, Oregon
Isaria farinosa 2431
Metarhizium anisopliae sensu lato
2432
Isaria farinosa 2937
Phlyctinus callosus
Australia
Beauveria bassiana 8756 8757
Phytonomus punctatus
Poland
Unidentified sp. 1430
Pissodes strobi
Canada, British Columbia
Lecanicillium muscarium 8048 8049
8050 8051 8052 8053 8054
Lecanicillium pissodis 8055 8056
8057
Premnotrypes latithorax
Peru
Beauveria bassiana 5983 5984
Premnotrypes suturicallus
Peru
Beauveria amorpha 1969
Premnotrypes vorax
Colombia
Beauveria bassiana 2248
Isaria farinosa 799
Rhabdoscelus obscurus
Australia
Metarhizium anisopliae sensu lato
8762 8828 8847
Rhynchites aequatus
Denmark
Beauveria bassiana 8037
Rhynchites baccus
Turkey
Beauveria bassiana 8668
Rhynchophorus ferrugineus
Iran
Beauveria bassiana 6903
Rhynchophorus palmarum
Mexico
Metarhizium anisopliae sensu lato
2331
Trinidad
Beauveria bassiana 13506
Beauveria sp. 13661
Shirahoshizo insidiosus
Japan
Beauveria sp. 1681
Sitona sp.
France
Beauveria bassiana 1647

Fungus by Host and Location

Coleoptera: Curculionidae
Coleoptera: Rhizophagidae

New Zealand	<i>Lecanicillium fungicola</i> 9483
<i>Beauveria bassiana</i> 8077	
<i>Beauveria pseudobassiana</i> 3063	
<i>Sitona discoideus</i>	
France	Brazil, Ceará <i>Beauveria bassiana</i> 784 804
<i>Metarhizium guizhouense</i> 819	
Morocco	Canada, British Columbia <i>Tolyphocladium cylindrospororum</i> 7456
<i>Beauveria bassiana</i> 1153 1154 1155 1163 1164 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1183 1188 1189 1190 1309 1311 1312 1313 1811 1815 1816 1817 1818 1819 1820 1821	
<i>Fusarium proliferatum</i> 1310	
<i>Sitona humeralis</i>	
France	France <i>Beauveria bassiana</i> 150
<i>Beauveria bassiana</i> 816 1185 1191	
<i>Sitona lineatus</i>	
Denmark	Russia, Federation <i>Beauveria brongniartii</i> 9452 <i>Beauveria</i> sp. 7580 7635 7636
<i>Lecanicillium cylindrospororum</i> 7812	
France	Turkey <i>Beauveria bassiana</i> 5670
<i>Beauveria bassiana</i> 4013 4015 4016 4019 4021 4041	
<i>Isaria farinosa</i> 4039	USA, New York <i>Lecanicillium</i> nr. <i>aranearum</i> 11811
<i>Lecanicillium muscarium</i> 4033	<i>Metarhizium anisopliae</i> sensu lato 11850
<i>Metarhizium brunneum</i> 4020	
<i>Sitophilus</i> sp.	
United Kingdom	<i>Agriotes</i> sp. Germany <i>Evlachovaea</i> sp. 7403
<i>Beauveria bassiana</i> 7764 7773 7774	
<i>Sitophilus oryzae</i>	Switzerland <i>Metarhizium anisopliae</i> sensu lato 7524
Republic of Korea	United Kingdom <i>Metarhizium anisopliae</i> sensu lato 6551 13219 13221
<i>Cordyceps</i> sp. 4852	
<i>Sternechus subsignatus</i>	USA, Oregon <i>Metarhizium anisopliae</i> sensu lato 7494
Brazil, Paraná	<i>Metarhizium brunneum</i> 2107
<i>Beauveria bassiana</i> 1450	
<i>Metarhizium anisopliae</i> sensu lato 1452 1989	Wales <i>Metarhizium anisopliae</i> sensu lato 13220
Brazil, Rio Grande do Sul	
Unidentified sp. 3471	<i>Agriotes sputator</i> Denmark <i>Zoophthora anglica</i> 2505
Coleoptera: Curculionidae: Apioninae	Switzerland <i>Metarhizium anisopliae</i> sensu lato 1377
<i>Cylas formicarius elegantulus</i>	<i>Zoophthora anglica</i> 396 918
Peru	
<i>Beauveria bassiana</i> 5982	<i>Athalia rosae</i> Switzerland <i>Pandora blunckii</i> 915 917 920 1715
USA, Florida	1716 1717 1718
<i>Beauveria bassiana</i> 5981	<i>Conoderus</i> sp. New Zealand <i>Metarhizium anisopliae</i> sensu stricto 2518
Coleoptera: Curculionidae: Scolytinae	USA <i>Metarhizium anisopliae</i> sensu lato 1903
<i>Xylosandrus compactus</i>	USA, California <i>Metarhizium robertsii</i> 1897
USA, Hawai'i	USA, North Carolina <i>Metarhizium robertsii</i> 23
<i>Beauveria bassiana</i> 12620	
Coleoptera: Dermestidae	<i>Limonius canus</i> USA, Washington <i>Metarhizium anisopliae</i> sensu lato 7000 7001 7002 7003 7004 7005 7006 7007 7008 7009
Kazakhstan	
<i>Verticillium</i> sp. 6484	
Coleoptera: Elateridae	
Australia	
<i>Metarhizium robertsii</i> 8543 8544 8545 8546 8547 8548	
Belarus	
<i>Purpureocillium lilacinum</i> 9524	
Coleoptera: Hispinae	
Promecotheca papuana	
Papua New Guinea	
Synnematium jonesii 5664	
Coleoptera: Histeridae	
Carcinops pumilio	
Denmark	
<i>Verticillium lecanii</i> 5856	
Coleoptera: Lagriidae	
Lagria vilosa	
Brazil	
<i>Isaria amoenerosea</i> 4097	
Brazil, Alagoas	
<i>Isaria farinosa</i> 1957	
Brazil, Goiás	
<i>Beauveria bassiana</i> 2961	
<i>Isaria amoenerosea</i> 741 744 2220 2958 2959 2960	
<i>Isaria fumosorosea</i> 722 2216 2217 2219 2221	
<i>Purpureocillium lilacinum</i> 723 2952	
<i>Pochonia chlamydosporia</i> var. <i>chlamydosporia</i> 2218	
Coleoptera: Lampyridae	
Russian Federation	
<i>Isaria coleopterorum</i> 9509	
<i>Lecanicillium</i> nr. <i>aranearum</i> 9460	
USA, Vermont	
<i>Beauveria</i> sp. 5186 5188	
<i>Cratomorphus diaphanus</i>	
Argentina	
<i>Beauveria bassiana</i> 8464	
Coleoptera: Languriidae	
Costa Rica	
<i>Beauveria bassiana</i> 3457	
Coleoptera: Meloidae	
Republic of Korea	
<i>Isaria amoenerosea</i> 4849	
Coleoptera: Melolonthidae	
Hoplochelus marginalis	
France	
<i>Beauveria hoplocheli</i> 13021	
Coleoptera: Melyridae	
Malachiush bipustulatus	
Poland	
<i>Lecanicillium muscarium</i> 1335	
Coleoptera: Nitidulidae	
Australia	
<i>Beauveria bassiana</i> 325	
Coleoptera: Pythidae	
Pytho sp.	
Canada, British Columbia	
<i>Beauveria bassiana</i> 1854	
Coleoptera: Rhizophagidae	
Rhizophagus grandis	
Belgium	
<i>Beauveria bassiana</i> 1848	

Coleoptera: Scarabaeidae

Fungus by Host and Location

Coleoptera: Scarabaeidae

Australia	
	<i>Metarhizium brunneum</i> 472
Brazil, Distrito Federal	
	<i>Metarhizium anisopliae</i> sensu lato 3479
Ethiopia	
	<i>Beauveria bassiana</i> 6686
Kazakhstan	
	<i>Isaria farinosa</i> 6488 6489
Kyrgyz Republic	
	<i>Verticillium</i> sp. 6486
Location not specified	
	<i>Beauveria brongniartii</i> 4380 4381
Nepal	
	<i>Metarhizium anisopliae</i> sensu lato 7527 7529
Papua New Guinea	
	<i>Metarhizium anisopliae</i> sensu lato 2163
	<i>Metarhizium pingshaense</i> 2162
Poland	
	<i>Metarhizium majus</i> 1858 1859
PR China	
	<i>Metarhizium guizhouense</i> 683
Republic of Korea	
	<i>Beauveria bassiana</i> 7264
	<i>Beauveria sungii</i> 5689
Russian Federation	
	<i>Clonostachys rosea</i> 9491
	<i>Cordyceps</i> sp. 7848
	<i>Engyodontium rectidentatum</i> 7805
Syria	
	<i>Purpureocillium lilacinum</i> 6110
Turkey	
	<i>Beauveria pseudobassiana</i> 5669
USA, Vermont	
	<i>Pochonia chlamydosporia</i> 3314
Uzbekistan	
	<i>Beauveria bassiana</i> 6058
Adoryphorus sp.	
Australia	
	<i>Metarhizium frigidum</i> 4124
Adoryphorus coulonii	
	<i>Metarhizium anisopliae</i> sensu lato 4142 4239
Australia	
	<i>Beauveria amorphula</i> 4149
	<i>Beauveria bassiana</i> 4135 4136 4642
	<i>Beauveria pseudobassiana</i> 4274 4721
	<i>Metarhizium anisopliae</i> sensu lato 4137 4138 4141 4346 4677 4716 4722 7815
	<i>Metarhizium flavoviride</i> 4719 4720
	Sterile mycelium 4243
Amphimallon majale	
USA, New York	
	<i>Metarhizium anisopliae</i> sensu lato 9373
Amphimallon solstitiale	
Denmark	
	<i>Beauveria caledonica</i> 8024
Turkey	
	<i>Clonostachys rosea</i> 11678 11682 11687

<i>Fusarium</i> sp.	11670 11671 11672 11673 11674 11675 11677 11679 11680 11684	<i>Penicillium</i> sp. 348 4140
	<i>Metarhizium guizhouense</i> 11668 11669	New Zealand
	<i>Mixed Culture</i> sp.	<i>Beauveria bassiana</i> 8079
	11676 11685 11686 11681 11683	<i>Beauveria pseudobassiana</i> 3070
<i>Ancognatha scarabaeoides</i>		<i>Cochliotis melolonthoides</i>
Colombia		Tanzania
	<i>Beauveria bassiana</i> 2249 2250	Unidentified / Hyphomycetes
	<i>Metarhizium robertsii</i> 797	11666
<i>Anomala costata</i>		<i>Costelytra zealandica</i>
Japan		Netherlands
	<i>Beauveria amorphula</i> 1676	<i>Beauveria brongniartii</i> 7761
	<i>Beauveria brongniartii</i> 985	New Zealand
<i>Anomala cuprea</i>		<i>Beauveria brongniartii</i> 3054
	<i>Cordyceps brongniartii</i> 7517	<i>Beauveria pseudobassiana</i> 3055
Japan		<i>Metarhizium anisopliae</i> sensu lato
	<i>Beauveria bassiana</i> 1683	3057
	<i>Beauveria</i> sp. 1682	<i>Metarhizium novozealandicum</i>
	<i>Cordyceps brongniartii</i> 7516	3056
<i>Anomola</i> sp.		<i>Metarhizium pingshaense</i> 7435
Myanmar		<i>Cotinis nitida</i>
	<i>Metarhizium anisopliae</i> sensu stricto 8738	USA, Georgia
	<i>Metarhizium pingshaense</i> 8739 8740 8741 8742 8743	<i>Metarhizium anisopliae</i> sensu lato
<i>Anoplognathus</i> sp.		11951
Australia		<i>Cyclocephala</i> sp.
	<i>Beauveria bassiana</i> 8763	Australia
	<i>Metarhizium anisopliae</i> sensu lato 8764	<i>Metarhizium anisopliae</i> sensu lato
	<i>Metarhizium majus</i> 4566 4601 7505	8837 8838
<i>Anoplognathus hirsutus</i>		<i>Cylcocephala signaticolis</i>
Australia		Argentina
	<i>Metarhizium anisopliae</i> sensu lato 4574 4779	<i>Isaria farinosa</i> 2973
	<i>Antitrogus consanguineus</i>	<i>Dasygnathus dejeani</i>
Australia		Australia
	<i>Metarhizium anisopliae</i> sensu lato 8761	<i>Metarhizium anisopliae</i> sensu lato
	<i>Antitrogus mussoni</i>	8839
Australia		<i>Dermolepida albohirtum</i>
	<i>Metarhizium anisopliae</i> sensu lato 7842 7865 7931	<i>Metarhizium anisopliae</i> sensu lato
	<i>Metarhizium pingshaense</i> 7417	7492
<i>Antitrogus parvulus</i>		<i>Metarhizium</i> sp. 7493
Australia		Australia
	<i>Metarhizium anisopliae</i> sensu lato 8832 8893	<i>Metarhizium anisopliae</i> var. <i>lepidiotae</i>
	<i>Metarhizium anisopliae</i> sensu lato 7496 7819 7839 7854 7864 8833 8834	7453
	<i>Metarhizium pingshaense</i> 7410	<i>Metarhizium anisopliae</i> sensu lato
<i>Aphodius fimetarius</i>		8744 8754 8755 10469
Denmark		<i>Metarhizium lepidiotae</i> 7488
	<i>Verticillium lecanii</i> 4047	<i>Metarhizium pingshaense</i> 7452
<i>Aphodius howitti</i>		<i>Diloboderus abderus</i>
Location not specified		Argentina
	<i>Ophiocordyceps aphodii</i> 5498	<i>Metarhizium brunneum</i> 6120
<i>Aphodius tasmaniae</i>		<i>Heptophylla picea</i>
Australia		Japan
	<i>Metarhizium anisopliae</i> sensu lato 347 4132 4133 4139 7845	<i>Paecilomyces canadensis</i> 984
	<i>Metarhizium brunneum</i> 346 4125 4131	<i>Heteronychus arator</i>
		Australia
		<i>Metarhizium anisopliae</i> sensu lato
		7932 7933 7934 7935 7936 8848 8849
		<i>Metarhizium pingshaense</i> 8555
		<i>Metarhizium robertsii</i> 7424 8549 8550 8551 8552 8553 8554 8556 8557 8576
<i>Heteronyx</i> sp.		<i>Heteronyx</i> sp.
Australia		Australia
		<i>Metarhizium anisopliae</i> sensu lato
		7843 7844
		<i>Metarhizium anisopliae</i> sensu
		stricto 8586

Fungus by Host and Location

<i>Heteronyx piceus</i>	<i>Metarhizium robertsii</i> 7449
Australia	
<i>Metarhizium anisopliae</i> sensu lato	7451 8620
<i>Metarhizium anisopliae</i> sensu stricto	7450 8500 8615 8616 8617
<i>Metarhizium pingshaense</i>	8618 8621
<i>Metarhizium robertsii</i>	8558 8559 8582 8583 8592
<i>Heteronyx rugosipennis</i>	
Australia	
<i>Metarhizium anisopliae</i> sensu lato	8564 8610
<i>Metarhizium pingshaense</i>	8566
<i>Metarhizium robertsii</i>	8563 8565 8567 8577
<i>Holotrichia consanguinea</i>	
India	
<i>Metarhizium anisopliae</i> sensu stricto	10475
<i>Holotrichia parallela</i>	
China	
<i>Beauveria asiatica</i>	4384 4474
<i>Beauveria brongniartii</i>	4385 4386 4388 4465 4466 4467 4468 4469 4470 4471 4472 4473 4475 4476 4477 4478
<i>Mixed Culture</i> sp.	4387
<i>Holotrichia serrata</i>	
India	
<i>Metarhizium anisopliae</i> sensu stricto	10472 10476
<i>Lachnostenra bidentata</i>	
Malaysia	
<i>Metarhizium flavoviride</i>	8737
<i>Lachnostenra morosa</i>	
Japan	
<i>Beauveria sungii</i>	1685
<i>Lepidiota consobrina</i>	
<i>Metarhizium anisopliae</i> sensu lato	8830 8831
Australia	
<i>Metarhizium anisopliae</i> var. <i>lepidiotae</i>	8732
<i>Metarhizium anisopliae</i> sensu lato	7827 7828 7846 8845 8850
<i>Metarhizium lepidiotae</i>	7411 7412
<i>Lepidiota frenchi</i>	
Australia	
<i>Metarhizium anisopliae</i> sensu lato	7829 7830 7831 8733
<i>Lepidiota gibbifrons</i>	
Australia	
<i>Metarhizium anisopliae</i> sensu lato	7824 7825 7826
<i>Lepidiota negatoria</i>	
Australia	
<i>Metarhizium anisopliae</i> sensu lato	7832
<i>Lepidiota noxia</i>	
Australia	
<i>Metarhizium anisopliae</i> sensu lato	7504

<i>Coleoptera: Scarabaeidae</i>	
<i>Lepidiota picticollis</i>	<i>Metarhizium anisopliae</i> sensu lato 8501
<i>Lepidiota squamulata</i>	Australia <i>Metarhizium anisopliae</i> sensu lato 7816
<i>Melolontha</i> sp.	Germany <i>Beauveria brongniartii</i> 5355 5356 5357 5358 5359 5360 5361 5362 5363 5364
<i>Melolontha melolontha</i>	France <i>Beauveria brongniartii</i> 617 979 <i>Metarhizium guizhouense</i> 977
<i>Oryctes</i> sp.	Switzerland <i>Beauveria brongniartii</i> 1067 1068 1069 1070 1071 1072 1076 1077 7528
<i>Pachnodia interrupta</i>	Metarhizium anisopliae sensu lato 7532 Metarhizium brunneum 1066
<i>Papuana</i> sp.	Papua New Guinea <i>Metarhizium anisopliae</i> sensu lato 2156 2165 2166 2167
<i>Papuana woodlarkiana</i>	Philippines <i>Metarhizium majus</i> 1914
<i>Phyllopertha horticola</i>	France <i>Metarhizium majus</i> 978 3145
<i>Phyllophaga</i> sp.	Indonesia, Java Barat, Java <i>Metarhizium majus</i> 2151
<i>Protaetia orientalis submarumorella</i>	Philippines <i>Metarhizium majus</i> 1946
<i>Popillia japonica</i>	Thailand <i>Metarhizium pingshaense</i> 538
<i>Popillia japonica</i>	Ethiopia <i>Aspergillus flavus</i> 6454 <i>Beauveria bassiana</i> 6669 6676 6681
<i>Popillia japonica</i>	<i>Metarhizium anisopliae</i> sensu lato 6670 6671 6672 6673 6674 6675 6677 6678 6679 6680 6682 6683 6684 6685
<i>Popillia japonica</i>	Papua New Guinea <i>Metarhizium anisopliae</i> sensu lato 8748
<i>Popillia japonica</i>	Papau New Guinea <i>Metarhizium guizhouense</i> 4604
<i>Popillia japonica</i>	Norway <i>Metarhizium anisopliae</i> sensu lato 6901 <i>Metarhizium brunneum</i> 6477
<i>Popillia japonica</i>	Mexico <i>Beauveria bassiana</i> 5740 5741 5742 5743 5744 5745
<i>Popillia japonica</i>	USA, Oklahoma <i>Beauveria</i> sp. 12793 12794 12795 <i>Metarhizium anisopliae</i> sensu lato 12798
<i>Popillia japonica</i>	Japan <i>Metarhizium majus</i> 12557
<i>Popillia japonica</i>	Canada <i>Metarhizium</i> sp. 12796
<i>Popillia japonica</i>	<i>Phyllophaga ?anxia</i> Canada <i>Metarhizium anisopliae</i> sensu lato 2135 2136 2137 2138 2139
<i>Popillia japonica</i>	<i>Metarhizium robertsii</i> 2134
<i>Popillia japonica</i>	<i>Phyllophaga anxia</i> Canada <i>Metarhizium anisopliae</i> sensu lato 8499
<i>Popillia japonica</i>	<i>Phyllophaga cuyabana</i> Brazil, Paraná <i>Metarhizium anisopliae</i> sensu stricto 3924
<i>Popillia japonica</i>	<i>Phyllophaga menetriesi</i> Colombia <i>Evlachovaea</i> sp. 7551
<i>Popillia japonica</i>	<i>Popillia japonica</i> Azores <i>Beauveria amorphpha</i> 4990 <i>Beauveria brongniartii</i> 4991 4992 4993 4994 4995
<i>Popillia japonica</i>	Japan <i>Beauveria brongniartii</i> 4389 4458 <i>Beauveria</i> sp. 4390 4391 4392 <i>Metarhizium robertsii</i> 1046 Unidentified / <i>Hyphomycetes</i> 5223 5224 5225 5226 5227
<i>Popillia japonica</i>	Location not specified <i>Beauveria bassiana</i> 3716 3717 <i>Cordyceps</i> sp. 3718 3714 3719
<i>Popillia japonica</i>	Portugal <i>Beauveria bassiana</i> 5148 5150 <i>Isaria fumosorosea</i> 2679 <i>Metarhizium anisopliae</i> sensu lato 3329 4907 4908 <i>Metarhizium brunneum</i> 3864 <i>Metarhizium robertsii</i> 5149 <i>Metarhizium</i> sp. 3863 3865 3841
<i>Popillia japonica</i>	USA, New York <i>Metarhizium anisopliae</i> sensu lato 1280
<i>Popillia japonica</i>	USA, Connecticut <i>Metarhizium anisopliae</i> sensu lato 3713 3720
<i>Popillia japonica</i>	USA, New York <i>Metarhizium anisopliae</i> sensu lato 9372 <i>Metarhizium robertsii</i> 1298 1878
<i>Popillia japonica</i>	USA, Connecticut <i>Metarhizium robertsii</i> 3721
<i>Popillia japonica</i>	USA, New York <i>Purpureocillium lilacinum</i> 9371
<i>Popillia japonica</i>	USA, Connecticut Unidentified sp. 3722
<i>Popillia japonica</i>	USA, New York <i>Metarhizium anisopliae</i> sensu lato 2548 3330 3331 3332 3333 3334 3335 3336 3337 3338 3339 3340

Coleoptera: Scarabaeidae**Coleoptera: Scolytidae****Fungus by Host and Location**

<i>Rhizotrogus majalis</i>	
USA, New York	
<i>Metarhizium robertsii</i> 4123 2547	
3108 3211	
Unidentified / Hyphomycetes	
2999	
<i>Rhopaea magnicornis</i>	
Australia	
<i>Beauveria bassiana</i> 4130 7813 8853	
8854	
<i>Isaria fumosorosea</i> 8892	
<i>Metarhizium anisopliae</i> sensu lato	
8492 8765 8766 8767 8829 8844	
<i>Metarhizium</i> sp. 7495 8851 8852	
8855 8856 8857	
<i>Rhopaea verreauxii</i>	
Australia	
<i>Metarhizium anisopliae</i> sensu lato	
8495	
<i>Scapanes australis</i>	
Papua New Guinea	
<i>Metarhizium pingshaense</i> 3604	
<i>Sericesthis micans</i>	
Australia	
<i>Metarhizium anisopliae</i> sensu lato	
4568 4777 4778	
<i>Sericethis nigrolineata</i>	
Australia	
<i>Beauveria bassiana</i> 7853	
<i>Metarhizium anisopliae</i> sensu lato	
4780 7814 7863	
<i>Sericethis</i> sp.	
Australia	
<i>Metarhizium anisopliae</i> sensu lato	
4134 4236	
<i>Strigoderma arboricola</i>	
USA, Michigan	
<i>Metarhizium robertsii</i> 1968	
<i>Xyloryctes jamaicensis</i>	
India	
<i>Beauveria</i> sp. 2412	
Western Samoa	
<i>Metarhizium majus</i> 297 298	
Coleoptera: Scarabaeidae: Aphodiinae	
USA, New York	
<i>Tolyphocladium inflatum</i> 4877 4878	
4879 4880 4881 4882 4883 4884	
4885 4886 4887 4888 4889 4890	
4891 4892 4893 4894 4895 4896	
4897 4898	
Coleoptera: Scarabaeidae: Melolonthinae	
Antitrogus rugulosus	
Australia	
<i>Paraisaria dubia</i> 5764	
Coleoptera: Scolytidae	
Switzerland	
<i>Beauveria bassiana</i> 1566	
<i>Beauveria caledonica</i> 1567	
USA, Hawaii	
<i>Beauveria bassiana</i> 3040	

<i>Dendroctonus micans</i>	
Denmark	
<i>Lecanicillium muscarium</i> 4036	
Turkey	
<i>Beauveria bassiana</i> (?) 9271	
<i>Beauveria</i> sp. 9272 9273 9274	
<i>Isaria farinosa</i> 9269 9270 9275 9276	
9277 9278	
<i>Lecanicillium muscarium</i> 9267	
9268	
<i>Dendroctonus ponderosae</i>	
Canada, British Columbia	
<i>Beauveria bassiana</i> 1849 1853	
<i>Dendroctonus rufipennis</i>	
Canada, British Columbia	
<i>Evlachovaea</i> sp. 1017	
<i>Dryocoetes confusus</i>	
Canada	
<i>Beauveria bassiana</i> 9184	
Canada, British Columbia	
<i>Beauveria bassiana</i> 1852	
<i>Hypothenemus hampei</i>	
Benin	
<i>Fusarium</i> sp. 5875 5878	
<i>Purpureocillium lilacinum</i> 5876	
5877 5880 5882 6188 6190	
Brazil, São Paulo	
<i>Beauveria bassiana</i> 1480	
Cameroon	
<i>Beauveria bassiana</i> 6526 6527 6528	
6529 6530 6531 6532	
Colombia	
<i>Acremonium alternatum</i> 7282	
<i>Fusarium nygamai</i> 6602	
Indonesia, Sulawesi	
<i>Fusarium</i> sp. 7063	
Ivory Coast	
<i>Beauveria bassiana</i> 5436 5437 5438	
5439 5440 5441 5442 5459 5460	
5477 5482 5483 5484 5485 5486	
5487	
<i>Fusarium</i> sp. 5461	
<i>Isaria fumosorosea</i> 6730	
Kenya	
<i>Beauveria bassiana</i> 2685 2686 2687	
Mexico	
<i>Beauveria bassiana</i> 2693 3818 3819	
<i>Isaria fumosorosea</i> 7284	
Nicaragua	
<i>Beauveria bassiana</i> 3440 3443 3445	
3448 3453	
Sri Lanka	
<i>Beauveria bassiana</i> 7758	
Togo	
<i>Beauveria bassiana</i> 2688 2689 2690	
2691 2692 5443 5444 5445 5446	
5447 5448 5449 5450 5451 5452	
5453 5454 5455 5456 5457 5458	
5478 5479 5480 5481 5488 5489	
5490	
Uganda	
<i>Fusarium</i> sp. 5879	
USA, Hawaii	
<i>Beauveria bassiana</i> 10471	
USA, Hawai'i	
<i>Beauveria bassiana</i> 12573 12574	
12575 12576 12577 12578 12579	
12580 12581 12582 12583 12584	
12585 12586 12587 12588 12589	
12590 12591 12592 12593 12594	
12595 12596 12597 12598 12599	
12600 12601 12602 12603 12604	
12605 12606 12607 12608 12609	
12610 12611 12612 12613 12614	
12615 12616 12617 12618 12619	
12805 12806 12807 12808 12809	
12810 12811 12812 12813 12814	
12815 12816 12821 12891 12892	
12893 12894	
USA, Puerto Rico	
<i>Beauveria bassiana</i> 13402 13403	
13404 13405	
USA, Hawaii	
<i>Beauveria bassiana</i> 13515 13516	
13517 13518 13519 13520 13521	
USA, Hawai'i	
<i>Beauveria bassiana</i> 13522 13523	
13524 13525 13526 13527 13528	
13529 13530 13531 13532 13533	
13534 13535	
USA, Hawaii	
<i>Beauveria bassiana</i> 13536	
USA, Puerto Rico	
<i>Beauveria bassiana</i> 13541	
USA, Hawaii	
<i>Beauveria bassiana</i> 13542 13543	
13544 13545 13546 13547 13548	
13549 13550 13551 13552	
USA, Hawai'i	
<i>Beauveria bassiana</i> 13553	
USA, Hawaii	
<i>Beauveria bassiana</i> 13554 13555	
USA, Hawaii	
<i>Beauveria bassiana</i> 13555 13556	
13556 13557 13558 13559 13560	
13561 13562 13563 13564 13565	
13566 13567 13568 13569 13572	
13573 13574 13575 13576 13577	
13578 13579 13580 13581 13582	
13583 13584 13585 13586 13587	
13588	
USA, Hawai'i	
<i>Beauveria bassiana</i> 13589 13590	
13591 13592 13593 13594	
USA, Hawaii	
<i>Beauveria bassiana</i> 13596 13597	
13598	
USA, Hawai'i	
<i>Beauveria bassiana</i> sensu lato	
12982 12983 12984 12985 12986	
12987 12988 12989 12990 12991	
12992 12993 12994 12995 12996	
12997 12998 12999 13000 13001	
13002 13003 13004 13005 13006	
13007 13008 13009 13010 13011	
13012 13013 13014 13015 13016	
13017 13018 13019 13020 13046	
13047 13048 13049 13050 13051	
13052 13053 13054 13055 13056	
13057 13058 13059 13060 13061	
13062 13063 13064 13065 13066	
13067 13068 13069 13070 13071	

Fungus by Host and Location

Coleoptera: Scolytidae

Coleoptera: Tenebrionidae

13072 13073 13074 13075 13076	<i>Tomicus pimperda</i>	<i>Pterohelaeus darlingensis</i>
13077 13078 13079 13080 13081	France	Australia
13082 13083 13084 13085 13086	<i>Beauveria</i> sp. 4909 4910 4911 4912	<i>Beauveria bassiana</i> 8065
13087 13089 13090 13091 13092	4913 4914 4915 4916 4917 4918	<i>Tenebrio molitor</i>
13093 13094		<i>Aspergillus flavus</i> 9381
<i>Beauveria</i> sp. 13377 13378 13379	Coleoptera: Scolytidae (Tribe Ipini)	Denmark
13380 13381	PR China	<i>Beauveria bassiana</i> 8038
USA, Hawaii	<i>Beauveria pseudobassiana</i> 6229	Finland
<i>Beauveria</i> sp. 13382 13383 13384	Coleoptera: Silphidae	<i>Beauveria bassiana</i> 5623
13385 13386 13387 13388 13389	Russian Federation	<i>Isaria fumosorosea</i> 5627
13390 13391 13392 13393 13394	<i>Isaria farinosa</i> 9511	<i>Metarhizium brunneum</i> 5626
13395	<i>Lecanicillium</i> sp. 9459	Mexico
USA, Hawaii	Coleoptera: Staphylinidae	<i>Metarhizium anisopliae</i> sensu lato
<i>Beauveria</i> sp. 13397	Australia	11945 11946 11947
USA, Hawaii	<i>Metarhizium anisopliae</i> sensu lato	Republic of China
<i>Beauveria</i> sp. 13398 13399	8734	<i>Isaria farinosa</i> 8917
USA, Hawaii	Denmark	<i>Lecanicillium muscarium</i> 8923
<i>Beauveria</i> sp. 13407 13408 13409	<i>Beauveria bassiana</i> 4055	<i>Metarhizium anisopliae</i> sensu lato
13410 13411 13412	USA, New York	8775 8776 8777 8778 8779 8780
USA, Hawaii	<i>Metarhizium carneum</i> 11836	8781 8782 8783 8784 8785 8786
<i>Beauveria</i> sp. 13413 13414 13415	USA, Nebraska	8787 8788 8789 8790 8791 8792
13416 13417 13418 13419	<i>Beauveria bassiana</i> 3112	8793 8794 8795 8796 8797 8798
USA, Hawaii	Anotylus rugosus	8799 8858 8859 8860 8861 8862
<i>Beauveria</i> sp. 13420	Denmark	8863 8864 8865 8866 8867 8868
USA, Hawaii	<i>Beauveria bassiana</i> 4051 4056	8869 8870 8871 8872 8873 8874
<i>Beauveria</i> sp. 13421 13422	Anotylus sp.	8875 8876 8877 8878 8879 8880
USA, Hawaii	Denmark	8881 8882 8883 8884 8885 8886
<i>Beauveria</i> sp. 13423	<i>Beauveria bassiana</i> 4046	8887 8894 8895 8896 8897 8898
USA, Hawaii	Staphylinus olens	8899 8900 8901 8902 8903 8904
<i>Beauveria</i> sp. 13424 13595	Denmark	8905 8906 8907 8908 8909 8910
USA, Texas	<i>Beauveria bassiana</i> 4054	8911 8912 8913 8914 8915 8916
<i>Candida</i> sp. 5729	Tachyporus hypnorum	8941 8942 8943 8944 8945 8946
USA, Hawaii	Denmark	8947 8948 8949 8950 8951 8952
<i>Hirsutella eleutherorum</i> 13375	<i>Lecanicillium longisporum</i> 4050	8953 8954 8955 9235 9236
<i>Metarhizium</i> sp. 13088	Tachyporus sp.	<i>Purpureocillium lilacinum</i> 8918
<i>Ips</i> sp.	Denmark	8919 8920 8921 8922
Canada, British Columbia	<i>Beauveria bassiana</i> 4028	<i>Scopulariopsis</i> sp. 11652
<i>Beauveria pseudobassiana</i> 1855	Coleoptera: Tenebrionidae	<i>Tribolium castaneum</i>
USA, Vermont	Brazil, Ceará	Finland
<i>Lecanicillium</i> nr. <i>aranearum</i> 11799	<i>Beauveria bassiana</i> 757 783 787	<i>Beauveria pseudobassiana</i> 5622
USA, New Hampshire	Kazakhstan	<i>Metarhizium anisopliae</i> sensu lato
<i>Lecanicillium muscarium</i> 11803	<i>Beauveria bassiana</i> 6478 6483	5624
<i>Ips stenographus</i>	<i>Verticillium lecanii</i> 6487	<i>Metarhizium brunneum</i> 5625
Norway	Republic of Korea	USA, Washington
<i>Beauveria bassiana</i> 6900	<i>Isaria farinosa</i> 5699	<i>Metarhizium anisopliae</i> sensu lato
<i>Ips typographus</i>	USA, Vermont	3389
Denmark	<i>Isaria farinosa</i> 11827	<i>Metarhizium robertsii</i> 3388
<i>Beauveria brongniartii</i> 4024	Uzbekistan	
Slovakia	<i>Beauveria bassiana</i> 6057 6064 6077	
<i>Beauveria bassiana</i> 12957 12958	6078 6096 6113	
12960 12961 12962 12964 12965	Alphitobius diaperinus	
12966 12967 12968 12970 12971	<i>Beauveria bassiana</i> 5836 5838 5839	
12973 12974 12975 12977 12978	5840 5843	
12979 12980	<i>Isaria fumosorosea</i> 5844 5845 5846	
<i>Beauveria caledonica</i> 12963 12969	5847	
12972	<i>Metarhizium anisopliae</i> sensu lato	
<i>Beauveria pseudobassiana</i> 12959	5837 5841 5842 5848 5850	
12976 12981	<i>Verticillium lecanii</i> 5849	
Switzerland	Denmark	
<i>Beauveria bassiana</i> 7525 7526	<i>Isaria farinosa</i> 5858	
<i>Tomicus minor</i>	USA, West Virginia	
France	<i>Beauveria bassiana</i> 7941	
<i>Beauveria bassiana</i> 4980 5071		
<i>Beauveria pseudobassiana</i> 4933		
5070		

Argentina

Buenos Aires
Beauveria bassiana 5501 7202 7466
 7471 8461 8520 8521 8522 8523 8524
 8525 8526 8530
Beauveria sp. 7463
Isaria farinosa 2973
Metarhizium brunneum 6120

Corrientes
Beauveria bassiana 8464

Tucumán
Beauveria bassiana 2010 2509 2515
 7470 8372 8373 8462 8463

Australia

Metarhizium brunneum 4125 4228

Australian Capital Territory
Beauveria bassiana 7853

Metarhizium anisopliae sensu lato
 7863 8837 8838

New South Wales
Beauveria bassiana 4130 7813 8763
 8853 8854

Isaria fumosorosea 8892

Metarhizium anisopliae sensu lato
 4568 4574 4777 4778 4779 4780 7498
 7499 7500 7814 8492 8495 8764 8765
 8766 8767 8829 8844

Metarhizium brunneum 472

Metarhizium majus 4566 4601

Metarhizium sp. 7495 8851 8852 8855
 8856 8857

Northern Territory
Metarhizium anisopliae sensu lato
 8745 8746 8747

Queensland
Beauveria bassiana 325 8065

Metarhizium anisopliae var. *lepidiotae*
 7453 8732

Metarhizium anisopliae sensu lato
 7451 7496 7504 7816 7819 7824 7825
 7826 7827 7828 7829 7830 7831 7832
 7839 7842 7843 7844 7846 7854 7864
 7865 7931 8564 8610 8620 8733 8734
 8744 8754 8755 8761 8762 8828 8833
 8834 8839 8845 8847 8850 10469

Metarhizium anisopliae sensu stricto
 7450 8500 8586 8615 8616 8617

Metarhizium lepidiotae 7411 7412
 7488

Metarhizium majus 7505

Metarhizium pingshaense 7410 7417
 7452 8566 8618 8619 8621

Metarhizium robertsii 7449 8558 8559
 8563 8565 8567 8577 8582 8583 8592

Paraisaria dubia 5764

South Australia
Metarhizium anisopliae sensu lato
 347 4132 4133 4139 7845

Metarhizium brunneum 346 4131

Penicillium sp. 348

Tasmania
Beauveria amorphula 4149

Beauveria bassiana 4135 4136 4642
 8835 8836

Beauveria pseudobassiana 4274 4721

Isaria fumosorosea 8840

Metarhizium anisopliae sensu lato
 4134 4137 4138 4141 4236 4346 4677
 4716 4722

Metarhizium flavoviride 4719 4720

Sterile mycelium 4243

Unidentified sp. 4140

Victoria
Beauveria bassiana 8756 8757

Metarhizium anisopliae sensu lato
 7815

Metarhizium frigidum 4124

Metarhizium robertsii 8543 8544 8545
 8546 8547 8548

Western Australia
Metarhizium anisopliae sensu lato
 7932 7933 7934 7935 7936 8848 8849

Metarhizium pingshaense 8555

Metarhizium robertsii 7424 8549 8550
 8551 8552 8553 8554 8556 8557 8576

Azores
Beauveria amorphula 4990

Beauveria brongniartii 4991 4992
 4993 4994 4995

Belarus
Isaria sp. 9519

Purpureocillium lilacinum 9524

Polycephalomyces sp. 9497

Lecanicillium fungicola 9483

Belgium
Beauveria bassiana 1848

Benin
Fusarium sp. 5875 5878

Purpureocillium lilacinum 5876 5877
 5880 5882 6188 6190

Brazil
Beauveria bassiana 1833 3219

Beauveria sp. 1835

Isaria amoenerosea 4097

Alagoas
Beauveria bassiana 1954 1956

Isaria farinosa 1957

Amazonas
Beauveria bassiana 731 732 756 2512

Isaria fumosorosea 2956

Bahia
Beauveria bassiana 1961 2075

Metarhizium anisopliae sensu lato
 1958

Ceará
Beauveria bassiana 753 757 783 784
 785 786 787 788 804 805 4001

Distrito Federal
Metarhizium anisopliae sensu lato
 3479

Espírito Santo
Beauveria bassiana 1483

Goiás
Beauveria bassiana 733 734 735 736
 738 739 752 754 758 809 928 930 931
 934 956 1451 1476 1971 2079 2625
 2626 2938 2942 2961

Isaria amoenerosea 741 744 2220 2958
 2959 2960

Isaria fumosorosea 722 2216 2217
 2219 2221

Metarhizium anisopliae sensu lato
 725 726 760 808 929 932 939 1885
 2076 2077 2513 2635 2941

Metarhizium robertsii 724 2514

Purpureocillium lilacinum 723 2952

Penicillium sp. 2950

Pochonia chlamydosporia var.
chlamydosporia 2218

Mato Grosso
Beauveria bassiana 937 938 941 942
 943 946 947 948 949 950 951 952
 953 982

Metarhizium anisopliae sensu lato
 954

Pará
Beauveria caledonica 2251

Metarhizium anisopliae sensu lato
 1901

Paraná
Beauveria bassiana 958 1060 1061
 1450 1453 1454 1455 1458 1461 1462
 1463 1466 1469 2511 2642

Metarhizium anisopliae sensu lato
 1056 1452 1989

Metarhizium anisopliae sensu stricto
 3924

Rio de Janeiro
Purpureocillium lilacinum 1951

Rio Grande do Sul
Beauveria bassiana 1456 1459 1460
 1464 1465 1475 3098

Unidentified sp. 3471 3478

Santa Catarina
Beauveria bassiana 1467 1470 1471
 1472 1473

São Paulo
Beauveria bassiana 1480 1966 2559
 2638 2639 2945 2946

Cameroon

Centre-Sud
Beauveria bassiana 6526 6527 6528
 6529 6530 6531 6532

Canada

Beauveria bassiana 9184

Metarhizium anisopliae sensu lato
 2135 2136 2137 2138 2139 8499

Metarhizium robertsii 2134

British Columbia
Beauveria bassiana 1849 1852 1853
 1854 7972 7978

Beauveria pseudobassiana 1855

Evlachovaea sp. 1017

Lecanicillium muscarium 8048 8049
 8050 8051 8052 8053 8054

Lecanicillium pissodis 8055 8056 8057

Tolypocladium cylindrosporum 7456

Ontario
Beauveria bassiana 5807 10393 10394
 10395 10396 10397 10398 10399

10400 10401 10402 10403 10404

10405 10406 10407 10408 10409

Geographical Origin

	Canada France
10410 10411 10412 10413 10414	
10415 10416 10417 10418 10419	
10420 10421 10422 10423 10424	
10425 10426 10427 10428 10429	
10430 10431 10432 10433 10434	
10435 10436 10437 10438 10439	
10440 10441 10442 10443 10444	
10445 10446 10447 10448 10449	
10450 10451 10452 10453 10454	
10455 10456 10457 10458 10459	
10460 10461 10462 10463 10464	
10465 10466 10467 10468	
Québec	
<i>Beauveria bassiana</i> 2983 2984 2985	
2986 2987 2988 2989 2990 2991	
<i>Metarhizium robertsii</i> 2981	
China	
<i>Beauveria asiatica</i> 4384 4474	
<i>Beauveria brongniartii</i> 4385 4386	
4388 4465 4466 4467 4468 4469	
4470 4471 4472 4473 4475 4476 4477	
4478	
<i>Mixed Culture</i> sp. 4387	
Colombia	
<i>Beauveria bassiana</i> 842	
Caldas	
<i>Acremonium alternatum</i> 7282	
<i>Fusarium nygamai</i> 6602	
Cauca	
<i>Eulachovaea</i> sp. 7551	
Cundinamarca	
<i>Metarhizium robertsii</i> 797	
Nariño	
<i>Beauveria bassiana</i> 2248 2249 2250	
<i>Isaria farinosa</i> 799	
Valle del Cauca	
<i>Beauveria bassiana</i> 721	
Commonwealth of Independent States	
<i>Beauveria bassiana</i> 2695	
Costa Rica	
Cartago	
<i>Beauveria bassiana</i> 3437 3438 3439	
3441 3442 3444 3446 3447 3450 3451	
3452 3455 3457	
Czech Republic	
<i>Metarhizium flavoviride</i> 2133	
Denmark	
<i>Batkoo</i> sp. 5810	
<i>Beauveria bassiana</i> 4019	
<i>Beauveria brongniartii</i> 4024	
<i>Isaria farinosa</i> 4043 4044	
<i>Lecanicillium muscarium</i> 4036	
<i>Verticillium lecanii</i> 4022	
Århus	
<i>Metarhizium brunneum</i> 4020	
Funen	
<i>Beauveria bassiana</i> 5857	
Fyn	
<i>Beauveria bassiana</i> 4051 4055 4056	
Jutland	
<i>Beauveria bassiana</i> 4021 4031	
France	
<i>Isaria farinosa</i> 5858	
<i>Verticillium lecanii</i> 5856	
Lammfjorden	
<i>Erynia</i> sp. 2664	
<i>Storstrøm</i>	
<i>Beauveria bassiana</i> 4015	
<i>Vestsjælland</i>	
<i>Zoophthora anglica</i> 2505	
<i>Zealand</i>	
<i>Beauveria bassiana</i> 4013 4018 4023	
4034 4038 4041 4046 4049 4052 4054	
8037 8038	
<i>Beauveria caledonica</i> 8024	
<i>Beauveria</i> sp. 4027	
<i>Fusarium</i> sp. 4011	
<i>Isaria farinosa</i> 4039 4045	
<i>Lecanicillium longispororum</i> 4050	
<i>Sterile mycelium</i> 4009	
<i>Unidentified</i> sp. 4037	
<i>Verticillium lecanii</i> 4047 4048	
<i>Zeeland</i>	
<i>Beauveria bassiana</i> 4016 4028 4032	
<i>Erynia</i> sp. 2525 2536 2537 2538 2539	
2553 2662 2663	
<i>Isaria farinosa</i> 4029 4040	
<i>Lecanicillium muscarium</i> 4033	
Ecuador	
<i>Beauveria pseudobassiana</i> 2557	
Ethiopia	
Gojam	
<i>Beauveria bassiana</i> 6693	
Northern Shoa	
<i>Aspergillus flavus</i> 6454	
<i>Beauveria bassiana</i> 6669 6676 6681	
<i>Metarhizium anisopliae</i> sensu lato	
6670 6671 6672 6673 6674 6675 6677	
6678 6679 6680 6682 6683 6684 6685	
Sidamo	
<i>Beauveria bassiana</i> 6689	
Tigray	
<i>Beauveria bassiana</i> 6695 6696 6697	
Welo	
<i>Beauveria bassiana</i> 6692	
Western Shoa	
<i>Beauveria bassiana</i> 6686	
Finland	
<i>Beauveria pseudobassiana</i> 5622	
<i>Isaria fumosorosea</i> 5627	
Hämeen Lääni	
<i>Metarhizium brunneum</i> 5626	
Uudenmaan Lääni	
<i>Metarhizium anisopliae</i> sensu lato	
5624	
Vaasan Lääni	
<i>Beauveria bassiana</i> 5623	
<i>Metarhizium brunneum</i> 5625	
Haut-Savoie	
<i>Acremonium furcatum</i> 1372	
Hérault	
<i>Beauveria bassiana</i> 816 1185 5071	
5072	
<i>Beauveria pseudobassiana</i> 5070	
<i>Isaria farinosa</i> 5073 5074 5075	
<i>Metarhizium guizhouense</i> 819	
La Valette	
<i>Unidentified</i> sp. 3980	
Loire	
<i>Unidentified</i> sp. 1634 1667	
Loiret	
<i>Beauveria bassiana</i> 1191	
Maine-et-Loire	
<i>Metarhizium brunneum</i> 820	
Morbihan	
<i>Metarhizium flavoviride</i> 1184 2024	
Réunion	
<i>Metarhizium anisopliae</i> sensu lato	
3148	
Reunion Island	
<i>Beauveria hoplocheli</i> 13021	
Vaucluse	
<i>Beauveria bassiana</i> 1509 1510 1511	
1518 1519	
<i>Beauveria</i> sp. 4909 4910 4911 4912	
4913 4914 4915 4916 4917 4918	
<i>Isaria farinosa</i> 1507 1508	
<i>Isaria fumosorosea</i> 1506	
<i>Lecanicillium lecanii</i> 1505	
Vienne	
<i>Beauveria bassiana</i> 1491	

Vosges	Japan	Guanajuato State
<i>Beauveria</i> sp. 1327	<i>Beauveria brongniartii</i> 6235	Unidentified sp. 3821
Yvelines	<i>Harposporium janus</i> 5601	Jalisco
<i>Beauveria bassiana</i> 1156 1161 1162	<i>Beauveria bassiana</i> 1041	<i>Beauveria bassiana</i> 2330 5741 5742
1194 2463	<i>Aichi</i> Prefecture	5743 5744 5745
Germany	<i>Beauveria bassiana</i> 1041	<i>Metarhizium anisopliae</i> sensu lato
<i>Metarhizium brunneum</i> 5198	<i>Aomori</i> Prefecture	2331
<i>Metarhizium robertsii</i> 1910	<i>Mixed Culture</i> sp. 1043	Mexico
Hesse	<i>Fukuoka</i> Prefecture	<i>Metarhizium robertsii</i> 2469
<i>Beauveria bassiana</i> 340	<i>Metarhizium majus</i> 12557	Nuevo León
<i>Beauveria brongniartii</i> 5355 5356	<i>Hokkaido</i>	<i>Metarhizium anisopliae</i> sensu lato
5357 5358 5359 5360 5361 5362	<i>Beauveria brongniartii</i> 4389 4458	11945
5363 5364	<i>Beauveria</i> sp. 4390 4391 4392	Oaxaca
Rheinhessen-Pfalz	<i>Unidentified / Hyphomycetes</i> 5223	<i>Beauveria bassiana</i> 3818 3819
<i>Evlachovaea</i> sp. 7403	5224 5225 5226 5227	Tabasco
Ghana	Ibaraki Prefecture	<i>Beauveria bassiana(?)</i> 6890 6891
Unidentified / Hyphomycetes 8641	<i>Beauveria brongniartii</i> 6412	Veracruz
Hungary	<i>Beauveria sungii</i> 1685	<i>Metarhizium anisopliae</i> sensu lato
Csongrád	Kumamoto Prefecture	11946 11947
<i>Beauveria bassiana</i> 6884 6885	<i>Beauveria bassiana</i> 1679	Morocco
India	Nagano Prefecture	<i>Beauveria bassiana</i> 1153 1154 1155
<i>Beauveria brongniartii</i> 2660	<i>Beauveria amorpha</i> 1676	1163 1164 1171 1172 1173 1174 1175
<i>Beauveria</i> sp. 2412	<i>Beauveria bassiana</i> 1683	1176 1177 1178 1179 1180 1181 1183
<i>Metarhizium guizhouense</i> 3603	<i>Beauveria</i> sp. 1682	1188 1189 1190 1309 1311 1312 1313
<i>Metarhizium pingshaense</i> 2231 3210	<i>Cordyceps brongniartii</i> 7516	1811 1815 1816 1817 1818 1819 1820
Tamil Nadu	Nagasaki Prefecture	1821
<i>Beauveria</i> sp. 8250	<i>Beauveria bassiana</i> 1678	<i>Fusarium proliferatum</i> 1310
<i>Metarhizium anisopliae</i> sensu stricto	Tokyo Prefecture	Myanmar
10472 10475 10476	<i>Beauveria amorpha</i> 1680	<i>Metarhizium anisopliae</i> sensu stricto
Indonesia	<i>Beauveria brongniartii</i> 985	8738
<i>Metarhizium brunneum</i> 2224	<i>Beauveria</i> sp. 1681	<i>Metarhizium pingshaense</i> 8739 8740
Jawa Barat, Java	<i>Metarhizium robertsii</i> 1046	8741 8742 8743
<i>Metarhizium majus</i> 2151	<i>Paecilomyces canadensis</i> 984	Nepal
Sulawesi	<i>Tilachlidium</i> sp. 2415	<i>Cordyceps scarabaeicola</i> 7277 7278
<i>Fusarium</i> sp. 7063	Kazakhstan	Parbat District
Sulawesi Selatan, Celebes	<i>Beauveria bassiana</i> 6478 6483	<i>Metarhizium anisopliae</i> sensu lato
<i>Aspergillus parasiticus</i> 2173	<i>Isaria farinosa</i> 6488 6489 6491	7527 7529
<i>Metarhizium brunneum</i> 2210	<i>Verticillium lecanii</i> 6487	Netherlands
Unidentified / Hyphomycetes 2225	<i>Verticillium</i> sp. 6484 6501	<i>Beauveria brongniartii</i> 7761
Iran	Kenya	<i>Hirsutella fusiformis</i> 5474
Sistan Va Baluchestan	<i>Beauveria bassiana</i> 2685 2686 2687	New Zealand
<i>Beauveria bassiana</i> 6903	Kyrgyz Republic	<i>Metarhizium anisopliae</i> sensu stricto
Israel	<i>Beauveria bassiana</i> 6499	2518
<i>Conidiobolus osmodes</i> 79	<i>Verticillium</i> sp. 6486	South Island
<i>Conidiobolus</i> sp. 80 81	Malawi	<i>Beauveria bassiana</i> 8077 8078 8079
<i>Zoophthora phytonomi</i> 82 113 191 192	Southern	<i>Beauveria brongniartii</i> 3054
Italy	<i>Beauveria malawiensis</i> 7760	<i>Beauveria pseudobassiana</i> 3055 3063
<i>Beauveria bassiana</i> 1559 1560 1561	Malaysia	3065 3066 3070
1562 1563	<i>Beauveria</i> sp. 547	<i>Metarhizium anisopliae</i> sensu lato
Sicily	<i>Metarhizium flavoviride</i> 8737	3057
<i>Beauveria bassiana</i> 1106	Mexico	<i>Metarhizium novozealandicum</i> 3056
Ivory Coast	<i>Beauveria bassiana</i> 319 2693 3287	<i>Metarhizium pingshaense</i> 7435
<i>Beauveria bassiana</i> 5436 5437 5438	3309 3311 9297 9298 9299 9300 9301	Nicaragua
5439 5440 5441 5442 5459 5460 5477	9302	<i>Beauveria bassiana</i> 3440 3443 3445
5482 5483 5484 5485 5486 5487	<i>Metarhizium anisopliae</i> sensu lato	3448 3453
<i>Fusarium</i> sp. 5461	3305 3306 3308	Norway
<i>Isaria fumosorosea</i> 6730	Chiapas	Akershus
	<i>Isaria fumosorosea</i> 7284	<i>Beauveria bassiana</i> 6900 11660
	Colima	Østfold
	<i>Beauveria bassiana</i> 3310 5740	<i>Metarhizium anisopliae</i> sensu lato
	Durango	6901
	<i>Lecanicillium</i> sp. 2(?) 2832	<i>Metarhizium brunneum</i> 6477

Geographical Origin

Papau New Guinea
Switzerland

Papau New Guinea

Morobe Province
Metarhizium guizhouense 4604

Papua New Guinea

Metarhizium anisopliae sensu lato
2156 2163 2165 2166 2167 8748
Metarhizium pingshaense 2162 3604
Scopulariopsis sp. 2169
Synnematium jonesii 5664

Peru

Beauveria bassiana 5982
Andes Mountains
Beauveria amorphia 1969
Junín
Beauveria bassiana 5983
La Libertad
Beauveria bassiana 5984

Philippines

Benguet
Beauveria bassiana 3197 3198 3199
Manila
Beauveria brongniartii 1431
Isaria farinosa 2355 2379
Quezon
Metarhizium majus 1914 1946

Poland

Beauveria bassiana 301
Beauveria pseudobassiana 157
Lecanicillium muscarium 1335
Metarhizium majus 1858 1859
Polycephalomyces formosus 1424
Unidentified sp. 1429 1430

Portugal

Azores
Beauveria bassiana 5148 5150
Isaria fumosorosea 2679
Metarhizium anisopliae sensu lato
3329 4907 4908
Metarhizium brunneum 3864
Metarhizium robertsii 5149
Metarhizium sp. 3863 3865
Unidentified sp. 3841

PR China

Beauveria bassiana 6387
Anhui
Beauveria amorphia(?) 6827
Beauveria bassiana 6390 8414
Isaria catenianannulata 6241 6243
Isaria catenobiliqua 6244
Metarhizium pingshaense 8420
Scopulariopsis sp. 8421
Gansu Province
Beauveria bassiana 7155 7164
Guizhou Province
Beauveria pseudobassiana 6229
Isaria fumosorosea 9602
Hebei Province
Beauveria bassiana 7156 7157 7166
7167 7168 7169 7170 7171 7172 7173
7174 7175 7176 7177 7178
Kwon Tung
Metarhizium guizhouense 683

Shaanxi Province

Beauveria lii 11741
Yunnan Province
Mixed Culture sp. 11718

Republic of China

Taiwan
Isaria farinosa 8917
Lecanicillium muscarium 8923
Metarhizium anisopliae sensu lato
8775 8776 8777 8778 8779 8780 8781
8782 8783 8784 8785 8786 8787 8788
8789 8790 8791 8792 8793 8794 8795
8796 8797 8798 8799 8858 8859 8860
8861 8862 8863 8864 8865 8866 8867
8868 8869 8870 8871 8872 8873 8874
8875 8876 8877 8878 8879 8880 8881
8882 8883 8884 8885 8886 8887 8894
8895 8896 8897 8898 8899 8900 8901
8902 8903 8904 8905 8906 8907 8908
8909 8910 8911 8912 8913 8914 8915
8916 8941 8942 8943 8944 8945 8946
8947 8948 8949 8950 8951 8952 8953
8954 8955 9235 9236
Purpureocillium lilacinum 8918 8919
8920 8921 8922
Scopulariopsis sp. 11652

Republic of Georgia

Autonomous Republic of Adjara
Evlachovaea kintrischica 7218 8058
Kvemo Kartli
Beauveria bassiana sensu stricto
13750 13751

Republic of Kazakhstan

Beauveria bassiana 10350

Republic of Korea

Beauveria bassiana 2040
Beauveria sp. 4853
Cordyceps sp. 4852
Chungnam Province
Beauveria sp. 5697
Gyeongbuk Province
Beauveria bassiana 7275
Gyeonggi Province
Beauveria bassiana 7266
Isaria farinosa 5699
Unidentified / Hyphomycetes 5695
Jeju Province
Beauveria bassiana 7241 7271 7272
Jheonnam
Beauveria bassiana 7270
Kangwon-do
Beauveria bassiana 6721 7244 7247
7251 7261 7264
Beauveria brongniartii 7268
Beauveria sungii 5689 7279 7280
Isaria amoenerosea 4849
Isaria farinosa 7276
Isaria fumosorosea 5694
Lecanicillium muscarium 7248

Russian Federation

Karachayev-Cherkessiya Republ
Beauveria brongniartii 9452
Isaria farinosa 9511
Lecanicillium sp. 9459
Krasnodarsky Krai
Beauveria bassiana 9444
Metarhizium sp. 7643
Moscow Region
Beauveria bassiana 9441 9449
Isaria coleopterorum 9509
Lecanicillium nr. *aranearum* 9460
Primorsky Krai
Beauveria bassiana 7581 9442
Beauveria sp. 7580 7591
Clonostachys rosea 9491
Cordyceps sp. 7848
Engyodontium rectidentatum 7805
Isaria fumosorosea 7716
Lecanicillium sp. 7635 7636
Polycephalomyces sp. 9496
Tolyphocladium cylindrosporum 7812
Sakhalin Region
Sporothrix insectorum 9502

Slovakia

Beauveria bassiana 12957 12958
12960 12961 12962 12964 12965
12966 12967 12968 12970 12971
12973 12974 12975 12977 12978
12979 12980
Beauveria caledonica 12963 12969
12972
Beauveria pseudobassiana 12959
12976 12981

Solomon Islands

Metarhizium anisopliae sensu lato
4333 4334 4335 4336 4337 4338 4339
4341 4558 4572 4582
Metarhizium pingshaense 4290 4340
4342 4557 4610

Sri Lanka

Beauveria bassiana 7758

Switzerland

Beauveria brongniartii 1069
Beauveria varroae 2694
Conidiobolus coronatus 1572 1573
1574 1575
Metarhizium anisopliae sensu lato
1377
Metarhizium brunneum 1066
Pandora blunckii 915 917 920
Zoophthora anglica 396 918
Bern
Beauveria brongniartii 7528
Graubünden
Metarhizium anisopliae sensu lato
7524
Lucerne
Beauveria bassiana 7525 7526
Schaffhausen
Beauveria bassiana 1566
Beauveria caledonica 1567

Switzerland
USA

Geographical Origin

Thurgau	<i>Beauveria brongniartii</i> 1067 1068 1070 1071 1072 1076 1077	United Kingdom <i>Beauveria bassiana</i> 6552 6559 6560 7764 7769 7773 7774 <i>Metarhizium anisopliae</i> sensu lato 6549 6551 <i>Metarhizium anisopliae</i> sensu stricto 6546 <i>Verticillium lecanii</i> 6545	13524 13525 13526 13527 13528 13529 13530 13531 13532 13533 13534 13535 13553 13589 13590 13591 13592 13593 13594
Uri	<i>Metarhizium anisopliae</i> sensu lato 7532	<i>Beauveria bassiana</i> sensu lato 12982 12983 12984 12985 12986 12987 12988 12989 12990 12991 12992 12993 12994 12995 12996 12997 12998 12999 13000 13001 13002	13524 13525 13526 13527 13528 13529 13530 13531 13532 13533 13534 13535 13553 13589 13590 13591 13592 13593 13594
Zurich	<i>Pandora blunckii</i> 1715 1716 1717 1718	<i>Beauveria bassiana</i> sensu lato 12982 12983 12984 12985 12986 12987 12988 12989 12990 12991 12992 12993 12994 12995 12996 12997 12998 12999 13000 13001 13002	13524 13525 13526 13527 13528 13529 13530 13531 13532 13533 13534 13535 13553 13589 13590 13591 13592 13593 13594
Syria	<i>Purpureocillium lilacinum</i> 6110	<i>Beauveria bassiana</i> 7763 <i>Metarhizium anisopliae</i> sensu lato 13219 13221 <i>Zoophtora anglica</i> 1739	13524 13525 13526 13527 13528 13529 13530 13531 13532 13533 13534 13535 13553 13589 13590 13591 13592 13593 13594
Tanzania	Unidentified / Hyphomycetes 11666		
Thailand	<i>Metarhizium pingshaense</i> 538		
Togo	<i>Beauveria bassiana</i> 2688 2689 2690 2691 2692 5443 5444 5445 5446 5447 5448 5449 5450 5451 5452 5453 5454 5455 5456 5457 5458 5478 5479 5480 5481 5488 5489 5490		
Trinidad	<i>Beauveria bassiana</i> 13506 <i>Beauveria</i> sp. 13661		
Turkey	<i>Beauveria bassiana</i> 10347		
Gaziantep	<i>Beauveria bassiana</i> 5670 <i>Beauveria pseudobassiana</i> 5669 5678 <i>Beauveria</i> sp. 5833 <i>Isaria farinosa</i> 5754 5834		
Gümüşhane	<i>Beauveria bassiana</i> 8668		
Hatay	<i>Beauveria pseudobassiana</i> 5668 Unidentified / Hyphomycetes 5677		
Kahraman Maras	<i>Beauveria</i> sp. 5831		
Trabzon	<i>Beauveria bassiana</i> (?) 9271 <i>Beauveria</i> sp. 9272 <i>Clonostachys rosea</i> 11678 11682 11687		
	<i>Fusarium</i> sp. 9273 9274 11670 11671 11672 11673 11674 11675 11677 11679 11680 11684		
	<i>Isaria farinosa</i> 9269 9270 9275 9276 9277 9278		
	<i>Lecanicillium muscarium</i> 9267 9268		
	<i>Metarhizium guizhouense</i> 11668 11669		
	<i>Mixed Culture</i> sp. 11676		
	<i>Metarhizium</i> sp. 11685 11686		
	<i>Penicillium</i> sp. 11681 11683		
Uganda	<i>Fusarium</i> sp. 5879		
Ukraine	Autonomous Republic of Crimea <i>Simplicillium lamellicola</i> 9479		
Kherson Oblast	<i>Beauveria</i> sp. 7595 <i>Isaria farinosa</i> 9516 <i>Isaria fumosorosea</i> 9521		
		Uruguay <i>Fusarium</i> sp. 12461	
		USA	
		<i>Metarhizium anisopliae</i> sensu lato 1903 <i>Metarhizium robertsii</i> 3608	
		Arkansas <i>Beauveria bassiana</i> 7404 <i>Sorosporella uvella</i> 1123	
		California <i>Metarhizium robertsii</i> 1897	
		Connecticut <i>Beauveria bassiana</i> 6393	
		<i>Metarhizium anisopliae</i> sensu lato 3713 3720 6388	
		<i>Metarhizium brunneum</i> 6392 7234 8415 8416 8417 8418 8419	
		<i>Metarhizium robertsii</i> 3721	
		Unidentified sp. 3722	
		Delaware <i>Zoophtora phytonomi</i> 2188	
		Florida <i>Aspergillus nidulans</i> (?) 6515 <i>Beauveria bassiana</i> 412 413 416 5979 5981 5986	
		<i>Cladosporium sphaerospermum</i> 6516 <i>Isaria javanica</i> 322	
		<i>Metarhizium pingshaense</i> 5197 <i>Purpureocillium lilacinum</i> 410	
		<i>Sporothrix</i> sp. 13426 <i>Stilbella buquetii</i> 2915	
		<i>Tilachlidium</i> sp. 10132	
		Georgia <i>Beauveria bassiana</i> 336 337 2676 <i>Fusarium proliferatum</i> 2568 2569	
		<i>Metarhizium anisopliae</i> sensu lato 11951	
		Hawai'i <i>Beauveria bassiana</i> 8705 12573 12574 12575 12576 12577 12578 12579	
		12580 12581 12582 12583 12584 12585 12586 12587 12588 12589 12590 12591 12592 12593 12594 12595 12596 12597 12598 12599	
		12600 12601 12602 12603 12604 12605 12606 12607 12608 12609 12610 12611 12612 12613 12614 12615 12616 12617 12618 12619 12620 12805 12806 12807 12808 12809 12810 12811 12812 12813 12814 12815 12816 12821 12891 12892 12893 12894 13522 13523	
		Kansas <i>Beauveria bassiana</i> 6471 <i>Metarhizium robertsii</i> 6472	
		Kentucky <i>Beauveria bassiana</i> 2270 <i>Beauveria brongniartii</i> 2271 <i>Zoophtora</i> sp. 2623	
		Maine <i>Beauveria bassiana</i> 33 252 353	

Geographical Origin

USA

Yugoslavia

Maryland	
<i>Beauveria bassiana</i>	8998
Massachusetts	
<i>Beauveria bassiana</i>	3037
<i>Metarhizium anisopliae</i> sensu lato	6389
<i>Penicillium</i> sp.	3036
<i>Metapochonia bulbillosa</i> (?)	3035
Sterile mycelium	3038
Unidentified sp.	3034
Unidentified / Hyphomycetes	3033
Michigan	
<i>Aspergillus flavus</i>	6469
<i>Aspergillus</i> sp.	6571
<i>Beauveria bassiana</i>	2580 5813 7160 7161 7162 7163 7165 8260 8261 8262 8263 8771 8772 8773 8774
<i>Beauveria</i> sp.	8110 8111 8112 8113 8116 8117 8119 8120 8121 8122 8123 8124 8125 8126 8127 8128 8129 8130 8132 8133 8134 8135 8136 8137 8138 8139 8140 8141 8143 8144 8145 8146 8147 8148 8149 8150 8151 8152 8153 8154 8156 8158 8159 8160 8161 8164 8166 8167 8168 8169 8170 8171 8172 8173 8174 8175 8176 8177 8178 8180 8181 8182 8185 8186 8187 8188
<i>Fusarium proliferatum</i>	8267
<i>Fusarium</i> sp.	8131 8266
<i>Isaria farinosa</i>	9944 9945
<i>Isaria fumosorosea</i>	8142
<i>Lecanicillium lecanii</i>	7181 7182 8115
<i>Lecanicillium muscarium</i>	8114 8118 8157 8163 8165
<i>Lecanicillium muscarium</i> (?)	8162 8265
<i>Metarhizium robertsii</i>	1968
<i>Mucor circinelloides</i>	6470
Unidentified / Hyphomycetes	8155 8179 8183 8184 8264
Montana	
<i>Beauveria bassiana</i> sensu lato	12434 12435 12436 12437 12438 12439 12440 12441 12442 12443 12445 12448 12449 12450 12451 12517 12518 12519 12520 12521 12522
Nebraska	
<i>Beauveria bassiana</i>	2199 3111 3112
<i>Beauveria bassiana</i> sensu lato	14001
New Hampshire	
<i>Lecanicillium muscarium</i>	11803
New Jersey	
<i>Fusarium</i> sp.	3030 3031 3032
New York	
<i>Beauveria bassiana</i>	350 534 535 1039 1081 1619 1620 1621 1622 1623 1624 1704 1705 1706 1707 1708 1709 1710 1711 1712 1713 1721 1722 1723 1749 1750 1775 1776 1777 1778 1779 1780 1781 2030 2031 2032 2033 2034 3667 4973 4974 4975 5533 5534 5535 5536 5537 6216 6217 6391 6986 6987 6988 7158 7159 7179 8412 8413
<i>Beauveria brongniartii</i>	6213 6214 6215
<i>Erynia</i> sp.	5352
Vermont	
<i>Beauveria bassiana</i>	11844
<i>Beauveria</i> sp.	5186
<i>Hirsutella thompsonii</i>	11819
<i>Isaria farinosa</i>	11827 11830 11831
<i>Lecanicillium nr. aranearum</i>	11799
<i>Lecanicillium evansii</i> (?)	11805
<i>Mixed Culture</i> sp.	5188
<i>Metarhizium</i> sp.	11849
<i>Paecilomyces</i> sp.	5184 5193
<i>Pochonia chlamydosporia</i>	3314
Washington	
<i>Beauveria bassiana</i>	344 1079 3386

Abbott Laboratories
CATIE

Abbott Laboratories

89-201 *Beauveria bassiana* 2695

Agudelo-Silva, Fernando

10S87 *Isaria farinosa* 2431

20S87 *Metarhizium anisopliae* sensu lato
2432

Ahn, S.B.

E5-1 *Beauveria bassiana* 2040

Allee, Leslie

84-1 *Beauveria bassiana* 1704

84-10 *Beauveria bassiana* 1711

84-11 *Beauveria bassiana* 1712

84-12 *Beauveria bassiana* 1713

84-13 *Beauveria bassiana* 1721

84-16 *Beauveria bassiana* 1749

84-18 *Beauveria bassiana* 1750

84-19 *Beauveria bassiana* 1722

84-20 *Beauveria bassiana* 1723

84-22 *Beauveria bassiana* 1775

84-23 *Beauveria bassiana* 1776

84-24 *Beauveria bassiana* 1777

84-25 *Beauveria bassiana* 1778

84-26 *Beauveria bassiana* 1779

84-27 *Beauveria bassiana* 1780

84-28 *Beauveria bassiana* 1781

84-3 *Beauveria bassiana* 1705

84-4 *Beauveria bassiana* 1706

84-5 *Beauveria bassiana* 1707

84-7 *Beauveria bassiana* 1708

84-8 *Beauveria bassiana* 1709

84-9 *Beauveria bassiana* 1710

Alves, Sergio Batista

252 *Beauveria bassiana* 1480

267 *Beauveria bassiana* 1833

290 *Beauveria bassiana* 2559

290 *Beauveria bassiana* 2638

292 *Beauveria bassiana* 2639

295 *Beauveria* sp. 1835

61 *Beauveria bassiana* 1483

695 *Beauveria bassiana* 2642

Ansari, Minshad Ali

BNL102 *Metarhizium anisopliae* sensu lato 13219

BNL103 *Metarhizium anisopliae* sensu lato 13220

BNL104 *Metarhizium anisopliae* sensu lato 13221

Aoki, Joji

Beau. 22 *Beauveria brongniartii* 985

Isa. 1 *Beauveria bassiana* 1041

Met. 6 *Metarhizium robertsii* 1046

Paec. 1 *Mixed Culture* sp. 1043

Paec. 6 *Paecilomyces canadensis* 984

Alternate Collections

ARSEF

?1377 *Zoophthora anglica* 396
?396 *Metarhizium anisopliae* sensu lato
1377
?397 *Metarhizium brunneum* 1066
113 *Zoophthora phytonomi* 82
1184 *Metarhizium flavoviride* 2024
1451 (deaccessioned) *Beauveria bassiana*
1971
1452 (deaccessioned) *Metarhizium anisopliae* sensu lato 1989
1634 Unidentified sp. 1667
1667 (deaccessioned) Unidentified sp.
1634
1989 *Metarhizium anisopliae* sensu lato
1452
2024 *Metarhizium flavoviride* 1184
2210 Unidentified / Hyphomycetes 2225
2225 *Metarhizium brunneum* 2210
2355 *Isaria farinosa* 2379
2379 (never frozen) *Isaria farinosa* 2355
252 *Beauveria bassiana* 5286
2547 *Metarhizium robertsii* 4123
2553 *Erynia* sp. 2662
2559 *Beauveria bassiana* 2638
2575 *Metarhizium robertsii* 3608
2638 *Beauveria bassiana* 2559
2662 (deaccessioned) *Erynia* sp. 2553
7453 *Metarhizium lepidiotae* 7488
7488 *Metarhizium anisopliae* var. *lepidiotae* 7453
82 (lost) *Zoophthora phytonomi* 113

ATCC

200994 *Tolyphocladium inflatum* 4884
26156 *Beauveria brongniartii* 617
32804 *Hirsutella fusiformis* 5474
32969 *Metarhizium flavoviride* 2133
34178 *Ophiocordyceps aphodii* 5498
34292 *Zoophthora phytonomi* 82
34292 *Zoophthora phytonomi* 113
44767 *Synnematium jonesii* 5664
74040 *Beauveria bassiana* 7795
MYA-3093 *Metarhizium robertsii* 2575

Balazy, Stanislaw

1431 *Polycephalomyces formosus* 1424
1539 *Lecanicillium muscarium* 1335
1567 Unidentified sp. 1429
1573 Unidentified sp. 1430

Barta, Marek

IK10 *Beauveria bassiana* 12957
IK31 *Beauveria bassiana* 12958
IK38 *Beauveria pseudobassiana* 12959
IK44 *Beauveria bassiana* 12960
IK57 *Beauveria bassiana* 12961
MK11 *Beauveria caledonica* 12963
MK124 *Beauveria bassiana* 12967
MK129 *Beauveria bassiana* 12968
MK16 *Beauveria bassiana* 12964
MK205 *Beauveria caledonica* 12969
MK207 *Beauveria bassiana* 12970
MK236 *Beauveria bassiana* 12971
MK26 *Beauveria bassiana* 12965
MK263 *Beauveria caledonica* 12972
MK274 *Beauveria bassiana* 12973

MK299 *Beauveria bassiana* 12974

MK311 *Beauveria bassiana* 12975

MK331 *Beauveria pseudobassiana* 12976

MK336 *Beauveria bassiana* 12977

MK341 *Beauveria bassiana* 12978

MK380 *Beauveria bassiana* 12979

MK387 *Beauveria bassiana* 12980

MK39 *Beauveria bassiana* 12966

MK504 *Beauveria pseudobassiana* 12981

MK8 *Beauveria bassiana* 12962

Bauer, Leah S.

2UIC1817 *Aspergillus flavus* 6469

2UIC2463 *Mucor circinelloides* 6470

Legg Park 1 *Isaria farinosa* 9944

Legg Park 2 *Isaria farinosa* 9945

Bernal, M.C. Hugo Cesar Arredondo

BbGC1 *Beauveria bassiana* 5740

BbGC11 *Beauveria bassiana* 5745

BbGC2 *Beauveria bassiana* 5741

BbGC5 *Beauveria bassiana* 5742

BbGC8 *Beauveria bassiana* 5743

BbGC9 *Beauveria bassiana* 5744

Borisov, Boris A.

B.B. 2 *Evlachovaea kintrischica* 7218

B.B. 2 *Evlachovaea kintrischica* 8058

Brito, Jorge

14A *Beauveria bassiana* 4799

7A *Beauveria bassiana* 4798

Broadbent,A. Bruce

BB001 *Beauveria bassiana* 5807

Burjanadze, Medea

MB-094 *Beauveria bassiana* sensu stricto
13750

MB-095 *Beauveria bassiana* sensu stricto
13751

CAAS

4pl *Beauveria brongniartii* 4381

93.1 *Beauveria bassiana* 4382

CZN.9301 *Beauveria brongniartii* 4380

Castrillo, Louela A.

APMI1 *Beauveria bassiana* 8771

APMI2 *Beauveria bassiana* 8772

APMI3 *Beauveria bassiana* 8773

APMI4 *Beauveria bassiana* 8774

NY-1 *Beauveria bassiana* 6986

NY-11 *Beauveria bassiana* 6988

NY-5 *Beauveria bassiana* 6987

CATIE

1 *Beauveria bassiana* 3437

10 *Beauveria bassiana* 3446

11 *Beauveria bassiana* 3447

12 *Beauveria bassiana* 3448

14 *Beauveria bassiana* 3450

15 *Beauveria bassiana* 3451

16 *Beauveria bassiana* 3452

17 *Beauveria bassiana* 3453

19 *Beauveria bassiana* 3455

2 *Beauveria bassiana* 3438

21 *Beauveria bassiana* 3457

3 *Beauveria bassiana* 3439

4 *Beauveria bassiana* 3440

Alternate Collections

5 <i>Beauveria bassiana</i> 3441	Chandler, David	82-7-23-01 <i>Metarhizium anisopliae</i> sensu lato 808
6 <i>Beauveria bassiana</i> 3442	HRI 189.83 <i>Metarhizium anisopliae</i> sensu lato 6549	83-01-06A (CB 97) <i>Beauveria bassiana</i> 958
7 <i>Beauveria bassiana</i> 3443	HRI 33.79 <i>Verticillium lecanii</i> 6545	83-03-15-M <i>Beauveria bassiana</i> 947
8 <i>Beauveria bassiana</i> 3444	HRI 335.92 <i>Metarhizium anisopliae</i> sensu lato 6551	83-03-15-O <i>Beauveria bassiana</i> 948
9 <i>Beauveria bassiana</i> 3445	HRI 342.92 <i>Beauveria bassiana</i> 6552	83-03-15-P <i>Beauveria bassiana</i> 949
CBS	HRI 36.79 <i>Metarhizium anisopliae</i> sensu stricto 6546	83-03-15-Q <i>Beauveria bassiana</i> 950
118231 <i>Lecanicillium pissodis</i> 8057	HRI 386.93 <i>Beauveria bassiana</i> 6559	83-03-15B <i>Beauveria bassiana</i> 951
150.47 <i>Ophiocordyceps aphodii</i> 5498	HRI 397.93 <i>Beauveria bassiana</i> 6560	83-03-15E <i>Beauveria bassiana</i> 946
205.33 <i>Hirsutella fusiformis</i> 5474	CIAT	83-03-15H <i>Beauveria bassiana</i> 952
218.56 <i>Metarhizium flavoviride</i> 2133	301 <i>Evlachovaea</i> sp. 7551	83-03-16C <i>Beauveria bassiana</i> 941
305.95 <i>Tolypocladium inflatum</i> 4884	CMPPB	83-03-16D <i>Beauveria bassiana</i> 942
316.51 <i>Metarhizium brunneum</i> 2107	150 <i>Evlachovaea kintrischica</i> 7218	83-03-16E <i>Beauveria bassiana</i> 943
316.51 <i>Metarhizium anisopliae</i> sensu lato 7494	150 <i>Evlachovaea kintrischica</i> 8058	83-03-16K <i>Beauveria bassiana</i> 953
326.67 <i>Beauveria brongniartii</i> 7761	CNPAF	83-03-16L <i>Metarhizium anisopliae</i> sensu lato 954
511.88 <i>Stilbella buquetii</i> 2915	52 <i>Beauveria bassiana</i> 1450	83-03-17B <i>Beauveria bassiana</i> 982
700.74 <i>Metarhizium flavoviride</i> 1184	53 <i>Metarhizium anisopliae</i> sensu lato 1452	83-1-25-01 <i>Beauveria bassiana</i> 934
700.74 <i>Metarhizium flavoviride</i> 2024	53 <i>Metarhizium anisopliae</i> sensu lato 1989	83-3-3-01 <i>Beauveria bassiana</i> 937
CCFC	81-11-25-04 <i>Beauveria bassiana</i> 756	83-3-3-02 <i>Beauveria bassiana</i> 938
006988 <i>Tolypocladium inflatum</i> 4884	81-11-25-05 <i>Beauveria bassiana</i> 731	83-3-3-03 <i>Metarhizium anisopliae</i> sensu lato 939
CENARGEN	81-11-25-07 <i>Beauveria bassiana</i> 732	83-5-27 <i>Beauveria bassiana</i> 956
CG 123 <i>Isaria fumosorosea</i> 2956	82-07-27-01 <i>Beauveria bassiana</i> 928	84-02-30-2 <i>Beauveria bassiana</i> 1453
CG 162 <i>Isaria amoenerosea</i> 2958	82-1-15-02 <i>Beauveria bassiana</i> 735	84-03-28-1E <i>Beauveria bassiana</i> 1458
CG 163 <i>Isaria amoenerosea</i> 2959	82-1-15-05 <i>Isaria fumosorosea</i> 722	84-03-28-1F <i>Beauveria bassiana</i> 1454
CG 164 <i>Isaria amoenerosea</i> 2960	82-1-15-06 <i>Isaria amoenerosea</i> 741	84-03-28-1G <i>Beauveria bassiana</i> 1462
CG 165 <i>Beauveria bassiana</i> 2961	82-1-6-01 <i>Beauveria bassiana</i> 733	84-03-28-1L <i>Beauveria bassiana</i> 1463
CG 301 <i>Purpureocillium lilacinum</i> 1951	82-1-6-02 <i>Metarhizium anisopliae</i> sensu lato 725	84-03-28-D <i>Beauveria bassiana</i> 1455
CG 304 Unidentified sp. 3471	82-1-6-03 <i>Beauveria bassiana</i> 734	84-03-29-1 <i>Beauveria bassiana</i> 1461
CG 311 Unidentified sp. 3478	82-1-6-04 <i>Beauveria bassiana</i> 736	84-03-31-2 <i>Beauveria bassiana</i> 1469
CG 339 <i>Metarhizium anisopliae</i> sensu lato 3479	82-1-6-05 <i>Metarhizium anisopliae</i> sensu lato 726	84-03-31-6 <i>Beauveria bassiana</i> 1466
CG 639 Unidentified / Hyphomycetes 8641	82-1-6-10 <i>Purpureocillium lilacinum</i> 723	84-04-02-1B <i>Beauveria bassiana</i> 1473
CENICAFÉ	82-12-15-01 <i>Metarhizium anisopliae</i> sensu lato 929	84-04-02-2 <i>Beauveria bassiana</i> 1472
Bb 9024 <i>Beauveria bassiana</i> 9184	82-12-15-02 <i>Beauveria bassiana</i> 930	84-04-02-3 <i>Beauveria bassiana</i> 1470
CEP	82-12-20-01 <i>Beauveria bassiana</i> 931	84-04-02-4 <i>Beauveria bassiana</i> 1471
059 <i>Beauveria bassiana</i> 7202	82-12-20-02 <i>Metarhizium anisopliae</i> sensu lato 932	84-04-02-5A <i>Beauveria bassiana</i> 1467
061 <i>Beauveria</i> sp. 7463	82-2-15-01 <i>Beauveria bassiana</i> 752	84-04-03-1A <i>Beauveria bassiana</i> 1465
075 <i>Beauveria bassiana</i> 7466	82-2-15-03 <i>Metarhizium anisopliae</i> sensu lato 760	84-04-03-1B <i>Beauveria bassiana</i> 1460
083 <i>Beauveria bassiana</i> 7470	82-2-15-04 <i>Metarhizium robertsii</i> 724	84-04-03-1C <i>Beauveria bassiana</i> 1475
092 <i>Beauveria bassiana</i> 7471	82-2-15-05 <i>Isaria amoenerosea</i> 744	84-04-03-1E <i>Beauveria bassiana</i> 1459
112 <i>Beauveria bassiana</i> 8520	82-2-3-01 <i>Beauveria bassiana</i> 739	84-04-03-6A <i>Beauveria bassiana</i> 1456
113 <i>Beauveria bassiana</i> 8521	82-2-9-01 <i>Beauveria bassiana</i> 738	84-04-03-6B <i>Beauveria bassiana</i> 1464
114 <i>Beauveria bassiana</i> 8522	82-3-1-03 <i>Beauveria bassiana</i> 758	84-04-25-1 <i>Beauveria bassiana</i> 1476
116 <i>Beauveria bassiana</i> 8523	82-3-23-01 <i>Beauveria bassiana</i> 757	84-3-12 <i>Beauveria bassiana</i> 1451
117 <i>Beauveria bassiana</i> 8524	82-3-24-01 <i>Beauveria bassiana</i> 753	84-3-12 <i>Beauveria bassiana</i> 1971
118 <i>Beauveria bassiana</i> 8525	82-4-29-01 <i>Beauveria bassiana</i> 785	85-05-02 <i>Purpureocillium lilacinum</i> 1951
119 <i>Beauveria bassiana</i> 8526	82-4-30-01C <i>Beauveria bassiana</i> 784	85-7-22 <i>Beauveria bassiana</i> 1956
138 <i>Beauveria bassiana</i> 8461	82-4-30-01D <i>Beauveria bassiana</i> 804	85-7-22-1 <i>Isaria farinosa</i> 1957
141 <i>Beauveria bassiana</i> 8530	82-4-4-01 <i>Beauveria bassiana</i> 754	85-7-23-1 <i>Beauveria bassiana</i> 1954
147 <i>Beauveria bassiana</i> 8372	82-5-3-01 <i>Beauveria bassiana</i> 805	85-7-24 <i>Beauveria bassiana</i> 2075
148 <i>Beauveria bassiana</i> 8462	82-5-3-03A <i>Beauveria bassiana</i> 788	85-7-24-1 <i>Metarhizium anisopliae</i> sensu lato 1958
149 <i>Beauveria bassiana</i> 8463	82-5-3-03B <i>Beauveria bassiana</i> 786	85-7-24-4 <i>Beauveria bassiana</i> 1961
150 <i>Beauveria bassiana</i> 8373	82-5-6-01 <i>Beauveria bassiana</i> 787	86-06-02-2 <i>Isaria fumosorosea</i> 2217
175 <i>Beauveria bassiana</i> 8464	82-5-6-02 <i>Beauveria bassiana</i> 783	86-06-05-1 <i>Isaria fumosorosea</i> 2216
	82-6-28-01 <i>Beauveria bassiana</i> 809	86-06-05-3 <i>Isaria fumosorosea</i> 2219
		86-06-05-4 <i>Isaria amoenerosea</i> 2220
		86-06-05-5 <i>Pochonia chlamydosporia</i> var. <i>chlamydosporia</i> 2218
		88-5-6 <i>Beauveria bassiana</i> 2625
		88-5-6A <i>Beauveria bassiana</i> 2626
		88-5-6B <i>Metarhizium anisopliae</i> sensu lato 2635

CNPS

- 25 *Metarhizium anisopliae* sensu lato
1056
- 31 *Beauveria bassiana* 1060
- 32 *Beauveria bassiana* 1061

Cortez Madrigal, Hipolito

- B1 *Beauveria bassiana*(?) 6890
- B2 *Beauveria bassiana*(?) 6891

CP

- 10 *Beauveria bassiana* 736
- 101 *Beauveria bassiana* 956
- 104 *Beauveria bassiana* 958
- 11 *Metarhizium anisopliae* sensu lato
726
- 124 *Beauveria bassiana* 1451
- 124 *Beauveria bassiana* 1971
- 125 *Beauveria bassiana* 1450
- 126 *Metarhizium anisopliae* sensu lato
1452
- 126 *Metarhizium anisopliae* sensu lato
1989
- 14 *Beauveria bassiana* 735
- 143 *Beauveria bassiana* 1453
- 144 *Beauveria bassiana* 1454
- 145 *Beauveria bassiana* 1455
- 146 *Beauveria bassiana* 1456
- 148 *Beauveria bassiana* 1458
- 149 *Beauveria bassiana* 1459
- 150 *Beauveria bassiana* 1460
- 151 *Beauveria bassiana* 1461
- 152 *Beauveria bassiana* 1462
- 153 *Beauveria bassiana* 1463
- 154 *Beauveria bassiana* 1464
- 155 *Beauveria bassiana* 1465
- 156 *Beauveria bassiana* 1466
- 157 *Beauveria bassiana* 1467
- 159 *Beauveria bassiana* 1469
- 160 *Beauveria bassiana* 1470
- 161 *Beauveria bassiana* 1471
- 162 *Beauveria bassiana* 1472
- 163 *Beauveria bassiana* 1473
- 165 *Beauveria bassiana* 1475
- 166 *Beauveria bassiana* 1476
- 168 *Beauveria bassiana* 1966
- 17 *Purpureocillium lilacinum* 723
- 174 *Metarhizium anisopliae* sensu lato
1885
- 176 *Purpureocillium lilacinum* 1951
- 179 *Beauveria bassiana* 1954
- 18 *Isaria fumosorosea* 722
- 181 *Beauveria bassiana* 1956
- 182 *Isaria farinosa* 1957
- 183 *Beauveria bassiana* 2075
- 184 *Metarhizium anisopliae* sensu lato
1958
- 187 *Beauveria bassiana* 1961
- 19 *Isaria amoenerosea* 741
- 194 *Metarhizium anisopliae* sensu lato
2076
- 195 *Metarhizium anisopliae* sensu lato
2077
- 198 *Beauveria bassiana* 2079
- 212 *Isaria fumosorosea* 2216
- 213 *Isaria fumosorosea* 2217

214 *Pochonia chlamydosporia* var.
chlamydosporia 2218

- 215 *Isaria fumosorosea* 2219
- 216 *Isaria amoenerosea* 2220
- 217 *Isaria fumosorosea* 2221
- 221 *Beauveria bassiana* 2511
- 222 *Beauveria bassiana* 2520
- 224 *Metarhizium anisopliae* sensu stricto
2518
- 227 *Beauveria bassiana* 2515
- 229 *Beauveria bassiana* 2509
- 23 *Beauveria bassiana* 738
- 230 *Beauveria bassiana* 2559
- 230 *Beauveria bassiana* 2638
- 236A *Metarhizium anisopliae* sensu lato
2513
- 236B *Metarhizium robertsii* 2514
- 237 *Beauveria bassiana* 2512
- 240 *Beauveria bassiana* 2625
- 241 *Beauveria bassiana* 2626
- 25 *Metarhizium robertsii* 724
- 253 *Metarhizium anisopliae* sensu lato
2635
- 26 *Isaria amoenerosea* 744
- 27 *Beauveria bassiana* 739
- 270 *Beauveria bassiana* 2938
- 272 *Metarhizium anisopliae* sensu lato
2941
- 273 *Purpureocillium lilacinum* 2952
- 274 *Beauveria bassiana* 2942
- 278 *Penicillium* sp. 2950
- 281 *Beauveria bassiana* 2946
- 29 *Beauveria bassiana* 758
- 290 *Beauveria bassiana* 2945
- 31 *Metarhizium anisopliae* sensu lato
760
- 34 *Beauveria bassiana* 752
- 35 *Beauveria bassiana* 757
- 36 *Beauveria bassiana* 753
- 38 *Beauveria bassiana* 754
- 4 *Beauveria bassiana* 756
- 46 *Beauveria bassiana* 785
- 47 *Beauveria bassiana* 784
- 478(479?) *Beauveria bassiana* 3219
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 143 *Beauveria pseudobassiana* 4274
 15 *Beauveria bassiana* 4135
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 17 *Beauveria bassiana* 4136
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 36 *Metarhizium anisopliae* sensu lato 4142
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 510 *Metarhizium anisopliae* sensu lato 4568
 511 *Metarhizium anisopliae* sensu lato 4778
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 513 *Metarhizium anisopliae* sensu lato 4780
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- Deseö, Katlin V.**
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 88 *Beauveria bassiana* 1559
 89 *Beauveria bassiana* 1560
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 91 *Beauveria bassiana* 1562
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 32-51 *Isaria farinosa* 2937
- Eilenberg, Jørgen**
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 1578 *Beauveria bassiana* 9297
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 200 *Metarhizium anisopliae* sensu lato 8941
 201 *Metarhizium anisopliae* sensu lato 8942
 2025 *Beauveria bassiana* 11844
 203 *Metarhizium anisopliae* sensu lato 8777
 2030 *Metarhizium* sp. 11849
 2031 *Metarhizium anisopliae* sensu lato 11850
 2033 *Hirsutella thompsonii* 11819
 2039 *Isaria farinosa* 11827
 204 *Metarhizium anisopliae* sensu lato 8778
 2042 *Isaria farinosa* 11830
 2043 *Isaria farinosa* 11831
 2048 *Metarhizium carneum* 11836
 205 *Metarhizium anisopliae* sensu lato 8779

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2057 <i>Lecanicillium</i> nr. <i>aranearum</i> 11799	241 <i>Metarhizium anisopliae</i> sensu lato 8867	335 <i>Metarhizium anisopliae</i> sensu lato 8952
206 <i>Metarhizium anisopliae</i> sensu lato 8780	246 <i>Metarhizium anisopliae</i> sensu lato 8894	336 <i>Metarhizium anisopliae</i> sensu lato 8953
2061 <i>Lecanicillium muscarium</i> 11803	247 <i>Metarhizium anisopliae</i> sensu lato 8895	337 <i>Metarhizium anisopliae</i> sensu lato 8868
2063 <i>Lecanicillium evansii</i> (?) 11805	248 <i>Metarhizium anisopliae</i> sensu lato 8896	338 <i>Metarhizium anisopliae</i> sensu lato 8869
207 <i>Metarhizium anisopliae</i> sensu lato 8943	249 <i>Metarhizium anisopliae</i> sensu lato 8897	340 <i>Metarhizium anisopliae</i> sensu lato 8870
2071 <i>Lecanicillium</i> nr. <i>aranearum</i> 11811	251 <i>Metarhizium anisopliae</i> sensu lato 8898	341 <i>Metarhizium anisopliae</i> sensu lato 8954
209 <i>Metarhizium anisopliae</i> sensu lato 8781	253 <i>Isaria farinosa</i> 8917	342 <i>Metarhizium anisopliae</i> sensu lato 8871
210 <i>Metarhizium anisopliae</i> sensu lato 8944	254 <i>Metarhizium anisopliae</i> sensu lato 8899	343 <i>Metarhizium anisopliae</i> sensu lato 8872
211 <i>Metarhizium anisopliae</i> sensu lato 8782	256 <i>Metarhizium anisopliae</i> sensu lato 8900	345 <i>Metarhizium anisopliae</i> sensu lato 8873
212 <i>Metarhizium anisopliae</i> sensu lato 8945	258 <i>Metarhizium anisopliae</i> sensu lato 8901	346 <i>Metarhizium anisopliae</i> sensu lato 8955
213 <i>Purpureocillium lilacinum</i> 8919	259 <i>Metarhizium anisopliae</i> sensu lato 8902	347 <i>Metarhizium anisopliae</i> sensu lato 8874
215 <i>Metarhizium anisopliae</i> sensu lato 8783	260 <i>Metarhizium anisopliae</i> sensu lato 8949	348 <i>Metarhizium anisopliae</i> sensu lato 8875
216 <i>Metarhizium anisopliae</i> sensu lato 8784	264 <i>Scopulariopsis</i> sp. 11652	349 <i>Metarhizium anisopliae</i> sensu lato 8876
217 <i>Metarhizium anisopliae</i> sensu lato 8946	265 <i>Metarhizium anisopliae</i> sensu lato 8903	350 <i>Metarhizium anisopliae</i> sensu lato 8877
218 <i>Metarhizium anisopliae</i> sensu lato 8785	267 <i>Purpureocillium lilacinum</i> 8920	352 <i>Metarhizium anisopliae</i> sensu lato 8878
220 <i>Metarhizium anisopliae</i> sensu lato 8786	268 <i>Purpureocillium lilacinum</i> 8921	353 <i>Metarhizium anisopliae</i> sensu lato 8879
221 <i>Metarhizium anisopliae</i> sensu lato 8787	270 <i>Metarhizium anisopliae</i> sensu lato 8904	354 <i>Metarhizium anisopliae</i> sensu lato 8880
222 <i>Metarhizium anisopliae</i> sensu lato 8788	273 <i>Metarhizium anisopliae</i> sensu lato 8905	355 <i>Metarhizium anisopliae</i> sensu lato 8881
223 <i>Metarhizium anisopliae</i> sensu lato 8789	276 <i>Metarhizium anisopliae</i> sensu lato 9235	356 <i>Metarhizium anisopliae</i> sensu lato 8882
224 <i>Metarhizium anisopliae</i> sensu lato 8790	277 <i>Metarhizium anisopliae</i> sensu lato 8906	357 <i>Metarhizium anisopliae</i> sensu lato 8883
225 <i>Metarhizium anisopliae</i> sensu lato 8791	280 <i>Purpureocillium lilacinum</i> 8922	358 <i>Metarhizium anisopliae</i> sensu lato 8884
227 <i>Metarhizium anisopliae</i> sensu lato 8792	281 <i>Lecanicillium muscarium</i> 8923	359 <i>Metarhizium anisopliae</i> sensu lato 8885
228 <i>Metarhizium anisopliae</i> sensu lato 8793	283 <i>Metarhizium anisopliae</i> sensu lato 8907	360 <i>Metarhizium anisopliae</i> sensu lato 8886
229 <i>Metarhizium anisopliae</i> sensu lato 8794	284 <i>Metarhizium anisopliae</i> sensu lato 8908	361 <i>Metarhizium anisopliae</i> sensu lato 8887
230 <i>Metarhizium anisopliae</i> sensu lato 8858	285 <i>Metarhizium anisopliae</i> sensu lato 8950	362 <i>Metarhizium anisopliae</i> sensu lato 8912
231 <i>Metarhizium anisopliae</i> sensu lato 8859	286 <i>Metarhizium anisopliae</i> sensu lato 8909	363 <i>Metarhizium anisopliae</i> sensu lato 8913
232 <i>Metarhizium anisopliae</i> sensu lato 8947	287 <i>Metarhizium anisopliae</i> sensu lato 8910	364 <i>Metarhizium anisopliae</i> sensu lato 8914
233 <i>Metarhizium anisopliae</i> sensu lato 8948	288 <i>Metarhizium anisopliae</i> sensu lato 8911	365 <i>Metarhizium anisopliae</i> sensu lato 8915
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sensu lato 2167

Narayanan, K.

- 7 *Metarhizium pingshaense* 2231
9 *Beauveria* sp. 2412

Naves, Marcio A.

- CG-6 *Metarhizium anisopliae* sensu lato
1901

NCRI

- 245/02 *Beauveria bassiana* 11660

Neumann, Gábor

- HDM 1 *Beauveria bassiana* 6884
HDM 2 *Beauveria bassiana* 6885

Nishi, Oumi

- Hn1 *Metarhizium majus* 12557

NRRL

- 1944 *Metarhizium brunneum* 2107
25082 *Fusarium proliferatum* 1310
25091 *Fusarium proliferatum* 2568
25092 *Fusarium proliferatum* 2569
25097 *Fusarium* sp. 3030
25098 *Fusarium* sp. 3031
25099 *Fusarium* sp. 3032
25123 *Fusarium* sp. 4011
52701 *Fusarium nygamai* 6602
52740 *Fusarium* sp. 8131
52741 *Fusarium* sp. 8266
52743 *Fusarium proliferatum* 8267
52764 *Fusarium commune* 4825

OKSTATE

- 102 *Metarhizium robertsii* 12799
107 *Beauveria* sp. 12795
18 *Metarhizium robertsii* 12797
54 *Beauveria* sp. 12793
80 *Metarhizium anisopliae* sensu lato
12798
87 *Beauveria* sp. 12794
Sd *Metarhizium* sp. 12796

Parker, Bruce L.

- 0207B *Metarhizium anisopliae* sensu lato
8777
AVRDC 0005B *Metarhizium anisopliae*
sensu lato 8775
AVRDC 0009B *Metarhizium anisopliae*
sensu lato 8776
AVRDC 0058B *Purpureocillium lilac-*
inum 8918
AVRDC 0076B *Metarhizium anisopliae*
sensu lato 9236

- AVRDC 0153B *Metarhizium anisopliae*
sensu lato 8798
AVRDC 0154B *Metarhizium anisopliae*
sensu lato 8941
AVRDC 0166B *Metarhizium anisopliae*
sensu lato 8942
AVRDC 0168B *Metarhizium anisopliae*
sensu lato 8799
AVRDC 0184B *Metarhizium anisopliae*
sensu lato 8952
AVRDC 0186B *Metarhizium anisopliae*
sensu lato 8953
AVRDC 0193B *Metarhizium anisopliae*
sensu lato 8795
AVRDC 0193B *Metarhizium anisopliae*
sensu lato 8951
AVRDC 0205B *Metarhizium anisopliae*
sensu lato 8796
AVRDC 0214B *Metarhizium anisopliae*
sensu lato 8778
AVRDC 0216B *Metarhizium anisopliae*
sensu lato 8779
AVRDC 0224B *Metarhizium anisopliae*
sensu lato 8780
AVRDC 0238B *Metarhizium anisopliae*
sensu lato 8943
AVRDC 0244B *Metarhizium anisopliae*
sensu lato 8781
AVRDC 0245B *Metarhizium anisopliae*
sensu lato 8944
AVRDC 0246B *Metarhizium anisopliae*
sensu lato 8797
AVRDC 0260B *Metarhizium anisopliae*
sensu lato 8782
AVRDC 0262B *Metarhizium anisopliae*
sensu lato 8945
AVRDC 0286B *Purpureocillium lilac-*
inum 8919
AVRDC 0293B *Metarhizium anisopliae*
sensu lato 8783
AVRDC 0295B *Metarhizium anisopliae*
sensu lato 8784
AVRDC 0303B *Metarhizium anisopliae*
sensu lato 8946
AVRDC 0312B *Metarhizium anisopliae*
sensu lato 8785
AVRDC 0331B *Metarhizium anisopliae*
sensu lato 8786
AVRDC 0338B *Metarhizium anisopliae*
sensu lato 8787
AVRDC 0344B *Metarhizium anisopliae*
sensu lato 8788
AVRDC 0346B *Metarhizium anisopliae*
sensu lato 8789
AVRDC 0350B *Metarhizium anisopliae*
sensu lato 8790
AVRDC 0355B *Metarhizium anisopliae*
sensu lato 8791
AVRDC 0373B *Metarhizium anisopliae*
sensu lato 8792
AVRDC 0374B *Metarhizium anisopliae*
sensu lato 8793
AVRDC 0376B *Metarhizium anisopliae*
sensu lato 8954
AVRDC 0377B *Metarhizium anisopliae*
sensu lato 8794

- AVRDC 0381B *Metarhizium anisopliae*
sensu lato 8858
AVRDC 0382B *Metarhizium anisopliae*
sensu lato 8868
AVRDC 0383B *Metarhizium anisopliae*
sensu lato 8859
AVRDC 0384B *Metarhizium anisopliae*
sensu lato 8869
AVRDC 0385B *Metarhizium anisopliae*
sensu lato 8947
AVRDC 0388B *Metarhizium anisopliae*
sensu lato 8870
AVRDC 0389B *Metarhizium anisopliae*
sensu lato 8948
AVRDC 0390B *Metarhizium anisopliae*
sensu lato 8860
AVRDC 0392B *Metarhizium anisopliae*
sensu lato 8871
AVRDC 0393B *Metarhizium anisopliae*
sensu lato 8861
AVRDC 0394B *Metarhizium anisopliae*
sensu lato 8872
AVRDC 0397B *Metarhizium anisopliae*
sensu lato 8873
AVRDC 0398B *Metarhizium anisopliae*
sensu lato 8955
AVRDC 0399B *Metarhizium anisopliae*
sensu lato 8862
AVRDC 0402B *Metarhizium anisopliae*
sensu lato 8863
AVRDC 0404B *Metarhizium anisopliae*
sensu lato 8874
AVRDC 0408B *Metarhizium anisopliae*
sensu lato 8864
AVRDC 0410B *Metarhizium anisopliae*
sensu lato 8865
AVRDC 0411B *Metarhizium anisopliae*
sensu lato 8866
AVRDC 0414B *Metarhizium anisopliae*
sensu lato 8867
AVRDC 0419B *Metarhizium anisopliae*
sensu lato 8875
AVRDC 0420B *Metarhizium anisopliae*
sensu lato 8876
AVRDC 0423B *Metarhizium anisopliae*
sensu lato 8877
AVRDC 0432B *Metarhizium anisopliae*
sensu lato 8878
AVRDC 0437B *Metarhizium anisopliae*
sensu lato 8879
AVRDC 0439B *Metarhizium anisopliae*
sensu lato 8880
AVRDC 0440B *Metarhizium anisopliae*
sensu lato 8881
AVRDC 0441B *Metarhizium anisopliae*
sensu lato 8882
AVRDC 0442B *Metarhizium anisopliae*
sensu lato 8883
AVRDC 0449B *Metarhizium anisopliae*
sensu lato 8884
AVRDC 0450B *Metarhizium anisopliae*
sensu lato 8885
AVRDC 0451B *Metarhizium anisopliae*
sensu lato 8886
AVRDC 0458B *Metarhizium anisopliae*
sensu lato 8887

Alternate Collections

AVRDC 0459B <i>Metarhizium anisopliae</i> sensu lato 8912	SPT 013/1 <i>Beauveria</i> sp. 5833	0166C <i>Beauveria bassiana</i> 1818
AVRDC 0462B <i>Metarhizium anisopliae</i> sensu lato 8913	SPT-010 <i>Beauveria pseudobassiana</i> 5668	0166D <i>Beauveria bassiana</i> 1819
AVRDC 0465B <i>Metarhizium anisopliae</i> sensu lato 8914	SPT-014 Unidentified / Hyphomycetes 5677	0167A <i>Beauveria bassiana</i> 1820
AVRDC 0467B <i>Metarhizium anisopliae</i> sensu lato 8894	SPT-018 <i>Beauveria pseudobassiana</i> 5669	0167B <i>Beauveria bassiana</i> 1821
AVRDC 0468B <i>Metarhizium anisopliae</i> sensu lato 8895	SPT-019 <i>Beauveria bassiana</i> 5670	0167C <i>Beauveria bassiana</i> 1811
AVRDC 0469B <i>Metarhizium anisopliae</i> sensu lato 8896	SPT-020 <i>Beauveria pseudobassiana</i> 5678	0178 <i>Beauveria bassiana</i> 1975
AVRDC 0470B <i>Metarhizium anisopliae</i> sensu lato 8897	SPT-2-279 <i>Purpureocillium lilacinum</i> 6110	0183 <i>Beauveria bassiana</i> 1980
AVRDC 0477B <i>Metarhizium anisopliae</i> sensu lato 8898	SPT-KR-415/2 <i>Verticillium</i> sp. 6486	0185 <i>Beauveria bassiana</i> 1982
AVRDC 0482B <i>Isaria farinosa</i> 8917	SPT-KR-452 <i>Beauveria bassiana</i> 6499	070 <i>Beauveria bassiana</i> 1164
AVRDC 0483B <i>Metarhizium anisopliae</i> sensu lato 8899	SPT-KZ-375 <i>Beauveria bassiana</i> 6478	071A <i>Beauveria bassiana</i> 1163
AVRDC 0485B <i>Metarhizium anisopliae</i> sensu lato 8900	SPT-KZ-406 <i>Beauveria bassiana</i> 6483	072 <i>Beauveria bassiana</i> 1154
AVRDC 0492B <i>Metarhizium anisopliae</i> sensu lato 8901	SPT-KZ-412 <i>Verticillium</i> sp. 6484	073 <i>Beauveria bassiana</i> 1155
AVRDC 0493B <i>Metarhizium anisopliae</i> sensu lato 8915	SPT-KZ-417 <i>Verticillium lecanii</i> 6487	074 <i>Beauveria bassiana</i> 1153
AVRDC 0500B <i>Metarhizium anisopliae</i> sensu lato 8902	SPT-KZ-418 <i>Isaria farinosa</i> 6488	082 <i>Beauveria</i> sp. 1327
AVRDC 0506B <i>Metarhizium anisopliae</i> sensu lato 8949	SPT-KZ-419 <i>Isaria farinosa</i> 6489	083 <i>Acremonium furcatum</i> 1372
AVRDC 0518B <i>Scopulariopsis</i> sp. 11652	SPT-KZ-423 <i>Isaria farinosa</i> 6491	084 <i>Lecanicillium muscarium</i> 1328
AVRDC 0520B <i>Metarhizium anisopliae</i> sensu lato 8916	SPT-KZ-458 <i>Verticillium</i> sp. 6501	085 <i>Aphanocladium album</i> 1329
AVRDC 0523B <i>Metarhizium anisopliae</i> sensu lato 8903	SPT-U-250 <i>Beauveria bassiana</i> 6055	086 <i>Beauveria bassiana</i> 1398
AVRDC 0527B <i>Purpureocillium lilac-</i> <i>inum</i> 8920	SPT-U-253 <i>Beauveria bassiana</i> 6057	087 <i>Beauveria bassiana</i> 1399
AVRDC 0529B <i>Purpureocillium lilac-</i> <i>inum</i> 8921	SPT-U-254 <i>Beauveria bassiana</i> 6058	088 <i>Beauveria bassiana</i> 1389
AVRDC 0549B <i>Metarhizium anisopliae</i> sensu lato 8904	SPT-U-255 <i>Beauveria bassiana</i> 6059	089 <i>Lecanicillium muscarium</i> 1401
AVRDC 0555B <i>Metarhizium anisopliae</i> sensu lato 8905	SPT-U-261 <i>Beauveria bassiana</i> 6061	090 <i>Lecanicillium muscarium</i> 1402
AVRDC 0561B <i>Metarhizium anisopliae</i> sensu lato 9235	SPT-U-262 <i>Beauveria bassiana</i> 6062	091 <i>Lecanicillium muscarium</i> 1403
AVRDC 0567B <i>Metarhizium anisopliae</i> sensu lato 8906	SPT-U-263 <i>Beauveria bassiana</i> 6063	645 <i>Beauveria bassiana</i> 1191
AVRDC 0587B <i>Purpureocillium lilac-</i> <i>inum</i> 8922	SPT-U-264 <i>Beauveria bassiana</i> 6064	646 <i>Beauveria bassiana</i> 1192
AVRDC 0588B <i>Lecanicillium muscarium</i> 8923	SPT-U-293 <i>Beauveria bassiana</i> 6074	647 <i>Beauveria bassiana</i> 1193
AVRDC 0592B <i>Metarhizium anisopliae</i> sensu lato 8907	SPT-U-294 <i>Beauveria bassiana</i> 6075	648 <i>Beauveria bassiana</i> 1194
AVRDC 0599B <i>Metarhizium anisopliae</i> sensu lato 8908	SPT-U-295 <i>Beauveria bassiana</i> 6111	83-48 <i>Beauveria bassiana</i> 1073
AVRDC 0602B <i>Metarhizium anisopliae</i> sensu lato 8950	SPT-U-296 <i>Beauveria bassiana</i> 6112	83-49 <i>Beauveria bassiana</i> 1074
AVRDC 0611B <i>Metarhizium anisopliae</i> sensu lato 8909	SPT-U-297 <i>Beauveria bassiana</i> 6113	83-54 <i>Beauveria bassiana</i> 1075
AVRDC 0612B <i>Metarhizium anisopliae</i> sensu lato 8910	SPT-U-305 <i>Beauveria bassiana</i> 6077	83-611 <i>Beauveria bassiana</i> 1306
AVRDC 0614B <i>Metarhizium anisopliae</i> sensu lato 8911	SPT-U-308 <i>Beauveria bassiana</i> 6078	83-614 <i>Beauveria bassiana</i> 1160
SP-3 <i>Beauveria bassiana</i> 10347	SPT-U-323 <i>Beauveria bassiana</i> 6092	83-615 <i>Beauveria bassiana</i> 1159
SP-374 <i>Beauveria bassiana</i> 10350	SPT-U-335 <i>Beauveria bassiana</i> 6095	83-616 <i>Beauveria bassiana</i> 1182
SPT 003 <i>Beauveria</i> sp. 5831	SPT-U-338 <i>Beauveria bassiana</i> 6096	83-619 <i>Beauveria bassiana</i> 1157
SPT 012 <i>Isaria farinosa</i> 5754	SPT-U-354/2 <i>Beauveria bassiana</i> 6099	83-621 <i>Beauveria bassiana</i> 1165
		83-623 <i>Beauveria bassiana</i> 1162
		83-626 <i>Beauveria bassiana</i> 1161
		83-634 <i>Beauveria bassiana</i> 1158
		83-639 <i>Beauveria bassiana</i> 1156
		83-701 <i>Beauveria bassiana</i> 1167
		83-702 <i>Beauveria bassiana</i> 1168
		83-703 <i>Beauveria bassiana</i> 1169
		83-704 <i>Beauveria bassiana</i> 1170
		8651 <i>Scopulariopsis</i> sp. 2327
		8710 <i>Beauveria bassiana</i> 2463
		A1 <i>Beauveria bassiana</i> 1189
		A10 <i>Beauveria bassiana</i> 1311
		A11 <i>Beauveria bassiana</i> 1312
		A12 <i>Beauveria bassiana</i> 1313
		A2 <i>Beauveria bassiana</i> 1171
		A3 <i>Beauveria bassiana</i> 1190
		A4 <i>Beauveria bassiana</i> 1172
		A5 <i>Beauveria bassiana</i> 1173
		A6 <i>Beauveria bassiana</i> 1174
		A7 <i>Beauveria bassiana</i> 1175
		A8 <i>Beauveria bassiana</i> 1309
		A9 <i>Fusarium proliferatum</i> 1310
		E1 <i>Beauveria bassiana</i> 1188
		J1 <i>Beauveria bassiana</i> 1176
		J2 <i>Beauveria bassiana</i> 1177
		J3 <i>Beauveria bassiana</i> 1178
		J4 <i>Beauveria bassiana</i> 1179
		J5 <i>Beauveria bassiana</i> 1180
		J6 <i>Beauveria bassiana</i> 1181
		J7 <i>Beauveria bassiana</i> 1183

- TJP901 *Beauveria bassiana* 5436
 TJP902 *Beauveria bassiana* 5437
 TJP903 *Beauveria bassiana* 5438
 TJP904 *Beauveria bassiana* 5439
 TJP905 *Beauveria bassiana* 5440
 TJP906 *Beauveria bassiana* 5441
 TJP907 *Beauveria bassiana* 5442
 TJP908 *Beauveria bassiana* 5443
 TJP909 *Beauveria bassiana* 5444
 TJP910 *Beauveria bassiana* 5445
 TJP911 *Beauveria bassiana* 5446
 TJP912 *Beauveria bassiana* 5447
 TJP913 *Beauveria bassiana* 5448
 TJP914 *Beauveria bassiana* 5449
 TJP915 *Beauveria bassiana* 5450
 TJP916 *Beauveria bassiana* 5451
 TJP917 *Beauveria bassiana* 5452
 TJP918 *Beauveria bassiana* 5453
 TJP919 *Beauveria bassiana* 5454
 TJP920 *Beauveria bassiana* 5455
 TJP921 *Beauveria bassiana* 5456
 TJP922 *Beauveria bassiana* 5457
 TJP923 *Beauveria bassiana* 5458
 TJP924 *Beauveria bassiana* 5459
 TJP925 *Beauveria bassiana* 5460
 TJP926 *Fusarium* sp. 5461
 TJP930 *Beauveria bassiana* 5465
- Prior, Christopher**
 Kenya 1 *Beauveria bassiana* 2685
 Kenya 2 *Beauveria bassiana* 2686
 Kenya 3 *Beauveria bassiana* 2687
 Togo 1 *Beauveria bassiana* 2688
 Togo 2 *Beauveria bassiana* 2689
 Togo 3 *Beauveria bassiana* 2690
 Togo 4 *Beauveria bassiana* 2691
 Togo 5 *Beauveria bassiana* 2692
- QEC**
 433.0 *Metarhizium guizhouense* 683
- QM**
 191 *Metarhizium brunneum* 2107
- Rajak, R.C.**
 49 *Metarhizium pingshaense* 3210
- Rath, Andrew C.**
 F001 *Metarhizium frigidum* 4124
 F007 *Beauveria bassiana* 4130
 F010 *Metarhizium brunneum* 4131
 F011 *Metarhizium anisopliae* sensu lato 4132
 F012 *Metarhizium anisopliae* sensu lato 4133
 F013 *Metarhizium anisopliae* sensu lato 4236
 F014 *Metarhizium anisopliae* sensu lato 4134
 F015 *Beauveria bassiana* 4135
 F016 *Beauveria bassiana* 4642
 F017 *Beauveria bassiana* 4136
 F019 *Metarhizium anisopliae* sensu lato 4137
 F020 *Metarhizium anisopliae* sensu lato 4138
 F024 *Metarhizium anisopliae* sensu lato 4139
- F025 Unidentified sp. 4140
 F028 *Metarhizium anisopliae* sensu lato 4716
 F029 *Metarhizium anisopliae* sensu lato 4141
 F033 *Metarhizium anisopliae* sensu lato 4346
 F034 *Metarhizium anisopliae* sensu lato 4239
 F036 *Metarhizium anisopliae* sensu lato 4142
 F120 *Metarhizium brunneum* 4228
 F130 *Metarhizium flavoviride* 4719
 F133 *Metarhizium flavoviride* 4720
 F140 *Beauveria pseudobassiana* 4721
 F141 *Metarhizium anisopliae* sensu lato 4722
 F142 *Beauveria amorpha* 4149
 F143 *Beauveria pseudobassiana* 4274
 F26 Sterile mycelium 4243
 F433 *Metarhizium anisopliae* sensu lato 4677
 F473 *Metarhizium guizhouense* 4604
 F478 *Metarhizium anisopliae* sensu lato 4582
 F479 *Metarhizium anisopliae* sensu lato 4572
 F480 *Metarhizium pingshaense* 4610
 F481 *Metarhizium pingshaense* 4557
 F483 *Metarhizium anisopliae* sensu lato 4333
 F484 *Metarhizium anisopliae* sensu lato 4335
 F485 *Metarhizium anisopliae* sensu lato 4339
 F486 *Metarhizium anisopliae* sensu lato 4338
 F487 *Metarhizium anisopliae* sensu lato 4341
 F488 *Metarhizium anisopliae* sensu lato 4336
 F489 *Metarhizium pingshaense* 4340
 F490 *Metarhizium anisopliae* sensu lato 4337
 F491 *Metarhizium pingshaense* 4342
 F492 *Metarhizium anisopliae* sensu lato 4334
 F493 *Metarhizium pingshaense* 4290
 F507 *Metarhizium anisopliae* sensu lato 4777
 F510 *Metarhizium anisopliae* sensu lato 4568
 F511 *Metarhizium anisopliae* sensu lato 4778
 F512 *Metarhizium anisopliae* sensu lato 4779
 F513 *Metarhizium anisopliae* sensu lato 4780
 F514 *Metarhizium majus* 4566
 F515 *Metarhizium majus* 4601
 F516 *Metarhizium anisopliae* sensu lato 4574
 Fl24 *Metarhizium brunneum* 4125
- RCEF**
 0189 *Isaria catenioliqua* 6244
 0231 *Beauveria pseudobassiana* 6229
 0385 *Beauveria brongniartii* 6235
 0464 *Isaria cateniannullata* 6241
 0516 *Isaria cateniannullata* 6243
 5500 *Beauveria lii* 11741
- Reid, William**
 BS-2010-1 *Tilachlidium* sp. 10132
- Reinganum**
 124 *Metarhizium frigidum* 4124
- Reyes, Enrique Reyes Dominguez**
 BbCO1 *Beauveria bassiana* 3818
 BbCO2 *Beauveria bassiana* 3819
 BbCO2 Unidentified sp. 3821
 BbH Unidentified sp. 3821
- Riethmacher, Guenter W.**
 Bet1 *Beauveria bassiana* 3197
 Bet2 *Beauveria bassiana* 3198
 Bet3 *Beauveria bassiana* 3199
- Roberts, Donald W.**
 102381-9 *Metarhizium guizhouense* 683
 103a *Metarhizium anisopliae* sensu lato 1903
 DWR 1941 *Beauveria bassiana* 11878
 MaT3JB-A *Metarhizium robertsii* 1878
 MaT3JB-B *Metarhizium robertsii* 1298
 MaT3JB-C *Metarhizium anisopliae* sensu lato 1280
 Pol-32 *Metarhizium majus* 1859
 Pol-42 *Metarhizium majus* 1858
 single spore isolate #1 *Metarhizium anisopliae* sensu lato 1280
 single spore isolate #9 *Metarhizium robertsii* 1298
 V-14 (F84 mutant) *Metarhizium robertsii* 1897
- Rodriguez Sierra, Dora Alba**
 106 Bb *Beauveria bassiana* 2248
 201 Bb *Beauveria bassiana* 2250
 203 Bb *Beauveria bassiana* 2249
- Rombach, Michiel C.**
 140486 *Metarhizium brunneum* 2224
 140486-1 *Aspergillus parasiticus* 2173
 140486-1 *Metarhizium brunneum* 2210
 140486-1 Unidentified / Hyphomycetes 2225
 170386-1 *Metarhizium majus* 2151
 171085-1 *Beauveria bassiana* 2040
 201286-7 *Isaria farinosa* 2355
 201286-7 *Isaria farinosa* 2379
 A *Beauveria brongniartii* 1431
 MMQ *Metarhizium majus* 1946
- Sánchez Peña, Sergio René**
 2 *Lecanicillium* sp. 2(?) 2832
 2M10 *Metarhizium anisopliae* sensu lato 11945
 FM4 *Metarhizium anisopliae* sensu lato 11946
 FM6 *Metarhizium anisopliae* sensu lato 11947

Alternate Collections

Sandoval, Sonia
Sung, Jae-Mo

Sandoval, Sonia

95 *Beauveria pseudobassiana* 2557

SARL

155 *Beauveria bassiana* 5286

Searle, Tanya

CW1 *Beauveria bassiana* 2983

CW2 *Beauveria bassiana* 2984

CW3 *Beauveria bassiana* 2985

CW4 *Beauveria bassiana* 2986

CWMA *Metarhizium robertsii* 2981

E *Metarhizium robertsii* 2134

F *Metarhizium anisopliae* sensu lato 2135

K *Metarhizium anisopliae* sensu lato 2136

LD1 *Beauveria bassiana* 2987

LD2 *Beauveria bassiana* 2988

LD3 *Beauveria bassiana* 2989

LD4 *Beauveria bassiana* 2990

LD5 *Beauveria bassiana* 2991

Q *Metarhizium anisopliae* sensu lato 2137

W *Metarhizium anisopliae* sensu lato 2138

Z *Metarhizium anisopliae* sensu lato 2139

Shimazu, Mitsuaki

F-1101 *Beauveria brongniartii* 6412

F-237 *Beauveria bassiana* 1678

F-263 *Beauveria bassiana* 1679

F-313 *Beauveria amorphia* 1680

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HI-848 <i>Beauveria bassiana</i> sensu lato 13019	HI-886A <i>Beauveria bassiana</i> sensu lato 13077
HI-849 <i>Beauveria bassiana</i> sensu lato 13020	HI-886B <i>Beauveria bassiana</i> sensu lato 13078
HI-850 <i>Beauveria bassiana</i> sensu lato 13046	HI-887 <i>Beauveria bassiana</i> sensu lato 13079
HI-851 <i>Beauveria bassiana</i> sensu lato 13047	HI-888 <i>Beauveria bassiana</i> sensu lato 13080
HI-852 <i>Beauveria bassiana</i> sensu lato 13048	HI-889 <i>Beauveria bassiana</i> sensu lato 13081
HI-853 <i>Beauveria bassiana</i> sensu lato 13049	HI-890 <i>Beauveria bassiana</i> sensu lato 13082
HI-855 <i>Beauveria bassiana</i> sensu lato 13050	HI-891 <i>Beauveria bassiana</i> sensu lato 13083
HI-856 <i>Beauveria bassiana</i> sensu lato 13051	HI-892 <i>Beauveria bassiana</i> sensu lato 13084
Hi-859 <i>Beauveria bassiana</i> sensu lato 13052	HI-894 <i>Beauveria bassiana</i> sensu lato 13085
HI-860 <i>Beauveria bassiana</i> sensu lato 13053	HI-895 <i>Beauveria bassiana</i> sensu lato 13086
HI-861 <i>Beauveria bassiana</i> sensu lato 13054	HI-896 <i>Beauveria bassiana</i> sensu lato 13087
HI-862 <i>Beauveria bassiana</i> sensu lato 13055	HI-897 <i>Metarhizium</i> sp. 13088
HI-863 <i>Beauveria bassiana</i> sensu lato 13056	HI-899 <i>Beauveria bassiana</i> sensu lato 13089
HI-867 <i>Beauveria bassiana</i> sensu lato 13057	HI-900 <i>Beauveria bassiana</i> 12610
HI-868 <i>Beauveria bassiana</i> sensu lato 13058	HI-900 <i>Beauveria bassiana</i> sensu lato 13090
HI-869 <i>Beauveria bassiana</i> sensu lato 13059	HI-901 <i>Beauveria bassiana</i> sensu lato 13091
HI-870 <i>Beauveria bassiana</i> sensu lato 13060	HI-902 <i>Beauveria bassiana</i> sensu lato 13092
HI-871 <i>Beauveria bassiana</i> sensu lato 13061	HI-904 <i>Beauveria bassiana</i> sensu lato 13093
HI-872 <i>Beauveria bassiana</i> sensu lato 13062	HI-905 <i>Beauveria bassiana</i> sensu lato 13094
HI-873 <i>Beauveria bassiana</i> sensu lato 13063	HI-99 <i>Beauveria bassiana</i> 12611
HI-874 <i>Beauveria bassiana</i> sensu lato 13064	PR TA-1 <i>Beauveria bassiana</i> 13402
HI-875 <i>Beauveria bassiana</i> sensu lato 13065	PR TA-4 <i>Beauveria bassiana</i> 13403
HI-876 <i>Beauveria bassiana</i> sensu lato 13066	PR TP-5 <i>Beauveria bassiana</i> 13404
HI-877 <i>Beauveria bassiana</i> sensu lato 13067	PR TP-7 <i>Beauveria bassiana</i> 13405
HI-878 <i>Beauveria bassiana</i> sensu lato 13068	PR-TA6 <i>Beauveria bassiana</i> 13541
HI-879 <i>Beauveria bassiana</i> sensu lato 13069	
HI-880 <i>Beauveria bassiana</i> sensu lato 13070	
HI-881 <i>Beauveria bassiana</i> sensu lato 13071	Zimmermann, Gisbert E 1622/01 <i>Evlachovaea</i> sp. 7403
HI-882A <i>Beauveria bassiana</i> sensu lato 13072	
HI-882B <i>Beauveria bassiana</i> sensu lato 13073	Zou, Xiao 9 <i>Isaria fumosorosea</i> 9602
HI-883 <i>Beauveria bassiana</i> sensu lato 13074	

23	Metarhizium robertsii	739	Beauveria bassiana	1046	Metarhizium robertsii
33	Beauveria bassiana	741	Isaria amoenerosea	1056	Metarhizium anisopliae sensu lato
79	Conidiobolus osmodes	744	Isaria amoenerosea	1060	Beauveria bassiana
80	Conidiobolus sp.	751	Beauveria bassiana sensu stricto	1061	Beauveria bassiana
81	Conidiobolus sp.	752	Beauveria bassiana	1066	Metarhizium brunneum
82	Zoophthora phytonomi	753	Beauveria bassiana	1067	Beauveria brongniartii
113	Zoophthora phytonomi	754	Beauveria bassiana	1068	Beauveria brongniartii
149	Beauveria bassiana	756	Beauveria bassiana	1069	Beauveria brongniartii
150	Beauveria bassiana	757	Beauveria bassiana	1070	Beauveria brongniartii
157	Beauveria pseudobassiana	758	Beauveria bassiana	1071	Beauveria brongniartii
191	Zoophthora phytonomi	760	Metarhizium anisopliae sensu lato	1072	Beauveria brongniartii
192	Zoophthora phytonomi	783	Beauveria bassiana	1073	Beauveria bassiana
201	Beauveria bassiana	784	Beauveria bassiana	1074	Beauveria bassiana
202	Zoophthora phytonomi	785	Beauveria bassiana	1075	Beauveria bassiana
252	Beauveria bassiana	786	Beauveria bassiana	1076	Beauveria brongniartii
293	Beauveria bassiana	787	Beauveria bassiana	1077	Beauveria brongniartii
297	Metarhizium majus	788	Beauveria bassiana	1078	Metarhizium anisopliae sensu lato
298	Metarhizium majus	797	Metarhizium robertsii	1079	Beauveria bassiana
301	Beauveria bassiana	799	Isaria farinosa	1081	Beauveria bassiana
317	Beauveria bassiana	804	Beauveria bassiana	1106	Beauveria bassiana
318	Beauveria bassiana	805	Beauveria bassiana	1123	Sorosporella uvella
319	Beauveria bassiana	808	Metarhizium anisopliae sensu lato	1153	Beauveria bassiana
322	Isaria javanica	809	Beauveria bassiana	1154	Beauveria bassiana
325	Beauveria bassiana	813	Beauveria pseudobassiana	1155	Beauveria bassiana
336	Beauveria bassiana	814	Beauveria pseudobassiana	1156	Beauveria bassiana
337	Beauveria bassiana	815	Beauveria bassiana	1157	Beauveria bassiana
340	Beauveria bassiana	816	Beauveria bassiana	1158	Beauveria bassiana
344	Beauveria bassiana	817	Metarhizium brunneum	1159	Beauveria bassiana
346	Metarhizium brunneum	818	Metarhizium anisopliae sensu lato	1160	Beauveria bassiana
347	Metarhizium anisopliae sensu lato	819	Metarhizium guizhouense	1161	Beauveria bassiana
348	Penicillium sp.	820	Metarhizium brunneum	1162	Beauveria bassiana
350	Beauveria bassiana	842	Beauveria bassiana	1163	Beauveria bassiana
353	Beauveria bassiana	915	Pandora blunckii	1164	Beauveria bassiana
384	Beauveria bassiana	917	Pandora blunckii	1165	Beauveria bassiana
396	Zoophthora anglica	918	Zoophthora anglica	1167	Beauveria bassiana
410	Purpureocillium lilacinum	920	Pandora blunckii	1168	Beauveria bassiana
412	Beauveria bassiana	928	Beauveria bassiana	1169	Beauveria bassiana
413	Beauveria bassiana	929	Metarhizium anisopliae sensu lato	1170	Beauveria bassiana
416	Beauveria bassiana	930	Beauveria bassiana	1171	Beauveria bassiana
433	Beauveria bassiana	931	Beauveria bassiana	1172	Beauveria bassiana
472	Metarhizium brunneum	932	Metarhizium anisopliae sensu lato	1173	Beauveria bassiana
504	Beauveria bassiana	934	Beauveria bassiana	1174	Beauveria bassiana
505	Beauveria bassiana	937	Beauveria bassiana	1175	Beauveria bassiana
506	Beauveria bassiana	938	Beauveria bassiana	1176	Beauveria bassiana
507	Beauveria bassiana	939	Metarhizium anisopliae sensu lato	1177	Beauveria bassiana
508	Beauveria bassiana	941	Beauveria bassiana	1178	Beauveria bassiana
509	Beauveria bassiana	942	Beauveria bassiana	1179	Beauveria bassiana
510	Beauveria bassiana	943	Beauveria bassiana	1180	Beauveria bassiana
534	Beauveria bassiana	946	Beauveria bassiana	1181	Beauveria bassiana
535	Beauveria bassiana	947	Beauveria bassiana	1182	Beauveria bassiana
538	Metarhizium pingshaense	948	Beauveria bassiana	1183	Beauveria bassiana
544	Zoophthora phytonomi	949	Beauveria bassiana	1184	Metarhizium flavoviride
545	Zoophthora phytonomi	950	Beauveria bassiana	1185	Beauveria bassiana
546	Zoophthora phytonomi	951	Beauveria bassiana	1186	Beauveria bassiana
547	Beauveria sp.	952	Beauveria bassiana	1188	Beauveria bassiana
617	Beauveria brongniartii	953	Beauveria bassiana	1189	Beauveria bassiana
683	Metarhizium guizhouense	954	Metarhizium anisopliae sensu lato	1190	Beauveria bassiana
721	Beauveria bassiana	956	Beauveria bassiana	1191	Beauveria bassiana
722	Isaria fumosorosea	958	Beauveria bassiana	1192	Beauveria bassiana
723	Purpureocillium lilacinum	977	Metarhizium guizhouense	1193	Beauveria bassiana
724	Metarhizium robertsii	978	Metarhizium majus	1194	Beauveria bassiana
725	Metarhizium anisopliae sensu lato	979	Beauveria brongniartii	1280	Metarhizium anisopliae sensu lato
726	Metarhizium anisopliae sensu lato	982	Beauveria bassiana	1298	Metarhizium robertsii
731	Beauveria bassiana	984	Paecilomyces canadensis	1306	Beauveria bassiana
732	Beauveria bassiana	985	Beauveria brongniartii	1309	Beauveria bassiana
733	Beauveria bassiana	1016	Beauveria bassiana	1310	Fusarium proliferatum
734	Beauveria bassiana	1017	Evlachovaea sp.	1311	Beauveria bassiana
735	Beauveria bassiana	1039	Beauveria bassiana	1312	Beauveria bassiana
736	Beauveria bassiana	1041	Beauveria bassiana	1313	Beauveria bassiana
738	Beauveria bassiana	1043	Mixed Culture sp.	1327	Beauveria sp.

1328	Lecanicillium muscarium	1634	Unidentified sp.	1966	Beauveria bassiana
1329	Aphanocladium album	1647	Beauveria bassiana	1968	Metarhizium robertsii
1335	Lecanicillium muscarium	1667	Unidentified sp.	1969	Beauveria amorpha
1372	Acremonium furcatum	1676	Beauveria amorpha	1971	Beauveria bassiana
1377	Metarhizium anisopliae sensu lato	1678	Beauveria bassiana	1975	Beauveria bassiana
1389	Beauveria bassiana	1679	Beauveria bassiana	1980	Beauveria bassiana
1398	Beauveria bassiana	1680	Beauveria amorpha	1982	Beauveria bassiana
1399	Beauveria bassiana	1681	Beauveria sp.	1989	Metarhizium anisopliae sensu lato
1401	Lecanicillium muscarium	1682	Beauveria sp.	2010	Beauveria bassiana
1402	Lecanicillium muscarium	1683	Beauveria bassiana	2024	Metarhizium flavoviride
1403	Lecanicillium muscarium	1685	Beauveria sungii	2030	Beauveria bassiana
1424	Polycephalomyces formosus	1704	Beauveria bassiana	2031	Beauveria bassiana
1429	Unidentified sp.	1705	Beauveria bassiana	2032	Beauveria bassiana
1430	Unidentified sp.	1706	Beauveria bassiana	2033	Beauveria bassiana
1431	Beauveria brongniartii	1707	Beauveria bassiana	2034	Beauveria bassiana
1437	Unidentified sp.	1708	Beauveria bassiana	2040	Beauveria bassiana
1450	Beauveria bassiana	1709	Beauveria bassiana	2075	Beauveria bassiana
1451	Beauveria bassiana	1710	Beauveria bassiana	2076	Metarhizium anisopliae sensu lato
1452	Metarhizium anisopliae sensu lato	1711	Beauveria bassiana	2077	Metarhizium anisopliae sensu lato
1453	Beauveria bassiana	1712	Beauveria bassiana	2079	Beauveria bassiana
1454	Beauveria bassiana	1713	Beauveria bassiana	2107	Metarhizium brunneum
1455	Beauveria bassiana	1715	Pandora blunckii	2133	Metarhizium flavoviride
1456	Beauveria bassiana	1716	Pandora blunckii	2134	Metarhizium robertsii
1458	Beauveria bassiana	1717	Pandora blunckii	2135	Metarhizium anisopliae sensu lato
1459	Beauveria bassiana	1718	Pandora blunckii	2136	Metarhizium anisopliae sensu lato
1460	Beauveria bassiana	1721	Beauveria bassiana	2137	Metarhizium anisopliae sensu lato
1461	Beauveria bassiana	1722	Beauveria bassiana	2138	Metarhizium anisopliae sensu lato
1462	Beauveria bassiana	1723	Beauveria bassiana	2139	Metarhizium anisopliae sensu lato
1463	Beauveria bassiana	1739	Zoophthora anglica	2151	Metarhizium majus
1464	Beauveria bassiana	1749	Beauveria bassiana	2156	Metarhizium anisopliae sensu lato
1465	Beauveria bassiana	1750	Beauveria bassiana	2162	Metarhizium pingshaense
1466	Beauveria bassiana	1775	Beauveria bassiana	2163	Metarhizium anisopliae sensu lato
1467	Beauveria bassiana	1776	Beauveria bassiana	2165	Metarhizium anisopliae sensu lato
1469	Beauveria bassiana	1777	Beauveria bassiana	2166	Metarhizium anisopliae sensu lato
1470	Beauveria bassiana	1778	Beauveria bassiana	2167	Metarhizium anisopliae sensu lato
1471	Beauveria bassiana	1779	Beauveria bassiana	2169	Scopulariopsis sp.
1472	Beauveria bassiana	1780	Beauveria bassiana	2173	Aspergillus parasiticus
1473	Beauveria bassiana	1781	Beauveria bassiana	2188	Zoophthora phytonomi
1475	Beauveria bassiana	1811	Beauveria bassiana	2199	Beauveria bassiana
1476	Beauveria bassiana	1815	Beauveria bassiana	2200	Beauveria bassiana
1480	Beauveria bassiana	1816	Beauveria bassiana	2210	Metarhizium brunneum
1483	Beauveria bassiana	1817	Beauveria bassiana	2216	Isaria fumosorosea
1491	Beauveria bassiana	1818	Beauveria bassiana	2217	Isaria fumosorosea
1505	Lecanicillium lecanii	1819	Beauveria bassiana	2218	Pochonia chlamydosporia var. chlamydosporia
1506	Isaria fumosorosea	1820	Beauveria bassiana	2219	Isaria fumosorosea
1507	Isaria farinosa	1821	Beauveria bassiana	2220	Isaria amoenerosea
1508	Isaria farinosa	1833	Beauveria bassiana	2221	Isaria fumosorosea
1509	Beauveria bassiana	1835	Beauveria sp.	2223	Metarhizium anisopliae sensu stricto
1510	Beauveria bassiana	1848	Beauveria bassiana	2224	Metarhizium brunneum
1511	Beauveria bassiana	1849	Beauveria bassiana	2225	Unidentified / Hyphomycetes
1515	Beauveria bassiana	1852	Beauveria bassiana	2231	Metarhizium pingshaense
1518	Beauveria bassiana	1853	Beauveria bassiana	2248	Beauveria bassiana
1519	Beauveria bassiana	1854	Beauveria bassiana	2249	Beauveria bassiana
1559	Beauveria bassiana	1855	Beauveria pseudobassiana	2250	Beauveria bassiana
1560	Beauveria bassiana	1858	Metarhizium majus	2251	Beauveria caledonica
1561	Beauveria bassiana	1859	Metarhizium majus	2270	Beauveria bassiana
1562	Beauveria bassiana	1878	Metarhizium robertsii	2271	Beauveria brongniartii
1563	Beauveria bassiana	1885	Metarhizium anisopliae sensu lato	2327	Scopulariopsis sp.
1566	Beauveria bassiana	1897	Metarhizium robertsii	2330	Beauveria bassiana
1567	Beauveria caledonica	1901	Metarhizium anisopliae sensu lato	2331	Metarhizium anisopliae sensu lato
1572	Conidiobolus coronatus	1903	Metarhizium anisopliae sensu lato	2355	Isaria farinosa
1573	Conidiobolus coronatus	1910	Metarhizium robertsii	2379	Isaria farinosa
1574	Conidiobolus coronatus	1914	Metarhizium majus	2412	Beauveria sp.
1575	Conidiobolus coronatus	1946	Metarhizium majus	2415	Tilachlidium sp.
1619	Beauveria bassiana	1951	Purpureocillium lilacinum	2431	Isaria farinosa
1620	Beauveria bassiana	1954	Beauveria bassiana	2432	Metarhizium anisopliae sensu lato
1621	Beauveria bassiana	1956	Beauveria bassiana	2463	Beauveria bassiana
1622	Beauveria bassiana	1957	Isaria farinosa	2469	Metarhizium robertsii
1623	Beauveria bassiana	1958	Metarhizium anisopliae sensu lato	2505	Zoophthora anglica
1624	Beauveria bassiana	1961	Beauveria bassiana		

2509	Beauveria bassiana	2989	Beauveria bassiana	3445	Beauveria bassiana
2511	Beauveria bassiana	2990	Beauveria bassiana	3446	Beauveria bassiana
2512	Beauveria bassiana	2991	Beauveria bassiana	3447	Beauveria bassiana
2513	Metarhizium anisopliae sensu lato	2999	Unidentified / Hyphomycetes	3448	Beauveria bassiana
2514	Metarhizium robertsii	3030	Fusarium sp.	3450	Beauveria bassiana
2515	Beauveria bassiana	3031	Fusarium sp.	3451	Beauveria bassiana
2518	Metarhizium anisopliae sensu stricto	3032	Fusarium sp.	3452	Beauveria bassiana
2520	Beauveria bassiana	3033	Unidentified / Hyphomycetes	3453	Beauveria bassiana
2525	Erynia sp.	3034	Unidentified sp.	3455	Beauveria bassiana
2536	Erynia sp.	3035	Metapochonia bulbillosa(?)	3457	Beauveria bassiana
2537	Erynia sp.	3036	Penicillium sp.	3471	Unidentified sp.
2538	Erynia sp.	3037	Beauveria bassiana	3478	Unidentified sp.
2539	Erynia sp.	3038	Sterile mycelium	3479	Metarhizium anisopliae sensu lato
2547	Metarhizium robertsii	3040	Beauveria bassiana	3534	Beauveria bassiana
2548	Metarhizium anisopliae sensu lato	3054	Beauveria brongniartii	3603	Metarhizium guizhouense
2553	Erynia sp.	3055	Beauveria pseudobassiana	3604	Metarhizium pingshaense
2557	Beauveria pseudobassiana	3056	Metarhizium novozealandicum	3608	Metarhizium robertsii
2559	Beauveria bassiana	3057	Metarhizium anisopliae sensu lato	3667	Beauveria bassiana
2568	Fusarium proliferatum	3063	Beauveria pseudobassiana	3713	Metarhizium anisopliae sensu lato
2569	Fusarium proliferatum	3065	Beauveria pseudobassiana	3714	Unidentified sp.
2575	Metarhizium robertsii	3066	Beauveria pseudobassiana	3715	Verticillium insectorum
2579	Beauveria bassiana	3070	Beauveria pseudobassiana	3716	Beauveria bassiana
2580	Beauveria bassiana	3097	Beauveria bassiana	3717	Beauveria bassiana
2623	Zoophthora sp.	3098	Beauveria bassiana	3718	Cordyceps sp.
2625	Beauveria bassiana	3108	Metarhizium robertsii	3719	Unidentified sp.
2626	Beauveria bassiana	3111	Beauveria bassiana	3720	Metarhizium anisopliae sensu lato
2635	Metarhizium anisopliae sensu lato	3112	Beauveria bassiana	3721	Metarhizium robertsii
2638	Beauveria bassiana	3145	Metarhizium majus	3722	Unidentified sp.
2639	Beauveria bassiana	3148	Metarhizium anisopliae sensu lato	3724	Unidentified sp.
2642	Beauveria bassiana	3197	Beauveria bassiana	3818	Beauveria bassiana
2660	Beauveria brongniartii	3198	Beauveria bassiana	3819	Beauveria bassiana
2662	Erynia sp.	3199	Beauveria bassiana	3821	Unidentified sp.
2663	Erynia sp.	3210	Metarhizium pingshaense	3841	Unidentified sp.
2664	Erynia sp.	3211	Metarhizium robertsii	3863	Metarhizium sp.
2676	Beauveria bassiana	3219	Beauveria bassiana	3864	Metarhizium brunneum
2679	Isaria fumosorosea	3287	Beauveria bassiana	3865	Metarhizium sp.
2685	Beauveria bassiana	3305	Metarhizium anisopliae sensu lato	3924	Metarhizium anisopliae sensu stricto
2686	Beauveria bassiana	3306	Metarhizium anisopliae sensu lato	3980	Unidentified sp.
2687	Beauveria bassiana	3308	Metarhizium anisopliae sensu lato	4001	Beauveria bassiana
2688	Beauveria bassiana	3309	Beauveria bassiana	4009	Sterile mycelium
2689	Beauveria bassiana	3310	Beauveria bassiana	4011	Fusarium sp.
2690	Beauveria bassiana	3311	Beauveria bassiana	4013	Beauveria bassiana
2691	Beauveria bassiana	3314	Pochonia chlamydosporia	4015	Beauveria bassiana
2692	Beauveria bassiana	3329	Metarhizium anisopliae sensu lato	4016	Beauveria bassiana
2693	Beauveria bassiana	3330	Metarhizium anisopliae sensu lato	4018	Beauveria bassiana
2694	Beauveria varroae	3331	Metarhizium anisopliae sensu lato	4019	Beauveria bassiana
2695	Beauveria bassiana	3332	Metarhizium anisopliae sensu lato	4020	Metarhizium brunneum
2832	Lecanicillium sp. 2(?)	3333	Metarhizium anisopliae sensu lato	4021	Beauveria bassiana
2915	Stilbella buquetii	3334	Metarhizium anisopliae sensu lato	4022	Verticillium lecanii
2937	Isaria farinosa	3335	Metarhizium anisopliae sensu lato	4023	Beauveria bassiana
2938	Beauveria bassiana	3336	Metarhizium anisopliae sensu lato	4024	Beauveria brongniartii
2941	Metarhizium anisopliae sensu lato	3337	Metarhizium anisopliae sensu lato	4027	Beauveria sp.
2942	Beauveria bassiana	3338	Metarhizium anisopliae sensu lato	4028	Beauveria bassiana
2945	Beauveria bassiana	3339	Metarhizium anisopliae sensu lato	4029	Isaria farinosa
2946	Beauveria bassiana	3340	Metarhizium anisopliae sensu lato	4031	Beauveria bassiana
2950	Penicillium sp.	3342	Zoophthora phytonomi	4032	Beauveria bassiana
2952	Purpureocillium lilacinum	3343	Zoophthora phytonomi	4033	Lecanicillium muscarium
2956	Isaria fumosorosea	3344	Zoophthora phytonomi	4034	Beauveria bassiana
2958	Isaria amoenerosea	3386	Beauveria bassiana	4036	Lecanicillium muscarium
2959	Isaria amoenerosea	3388	Metarhizium robertsii	4037	Unidentified sp.
2960	Isaria amoenerosea	3389	Metarhizium anisopliae sensu lato	4038	Beauveria bassiana
2961	Beauveria bassiana	3403	Beauveria bassiana	4039	Isaria farinosa
2973	Isaria farinosa	3437	Beauveria bassiana	4040	Isaria farinosa
2981	Metarhizium robertsii	3438	Beauveria bassiana	4041	Beauveria bassiana
2983	Beauveria bassiana	3439	Beauveria bassiana	4043	Isaria farinosa
2984	Beauveria bassiana	3440	Beauveria bassiana	4044	Isaria farinosa
2985	Beauveria bassiana	3441	Beauveria bassiana	4045	Isaria farinosa
2986	Beauveria bassiana	3442	Beauveria bassiana	4046	Beauveria bassiana
2987	Beauveria bassiana	3443	Beauveria bassiana	4047	Verticillium lecanii
2988	Beauveria bassiana	3444	Beauveria bassiana	4048	Verticillium lecanii

4049	Beauveria bassiana	4558	Metarhizium anisopliae sensu lato	4980	Beauveria bassiana
4050	Lecanicillium longisporum	4566	Metarhizium majus	4990	Beauveria amorpha
4051	Beauveria bassiana	4568	Metarhizium anisopliae sensu lato	4991	Beauveria brongniartii
4052	Beauveria bassiana	4572	Metarhizium anisopliae sensu lato	4992	Beauveria brongniartii
4054	Beauveria bassiana	4574	Metarhizium anisopliae sensu lato	4993	Beauveria brongniartii
4055	Beauveria bassiana	4582	Metarhizium anisopliae sensu lato	4994	Beauveria brongniartii
4056	Beauveria bassiana	4601	Metarhizium majus	4995	Beauveria brongniartii
4097	Isaria amoenerosea	4604	Metarhizium guizhouense	5070	Beauveria pseudobassiana
4123	Metarhizium robertsii	4610	Metarhizium pingshaense	5071	Beauveria bassiana
4124	Metarhizium frigidum	4642	Beauveria bassiana	5072	Beauveria bassiana
4125	Metarhizium brunneum	4677	Metarhizium anisopliae sensu lato	5073	Isaria farinosa
4130	Beauveria bassiana	4716	Metarhizium anisopliae sensu lato	5074	Isaria farinosa
4131	Metarhizium brunneum	4719	Metarhizium flavoviride	5075	Isaria farinosa
4132	Metarhizium anisopliae sensu lato	4720	Metarhizium flavoviride	5080	Isaria farinosa
4133	Metarhizium anisopliae sensu lato	4721	Beauveria pseudobassiana	5148	Beauveria bassiana
4134	Metarhizium anisopliae sensu lato	4722	Metarhizium anisopliae sensu lato	5149	Metarhizium robertsii
4135	Beauveria bassiana	4777	Metarhizium anisopliae sensu lato	5150	Beauveria bassiana
4136	Beauveria bassiana	4778	Metarhizium anisopliae sensu lato	5184	Paecilomyces sp.
4137	Metarhizium anisopliae sensu lato	4779	Metarhizium anisopliae sensu lato	5186	Beauveria sp.
4138	Metarhizium anisopliae sensu lato	4780	Metarhizium anisopliae sensu lato	5188	Mixed Culture sp.
4139	Metarhizium anisopliae sensu lato	4798	Beauveria bassiana	5193	Paecilomyces sp.
4140	Unidentified sp.	4799	Beauveria bassiana	5195	Beauveria bassiana
4141	Metarhizium anisopliae sensu lato	4819	Metarhizium anisopliae sensu lato	5196	Paecilomyces sp.
4142	Metarhizium anisopliae sensu lato	4820	Metarhizium anisopliae sensu lato	5197	Metarhizium pingshaense
4149	Beauveria amorpha	4821	Metarhizium anisopliae sensu lato	5198	Metarhizium brunneum
4228	Metarhizium brunneum	4822	Metarhizium anisopliae sensu lato	5223	Unidentified / Hyphomycetes
4236	Metarhizium anisopliae sensu lato	4823	Metarhizium anisopliae sensu lato	5224	Unidentified / Hyphomycetes
4239	Metarhizium anisopliae sensu lato	4824	Metarhizium anisopliae sensu lato	5225	Unidentified / Hyphomycetes
4243	Sterile mycelium	4825	Fusarium commune	5226	Unidentified / Hyphomycetes
4274	Beauveria pseudobassiana	4849	Isaria amoenerosea	5227	Unidentified / Hyphomycetes
4290	Metarhizium pingshaense	4852	Cordyceps sp.	5286	Beauveria bassiana
4333	Metarhizium anisopliae sensu lato	4853	Beauveria sp.	5352	Erynia sp.
4334	Metarhizium anisopliae sensu lato	4877	Tolypocladium inflatum	5355	Beauveria brongniartii
4335	Metarhizium anisopliae sensu lato	4878	Tolypocladium inflatum	5356	Beauveria brongniartii
4336	Metarhizium anisopliae sensu lato	4879	Tolypocladium inflatum	5357	Beauveria brongniartii
4337	Metarhizium anisopliae sensu lato	4880	Tolypocladium inflatum	5358	Beauveria brongniartii
4338	Metarhizium anisopliae sensu lato	4881	Tolypocladium inflatum	5359	Beauveria brongniartii
4339	Metarhizium anisopliae sensu lato	4882	Tolypocladium inflatum	5360	Beauveria brongniartii
4340	Metarhizium pingshaense	4883	Tolypocladium inflatum	5361	Beauveria brongniartii
4341	Metarhizium anisopliae sensu lato	4884	Tolypocladium inflatum	5362	Beauveria brongniartii
4342	Metarhizium pingshaense	4885	Tolypocladium inflatum	5363	Beauveria brongniartii
4346	Metarhizium anisopliae sensu lato	4886	Tolypocladium inflatum	5364	Beauveria brongniartii
4380	Beauveria brongniartii	4887	Tolypocladium inflatum	5436	Beauveria bassiana
4381	Beauveria brongniartii	4888	Tolypocladium inflatum	5437	Beauveria bassiana
4382	Beauveria bassiana	4889	Tolypocladium inflatum	5438	Beauveria bassiana
4384	Beauveria asiatica	4890	Tolypocladium inflatum	5439	Beauveria bassiana
4385	Beauveria brongniartii	4891	Tolypocladium inflatum	5440	Beauveria bassiana
4386	Beauveria brongniartii	4892	Tolypocladium inflatum	5441	Beauveria bassiana
4387	Mixed Culture sp.	4893	Tolypocladium inflatum	5442	Beauveria bassiana
4388	Beauveria brongniartii	4894	Tolypocladium inflatum	5443	Beauveria bassiana
4389	Beauveria brongniartii	4895	Tolypocladium inflatum	5444	Beauveria bassiana
4390	Beauveria sp.	4896	Tolypocladium inflatum	5445	Beauveria bassiana
4391	Beauveria sp.	4897	Tolypocladium inflatum	5446	Beauveria bassiana
4392	Beauveria sp.	4898	Tolypocladium inflatum	5447	Beauveria bassiana
4458	Beauveria brongniartii	4907	Metarhizium anisopliae sensu lato	5448	Beauveria bassiana
4465	Beauveria brongniartii	4908	Metarhizium anisopliae sensu lato	5449	Beauveria bassiana
4466	Beauveria brongniartii	4909	Beauveria sp.	5450	Beauveria bassiana
4467	Beauveria brongniartii	4910	Beauveria sp.	5451	Beauveria bassiana
4468	Beauveria brongniartii	4911	Beauveria sp.	5452	Beauveria bassiana
4469	Beauveria brongniartii	4912	Beauveria sp.	5453	Beauveria bassiana
4470	Beauveria brongniartii	4913	Beauveria sp.	5454	Beauveria bassiana
4471	Beauveria brongniartii	4914	Beauveria sp.	5455	Beauveria bassiana
4472	Beauveria brongniartii	4915	Beauveria sp.	5456	Beauveria bassiana
4473	Beauveria brongniartii	4916	Beauveria sp.	5457	Beauveria bassiana
4474	Beauveria asiatica	4917	Beauveria sp.	5458	Beauveria bassiana
4475	Beauveria brongniartii	4918	Beauveria sp.	5459	Beauveria bassiana
4476	Beauveria brongniartii	4933	Beauveria pseudobassiana	5460	Beauveria bassiana
4477	Beauveria brongniartii	4973	Beauveria bassiana	5461	Fusarium sp.
4478	Beauveria brongniartii	4974	Beauveria bassiana	5465	Beauveria bassiana
4557	Metarhizium pingshaense	4975	Beauveria bassiana	5474	Hirsutella fusiformis

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5477	<i>Beauveria bassiana</i>	5856	<i>Verticillium lecanii</i>	6489	<i>Isaria farinosa</i>
5478	<i>Beauveria bassiana</i>	5857	<i>Beauveria bassiana</i>	6491	<i>Isaria farinosa</i>
5479	<i>Beauveria bassiana</i>	5858	<i>Isaria farinosa</i>	6499	<i>Beauveria bassiana</i>
5480	<i>Beauveria bassiana</i>	5875	<i>Fusarium</i> sp.	6501	<i>Verticillium</i> sp.
5481	<i>Beauveria bassiana</i>	5876	<i>Purpleocillium lilacinum</i>	6515	<i>Aspergillus nidulans</i> (?)
5482	<i>Beauveria bassiana</i>	5877	<i>Purpleocillium lilacinum</i>	6516	<i>Cladosporium sphaerospermum</i>
5483	<i>Beauveria bassiana</i>	5878	<i>Fusarium</i> sp.	6526	<i>Beauveria bassiana</i>
5484	<i>Beauveria bassiana</i>	5879	<i>Fusarium</i> sp.	6527	<i>Beauveria bassiana</i>
5485	<i>Beauveria bassiana</i>	5880	<i>Purpleocillium lilacinum</i>	6528	<i>Beauveria bassiana</i>
5486	<i>Beauveria bassiana</i>	5882	<i>Purpleocillium lilacinum</i>	6529	<i>Beauveria bassiana</i>
5487	<i>Beauveria bassiana</i>	5979	<i>Beauveria bassiana</i>	6530	<i>Beauveria bassiana</i>
5488	<i>Beauveria bassiana</i>	5981	<i>Beauveria bassiana</i>	6531	<i>Beauveria bassiana</i>
5489	<i>Beauveria bassiana</i>	5982	<i>Beauveria bassiana</i>	6532	<i>Beauveria bassiana</i>
5490	<i>Beauveria bassiana</i>	5983	<i>Beauveria bassiana</i>	6545	<i>Verticillium lecanii</i>
5498	<i>Ophiocordyceps aphodii</i>	5984	<i>Beauveria bassiana</i>	6546	<i>Metarhizium anisopliae sensu stricto</i>
5501	<i>Beauveria bassiana</i>	5986	<i>Beauveria bassiana</i>	6549	<i>Metarhizium anisopliae sensu lato</i>
5533	<i>Beauveria bassiana</i>	5997	<i>Beauveria bassiana</i>	6551	<i>Metarhizium anisopliae sensu lato</i>
5534	<i>Beauveria bassiana</i>	6055	<i>Beauveria bassiana</i>	6552	<i>Beauveria bassiana</i>
5535	<i>Beauveria bassiana</i>	6057	<i>Beauveria bassiana</i>	6559	<i>Beauveria bassiana</i>
5536	<i>Beauveria bassiana</i>	6058	<i>Beauveria bassiana</i>	6560	<i>Beauveria bassiana</i>
5537	<i>Beauveria bassiana</i>	6059	<i>Beauveria bassiana</i>	6571	<i>Aspergillus</i> sp.
5553	<i>Beauveria bassiana</i>	6061	<i>Beauveria bassiana</i>	6602	<i>Fusarium nygamai</i>
5601	<i>Harposporium janus</i>	6062	<i>Beauveria bassiana</i>	6669	<i>Beauveria bassiana</i>
5622	<i>Beauveria pseudobassiana</i>	6063	<i>Beauveria bassiana</i>	6670	<i>Metarhizium anisopliae sensu lato</i>
5623	<i>Beauveria bassiana</i>	6064	<i>Beauveria bassiana</i>	6671	<i>Metarhizium anisopliae sensu lato</i>
5624	<i>Metarhizium anisopliae sensu lato</i>	6074	<i>Beauveria bassiana</i>	6672	<i>Metarhizium anisopliae sensu lato</i>
5625	<i>Metarhizium brunneum</i>	6075	<i>Beauveria bassiana</i>	6673	<i>Metarhizium anisopliae sensu lato</i>
5626	<i>Metarhizium brunneum</i>	6077	<i>Beauveria bassiana</i>	6674	<i>Metarhizium anisopliae sensu lato</i>
5627	<i>Isaria fumosorosea</i>	6078	<i>Beauveria bassiana</i>	6675	<i>Metarhizium anisopliae sensu lato</i>
5664	<i>Synnematum jonesii</i>	6092	<i>Beauveria bassiana</i>	6676	<i>Beauveria bassiana</i>
5668	<i>Beauveria pseudobassiana</i>	6095	<i>Beauveria bassiana</i>	6677	<i>Metarhizium anisopliae sensu lato</i>
5669	<i>Beauveria pseudobassiana</i>	6096	<i>Beauveria bassiana</i>	6678	<i>Metarhizium anisopliae sensu lato</i>
5670	<i>Beauveria bassiana</i>	6099	<i>Beauveria bassiana</i>	6679	<i>Metarhizium anisopliae sensu lato</i>
5677	Unidentified / Hyphomycetes	6110	<i>Purpleocillium lilacinum</i>	6680	<i>Metarhizium anisopliae sensu lato</i>
5678	<i>Beauveria pseudobassiana</i>	6111	<i>Beauveria bassiana</i>	6681	<i>Beauveria bassiana</i>
5689	<i>Beauveria sungii</i>	6112	<i>Beauveria bassiana</i>	6682	<i>Metarhizium anisopliae sensu lato</i>
5694	<i>Isaria fumosorosea</i>	6113	<i>Beauveria bassiana</i>	6683	<i>Metarhizium anisopliae sensu lato</i>
5695	Unidentified / Hyphomycetes	6120	<i>Metarhizium brunneum</i>	6684	<i>Metarhizium anisopliae sensu lato</i>
5697	<i>Beauveria</i> sp.	6188	<i>Purpleocillium lilacinum</i>	6685	<i>Metarhizium anisopliae sensu lato</i>
5699	<i>Isaria farinosa</i>	6190	<i>Purpleocillium lilacinum</i>	6686	<i>Beauveria bassiana</i>
5729	<i>Candida</i> sp.	6213	<i>Beauveria brongniartii</i>	6689	<i>Beauveria bassiana</i>
5740	<i>Beauveria bassiana</i>	6214	<i>Beauveria brongniartii</i>	6692	<i>Beauveria bassiana</i>
5741	<i>Beauveria bassiana</i>	6215	<i>Beauveria brongniartii</i>	6693	<i>Beauveria bassiana</i>
5742	<i>Beauveria bassiana</i>	6216	<i>Beauveria bassiana</i>	6695	<i>Beauveria bassiana</i>
5743	<i>Beauveria bassiana</i>	6217	<i>Beauveria bassiana</i>	6696	<i>Beauveria bassiana</i>
5744	<i>Beauveria bassiana</i>	6229	<i>Beauveria pseudobassiana</i>	6697	<i>Beauveria bassiana</i>
5745	<i>Beauveria bassiana</i>	6235	<i>Beauveria brongniartii</i>	6721	<i>Beauveria bassiana</i>
5754	<i>Isaria farinosa</i>	6241	<i>Isaria catenianullata</i>	6730	<i>Isaria fumosorosea</i>
5764	<i>Paraisaria dubia</i>	6243	<i>Isaria catenianullata</i>	6827	<i>Beauveria amorphae</i> (?)
5807	<i>Beauveria bassiana</i>	6244	<i>Isaria catenabolliqua</i>	6884	<i>Beauveria bassiana</i>
5810	<i>Batkoia</i> sp.	6387	<i>Beauveria bassiana</i>	6885	<i>Beauveria bassiana</i>
5813	<i>Beauveria bassiana</i>	6388	<i>Metarhizium anisopliae sensu lato</i>	6890	<i>Beauveria bassiana</i> (?)
5831	<i>Beauveria</i> sp.	6389	<i>Metarhizium anisopliae sensu lato</i>	6891	<i>Beauveria bassiana</i> (?)
5833	<i>Beauveria</i> sp.	6390	<i>Beauveria bassiana</i>	6900	<i>Beauveria bassiana</i>
5834	<i>Isaria farinosa</i>	6391	<i>Beauveria bassiana</i>	6901	<i>Metarhizium anisopliae sensu lato</i>
5836	<i>Beauveria bassiana</i>	6392	<i>Metarhizium brunneum</i>	6903	<i>Beauveria bassiana</i>
5837	<i>Metarhizium anisopliae sensu lato</i>	6393	<i>Beauveria bassiana</i>	6986	<i>Beauveria bassiana</i>
5838	<i>Beauveria bassiana</i>	6412	<i>Beauveria brongniartii</i>	6987	<i>Beauveria bassiana</i>
5839	<i>Beauveria bassiana</i>	6454	<i>Aspergillus flavus</i>	6988	<i>Beauveria bassiana</i>
5840	<i>Beauveria bassiana</i>	6469	<i>Aspergillus flavus</i>	7000	<i>Metarhizium anisopliae sensu lato</i>
5841	<i>Metarhizium anisopliae sensu lato</i>	6470	<i>Mucor circinelloides</i>	7001	<i>Metarhizium anisopliae sensu lato</i>
5842	<i>Metarhizium anisopliae sensu lato</i>	6471	<i>Beauveria bassiana</i>	7002	<i>Metarhizium anisopliae sensu lato</i>
5843	<i>Beauveria bassiana</i>	6472	<i>Metarhizium robertsii</i>	7003	<i>Metarhizium anisopliae sensu lato</i>
5844	<i>Isaria fumosorosea</i>	6477	<i>Metarhizium brunneum</i>	7004	<i>Metarhizium anisopliae sensu lato</i>
5845	<i>Isaria fumosorosea</i>	6478	<i>Beauveria bassiana</i>	7005	<i>Metarhizium anisopliae sensu lato</i>
5846	<i>Isaria fumosorosea</i>	6483	<i>Beauveria bassiana</i>	7006	<i>Metarhizium anisopliae sensu lato</i>
5847	<i>Isaria fumosorosea</i>	6484	<i>Verticillium</i> sp.	7007	<i>Metarhizium anisopliae sensu lato</i>
5848	<i>Metarhizium anisopliae sensu lato</i>	6486	<i>Verticillium</i> sp.	7008	<i>Metarhizium anisopliae sensu lato</i>
5849	<i>Verticillium lecanii</i>	6487	<i>Verticillium lecanii</i>	7009	<i>Metarhizium anisopliae sensu lato</i>
5850	<i>Metarhizium anisopliae sensu lato</i>	6488	<i>Isaria farinosa</i>	7048	<i>Aspergillus</i> sp.

7063	Fusarium sp.	7456	Tolypocladium cylindrosporum	7865	Metarhizium anisopliae sensu lato
7119	Isaria javanica	7463	Beauveria sp.	7931	Metarhizium anisopliae sensu lato
7152	Beauveria bassiana	7466	Beauveria bassiana	7932	Metarhizium anisopliae sensu lato
7153	Beauveria bassiana	7470	Beauveria bassiana	7933	Metarhizium anisopliae sensu lato
7154	Beauveria bassiana	7471	Beauveria bassiana	7934	Metarhizium anisopliae sensu lato
7155	Beauveria bassiana	7488	Metarhizium lepidiotae	7935	Metarhizium anisopliae sensu lato
7156	Beauveria bassiana	7492	Metarhizium anisopliae sensu lato	7936	Metarhizium anisopliae sensu lato
7157	Beauveria bassiana	7493	Metarhizium sp.	7941	Beauveria bassiana
7158	Beauveria bassiana	7494	Metarhizium anisopliae sensu lato	7972	Beauveria bassiana
7159	Beauveria bassiana	7495	Metarhizium sp.	7978	Beauveria bassiana
7160	Beauveria bassiana	7496	Metarhizium anisopliae sensu lato	8024	Beauveria caledonica
7161	Beauveria bassiana	7498	Metarhizium anisopliae sensu lato	8037	Beauveria bassiana
7162	Beauveria bassiana	7499	Metarhizium anisopliae sensu lato	8038	Beauveria bassiana
7163	Beauveria bassiana	7500	Metarhizium anisopliae sensu lato	8048	Lecanicillium muscarium
7164	Beauveria bassiana	7504	Metarhizium anisopliae sensu lato	8049	Lecanicillium muscarium
7165	Beauveria bassiana	7505	Metarhizium majus	8050	Lecanicillium muscarium
7166	Beauveria bassiana	7516	Cordyceps brongniartii	8051	Lecanicillium muscarium
7167	Beauveria bassiana	7517	Cordyceps brongniartii	8052	Lecanicillium muscarium
7168	Beauveria bassiana	7524	Metarhizium anisopliae sensu lato	8053	Lecanicillium muscarium
7169	Beauveria bassiana	7525	Beauveria bassiana	8054	Lecanicillium muscarium
7170	Beauveria bassiana	7526	Beauveria bassiana	8055	Lecanicillium pissodis
7171	Beauveria bassiana	7527	Metarhizium anisopliae sensu lato	8056	Lecanicillium pissodis
7172	Beauveria bassiana	7528	Beauveria brongniartii	8057	Lecanicillium pissodis
7173	Beauveria bassiana	7529	Metarhizium anisopliae sensu lato	8058	Evlachovaea kintrischica
7174	Beauveria bassiana	7532	Metarhizium anisopliae sensu lato	8065	Beauveria bassiana
7175	Beauveria bassiana	7551	Evlachovaea sp.	8077	Beauveria bassiana
7176	Beauveria bassiana	7580	Beauveria sp.	8078	Beauveria bassiana
7177	Beauveria bassiana	7581	Beauveria bassiana	8079	Beauveria bassiana
7178	Beauveria bassiana	7591	Beauveria sp.	8098	Metarhizium anisopliae sensu lato
7179	Beauveria bassiana	7595	Beauveria sp.	8099	Metarhizium anisopliae sensu lato
7180	Metarhizium anisopliae sensu lato	7635	Lecanicillium sp.	8110	Beauveria sp.
7181	Lecanicillium lecanii	7636	Lecanicillium sp.	8111	Beauveria sp.
7182	Lecanicillium lecanii	7643	Metarhizium sp.	8112	Beauveria sp.
7202	Beauveria bassiana	7716	Isaria fumosorosea	8113	Beauveria sp.
7218	Evlachovaea kintrischica	7758	Beauveria bassiana	8114	Lecanicillium muscarium
7234	Metarhizium brunneum	7760	Beauveria malawiensis	8115	Lecanicillium lecanii
7241	Beauveria bassiana	7761	Beauveria brongniartii	8116	Beauveria sp.
7244	Beauveria bassiana	7763	Beauveria bassiana	8117	Beauveria sp.
7247	Beauveria bassiana	7764	Beauveria bassiana	8118	Lecanicillium muscarium
7248	Lecanicillium muscarium	7769	Beauveria bassiana	8119	Beauveria sp.
7251	Beauveria bassiana	7773	Beauveria bassiana	8120	Beauveria sp.
7261	Beauveria bassiana	7774	Beauveria bassiana	8121	Beauveria sp.
7264	Beauveria bassiana	7795	Beauveria bassiana	8122	Beauveria sp.
7266	Beauveria bassiana	7805	Engyodontium rectidentatum	8123	Beauveria sp.
7268	Beauveria brongniartii	7812	Tolypocladium cylindrosporum	8124	Beauveria sp.
7270	Beauveria bassiana	7813	Beauveria bassiana	8125	Beauveria sp.
7271	Beauveria bassiana	7814	Metarhizium anisopliae sensu lato	8126	Beauveria sp.
7272	Beauveria bassiana	7815	Metarhizium anisopliae sensu lato	8127	Beauveria sp.
7275	Beauveria bassiana	7816	Metarhizium anisopliae sensu lato	8128	Beauveria sp.
7276	Isaria farinosa	7819	Metarhizium anisopliae sensu lato	8129	Beauveria sp.
7277	Cordyceps scarabaeicola	7824	Metarhizium anisopliae sensu lato	8130	Beauveria sp.
7278	Cordyceps scarabaeicola	7825	Metarhizium anisopliae sensu lato	8131	Fusarium sp.
7279	Beauveria sungii	7826	Metarhizium anisopliae sensu lato	8132	Beauveria sp.
7280	Beauveria sungii	7827	Metarhizium anisopliae sensu lato	8133	Beauveria sp.
7282	Acremonium alternatum	7828	Metarhizium anisopliae sensu lato	8134	Beauveria sp.
7284	Isaria fumosorosea	7829	Metarhizium anisopliae sensu lato	8135	Beauveria sp.
7403	Evlachovaea sp.	7830	Metarhizium anisopliae sensu lato	8136	Beauveria sp.
7404	Beauveria bassiana	7831	Metarhizium anisopliae sensu lato	8137	Beauveria sp.
7410	Metarhizium pingshaense	7832	Metarhizium anisopliae sensu lato	8138	Beauveria sp.
7411	Metarhizium lepidiotae	7839	Metarhizium anisopliae sensu lato	8139	Beauveria sp.
7412	Metarhizium lepidiotae	7842	Metarhizium anisopliae sensu lato	8140	Beauveria sp.
7417	Metarhizium pingshaense	7843	Metarhizium anisopliae sensu lato	8141	Beauveria sp.
7424	Metarhizium robertsii	7844	Metarhizium anisopliae sensu lato	8142	Isaria fumosorosea
7435	Metarhizium pingshaense	7845	Metarhizium anisopliae sensu lato	8143	Beauveria sp.
7449	Metarhizium robertsii	7846	Metarhizium anisopliae sensu lato	8144	Beauveria sp.
7450	Metarhizium anisopliae sensu stricto	7848	Cordyceps sp.	8145	Beauveria sp.
7451	Metarhizium anisopliae sensu lato	7853	Beauveria bassiana	8146	Beauveria sp.
7452	Metarhizium pingshaense	7854	Metarhizium anisopliae sensu lato	8147	Beauveria sp.
7453	Metarhizium anisopliae var. lepidiotae	7863	Metarhizium anisopliae sensu lato	8148	Beauveria sp.
		7864	Metarhizium anisopliae sensu lato	8149	Beauveria sp.

8150	Beauveria sp.	8501	Metarhizium anisopliae sensu lato	8761	Metarhizium anisopliae sensu lato
8151	Beauveria sp.	8520	Beauveria bassiana	8762	Metarhizium anisopliae sensu lato
8152	Beauveria sp.	8521	Beauveria bassiana	8763	Beauveria bassiana
8153	Beauveria sp.	8522	Beauveria bassiana	8764	Metarhizium anisopliae sensu lato
8154	Beauveria sp.	8523	Beauveria bassiana	8765	Metarhizium anisopliae sensu lato
8155	Unidentified / Hyphomycetes	8524	Beauveria bassiana	8766	Metarhizium anisopliae sensu lato
8156	Beauveria sp.	8525	Beauveria bassiana	8767	Metarhizium anisopliae sensu lato
8157	Lecanicillium muscarium	8526	Beauveria bassiana	8771	Beauveria bassiana
8158	Beauveria sp.	8530	Beauveria bassiana	8772	Beauveria bassiana
8159	Beauveria sp.	8543	Metarhizium robertsii	8773	Beauveria bassiana
8160	Beauveria sp.	8544	Metarhizium robertsii	8774	Beauveria bassiana
8161	Beauveria sp.	8545	Metarhizium robertsii	8775	Metarhizium anisopliae sensu lato
8162	Lecanicillium muscarium(?)	8546	Metarhizium robertsii	8776	Metarhizium anisopliae sensu lato
8163	Lecanicillium muscarium	8547	Metarhizium robertsii	8777	Metarhizium anisopliae sensu lato
8164	Beauveria sp.	8548	Metarhizium robertsii	8778	Metarhizium anisopliae sensu lato
8165	Lecanicillium muscarium	8549	Metarhizium robertsii	8779	Metarhizium anisopliae sensu lato
8166	Beauveria sp.	8550	Metarhizium robertsii	8780	Metarhizium anisopliae sensu lato
8167	Beauveria sp.	8551	Metarhizium robertsii	8781	Metarhizium anisopliae sensu lato
8168	Beauveria sp.	8552	Metarhizium robertsii	8782	Metarhizium anisopliae sensu lato
8169	Beauveria sp.	8553	Metarhizium robertsii	8783	Metarhizium anisopliae sensu lato
8170	Beauveria sp.	8554	Metarhizium robertsii	8784	Metarhizium anisopliae sensu lato
8171	Beauveria sp.	8555	Metarhizium pingshaense	8785	Metarhizium anisopliae sensu lato
8172	Beauveria sp.	8556	Metarhizium robertsii	8786	Metarhizium anisopliae sensu lato
8173	Beauveria sp.	8557	Metarhizium robertsii	8787	Metarhizium anisopliae sensu lato
8174	Beauveria sp.	8558	Metarhizium robertsii	8788	Metarhizium anisopliae sensu lato
8175	Beauveria sp.	8559	Metarhizium robertsii	8789	Metarhizium anisopliae sensu lato
8176	Beauveria sp.	8563	Metarhizium robertsii	8790	Metarhizium anisopliae sensu lato
8177	Beauveria sp.	8564	Metarhizium anisopliae sensu lato	8791	Metarhizium anisopliae sensu lato
8178	Beauveria sp.	8565	Metarhizium robertsii	8792	Metarhizium anisopliae sensu lato
8179	Unidentified / Hyphomycetes	8566	Metarhizium pingshaense	8793	Metarhizium anisopliae sensu lato
8180	Beauveria sp.	8567	Metarhizium robertsii	8794	Metarhizium anisopliae sensu lato
8181	Beauveria sp.	8568	Metarhizium anisopliae sensu lato	8795	Metarhizium anisopliae sensu lato
8182	Beauveria sp.	8569	Metarhizium anisopliae sensu lato	8796	Metarhizium anisopliae sensu lato
8183	Unidentified / Hyphomycetes	8576	Metarhizium robertsii	8797	Metarhizium anisopliae sensu lato
8184	Unidentified / Hyphomycetes	8577	Metarhizium robertsii	8798	Metarhizium anisopliae sensu lato
8185	Beauveria sp.	8582	Metarhizium robertsii	8799	Metarhizium anisopliae sensu lato
8186	Beauveria sp.	8583	Metarhizium robertsii	8828	Metarhizium anisopliae sensu lato
8187	Beauveria sp.	8586	Metarhizium anisopliae sensu stricto	8829	Metarhizium anisopliae sensu lato
8188	Beauveria sp.	8592	Metarhizium robertsii	8830	Metarhizium anisopliae sensu lato
8250	Beauveria sp.	8610	Metarhizium anisopliae sensu lato	8831	Metarhizium anisopliae sensu lato
8260	Beauveria bassiana	8615	Metarhizium anisopliae sensu stricto	8832	Metarhizium anisopliae sensu lato
8261	Beauveria bassiana	8616	Metarhizium anisopliae sensu stricto	8833	Metarhizium anisopliae sensu lato
8262	Beauveria bassiana	8617	Metarhizium anisopliae sensu stricto	8834	Metarhizium anisopliae sensu lato
8263	Beauveria bassiana	8618	Metarhizium pingshaense	8835	Beauveria bassiana
8264	Unidentified / Hyphomycetes	8619	Metarhizium pingshaense	8836	Beauveria bassiana
8265	Lecanicillium muscarium(?)	8620	Metarhizium anisopliae sensu lato	8837	Metarhizium anisopliae sensu lato
8266	Fusarium sp.	8621	Metarhizium pingshaense	8838	Metarhizium anisopliae sensu lato
8267	Fusarium proliferatum	8641	Unidentified / Hyphomycetes	8839	Metarhizium anisopliae sensu lato
8372	Beauveria bassiana	8668	Beauveria bassiana	8840	Isaria fumosorosea
8373	Beauveria bassiana	8705	Beauveria bassiana	8844	Metarhizium anisopliae sensu lato
8411	Isaria farinosa	8732	Metarhizium anisopliae var. lepidotae	8845	Metarhizium anisopliae sensu lato
8412	Beauveria bassiana	8733	Metarhizium anisopliae sensu lato	8847	Metarhizium anisopliae sensu lato
8413	Beauveria bassiana	8734	Metarhizium anisopliae sensu lato	8848	Metarhizium anisopliae sensu lato
8414	Beauveria bassiana	8737	Metarhizium flavoviride	8849	Metarhizium anisopliae sensu lato
8415	Metarhizium brunneum	8738	Metarhizium anisopliae sensu stricto	8850	Metarhizium anisopliae sensu lato
8416	Metarhizium brunneum	8739	Metarhizium pingshaense	8851	Metarhizium sp.
8417	Metarhizium brunneum	8740	Metarhizium pingshaense	8852	Metarhizium sp.
8418	Metarhizium brunneum	8741	Metarhizium pingshaense	8853	Beauveria bassiana
8419	Metarhizium brunneum	8742	Metarhizium pingshaense	8854	Beauveria bassiana
8420	Metarhizium pingshaense	8743	Metarhizium pingshaense	8855	Metarhizium sp.
8421	Scopulariopsis sp.	8744	Metarhizium anisopliae sensu lato	8856	Metarhizium sp.
8461	Beauveria bassiana	8745	Metarhizium anisopliae sensu lato	8857	Metarhizium sp.
8462	Beauveria bassiana	8746	Metarhizium anisopliae sensu lato	8858	Metarhizium anisopliae sensu lato
8463	Beauveria bassiana	8747	Metarhizium anisopliae sensu lato	8859	Metarhizium anisopliae sensu lato
8464	Beauveria bassiana	8748	Metarhizium anisopliae sensu lato	8860	Metarhizium anisopliae sensu lato
8492	Metarhizium anisopliae sensu lato	8754	Metarhizium anisopliae sensu lato	8861	Metarhizium anisopliae sensu lato
8494	Beauveria bassiana	8755	Metarhizium anisopliae sensu lato	8862	Metarhizium anisopliae sensu lato
8495	Metarhizium anisopliae sensu lato	8756	Beauveria bassiana	8863	Metarhizium anisopliae sensu lato
8499	Metarhizium anisopliae sensu lato	8757	Beauveria bassiana	8864	Metarhizium anisopliae sensu lato
8500	Metarhizium anisopliae sensu stricto			8865	Metarhizium anisopliae sensu lato

8866	Metarhizium anisopliae sensu lato	9184	Beauveria bassiana	10410	Beauveria bassiana
8867	Metarhizium anisopliae sensu lato	9217	Metarhizium anisopliae sensu lato	10411	Beauveria bassiana
8868	Metarhizium anisopliae sensu lato	9218	Metarhizium anisopliae sensu lato	10412	Beauveria bassiana
8869	Metarhizium anisopliae sensu lato	9235	Metarhizium anisopliae sensu lato	10413	Beauveria bassiana
8870	Metarhizium anisopliae sensu lato	9236	Metarhizium anisopliae sensu lato	10414	Beauveria bassiana
8871	Metarhizium anisopliae sensu lato	9267	Lecanicillium muscarium	10415	Beauveria bassiana
8872	Metarhizium anisopliae sensu lato	9268	Lecanicillium muscarium	10416	Beauveria bassiana
8873	Metarhizium anisopliae sensu lato	9269	Isaria farinosa	10417	Beauveria bassiana
8874	Metarhizium anisopliae sensu lato	9270	Isaria farinosa	10418	Beauveria bassiana
8875	Metarhizium anisopliae sensu lato	9271	Beauveria bassiana(?)	10419	Beauveria bassiana
8876	Metarhizium anisopliae sensu lato	9272	Beauveria sp.	10420	Beauveria bassiana
8877	Metarhizium anisopliae sensu lato	9273	Fusarium sp.	10421	Beauveria bassiana
8878	Metarhizium anisopliae sensu lato	9274	Fusarium sp.	10422	Beauveria bassiana
8879	Metarhizium anisopliae sensu lato	9275	Isaria farinosa	10423	Beauveria bassiana
8880	Metarhizium anisopliae sensu lato	9276	Isaria farinosa	10424	Beauveria bassiana
8881	Metarhizium anisopliae sensu lato	9277	Isaria farinosa	10425	Beauveria bassiana
8882	Metarhizium anisopliae sensu lato	9278	Isaria farinosa	10426	Beauveria bassiana
8883	Metarhizium anisopliae sensu lato	9297	Beauveria bassiana	10427	Beauveria bassiana
8884	Metarhizium anisopliae sensu lato	9298	Beauveria bassiana	10428	Beauveria bassiana
8885	Metarhizium anisopliae sensu lato	9299	Beauveria bassiana	10429	Beauveria bassiana
8886	Metarhizium anisopliae sensu lato	9300	Beauveria bassiana	10430	Beauveria bassiana
8887	Metarhizium anisopliae sensu lato	9301	Beauveria bassiana	10431	Beauveria bassiana
8892	Isaria fumosorosea	9302	Beauveria bassiana	10432	Beauveria bassiana
8893	Metarhizium anisopliae sensu lato	9371	Purpleocillium lilacinum	10433	Beauveria bassiana
8894	Metarhizium anisopliae sensu lato	9372	Metarhizium anisopliae sensu lato	10434	Beauveria bassiana
8895	Metarhizium anisopliae sensu lato	9373	Metarhizium anisopliae sensu lato	10435	Beauveria bassiana
8896	Metarhizium anisopliae sensu lato	9374	Metarhizium anisopliae sensu lato	10436	Beauveria bassiana
8897	Metarhizium anisopliae sensu lato	9381	Aspergillus flavus	10437	Beauveria bassiana
8898	Metarhizium anisopliae sensu lato	9441	Beauveria bassiana	10438	Beauveria bassiana
8899	Metarhizium anisopliae sensu lato	9442	Beauveria bassiana	10439	Beauveria bassiana
8900	Metarhizium anisopliae sensu lato	9444	Beauveria bassiana	10440	Beauveria bassiana
8901	Metarhizium anisopliae sensu lato	9449	Beauveria bassiana	10441	Beauveria bassiana
8902	Metarhizium anisopliae sensu lato	9452	Beauveria brongniartii	10442	Beauveria bassiana
8903	Metarhizium anisopliae sensu lato	9459	Lecanicillium sp.	10443	Beauveria bassiana
8904	Metarhizium anisopliae sensu lato	9460	Lecanicillium nr. aranearum	10444	Beauveria bassiana
8905	Metarhizium anisopliae sensu lato	9479	Simplicillium lamellicola	10445	Beauveria bassiana
8906	Metarhizium anisopliae sensu lato	9483	Lecanicillium fungicola	10446	Beauveria bassiana
8907	Metarhizium anisopliae sensu lato	9491	Clonostachys rosea	10447	Beauveria bassiana
8908	Metarhizium anisopliae sensu lato	9496	Polycephalomyces sp.	10448	Beauveria bassiana
8909	Metarhizium anisopliae sensu lato	9497	Polycephalomyces sp.	10449	Beauveria bassiana
8910	Metarhizium anisopliae sensu lato	9502	Sporothrix insectorum	10450	Beauveria bassiana
8911	Metarhizium anisopliae sensu lato	9509	Isaria coleopterorum	10451	Beauveria bassiana
8912	Metarhizium anisopliae sensu lato	9511	Isaria farinosa	10452	Beauveria bassiana
8913	Metarhizium anisopliae sensu lato	9516	Isaria farinosa	10453	Beauveria bassiana
8914	Metarhizium anisopliae sensu lato	9519	Isaria sp.	10454	Beauveria bassiana
8915	Metarhizium anisopliae sensu lato	9521	Isaria fumosorosea	10455	Beauveria bassiana
8916	Metarhizium anisopliae sensu lato	9524	Purpleocillium lilacinum	10456	Beauveria bassiana
8917	Isaria farinosa	9602	Isaria fumosorosea	10457	Beauveria bassiana
8918	Purpleocillium lilacinum	9944	Isaria farinosa	10458	Beauveria bassiana
8919	Purpleocillium lilacinum	9945	Isaria farinosa	10459	Beauveria bassiana
8920	Purpleocillium lilacinum	10132	Tilachlidium sp.	10460	Beauveria bassiana
8921	Purpleocillium lilacinum	10347	Beauveria bassiana	10461	Beauveria bassiana
8922	Purpleocillium lilacinum	10350	Beauveria bassiana	10462	Beauveria bassiana
8923	Lecanicillium muscarium	10393	Beauveria bassiana	10463	Beauveria bassiana
8941	Metarhizium anisopliae sensu lato	10394	Beauveria bassiana	10464	Beauveria bassiana
8942	Metarhizium anisopliae sensu lato	10395	Beauveria bassiana	10465	Beauveria bassiana
8943	Metarhizium anisopliae sensu lato	10396	Beauveria bassiana	10466	Beauveria bassiana
8944	Metarhizium anisopliae sensu lato	10397	Beauveria bassiana	10467	Beauveria bassiana
8945	Metarhizium anisopliae sensu lato	10398	Beauveria bassiana	10468	Beauveria bassiana
8946	Metarhizium anisopliae sensu lato	10399	Beauveria bassiana	10469	Metarhizium anisopliae sensu lato
8947	Metarhizium anisopliae sensu lato	10400	Beauveria bassiana	10471	Beauveria bassiana
8948	Metarhizium anisopliae sensu lato	10401	Beauveria bassiana	10472	Metarhizium anisopliae sensu stricto
8949	Metarhizium anisopliae sensu lato	10402	Beauveria bassiana	10475	Metarhizium anisopliae sensu stricto
8950	Metarhizium anisopliae sensu lato	10403	Beauveria bassiana	10476	Metarhizium anisopliae sensu stricto
8951	Metarhizium anisopliae sensu lato	10404	Beauveria bassiana	11652	Scopulariopsis sp.
8952	Metarhizium anisopliae sensu lato	10405	Beauveria bassiana	11660	Beauveria bassiana
8953	Metarhizium anisopliae sensu lato	10406	Beauveria bassiana	11666	Unidentified / Hyphomycetes
8954	Metarhizium anisopliae sensu lato	10407	Beauveria bassiana	11668	Metarhizium guizhouense
8955	Metarhizium anisopliae sensu lato	10408	Beauveria bassiana	11669	Metarhizium guizhouense
8998	Beauveria bassiana	10409	Beauveria bassiana	11670	Fusarium sp.

11671	Fusarium sp.	12581	Beauveria bassiana	12963	Beauveria caledonica
11672	Fusarium sp.	12582	Beauveria bassiana	12964	Beauveria bassiana
11673	Fusarium sp.	12583	Beauveria bassiana	12965	Beauveria bassiana
11674	Fusarium sp.	12584	Beauveria bassiana	12966	Beauveria bassiana
11675	Fusarium sp.	12585	Beauveria bassiana	12967	Beauveria bassiana
11676	Mixed Culture sp.	12586	Beauveria bassiana	12968	Beauveria bassiana
11677	Fusarium sp.	12587	Beauveria bassiana	12969	Beauveria caledonica
11678	Clonostachys rosea	12588	Beauveria bassiana	12970	Beauveria bassiana
11679	Fusarium sp.	12589	Beauveria bassiana	12971	Beauveria bassiana
11680	Fusarium sp.	12590	Beauveria bassiana	12972	Beauveria caledonica
11681	Penicillium sp.	12591	Beauveria bassiana	12973	Beauveria bassiana
11682	Clonostachys rosea	12592	Beauveria bassiana	12974	Beauveria bassiana
11683	Penicillium sp.	12593	Beauveria bassiana	12975	Beauveria bassiana
11684	Fusarium sp.	12594	Beauveria bassiana	12976	Beauveria pseudobassiana
11685	Metarhizium sp.	12595	Beauveria bassiana	12977	Beauveria bassiana
11686	Metarhizium sp.	12596	Beauveria bassiana	12978	Beauveria bassiana
11687	Clonostachys rosea	12597	Beauveria bassiana	12979	Beauveria bassiana
11718	Mixed Culture sp.	12598	Beauveria bassiana	12980	Beauveria bassiana
11741	Beauveria lii	12599	Beauveria bassiana	12981	Beauveria pseudobassiana
11799	Lecanicillium nr. aranearum	12600	Beauveria bassiana	12982	Beauveria bassiana sensu lato
11803	Lecanicillium muscarium	12601	Beauveria bassiana	12983	Beauveria bassiana sensu lato
11805	Lecanicillium evansii(?)	12602	Beauveria bassiana	12984	Beauveria bassiana sensu lato
11811	Lecanicillium nr. aranearum	12603	Beauveria bassiana	12985	Beauveria bassiana sensu lato
11819	Hirsutella thompsonii	12604	Beauveria bassiana	12986	Beauveria bassiana sensu lato
11827	Isaria farinosa	12605	Beauveria bassiana	12987	Beauveria bassiana sensu lato
11830	Isaria farinosa	12606	Beauveria bassiana	12988	Beauveria bassiana sensu lato
11831	Isaria farinosa	12607	Beauveria bassiana	12989	Beauveria bassiana sensu lato
11836	Metarhizium carneum	12608	Beauveria bassiana	12990	Beauveria bassiana sensu lato
11844	Beauveria bassiana	12609	Beauveria bassiana	12991	Beauveria bassiana sensu lato
11849	Metarhizium sp.	12610	Beauveria bassiana	12992	Beauveria bassiana sensu lato
11850	Metarhizium anisopliae sensu lato	12611	Beauveria bassiana	12993	Beauveria bassiana sensu lato
11878	Beauveria bassiana	12612	Beauveria bassiana	12994	Beauveria bassiana sensu lato
11945	Metarhizium anisopliae sensu lato	12613	Beauveria bassiana	12995	Beauveria bassiana sensu lato
11946	Metarhizium anisopliae sensu lato	12614	Beauveria bassiana	12996	Beauveria bassiana sensu lato
11947	Metarhizium anisopliae sensu lato	12615	Beauveria bassiana	12997	Beauveria bassiana sensu lato
11951	Metarhizium anisopliae sensu lato	12616	Beauveria bassiana	12998	Beauveria bassiana sensu lato
12434	Beauveria bassiana sensu lato	12617	Beauveria bassiana	12999	Beauveria bassiana sensu lato
12435	Beauveria bassiana sensu lato	12618	Beauveria bassiana	13000	Beauveria bassiana sensu lato
12436	Beauveria bassiana sensu lato	12619	Beauveria bassiana	13001	Beauveria bassiana sensu lato
12437	Beauveria bassiana sensu lato	12620	Beauveria bassiana	13002	Beauveria bassiana sensu lato
12438	Beauveria bassiana sensu lato	12793	Beauveria sp.	13003	Beauveria bassiana sensu lato
12439	Beauveria bassiana sensu lato	12794	Beauveria sp.	13004	Beauveria bassiana sensu lato
12440	Beauveria bassiana sensu lato	12795	Beauveria sp.	13005	Beauveria bassiana sensu lato
12441	Beauveria bassiana sensu lato	12796	Metarhizium sp.	13006	Beauveria bassiana sensu lato
12442	Beauveria bassiana sensu lato	12797	Metarhizium robertsii	13007	Beauveria bassiana sensu lato
12443	Beauveria bassiana sensu lato	12798	Metarhizium anisopliae sensu lato	13008	Beauveria bassiana sensu lato
12444	Beauveria bassiana sensu lato	12799	Metarhizium robertsii	13009	Beauveria bassiana sensu lato
12445	Beauveria bassiana sensu lato	12805	Beauveria bassiana	13010	Beauveria bassiana sensu lato
12446	Beauveria bassiana sensu lato	12806	Beauveria bassiana	13011	Beauveria bassiana sensu lato
12447	Beauveria bassiana sensu lato	12807	Beauveria bassiana	13012	Beauveria bassiana sensu lato
12448	Beauveria bassiana sensu lato	12808	Beauveria bassiana	13013	Beauveria bassiana sensu lato
12449	Beauveria bassiana sensu lato	12809	Beauveria bassiana	13014	Beauveria bassiana sensu lato
12450	Beauveria bassiana sensu lato	12810	Beauveria bassiana	13015	Beauveria bassiana sensu lato
12451	Beauveria bassiana sensu lato	12811	Beauveria bassiana	13016	Beauveria bassiana sensu lato
12461	Fusarium sp.	12812	Beauveria bassiana	13017	Beauveria bassiana sensu lato
12517	Beauveria bassiana sensu lato	12813	Beauveria bassiana	13018	Beauveria bassiana sensu lato
12518	Beauveria bassiana sensu lato	12814	Beauveria bassiana	13019	Beauveria bassiana sensu lato
12519	Beauveria bassiana sensu lato	12815	Beauveria bassiana	13020	Beauveria bassiana sensu lato
12520	Beauveria bassiana sensu lato	12816	Beauveria bassiana	13021	Beauveria hoplocheli
12521	Beauveria bassiana sensu lato	12821	Beauveria bassiana	13046	Beauveria bassiana sensu lato
12522	Beauveria bassiana sensu lato	12891	Beauveria bassiana	13047	Beauveria bassiana sensu lato
12557	Metarhizium majus	12892	Beauveria bassiana	13048	Beauveria bassiana sensu lato
12573	Beauveria bassiana	12893	Beauveria bassiana	13049	Beauveria bassiana sensu lato
12574	Beauveria bassiana	12894	Beauveria bassiana	13050	Beauveria bassiana sensu lato
12575	Beauveria bassiana	12957	Beauveria bassiana	13051	Beauveria bassiana sensu lato
12576	Beauveria bassiana	12958	Beauveria bassiana	13052	Beauveria bassiana sensu lato
12577	Beauveria bassiana	12959	Beauveria pseudobassiana	13053	Beauveria bassiana sensu lato
12578	Beauveria bassiana	12960	Beauveria bassiana	13054	Beauveria bassiana sensu lato
12579	Beauveria bassiana	12961	Beauveria bassiana	13055	Beauveria bassiana sensu lato
12580	Beauveria bassiana	12962	Beauveria bassiana	13056	Beauveria bassiana sensu lato

13057	<i>Beauveria bassiana</i> sensu lato	13407	<i>Beauveria</i> sp.
13058	<i>Beauveria bassiana</i> sensu lato	13408	<i>Beauveria</i> sp.
13059	<i>Beauveria bassiana</i> sensu lato	13409	<i>Beauveria</i> sp.
13060	<i>Beauveria bassiana</i> sensu lato	13410	<i>Beauveria</i> sp.
13061	<i>Beauveria bassiana</i> sensu lato	13411	<i>Beauveria</i> sp.
13062	<i>Beauveria bassiana</i> sensu lato	13412	<i>Beauveria</i> sp.
13063	<i>Beauveria bassiana</i> sensu lato	13413	<i>Beauveria</i> sp.
13064	<i>Beauveria bassiana</i> sensu lato	13414	<i>Beauveria</i> sp.
13065	<i>Beauveria bassiana</i> sensu lato	13415	<i>Beauveria</i> sp.
13066	<i>Beauveria bassiana</i> sensu lato	13416	<i>Beauveria</i> sp.
13067	<i>Beauveria bassiana</i> sensu lato	13417	<i>Beauveria</i> sp.
13068	<i>Beauveria bassiana</i> sensu lato	13418	<i>Beauveria</i> sp.
13069	<i>Beauveria bassiana</i> sensu lato	13419	<i>Beauveria</i> sp.
13070	<i>Beauveria bassiana</i> sensu lato	13420	<i>Beauveria</i> sp.
13071	<i>Beauveria bassiana</i> sensu lato	13421	<i>Beauveria</i> sp.
13072	<i>Beauveria bassiana</i> sensu lato	13422	<i>Beauveria</i> sp.
13073	<i>Beauveria bassiana</i> sensu lato	13423	<i>Beauveria</i> sp.
13074	<i>Beauveria bassiana</i> sensu lato	13424	<i>Beauveria</i> sp.
13075	<i>Beauveria bassiana</i> sensu lato	13426	<i>Sporothrix</i> sp.
13076	<i>Beauveria bassiana</i> sensu lato	13506	<i>Beauveria bassiana</i>
13077	<i>Beauveria bassiana</i> sensu lato	13515	<i>Beauveria bassiana</i>
13078	<i>Beauveria bassiana</i> sensu lato	13516	<i>Beauveria bassiana</i>
13079	<i>Beauveria bassiana</i> sensu lato	13517	<i>Beauveria bassiana</i>
13080	<i>Beauveria bassiana</i> sensu lato	13518	<i>Beauveria bassiana</i>
13081	<i>Beauveria bassiana</i> sensu lato	13519	<i>Beauveria bassiana</i>
13082	<i>Beauveria bassiana</i> sensu lato	13520	<i>Beauveria bassiana</i>
13083	<i>Beauveria bassiana</i> sensu lato	13521	<i>Beauveria bassiana</i>
13084	<i>Beauveria bassiana</i> sensu lato	13522	<i>Beauveria bassiana</i>
13085	<i>Beauveria bassiana</i> sensu lato	13523	<i>Beauveria bassiana</i>
13086	<i>Beauveria bassiana</i> sensu lato	13524	<i>Beauveria bassiana</i>
13087	<i>Beauveria bassiana</i> sensu lato	13525	<i>Beauveria bassiana</i>
13088	<i>Metarhizium</i> sp.	13526	<i>Beauveria bassiana</i>
13089	<i>Beauveria bassiana</i> sensu lato	13527	<i>Beauveria bassiana</i>
13090	<i>Beauveria bassiana</i> sensu lato	13528	<i>Beauveria bassiana</i>
13091	<i>Beauveria bassiana</i> sensu lato	13529	<i>Beauveria bassiana</i>
13092	<i>Beauveria bassiana</i> sensu lato	13530	<i>Beauveria bassiana</i>
13093	<i>Beauveria bassiana</i> sensu lato	13531	<i>Beauveria bassiana</i>
13094	<i>Beauveria bassiana</i> sensu lato	13532	<i>Beauveria bassiana</i>
13219	<i>Metarhizium anisopliae</i> sensu lato	13533	<i>Beauveria bassiana</i>
13220	<i>Metarhizium anisopliae</i> sensu lato	13534	<i>Beauveria bassiana</i>
13221	<i>Metarhizium anisopliae</i> sensu lato	13535	<i>Beauveria bassiana</i>
13257	<i>Beauveria bassiana</i> sensu lato	13536	<i>Beauveria bassiana</i>
13370	<i>Beauveria</i> sp.	13541	<i>Beauveria bassiana</i>
13375	<i>Hirsutella eleutheratorum</i>	13542	<i>Beauveria bassiana</i>
13377	<i>Beauveria</i> sp.	13543	<i>Beauveria bassiana</i>
13378	<i>Beauveria</i> sp.	13544	<i>Beauveria bassiana</i>
13379	<i>Beauveria</i> sp.	13545	<i>Beauveria bassiana</i>
13380	<i>Beauveria</i> sp.	13546	<i>Beauveria bassiana</i>
13381	<i>Beauveria</i> sp.	13547	<i>Beauveria bassiana</i>
13382	<i>Beauveria</i> sp.	13548	<i>Beauveria bassiana</i>
13383	<i>Beauveria</i> sp.	13549	<i>Beauveria bassiana</i>
13384	<i>Beauveria</i> sp.	13550	<i>Beauveria bassiana</i>
13385	<i>Beauveria</i> sp.	13551	<i>Beauveria bassiana</i>
13386	<i>Beauveria</i> sp.	13552	<i>Beauveria bassiana</i>
13387	<i>Beauveria</i> sp.	13553	<i>Beauveria bassiana</i>
13388	<i>Beauveria</i> sp.	13554	<i>Beauveria bassiana</i>
13389	<i>Beauveria</i> sp.	13555	<i>Beauveria bassiana</i>
13390	<i>Beauveria</i> sp.	13556	<i>Beauveria bassiana</i>
13391	<i>Beauveria</i> sp.	13557	<i>Beauveria bassiana</i>
13392	<i>Beauveria</i> sp.	13558	<i>Beauveria bassiana</i>
13393	<i>Beauveria</i> sp.	13559	<i>Beauveria bassiana</i>
13394	<i>Beauveria</i> sp.	13560	<i>Beauveria bassiana</i>
13395	<i>Beauveria</i> sp.	13561	<i>Beauveria bassiana</i>
13397	<i>Beauveria</i> sp.	13562	<i>Beauveria bassiana</i>
13398	<i>Beauveria</i> sp.	13563	<i>Beauveria bassiana</i>
13399	<i>Beauveria</i> sp.	13564	<i>Beauveria bassiana</i>
13402	<i>Beauveria bassiana</i>	13565	<i>Beauveria bassiana</i>
13403	<i>Beauveria bassiana</i>	13566	<i>Beauveria bassiana</i>
13404	<i>Beauveria bassiana</i>	13567	<i>Beauveria bassiana</i>
13405	<i>Beauveria bassiana</i>	13568	<i>Beauveria bassiana</i>
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			13594 <i>Beauveria bassiana</i>
			13595 <i>Beauveria</i> sp.
			13596 <i>Beauveria bassiana</i>
			13597 <i>Beauveria bassiana</i>
			13598 <i>Beauveria bassiana</i>
			13661 <i>Beauveria</i> sp.
			13750 <i>Beauveria bassiana</i> sensu stricto
			13751 <i>Beauveria bassiana</i> sensu stricto
			14001 <i>Beauveria bassiana</i> sensu lato
			14002 <i>Beauveria bassiana</i> sensu lato