



ARSEF
ARS Collection of
Entomopathogenic
Fungal Cultures

**ISOLATES FROM HOSTS IN
LEPIDOPTERA**

FULLY INDEXED

[INCLUDES 1340 ISOLATES]

USDA-ARS Biological Integrated Pest Management Research
Robert W. Holley Center for Agriculture and Health
538 Tower Road
Ithaca, New York 14853-2901

28 March 2012

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IMPORTANT NOTE

Major new classifications for fungal pathogens of invertebrates and new nomenclatural rules

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UPDATED March 2012

Some seemingly dramatic and comparatively recent changes in the classification of a number of fungi may continue to cause confusion or a degree of discomfort to many of the clients of the cultures and informational resources provided by the ARSEF culture collection. This short treatment is an attempt to summarize some of these changes, the reasons for them, and to provide the essential references to the literature in which the changes are proposed.

As the Curator of the ARSEF collection I wish to assure you that these changes are appropriate, progressive, and necessary to modernize and to stabilize the systematics of the fungal pathogens affecting insects and other invertebrates, and I urge you to adopt them into your own thinking, teaching, and publications.

The identifications in the ARSEF catalogs (<http://www.ars.usda.gov/Main/docs.htm?docid=12125>) incorporate these new classifications as soon as we can confirm the correct new identifications of fungi and, where genera or species are being split on molecular grounds, to determine and to apply the correct new identifications.

General Reclassification 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 the necessary taxonomic readjustments that were indicated by the phylogenetic studies.

Microsporidia

Many mycologists and invertebrate pathologists are now aware that the Microsporidia have been proven beyond any reasonable doubt to be comparatively recent and highly derived endobiotic fungi. They are neither extremely ancient eukaryotes nor affiliated with protozoans as most textbooks indicate. None of this realignment to the fungi is being disputed by either microsporidiologists or phylogenetic mycologists. The rationale for this realignment is presented succinctly in James *et al.* (2006). These fascinating organisms connect to the fungal tree of life at the base of the nonflagellate fungi (among or near the fungi traditionally treated as the Zygomycota) but their exact affinities and nearest remain uncertain.

Zygomycota, Zygomycotina, Zygomycetes and Entomophthorales

The phylogenetic reclassification of fungi (Hibbett *et al.*, 2007) significantly modified the traditional view of the most ancestral nonflagellate fungi. The phylum Zygomycota, subphylum Zygomycotina, and class Zygomycetes disappeared in their widely understood sense to be replaced by the phylum Glomeromycota (for arbuscular mycorrhizal fungi) and a series of new subphyla not yet assigned to any phylum (because of the obviously polyphyletic nature of the zygomycetes as traditionally treated). The Entomophthorales is reclassified in the subphylum Entomophthoromycotina Humber (in Hibbett *et al.* 2007); the other new subphyla in this group are the Mucoromycotina (which was incorrectly given in previous catalogs as 'Mucormycotina'), Zoopagomycotina and Kickxellomycotina. Where there had been some question about whether *Basidiobolus* and its close relatives should

be retained in the Entomophthorales or moved to a position closer to some of the blastocladial water molds, James *et al.* (2006) unequivocally retain *Basidiobolus* in an ancestral position in the Entomophthorales, and all of these fungi have now been shown to represent a monophyletic group that is distinct from all other zygomycetous fungi. Humber (2012) described a new phylum, Entomophthoromycota, for these fungi, recognized three classes in this phylum: Basidiobolomycetes (for Basidiobolales and Basidiobolaceae), Neozygitomycetes (for the new order Neozygiales and previously described family Neozygitaceae), and Entomophthoromycetes (Entomophthorales, now restricted to Ancylistaceae, Completoriaceae, Entomophthoraceae, and Meristacraceae). The genera *Ballocephala* and *Zygnemomyces* were removed from Entomophthorales to the Kickxellomycotina because these fungi have plugged, bifurcate septa characteristic of that subphylum.

Entomopathogenic Ascomycetes and Associated Anamorphic (Conidial) States

Among all of the major taxonomic changes within the fungi that affect entomopathogenic fungi, the most dramatic and far-reaching involve the ascomycetes and their conidial (anamorphic) states classified among the pyrenomycetous fungi of the order Hypocreales. In one of the first major changes to be noted, those ascomycetous entomopathogens whose asci are produced in perithecia (nearly closed spherical to flask-like fruiting bodies) are now put in the class Sordariomycetes, a name based on a valid generic name, rather than in the historically familiar class Pyrenomycetes, a name based on the morphology of the fruiting body. The great majority of these fungi have long been recognized to belong in the family Clavicipitaceae (mostly in the genera *Cordyceps*, *Torrubiella* or *Hypocrella*). A major phylogenetic reclassification of the Clavicipitaceae (Sung *et al.* 2007; available free of charge at <http://www.studiesinmycology.org>) has split this family into three (Table 1), a long overdue major reworking of the taxonomy of *Cordyceps* and, subsequently, a reshuffling of anamorphic states among these families. This publication by Sung *et al.* (2007) is very long and complex since it includes a highly detailed phylogenetic analysis of these fungi as well as presenting the new taxonomy, descriptions of new families, genera, and species, and a very large number of new combinations (mostly segregating *Cordyceps* into their newly described segregate genera), and listing of the known or suspected anamorphic states associated with these taxa.

Note that Table 1 shows *Torrubiella* to be split between two families. This is an untenable position in a phylogenetically based classification that requires all taxa to represent monophyletic lineages. Future phylogenetic studies that will result in the reclassification of *Torrubiella* are obviously required. Also note that some anamorphic states with morphologies referable to *Hirsutella*, *Paecilomyces* and *Verticillium* (the latter

Table 1. Summary of some major teleomorphic (sexual) and anamorphic (conidial) genera of Hypocreales pathogenic to invertebrates (Sung *et al.* 2007).

	FAMILY		
	Clavicipitaceae	Cordycipitaceae	Ophiocordycipitaceae
Teleomorphs:	<i>Hypocrella</i> , <i>Metacordyceps</i> , <i>Regiocrella</i> , <i>Torrubiella</i>	<i>Cordyceps</i> s.str., <i>Torrubiella</i>	<i>Ophiocordyceps</i> , <i>Elaphocordyceps</i>
Anamorphs:	<i>Aschersonia</i> , <i>Metarhizium</i> , <i>Nomuraea</i> , <i>Paecilomyces</i> -like ¹ , <i>Pochonia</i> , <i>Rotiferophthora</i> , <i>Verticillium</i> -like ²	<i>Beauveria</i> , <i>Engyodontium</i> , <i>Isaria</i> , <i>Lecanicillium</i> , <i>Mariannaea</i> -like, <i>Microhilum</i> , <i>Simplicillium</i>	<i>Haptocillium</i> , <i>Harposporium</i> , <i>Hirsutella</i> , <i>Hymenostilbe</i> , <i>Paraisaria</i> , <i>Purpureocillium</i> , <i>Sorospora</i> , <i>Syngliocladium</i> , <i>Tolypoocladium</i> , <i>Verticillium</i> -like ²

¹ Species formerly in *Paecilomyces* sect. *Isarioidea*, now excluded from *Paecilomyces* in the strict sense but also from *Isaria* (which now includes most entomogenous species transferred from *Paecilomyces*).

² Species formerly in *Verticillium* sect. *Prostrata*, now excluded from *Verticillium* in the strict sense but not yet reclassified in the segregate genera recognized by Zare and Gams (see below).

Table 2. Publications eliminating and reclassifying *Verticillium* section *Prostrata*

PART	AUTHORS	SUBJECT COVERED
1	Zare, Gams & Culham (2000)	ITS sequence analyses
2	Sung, Spatafora <i>et al.</i> (2001)	SSU, LSU rDNA sequence analyses
3	Gams, Zare (2001)	Generic reclassification
4	Zare, Gams (2001)	<i>Lecanicillium</i> and <i>Simplicillium</i> monograph
5	Zare, Gams, Evans (2001)	<i>Pochonia</i> , <i>Rotiferophthora</i> monograph
6	Zare, Gams (2001)	<i>Haptocillium</i> monograph

Table 3. Current phylogenetically based classification within Hypocreales of some species formerly classified in *Paecilomyces* sect. *Isarioidea* (following Luangsa-ard *et al.* 2005; Sung *et al.* 2007; Luangsa-ard *et al.* 2011)

FAMILY	GENUS	INCLUDED SPECIES
Clavicipitaceae	' <i>Paecilomyces</i> ' ¹	<i>carneus</i> , <i>marquandii</i>
Cordycipitaceae	<i>Isaria</i>	<i>amoenorosea</i> , <i>cateniannulata</i> , <i>cateniobliqua</i> , <i>cicadae</i> , <i>coleopterora</i> , <i>farinosa</i> , <i>fumosorosea</i> , <i>ghanensis</i> , <i>tenuipes</i>
Ophiocordycipitaceae	<i>Purpureocillium</i>	<i>lilacinum</i> (syn.: <i>Paec. lilacinus</i>)

¹ No generic re-assignments have been made for these hypocrealean anamorphs that continue (for lack of better alternatives) to be treated provisionally as *Paecilomyces* species. The generic affinities of other excluded '*Paecilomyces*' species noted by Luangsa-ard *et al.* (2005) remain uncertain.

two genera in their old senses from before recent phylogenetic reclassifications discussed below may occur in more than one family; this underscores the need to regard anamorphic states as being named in form-genera defined only by their morphologies and similar modes of development rather than by phylogenetic relatedness.

Phylogenetically based reclassification of *Verticillium* section *Prostrata* – The extensive, phylogenetically based reclassifications of conidial fungi that common pathogens of insects or other invertebrates began with the reclassification of *Verticillium* species. The venerable classification of this genus (Gams 1971) recognized the sections *Verticillium* and *Prostrata*. All species in *Verticillium* sect. *Verticillium*, which included the phytopathogens with well differentiated, erect conidiophores, are anamorphs of perithecial ascomycetes in the order Phyllachorales. The species in *Vert.* sect. *Prostrata*, however, were anamorphs attributable to the order Hypocreales (Sordariomycetes). Because the current systematics practices recognize monophyletic taxa, it was necessary to remove the species from *Verticillium* section *Prostrata* to other genera. This reclassification was done in six publications (Table 2) reflecting primarily the doctoral research of Rasoul Zare under the guidance of Walter Gams. Most entomopathogens from this group are now placed in *Lecanicillium*, a genus whose type species, *L. lecanii*, was also recognized to be a species complex recognized to include at least three species (*L. lecanii*, *L. muscarium*, and *L. longisporum*) and thus replacing the morphologically highly variable *Verticillium lecanii*.

Phylogenetically based reclassification of *Paecilomyces* section *Isarioidea* – The long-used taxonomy of *Paecilomyces* by Samson (1974) divided this genus into two sections, and with all entomopathogens treated in *Paecilomyces* sect. *Isarioidea*. The type species, *P. variotii* Bainier, and all species in *Paecilomyces* sect. *Paecilomyces* are anamorphic (conidial) states of cleistothelial ascomycetes in the Eurotiomycetes. In an exact parallel with the situation for the two sections of *Verticillium*, all species in *Paec.* sect. *Isarioidea* are anamorphic states of pyrenomycete ascomycetes in the order Hypocreales, mostly in the family Clavicipitaceae although the reclassification of that family by Sung *et al.* (2007) now disperses these former *Paecilomyces* species among three families (Table 3). The taxonomic revision of *Paecilomyces* section *Prostrata* began with the lectotypification and determination of the status of *Isaria* (Hodge *et al.* 2005), a genus long ago relegated to synonymy with *Paecilomyces*, and the formal conservation of the generic name *Isaria* (Gams *et al.* 2005). The next step was a phylogenetic study that confirmed the polyphyletic nature of *Paecilomyces* in the broad sense (Luangsa-ard *et al.* 2004), followed then by a formal reclassification (with new combinations) of most species from *Paec.* sect. *Isarioidea* into *Isaria* while several other

species from this section were excluded from both *Paecilomyces* and *Isaria* and still await transfers into appropriate anamorphic genera (Table 3). Most recently, *Paec. lilacinus* was transferred to a new (as yet monotypic) genus in Ophiocordycipitaceae as *Purpureocillium lilacinum* (Luangsa-ard *et al.* 2011).

EXTREMELY IMPORTANT NEWS ABOUT CHANGES IN FUNGAL NOMENCLATURE RULES

Dual nomenclature for anamorphic and teleomorphic generic names has been eliminated – The long-used established and accepted use of a dual nomenclatural system under the International Code of Botanical Nomenclature was replaced during the 2012 International Botanical Congress in Melbourne, Australia, and replaced with a new standard generally referred to as *One Fungus = One Name* (or by the shorter *1F=1N*) (Hawksworth 2011, Hawksworth *et al.* 2011, Norvell 2011, Taylor 2011) under which a still undefined, unstaffed system of committees of mycologists will have to consider all linked conidial (anamorphic) and sexual (teleomorphic) genera of pleomorphic fungi and choose one generic name—generally expected to be the oldest published applicable name—will be accepted (prioritized?) while the use of all other linked generic names will be suppressed, and the species in the suppressed genera will need to be transferred to the accepted (prioritized) genus. Since no committees have yet been established nor any decisions rendered, no official information can be given here to suggestion exactly how entomopathogenic fungi (especially those in Hypocreales) will be affected, but it is that the following will represent a few of the **probable** resulting decisions for some of these fungi in the following families. The probable **ACCEPTED** generic names are given followed by the linked **genera to be suppressed and synonymized** in parentheses :

- Clavicipitaceae: **METARHIZIUM** (*Metacordyceps, Nomuraea, Pochonia, Rotiferophthora, etc.*)
- Cordycipitaceae: **CORDYCEPS** (*Beauveria, Isaria, Lecanicillium, Microhilum, Simplicillium, etc.*)
- Ophiocordycipitaceae: **OPHIOCORDYCEPS** (*Hirsutella, Hymenostilbe, Paraisaria, Purpureocillium, Sorosporella, Syngliocladium*)

Because *Ophiocordyceps* is a much newer genus than some of its linked anamorphic (conidial) genera, it may not eventually be the case that this teleomorphic genus will be accepted as prioritized over its anamorphs; none of those anamorphic genera may be regarded as sufficiently important (except, possibly, *Hirsutella*) to be accepted in place of *Ophiocordyceps*. The problem with *Hirsutella*, however, is that this genus is very plastic and comparatively poorly understood despite its many described species, and its species are anamorphic states for fungi in all three of the families listed above.

Some of the problems of the loss of Article 59 of the ICBN (now renamed the International Code of Nomenclature for algae, fungi and plants) and of dual nomenclature are discussed by Gams *et al.* (2012). No official changes in this highly disruptive new standard for fungal nomenclature are possible until the 2017 Botanical Congress at the earliest, and it will probably be unrealistic to expect any significant change of the newly adopted rules (and even much less likely that the situation will be reversed to reflect procedures before the 2012 changes).

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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 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 2008 as the Biological Integrated Pest Management Research Unit (BioIPM). 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.

BioIPM 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 Plant Protection Research Unit and state the ARSEF accession numbers of these strains. We would very 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 other culture collections.

Depositing and Exchanging Cultures

BioIPM 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 especially important!***)
4. Date and site of collection.
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. This service is an important function of the ARS Collections of Entomopathogenic Fungi and is provided without charge. Identifications and information about the disposition of specimens will be mailed to the sender.

Release of ARSEF Cultures from Containment or Quarantine

Neither the curator nor any employee of ARSEF or of the Plant Protection Research Unit 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 Curator (Richard A. Humber):

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

Telephone: [+1] 607 255-1276
OR Fax: [+1] 607 255-1132
Email: richard.humber@ars.usda.gov

Academic, Government, and Other Nonprofit Institutions

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

no charge

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

US\$60 per isolate

Users from nonprofit institutions can receive up to five isolates without charge in any 6 month period, and up to seven cultures in any calendar year. Requests in excess of these limits may be charged at the rate of US\$60 per additional isolate requested. Requests from commercially sponsored research programs undertaken by nonprofit institutions are charged at the commercial rate and are not subject to numerical limits. Prices are subject to change without notice.

Commercial and Industrial Institutions

US\$85 per isolate

Nonprofit institutions working on commercially sponsored contractual projects (such as screening programs) are charged at the rate of US\$85 per strain requested. There are no limits on the numbers of cultures that can be requested or shipped. Prices are subject to change without notice.

Commercial or industrial firms supporting research at the ARS Plant Protection Research Unit are entitled to free access to cultures pertinent to contracted projects; all other requests are charged at the current rate.

TERMS OF SHIPMENT

If necessary, billings for isolates are issued through the Boyce Thompson Institute (BTI). *Checks or money orders for strains must be payable to the Boyce Thompson Institute* and sent directly to the curator of the ARS Collections of Entomopathogenic Fungi, to BTI or deposited by direct electronic funds transfer according to information provided by BTI. Consult the curator of the collections with questions about fees due for any particular shipment.

All recipients of cultures are strongly encouraged 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. Inviabile 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, BioIPM, nor the Boyce Thompson Institute 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**

1564 [CBS 111238]. KV Desëo (103) Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 1984. Italy: Villa Cadé (Reggio Emilia), Emilia-Romagna. Identification verified genomically. Ex-type isolate.

1564	ARSEF accession number.
[CBS 111238]	Alternative deposition in another culture collection.
KV Desëo (03)	Depositor and depositor's reference or accession number.
Cortellini	Collector of this isolate.
<i>Hyphantria cunea</i> [Lepidoptera: Arctiidae]	Original host [host's order and family]
Mar 1984	Date of accession or receipt by ARSEF.
Italy: Villa Cadé (Reggio Emilia), Emilia-Romagna	Country of origin followed by the locality and state.
Identification verified genomically. Ex-type isolate	Additional essential information about this isolate.

***Conidiobolus thromboides* Drechsler**

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

***Hirsutella thompsonii* Fisher**

137 [ATCC 24874; CBS 952.73] CW McCoy (Fla. 68). *Phyllocoptruta oleivora* [Acari: Eriophyidae]. 1 Jan 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>Phyllocoptruta 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://wdcn.nig.ac.jp/WDCHomePage_text.html>

ARSEF	ARS Collection of Entomopathogenic Fungi, USDA-ARS BioIPM Research Unit, Robert W. Holley Center for Agriculture & Health, 538 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, Rydalmere, 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	<i>Fusarium</i> Research Center, The Pennsylvania State University, 216 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, Edpartment 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

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Unidentified / Hyphomycetes

- 4899 LA Lacey (95001). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 Jan 1995. France: Haguenau, Alsace.
- 4900 LA Lacey (95002). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 Jan 1995. France: Haguenau, Alsace.
- 5199 SR Booth (Cox). *Galleria mellonella* [Lepidoptera: Pyralidae]. Rec'd 28 May 1996. USA: Cranberry bog, Bandon, Oregon.
- 9540 [SRCAMB VL-1715/3] V Likhovidov. Larva, [Lepidoptera]. 2005. Ukraine: Autonomous Republic of Crimea. Field Collection Number F-777.

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.

- 1415 S Balazy (1550). Larva, *Hibernia defoliaria* [Lepidoptera: Geometridae] attached to the underside of leaves in forest undergrowth. 22 May 1983. Poland: Bialowieza National Park.
- 1417 S Balazy (1547b). Larva, *Hibernia defoliaria* [Lepidoptera: Geometridae] attached to the underside of leaves in forest undergrowth. 22 May 1983. Poland: Bialowieza National Park.
- 1703 MC Rombach (E). *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. Acc'd 6 Nov 1984. Philippines: IRRRI, Los Baños, Manila.
- 2821 GW Riethmacher (E8). *Plutella xylostella* [Lepidoptera: Plutellidae]. 4 May 1989. Philippines: La Trinidad, Benguet.
- 3298 J Gutierrez Samperio (14) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1987. Mexico: Colima.
- 3299 J Gutierrez Samperio (15) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1987. Mexico: Colima.
- 3467 CENARGEN (CG 134). Pupa, *Euselasia* sp. [Lepidoptera: Riodinidae]. 1988. Brazil: Rio Grande do Sul.
- 3468 CENARGEN (CG 135). Larva, *Euselasia* sp. [Lepidoptera: Riodinidae]. 1988. Brazil: Rio Grande do Sul.
- 3567 M Brownbridge (HL-4). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. Rec'd 4 Feb 1992. USA: Windham County, Vermont.
- 3568 M Brownbridge (HL-5). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. Rec'd 4 Feb 1992. USA: Windham County, Vermont.
- 3569 M Brownbridge (HL-6). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. Rec'd 4 Feb 1992. USA: Windham County, Vermont.

- 3794 M Brownbridge (MLC1). Larva, *Paraclemensia acericaulis* [Lepidoptera: Incurvariidae] Acer sp. Rec'd 23 Feb 1993.
- 3796 M Brownbridge (MLC9). Larva, *Paraclemensia acericaulis* [Lepidoptera: Incurvariidae] Acer sp. Rec'd 26 Feb 1993.
- 3797 M Brownbridge (MLC11). Larva, *Paraclemensia acericaulis* [Lepidoptera: Incurvariidae] Acer sp. Rec'd 26 Feb 1993. Location not specified.
- 3804 ERD Reyes (VD). Larva, *Diatraea saccharalis* [Lepidoptera: Pyralidae] sugarcane. 25 Mar 1992. Mexico: Colima.
- 3998 LA Lacey (93035) ← F Herard. Larva, *Yponomeuta* sp. [Lepidoptera: Yponomeutidae]. 4 May 1993. France: Bagnols, S/Céze.

Acromonium berkeleyanum (Karsten) Gams
[Sordariomycetes: Hypocreales]
Nectriaceae

- 2067 [ATCC 64865] GC Carroll (3(RSRS-0/34)). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.

Acromonium roseum (Oudemans) Gams
[Sordariomycetes: Hypocreales]

- 1964 [CNPAF 85-7-30; CP 190] JC Lord and BP Magalhães. *Pseudoplusia ni* [Lepidoptera: Noctuidae]. 30 Jul 1985. Brazil: Nordeste.

Acrodontium crateriforme (Van Beyma) de Hoog
[Leotiomycetes: Leotiales]
Leotiaceae

- 2070 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.

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

- 2765 GW Riethmacher (A3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 13 Apr 1989. Philippines: La Trinidad, Benguet.
- 2817 GW Riethmacher (E1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 Apr 1989. Philippines: La Trinidad, Benguet.
- 2820 GW Riethmacher (E7). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 May 1989. Philippines: La Trinidad, Benguet.
- 5205 C López Lastra (408). Larva, *Rachiplusia nu* [Lepidoptera: Noctuidae] Soybean crop. 1 Mar 1994. Argentina: Los Hornos, La Plata, Buenos Aires.

Aspergillus flavus Link:Fries
[Eurotiomycetes: Eurotiales]
Trichocomaceae

- 1003 J Aoki (Asp. 11). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 1983. Japan: Fuchu, Tokyo Prefecture.
- 1010 J Aoki (Asp. 26). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 1983. Japan: Fuchu, Tokyo Prefecture.
- 2818 GW Riethmacher (E4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 7 Apr 1989. Philippines: La Trinidad, Benguet.
- 4126 [DAT 3; IMI 298915] AC Rath (F003). *Phthorimaea operculella* [Lepidoptera: Gelechiidae]. 1983. Australia: U. New England, Armidale, New South Wales.

Aspergillus flavus(?) Link : Fries
[Eurotiomycetes: Eurotiales]
Trichocomaceae

- 5503 I Klingen (MFF 8.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 4 Sep 1996. Norway: Lebesby, Finnmark.
- 5504 I Klingen (MFF 9.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 4 Sep 1996. Norway: Lebesby, Finnmark.
- 5505 I Klingen (PVF 8). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 5 Sep 1996. Norway: Bodø, Nordland.
- 5506 I Klingen (TØF 10.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 26 Sep 1996. Norway: Steinkjer, Nord Trøndelag.
- 5507 I Klingen (TØF 12.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 26 Sep 1996. Norway: Steinkjer, Nord Trøndelag.
- 5508 I Klingen (TØF 21.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 26 Sep 1996. Norway: Steinkjer, Nord Trøndelag.
- 5509 I Klingen (TØF 24.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 26 Sep 1996. Norway: Steinkjer, Nord Trøndelag.

Aspergillus ochraceus Wilhelm
[Eurotiomycetes: Eurotiales]
Trichocomaceae

- 2833 AE Hajek ← K Tatman (MD19#14). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 1989. USA: Baltimore County, Maryland.

Aspergillus parasiticus Speare
[Eurotiomycetes: Eurotiales]
Trichocomaceae

- 5470 TJ Poprawski (TJP935). Larva, *Eoreuma loftini* [Lepidoptera: Pyralidae]. Rec'd 9 May 1997. USA: sugarcane field, Weslaco, Texas.

Aspergillus tamarii Kita
[Eurotiomycetes: Eurotiales]
Trichocomaceae

- 4127 [DAT 4; IMI 1298917] AC Rath (F004). *Phthorimaea operculella* [Lepidoptera: Gelechiidae]. 1984. Australia: U. New England, Armidale, New South Wales. ID not confirmed.

Basidiobolus ranarum Eidam

[Entomophthoromycotina: Entomophthorales]

Basidiobolaceae. Possible synonyms: *Basidiobolus hapto-sporus* Drechsler, *Basidiobolus meristosporus* Drechsler.

Caution: Strains of this species may be able to grow at temperatures $\geq 37^{\circ}\text{C}$ and may be regarded as potential mycotic agents for humans and other mammals. These strains should be safe in research and/or teaching laboratories with routine microbiological precautions; avoid inhalation of conidia or contact with open cuts or abrasions.

- 1139 M Shimazu (F-57). *Dendrolimus spectabilis* [Lepidoptera: Lasiocampidae]. Acc'd 3 Apr 1984. Japan: Saitama Prefecture.

Batkoa sp.

[Entomophthoromycotina: Entomophthorales]

Entomophthoraceae

- 6179 BJ Hicks (3). Larva, *Panolis flammea* [Lepidoptera: Noctuidae]. Jul 1998. United Kingdom: Dallas Forest, Moray District, Scotland.
- 7370 AE Hajek (04 NY 9-1-1). Larva, *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 29 May 2004. USA: Saint Lawrence County, New York.

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.

- 590 JM Lenné. *Mocis* sp. [Lepidoptera: Noctuidae]. Rec'd 13 Apr 1981. Colombia: Carimagua.
- 1040 J Aoki (Beau. 2) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 1983. Japan: Suginami, Tokyo Prefecture. Identification verified genomically.
- 1886 H David. *Chilo infuscatellus* [Lepidoptera: Pyralidae] on sugar cane. Rec'd 1 Jun 1985. India: Sugarcane Breeding Institute, Coimbatore, Tamil Nadu.
- 2998 CBS (607.80) ← HC Evans. Larva, [Lepidoptera]. Rec'd 22 May 1990. Ecuador.
- 3289 J Gutierrez Samperio (5) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.
- 5078 SR Booth (Quinby; BSP). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. 17 Jan 1994. USA: Cranberry bog, Grayland, Washington.

- 5832 BL Parker (SPT 11(a)). [Lepidoptera]. 18 Jan 1998. Turkey: Hursit Mt., Gaziantep, Gaziantep.
- 6533 FE Vega (EBCL 99076). *Cydia pomonella* [Lepidoptera: Tortricidae]. Rec'd 8 Jun 2000. Republic of Georgia: Bulachauri.
- 6534 FE Vega (EBCL 99077). *Cydia pomonella* [Lepidoptera: Tortricidae]. Rec'd 8 Jun 2000. Republic of Georgia: Bulachauri.
- 6535 FE Vega (EBCL 99080). *Cydia pomonella* [Lepidoptera: Tortricidae]. Rec'd 8 Jun 2000. Republic of Georgia: Breti.
- 6536 FE Vega (EBCL 99085). *Cydia pomonella* [Lepidoptera: Tortricidae]. Rec'd 8 Jun 2000. Republic of Georgia: Breti.
- 6537 FE Vega (EBCL 99088). *Cydia pomonella* [Lepidoptera: Tortricidae]. Rec'd 8 Jun 2000. Republic of Georgia: Lagodekhi.
- 7562 I Klingen (NCRI 225/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, organic apple orchard, Balestrand, Sogn og Fjordane.
- 7563 I Klingen (NCRI 226/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, organic apple orchard, Balestrand, Sogn og Fjordane.
- 7564 I Klingen (NCRI 228/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, field margin of organic apple orchard, Balestrand, Sogn og Fjordane.
- 7565 I Klingen (NCRI 229/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, field margin of organic apple orchard, Balestrand, Sogn og Fjordane.
- 7566 I Klingen (NCRI 235/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, field margin of conventional apple orchard, Balestrand, Sogn og Fjordane.
- 7567 I Klingen (NCRI 236/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, field margin of conventional apple orchard, Balestrand, Sogn og Fjordane.
- 7579 [SRCAMB B-3/3] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps* sp. Sep 2001. Russian Federation: Caucasus region, Karachayevo-Cherkessiya Republ. Field Collection Number F-289.
- 7586 [SRCAMB B-44] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps chichibuensis*. Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-170.
- 7587 [SRCAMB VL-64] V Likhovidov. Pupa, [Lepidoptera]. Sep 2001. Russian Federation: Caucasus region, Krasnaya Polyana, Krasnodarsky Krai. Field Collection Number F-177.
- 7594 [SRCAMB B-301] V Likhovidov ← BA Borisov. Larva, [Lepidoptera] Isolated from stroma of *Cordyceps variegata*. . 11 Jul 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-321.
- 7598 [SRCAMB VL-1040/2] V Likhovidov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps takaomontana*. 6 Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-174.
- 7960 LA Lacey (3A). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 29 Sep 2005. USA: Mile 300, burned area, Alaska. 66°37'47" N, 150°40'34" W.
- 8675 Z Demirbag (KTU-64). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 7 Jul 2007. Turkey: Gümüşhane.
- 9596 X Zou (3). Larva, [Lepidoptera]. Rec'd 19 Jan 2010. PR China: Guizhou Province.

Beauveria amorphia (von Hoehnel) Minnick, SA
Rehner & Humber
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Replaces *B. amorphia* (von Hoehnel)
Samson & Evans.

6227 [RCEF 0288] [Lepidoptera]. 13 May 1997. PR China: Anhui.

Beauveria bassiana (Balsamo-Crivelli) Vuillemin
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Major synonym: *Beauveria densa*
(Link:Fries) Picard

- 1 [ATCC 24318] 1st instar larva, *Malacosoma americanum* [Lepidoptera: Lasiocampidae] on *Prunus maritima*. 18 Apr 1972. USA: Chapin Beach, Dennis, Massachusetts.
- 151 M Wojciechowska (17). *Cydia pomonella* [Lepidoptera: Tortricidae]. Rec'd 18 Jul 1977. France.
- 155 M Wojciechowska (75-67). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 18 Jul 1977. Commonwealth of Independent States.
- 299 RC Hedlund. Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1978. Rumania: 1 km W of Pasarea on Rt. 3, Pasarea, Muntenia.
- 302 DW Roberts (Bbass-2) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. 1967. Japan.
- 303 DW Roberts (Bbass-3) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. 1967. Japan.
- 304 DW Roberts (Bbass-4) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. 1967. Japan.
- 305 DW Roberts (Bbass-5) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. 1967. Japan.
- 326 [CSIRO FI50] RS Soper ← R Teakle (M-168). *Chilo plejadellus* [Lepidoptera: Pyralidae]. Acc'd 26 Mar 1979. Australia: Brisbane, Queensland.

- 501 RL Jones. Larva, *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Rec'd 11 Aug 1980. PR China.
- 502 RL Jones. Larva, *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Rec'd 11 Aug 1980. PR China.
- 503 RA Humber and RS Soper. Larva, *Carpocapsa pomonella* [Lepidoptera: Olethreutidae] on pear. 12 Aug 1980. Yugoslavia: orchard nursery nr. Zabari, Zabari, Serbia.
- 533 RL Jones. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Rec'd 11 Aug 1980. PR China.
- 652 DW Roberts (101981-1). *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Acc'd 12 Mar 1982. PR China: Beijing.
- 718 RS Soper. *Bombyx mori* [Lepidoptera: Bombycidae]. 11 Nov 1981. PR China: Hangzhou, Zhijiang.
- 843 D Jansen. Pupa, [Lepidoptera: Saturniidae]. Acc'd 6 Jun 1983. Costa Rica.
- 1001 J Aoki (Beau. 5) ← K Katagiri ← T Kushida. *Dioryctria sylvestrella* [Lepidoptera: Pyralidae]. Dec 1968. Japan: Hachioji, Tokyo Prefecture.
- 1007 J Aoki (Beau. 3). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 1983. Japan: Fuchu, Tokyo Prefecture.
- 1038 G Riba. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Fall 1983. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1103 [ARSEF 1558] KV Deseö (8) ← Goidanich. Larva, *Cossula cossus* [Lepidoptera: Cossidae]. Jun 1981. Italy: Bologna, Emilia-Romagna.
- 1104 KV Deseö (10) ← Goidanich. Larva, *Cossula cossus* [Lepidoptera: Cossidae]. Jun 1981. Italy: Bologna, Emilia-Romagna.
- 1105 KV Deseö (17). Larva, *Zeuzera pyrina* [Lepidoptera: Cossidae]. Jan 1982. Italy: Galliera.
- 1107 KV Deseö (26) ← Becchi. Pupa, *Lobesia botrana* [Lepidoptera: Tortricidae]. Mar 1982. Italy: Modena, Emilia-Romagna.
- 1110 KV Deseö (31) ← Becchi. Pupa, *Lobesia botrana* [Lepidoptera: Tortricidae]. Apr 1982. Italy: Modena, Emilia-Romagna.
- 1113 KV Deseö (38). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. Jun 1982. Italy: insect colony, Bologna, Emilia-Romagna.
- 1114 KV Deseö (39). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. Jun 1982. Italy: insect colony, Bologna, Emilia-Romagna.
- 1115 KV Deseö (40A) ← Celli. Pupa, *Leucoptera scitella* [Lepidoptera: Lyonetiidae]. Aug 1982. Italy: Ravenna, Emilia-Romagna.
- 1117 KV Deseö (41) ← Celli. Pupa, *Leucoptera scitella* [Lepidoptera: Lyonetiidae] with hymenopterous parasite. Aug 1982. Italy: Ravenna, Emilia-Romagna.
- 1118 KV Deseö (45) ← Maini. Larva, *Sesamia cretica* [Lepidoptera: Noctuidae]. Sep 1982. Italy: Forli, Emilia-Romagna.
- 1121 KV Deseö (81) ← Chianella. Pupa, *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Mar 1982. Italy: Padua, Venetia.
- 1122 KV Deseö (83). *Cydia pomonella* [Lepidoptera: Tortricidae]. Mar 1983. Italy: Bologna, Emilia-Romagna.
- 1149 TJ Poprawski (83-79). 3rd instar larva, *Helicoverpa armigera* [Lepidoptera: Noctuidae]. 4 Aug 1983. Spain: Córdoba.
- 1166 TJ Poprawski (83-77). 3rd instar larva, *Helicoverpa armigera* [Lepidoptera: Noctuidae]. 2 Aug 1983. Spain: Córdoba.
- 1314 TJ Poprawski (070A). 3rd instar larva, *Helicoverpa virescens* [Lepidoptera: Noctuidae]. 6 Mar 1984. France: La Minière.
- 1315 TJ Poprawski (070B). 3rd instar larva, *Helicoverpa virescens* [Lepidoptera: Noctuidae]. 6 Mar 1984. France: La Minière.
- 1316 TJ Poprawski (070C). 3rd instar larva, *Helicoverpa virescens* [Lepidoptera: Noctuidae]. 6 Mar 1984. France: La Minière.
- 1479 SB Alves (246). *Stenomoma decora* [Lepidoptera: Stenommatinae] on cacao. Rec'd 6 Jul 1984. Brazil: Bahia.
- 1484 SB Alves (196). *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. Rec'd 6 Jul 1984. Brazil: Pernambuco.
- 1512 TJ Poprawski (0102A). Adult, *Spodoptera littoralis* [Lepidoptera: Noctuidae]. 21 Jun 1984. France: La Minière.
- 1513 TJ Poprawski (0102B). Adult, *Spodoptera littoralis* [Lepidoptera: Noctuidae]. 21 Jun 1984. France: La Minière.
- 1558 [ARSEF 1103] KV Deseö (8) ← Goidanich. Larva, *Cossula cossus* [Lepidoptera: Cossidae]. Jun 1981. Italy: Bologna, Emilia-Romagna.
- 1564 [CBS 111238] KV Deseö (103) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 1984. Italy: Villa Cadé (Reggio Emilia), Emilia-Romagna. Identification verified genomically. Ex-type isolate.
- 1565 KV Deseö (109) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 1984. Italy: Villa Cadé (Reggio Emilia), Emilia-Romagna.
- 1627 TJ Poprawski (0104). Larva, [Lepidoptera: Noctuidae]. 13 Jun 1984. Hungary: Gödöllő.
- 1628 TJ Poprawski (0105). Larva, [Lepidoptera: Noctuidae]. 13 Jun 1984. Hungary: Gödöllő.
- 1629 TJ Poprawski (0106). Larva, [Lepidoptera: Noctuidae]. 13 Jun 1984. Hungary: Gödöllő.
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- 2041 MC Rombach (281085-1). Larva, *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. 28 Oct 1985. Philippines: IRR field, Los Baños, Manila.
- 2054 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.
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- 2267 FPML. Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1986. Canada: Ontario.
- 2417 [SBI 87-1] H David. *Emmalocera depressella* [Lepidoptera: Phycitinae]. Acc'd 19 May 1987. India.
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- 2619 SB Alves (721). *Brassolis sophorea* [Lepidoptera: Brassolidae]. Apr 1988. Brazil: Moju, Pará.
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- 2637 [CNPAF 88-6-22; CP 255] DW Roberts ← E Dias Quintela. Larva, [Lepidoptera]. 22 Jun 1988. Brazil: Caucaia, Ceará.
- 2727 GW Riethmacher (L1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 27 Jan 1989. Philippines: La Trinidad, Benguet.
- 2728 GW Riethmacher (L2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 27 Jan 1989. Philippines: La Trinidad, Benguet.
- 2729 GW Riethmacher (L3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 17 Mar 1989. Philippines: La Trinidad, Benguet.
- 2737 GW Riethmacher (BP). *Bombyx mori* [Lepidoptera: Bombycidae]. 23 Dec 1988. Philippines: La Trinidad, Benguet.
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- 3020 CENARGEN (CG 86). *Diatraea saccharalis* [Lepidoptera: Pyralidae]. Rec'd 20 Jul 1990. Brazil: Pernambuco.
- 3286 J Gutierrez Samperio (2) ← ERD Reyes. *Spodoptera littoralis* [Lepidoptera: Noctuidae]. 1987. France: Montpellier, Hérault.
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- 3404 AE Hajek (24). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 1991. USA: C & O Canal, Allegany County, Maryland.
- 3527 AE Hajek (58a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 1991. USA: nr. Ruckersville, Greene County, Virginia.
- 3528 AE Hajek (61c). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Jun 1991. USA: Belle Acre, Allegheny County, Pennsylvania.
- 3530 AE Hajek (220b). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 1991. USA: nr. Piclic Run, Allegany County, Maryland.
- 3858 [JB Tavares BRA-000035] MS Tigano-Milani (CG-86). *Diatraea saccharalis* [Lepidoptera: Pyralidae]. Rec'd 13 Jan 1993. Brazil.
- 3937 DR Sosa-Gómez (CNPSO-P23). [Lepidoptera: Noctuidae: Plusiinae]. 19 Jan 1990. Brazil: Londrina, Paraná.
- 3965 LA Lacey (93002) ← F Herard. Larva, *Yponomeuti-dae* sp. [Lepidoptera: Yponomeutidae]. 4 May 1993. France: Bagnols, S/Céze.
- 3966 LA Lacey (93003) ← F Herard. Larva, *Yponomeuti-dae* sp. [Lepidoptera: Yponomeutidae]. 4 May 1993. France: Bagnols, S/Céze.

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dae* sp. [Lepidoptera: Yponomeutidae]. 4 May 1993.
France: Bagnols, S/Céze.
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dae* sp. [Lepidoptera: Yponomeutidae]. 4 May 1993.
France: Bagnols, S/Céze.
- 3969 LA Lacey (93006) ← F Herard. Larva, *Yponomeuti-
dae* sp. [Lepidoptera: Yponomeutidae]. 4 May 1993.
France: Bagnols, S/Céze.
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dae* sp. [Lepidoptera: Yponomeutidae]. 4 May 1993.
France: Bagnols, S/Céze.
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ella* [Lepidoptera: Tortricidae]. 4 May 1993. France:
Le Vigan, Gard.
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ella* [Lepidoptera: Tortricidae]. 4 May 1993. France:
Le Vigan, Gard.
- 3974 LA Lacey (93011) ← F Herard. Larva, *Cydia pomon-
ella* [Lepidoptera: Tortricidae]. 4 May 1993. France:
Le Vigan, Gard.
- 3975 LA Lacey (93012) ← F Herard. Larva, *Cydia pomon-
ella* [Lepidoptera: Tortricidae]. 4 May 1993. France:
Le Vigan, Gard.
- 3977 LA Lacey (93014) ← F Herard. Larva, *Cydia pomon-
ella* [Lepidoptera: Tortricidae]. 4 May 1993. France:
Le Vigan, Gard.
- 3978 LA Lacey (93015) ← F Herard. Larva, *Cydia pomon-
ella* [Lepidoptera: Tortricidae]. 4 May 1993. France:
Le Vigan, Gard.
- 3979 LA Lacey (93016) ← F Herard. Larva, *Cydia pomon-
ella* [Lepidoptera: Tortricidae]. 4 May 1993. France:
Le Vigan, Gard.
- 4258 [DAT 49] AC Rath (F049). Larva, *Oncopera intricata*
[Lepidoptera: Hepialidae]. 6 Nov 1987. Australia:
Sorell, Tasmania.
- 4273 [DAT 9] AC Rath (F009) ← Pinnock. Larva, *Onc-
opera* sp. [Lepidoptera: Hepialidae]. 1983. Australia:
South Australia.
- 4525 JD Vandenberg (DBM1b). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] on broccoli. 30 Aug 1993.
USA: Ontario County, New York.
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[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4527 JD Vandenberg (DBM2a). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4528 JD Vandenberg (DBM2b). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4529 JD Vandenberg (DBM3a). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4530 JD Vandenberg (DBM3b). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4531 JD Vandenberg (DBM4a). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4532 JD Vandenberg (DBM4b). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4533 JD Vandenberg (DBM5a). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4534 JD Vandenberg (DBM5b). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4535 JD Vandenberg (DBM6a). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4536 JD Vandenberg (DBM6b). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4537 JD Vandenberg (DBM8a). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4538 JD Vandenberg (DBM8b). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4539 JD Vandenberg (DBM10b). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae] broccoli. 30 Aug 1993.
USA: Ontario County, New York.
- 4540 J Altre (BB5B#1). 4th instar larva, *Plutella xy-
lostella* [Lepidoptera: Plutellidae] Artificial diet.
25 Apr 1994. USA: USDA-ARS-PPRU, Ithaca, New
York. Single spore isolate of ARSEF 4534.
- 4543 J Altre (BB5B#4). 4th instar larva, *Plutella xy-
lostella* [Lepidoptera: Plutellidae] Artificial diet.
25 Apr 1994. USA: USDA-ARS-PPRU, Ithaca, New
York. Single spore isolate of ARSEF 4534.
- 4589 [DAT 42] AC Rath (F42) ← RJ Milner (F125). Larva,
Oncopera alboguttata [Lepidoptera: Hepialidae].
13 Feb 1980. Australia: Ebor, New South Wales.
- 4607 [DAT 41] AC Rath (F041) ← RJ Milner (F117).
Larva, *Oncopera alboguttata* [Lepidoptera: Hepi-
alidae]. 6 Dec 1976. Australia: Ebor, New South
Wales.
- 4672 [DAT 48] AC Rath (F048). Larva, *Oncopera intricata*
[Lepidoptera: Hepialidae]. 30 Sep 1987. Australia:
Plenty, Tasmania.
- 5064 LA Lacey (95056). *Cydia pomonella* [Lepidoptera:
Tortricidae]. 12 Oct 1995. France: Port d' Hérault.
- 5066 LA Lacey (95058). *Cydia pomonella* [Lepidoptera:
Tortricidae]. 12 Oct 1995. France: Port d' Hérault.
- 5067 LA Lacey (95059). *Cydia pomonella* [Lepidoptera:
Tortricidae]. 12 Oct 1995. France: Port d' Hérault.

- 5169 S Gouli (GA-81). [Lepidoptera: Tortricidae] on *Tsuga canadensis*. 29 Jan 1996. USA: Mt. Tom, Holyoke, Massachusetts.
- 5229 LA Lacey (96007). *Cydia pomonella* [Lepidoptera: Tortricidae]. 24 May 1996. France: Pont d' Hérault, Hérault.
- 5230 LA Lacey (96008). *Cydia pomonella* [Lepidoptera: Tortricidae]. 24 May 1996. France: Pont d' Hérault, Hérault.
- 5231 LA Lacey (96009). *Cydia pomonella* [Lepidoptera: Tortricidae]. 24 May 1996. France: Pont d' Hérault, Hérault.
- 5233 LA Lacey (96011). *Cydia pomonella* [Lepidoptera: Tortricidae]. 24 May 1996. France: Pont d' Hérault, Hérault.
- 5234 LA Lacey (96012). *Cydia pomonella* [Lepidoptera: Tortricidae]. 24 May 1996. France: Pont d' Hérault, Hérault.
- 5235 LA Lacey (96013). *Cydia pomonella* [Lepidoptera: Tortricidae]. 24 May 1996. France: Pont d' Hérault, Hérault.
- 5370 I Klingen (NCRI 2-96 (B2)). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] Soil sample (loam). 10 May 1996. Norway: Border vegetation of cereal field, Bjørnebekk (59.43° N), Ås, Akershus. **RESTRICTED ACCESS: contact Curator.**
- 5492 M Brownbridge (MLC8). *Paraclemensia acerifoliella* [Lepidoptera: Incurvariidae]. Rec'd 16 May 1997. USA: Randolph, Vermont.
- 5500 C López Lastra ← G Dalbello (#6). Larva, *Diatraea saccharalis* [Lepidoptera: Pyralidae]. 1993. Argentina: Oliveros, Santa Fe.
- 5502 C López Lastra ← G Dalbello (#8). Larva, *Diatraea saccharalis* [Lepidoptera: Pyralidae]. Rec'd 12 Jun 1997. Argentina: Oliveros, Santa Fe.
- 5510 I Klingen (TØF 15.2). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 25 Sep 1996. Norway: Steinkjer, Nord Trøndelag. **RESTRICTED ACCESS: contact Curator.**
- 5557 I Klingen (STF 14.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 27 Sep 1996. Norway: Harstad, Troms. **RESTRICTED ACCESS: contact Curator.**
- 5573 N Mihelcic. *Rhyacionia frustrana* [Lepidoptera: Tortricidae]. Rec'd 17 Nov 1997. USA: loblolly pine plantation, Clarke County, Georgia.
- 5645 [IITA 184] A Cherry. *Eldana saccharina* [Lepidoptera: Pyralidae]. 4 Sep 1996. Benin: IITA field, Cotonou, Atlantique.
- 5646 [IITA 185] A Cherry. *Coniesta sp.* [Lepidoptera: Pyralidae]. 12 Sep 1996. Benin: Monkassa, Malanville, Borgou.
- 5647 [IITA 279] A Cherry. *Acigona sp.* [Lepidoptera: Pyralidae]. 7 Oct 1996. Benin: Massin, Malanville, Borgou.
- 5648 [IITA 295] A Cherry. *Acigona sp.* [Lepidoptera: Pyralidae]. 7 Oct 1996. Benin: Bussokari, Malanville, Borgou.
- 5649 [IITA 313] A Cherry. *Sesamia calamistis* [Lepidoptera: Noctuidae]. 19 Nov 1996. Benin: Soclogbo, Dassa.
- 5653 [IITA 581] A Cherry. *Eldana saccharina* [Lepidoptera: Pyralidae] from forest soil. 24 Oct 1997. Benin: Bassia-P.
- 5654 [IITA 583] A Cherry. *Sesamia calamistis* [Lepidoptera: Noctuidae]. 24 Oct 1997. Benin: Serou, Djougou, Atakora.
- 5655 [IITA 584] A Cherry. *Eldana saccharina* [Lepidoptera: Pyralidae]. 24 Oct 1997. Benin: Serou, Djougou, Atakora.
- 5704 JL Hatting (2). *Bombyx mori* [Lepidoptera: Bombycidae]. Nov 1998. South Africa: Bethlehem, Orange Free State.
- 5886 FE Vega (EBCL 98029). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 19 Feb 1998. France: Crespian, Gard.
- 5887 FE Vega (EBCL 98031). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 19 Feb 1998. France: Crespian, Gard.
- 5888 FE Vega (EBCL 98032). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 19 Feb 1998. France: Crespian, Gard.
- 5988 JL Stimac (UF 5873). *Simyra henrici* [Lepidoptera: Noctuidae]. Apr 1995. USA: Lake Apopka, Florida.
- 6100 BJ Hicks (A). *Panolis flammea* [Lepidoptera: Noctuidae]. Rec'd Jan 1999. United Kingdom: Moray District, Scotland.
- 6101 BJ Hicks (B). *Panolis flammea* [Lepidoptera: Noctuidae]. Rec'd Jan 1999. United Kingdom: Moray District, Scotland.
- 6109 BL Parker (SPT-U-257). Pupa, [Lepidoptera]. 16 Jan 1999. Uzbekistan: Site d, SW of Samarkand, Mirankul region.
- 6147 HK Kaya (2). Pupa, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 25 Jan 1999. USA: Sustainable Agriculture Farming Systems Project at UC Davis, Yolo County, California.
- 6148 HK Kaya (5). Pupa, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 25 Jan 1999. USA: Sustainable Agriculture Farming Systems Project at UC Davis, Yolo County, California.
- 6150 SP Wraight (DBM 28° #2 5P). Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. 22 Apr 1999. USA: Ithaca, New York. Laboratory re-isolation from Mycotech GHA Lot #10/23/97 after 5 serial passes through *Plutella xylostella* grown at 28°C. **RESTRICTED ACCESS: contact Curator.**

- 6151 SP Wraight (DBM 28° #3 5P). Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. 22 Apr 1999. USA: Ithaca, New York. Laboratory re-isolation from Mycotech GHA Lot #10/23/97 after 5 serial passes through *Plutella xylostella* grown at 28°C. **RESTRICTED ACCESS:** contact Curator.
- 6152 SP Wraight (DBM 31° #1 5P). Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. 22 Apr 1999. USA: Ithaca, New York. Laboratory re-isolation from Mycotech GHA Lot #10/23/97 after 5 serial passes through *Plutella xylostella* grown at 31°C. **RESTRICTED ACCESS:** contact Curator.
- 6153 SP Wraight (DBM 31° #2 5P). Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. 22 Apr 1999. USA: Ithaca, New York. Laboratory re-isolation from Mycotech GHA Lot #10/23/97 after 5 serial passes through *Plutella xylostella* grown at 31°C. **RESTRICTED ACCESS:** contact Curator.
- 6177 BJ Hicks (1). *Panolis flammea* [Lepidoptera: Noctuidae]. Jul 1998. United Kingdom: Dallas Forest, Moray District, Scotland.
- 6178 BJ Hicks (2). *Panolis flammea* [Lepidoptera: Noctuidae]. Jul 1998. United Kingdom: Dallas Forest, Moray District, Scotland.
- 6181 FE Vega (EBCL 99004). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 6 Oct 1998. Bulgaria: Plovdiv.
- 6182 FE Vega (EBCL 99013). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 18 Dec 1998. France: Andard.
- 6184 FE Vega (EBCL 99018). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 14 Jan 1999. France: Le Calvaire.
- 6185 FE Vega (EBCL 99020). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 13 Jan 1999. France: St. Marie aux Anglais.
- 6186 FE Vega (EBCL 99021). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 10 Dec 1998. France: Chez Moitou.
- 6187 FE Vega (EBCL 99022). Adult, *Cydia pomonella* [Lepidoptera: Tortricidae]. 21 Dec 1998. Bulgaria.
- 6189 FE Vega (EBCL 99025). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 22 Feb 1999. France: Arre.
- 6191 FE Vega (EBCL 99028). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 13 Jan 1999. France: Crèvecoeur.
- 6194 FE Vega (EBCL 99032). Adult, *Cydia pomonella* [Lepidoptera: Tortricidae]. 21 Dec 1998. Bulgaria.
- 6195 FE Vega (EBCL 99033). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 6 Oct 1998. Bulgaria: Plovdiv.
- 6196 FE Vega (EBCL 99034). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 18 Dec 1998. France: Andard.
- 6199 FE Vega (EBCL 99038). *Hedya nubiferana* [Lepidoptera: Tortricidae]. 31 Mar 1999. France: Layrac.
- 6201 FE Vega (EBCL 98027). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 19 Feb 1998. France: Crespian, Gard.
- 6205 FE Vega (EBCL 98041). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jul 1998. France: Pujaudrau.
- 6208 FE Vega (EBCL 98053). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 5 Oct 1998. Bulgaria: Jabalkovo.
- 6209 FE Vega (EBCL 98054). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 5 Oct 1998. Bulgaria: Jabalkovo.
- 6233 [RCEF 0471] *Lymantria dissoluta* [Lepidoptera: Lymantriidae]. 27 Jan 1999. PR China: Anhui.
- 6514 DEN Rangel (Inbioter2). *Brassolis sophorea* [Lepidoptera: Brassolidae]. 26 Feb 1991. Brazil: coconut palm border, Pinheiros, São Paulo, São Paulo.
- 6556 D Chandler (HRI 367.93). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from woodland soil. Rec'd 13 Jul 2000. United Kingdom.
- 6557 D Chandler (HRI 373.93). Pupa, [Lepidoptera]. Rec'd 13 Jul 2000. United Kingdom.
- 6646 KU Devi (KB5). Larva, *Spodoptera litura* [Lepidoptera: Noctuidae]. Mar 2000. India: Peanut fields, Visakhapatnam, Andhra Pradesh.
- 6647 KU Devi (LOCAL/UAS). Larva, *Spodoptera litura* [Lepidoptera: Noctuidae]. Mar 2000. India: Peanut fields, Visakhapatnam, Andhra Pradesh.
- 6648 KU Devi (LOCAL/PIV). Larva, *Spodoptera litura* [Lepidoptera: Noctuidae]. Mar 2000. India: Peanut fields, Visakhapatnam, Andhra Pradesh.
- 6650 KU Devi (PIV). *Spodoptera litura* [Lepidoptera: Noctuidae]. Mar 2000. India: Visakhapatnam, Andhra Pradesh.
- 6796 G Mercadier (EBCL 00048). *Gymnancyla canella* [Lepidoptera: Pyralidae]. Oct 2000. France: Gros du Roi, Gard.
- 6801 Simonsen (p2-1c). *Leucoptera coffeella* [Lepidoptera: Lyonetiidae] on leaves of *Coffea arabica* L., coffee. 13 Jun 2000. Nicaragua: Carazo.
- 6802 Simonsen (p3-1f). *Leucoptera coffeella* [Lepidoptera: Lyonetiidae] on leaves of *Coffea arabica* L., coffee. 13 Jun 2000. Nicaragua: Carazo.
- 6803 Simonsen (p5-7d). *Leucoptera coffeella* [Lepidoptera: Lyonetiidae] on leaves of *Coffea arabica* L., coffee. 13 Jun 2000. Nicaragua: Carazo.
- 6804 Simonsen (p6-3h). *Leucoptera coffeella* [Lepidoptera: Lyonetiidae] on leaves of *Coffea arabica* L., coffee. 13 Jun 2000. Nicaragua: Carazo.
- 6805 Simonsen (p7-2f). *Leucoptera coffeella* [Lepidoptera: Lyonetiidae] on leaves of *Coffea arabica* L., coffee. 13 Jun 2000. Nicaragua: Carazo.

- 6806 Simonsen (p8-2d). *Leucoptera coffeella* [Lepidoptera: Lyonetiidae] on leaves of *Coffea arabica* L., coffee. 13 Jun 2000. Nicaragua: Carazo.
- 6807 Simonsen (p8-3a). *Leucoptera coffeella* [Lepidoptera: Lyonetiidae] on leaves of *Coffea arabica* L., coffee. 13 Jun 2000. Nicaragua: Carazo.
- 6808 Simonsen (p9-6a). *Leucoptera coffeella* [Lepidoptera: Lyonetiidae] on leaves of *Coffea arabica* L., coffee. 13 Jun 2000. Nicaragua: Carazo.
- 6809 Simonsen (p10(II)-1h). *Leucoptera coffeella* [Lepidoptera: Lyonetiidae] on leaves of *Coffea arabica* L., coffee. 13 Jun 2000. Nicaragua: Carazo.
- 6894 E Zhioua (T82). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Rec'd May 2001.
- 6904 M Ghazavi (2). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 6 Dec 1999. Iran: Karaj, Tehran.
- 6905 M Ghazavi (3). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 5 Dec 1999. Iran: Elevation 2300 m., Atashgah.
- 6931 ST Jaronski (TM12). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: T Cayko Farm, sugarbeet field, Richland County, Montana.
- 6932 ST Jaronski (TM13). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: J. Damm Farm, sugarbeet field, Richland County, Montana.
- 6933 ST Jaronski (TM17). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: J. Damm Farm, sugarbeet field, Richland County, Montana.
- 6934 ST Jaronski (TM18). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: T Cayko Farm, sugarbeet field, Richland County, Montana.
- 6935 ST Jaronski (TM24). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: T Cayko Farm, sugarbeet field, Richland County, Montana.
- 6936 ST Jaronski (TM26). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: T Cayko Farm, sugarbeet field, Richland County, Montana.
- 6937 ST Jaronski (TM28). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: Montana State University Eastern Experiment Station, sugarbeet field, Sidney, Montana.
- 6938 ST Jaronski (TM30). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: D. Danielson Farm, sugarbeet field, Richland County, Montana.
- 6939 ST Jaronski (TM31). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: D. Danielson Farm, sugarbeet field, Richland County, Montana.
- 6940 ST Jaronski (TM36). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2002. USA: Montana State University Eastern Experiment Station, sugarbeet field, Sidney, Montana.
- 6941 ST Jaronski (TM37). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: Montana State University Eastern Experiment Station, sugarbeet field, Sidney, Montana.
- 6943 ST Jaronski (TM40). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: Montana State University Eastern Experiment Station, sugarbeet field, Sidney, Montana.
- 6949 ST Jaronski (TM70). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: D. Danielson Farm, sugarbeet field, Richland County, Montana.
- 6950 ST Jaronski (TM71). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: T Cayko Farm, sugarbeet field, Richland County, Montana.
- 6951 ST Jaronski (TM72). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: Montana State University Eastern Experiment Station, sugarbeet field, Sidney, Montana.
- 6952 ST Jaronski (TM75). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: J. Damm Farm, sugarbeet field, Richland County, Montana.
- 6953 ST Jaronski (TM77). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 2000. USA: J. Damm Farm, sugarbeet field, Richland County, Montana.
- 6971 [PPRI 7054] JL Hatting. Larva, *Monopetalotaxis doleriformis* [Lepidoptera: Sesiidae]. Mar 2001. South Africa: Ysterfontein, Clanwilliam, Cape Province.
- 6972 [PPRI 7055] JL Hatting. Larva, *Isturgia exerrariae* [Lepidoptera: Geometridae]. 24 Apr 2001. South Africa: ARC-Small Grain Institute Greenhouse, Bethlehem, Orange Free State.
- 6973 [PPRI 7056] JL Hatting. Larva, *Isturgia exerrariae* [Lepidoptera: Geometridae]. 23 May 2001. South Africa: Gifberg, Clanwilliam, Cape Province.
- 6974 [PPRI 7057] JL Hatting. Larva, *Monopetalotaxis doleriformis* [Lepidoptera: Sesiidae]. Nov 1999. South Africa: Ysterfontein, Clanwilliam, Cape Province.
- 6975 [PPRI 7058] JL Hatting. Larva, *Monopetalotaxis doleriformis* [Lepidoptera: Sesiidae]. Feb 2001. South Africa: Ysterfontein, Clanwilliam, Cape Province.
- 6976 [PPRI 7059] JL Hatting. Pupa, *Monopetalotaxis doleriformis* [Lepidoptera: Sesiidae]. Dec 2000. South Africa: Ysterfontein, Clanwilliam, Cape Province.
- 6977 [PPRI 7060] JL Hatting. Larva, *Monopetalotaxis doleriformis* [Lepidoptera: Sesiidae]. 17 May 2000. South Africa: Ysterfontein, Clanwilliam, Cape Province.

- 6981 [PPRI 7065] JL Hatting. Larva, *Monopetalotaxis doleriformis* [Lepidoptera: Sesiidae]. 17 Aug 2001. South Africa: Ysterfontein, Clanwilliam, Cape Province.
- 6984 [PPRI 7082] JL Hatting. Pupa, [Lepidoptera: Eupterotidae]. 30 Oct 2001. South Africa: De Hangen, Clanwilliam, Cape Province.
- 7060 M Brownbridge (CA 603). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from a mulch sample. Oct 2001. USA: avocado orchard, Temecula, California.
- 7093 KT Hodge. *Danaus plexippus* [Lepidoptera: Danaidae]. Rec'd 24 Jan 2003.
- 7274 JM Sung (EFCC 7272). [Lepidoptera]. 8 Jul 2001. Nepal.
- 7356 DJ Bruck (IP-36). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 31 Jul 2002. USA: Independence, Oregon.
- 7357 DJ Bruck (IP-57). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 7 Aug 2002. USA: Boring, Oregon.
- 7358 DJ Bruck (IP-62). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 20 Aug 2002. USA: Aurora, Oregon.
- 7359 DJ Bruck (IP-63). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 20 Aug 2002. USA: Aurora, Oregon.
- 7362 DJ Bruck (IP-94). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 19 Aug 2002. USA: Aurora, Oregon.
- 7364 DJ Bruck (IP-238). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 19 Aug 2002. USA: Aurora, Oregon.
- 7365 DJ Bruck (IP-241). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 19 Aug 2002. USA: Aurora, Oregon.
- 7552 I Klingen (NCRI 66/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: Målsnes, field margin of organic apple orchard, Balestrand, Sogn og Fjordane.
- 7553 I Klingen (NCRI 68/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, field margin of organic apple orchard, Balestrand, Sogn og Fjordane.
- 7554 I Klingen (NCRI 91/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: conventional apple orchard, Balestrand, Sogn og Fjordane.
- 7585 [SRCAMB B-38] V Likhovidov ← BA Borisov. [Lepidoptera] Isolated from stroma of *Cordyceps* sp. Aug 2001. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-234.
- 7593 [SRCAMB B-210] V Likhovidov (24/89) ← BA Borisov. Larva, [Lepidoptera]. 1989. Russian Federation: Irkutsk Region. Field Collection Number F-70.
- 7955 LA Lacey (1B). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 29 Sep 2005. USA: Alaska. 67°06'07" N, 150°05'46" W.
- 7956 LA Lacey (1C). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 29 Sep 2005. USA: Alaska. 67°06'07" N, 150°05'46" W.
- 7957 LA Lacey (2B). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 29 Sep 2005. USA: Alaska. 68°02'52" N, 149°37'58" W, 3180 ft elevation.
- 7958 LA Lacey (2C). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 29 Sep 2005. USA: Alaska. 68°02'52" N, 149°37'58" W, 3180 ft elevation.
- 7959 LA Lacey (2D). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 29 Sep 2005. USA: Alaska. 68°02'52" N, 149°37'58" W, 3180 ft elevation.
- 7963 LA Lacey (7). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 29 Sep 2005. USA: Mile 400, wooded area, Alaska. 65°30'06" N, 148°45'29" W.
- 7964 LA Lacey (8). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 4 Oct 2005. USA: Site 1 (Wrigley), CRP soil 1-3, Alaska.
- 7965 LA Lacey (8A). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 4 Oct 2005. USA: Site 1 (Wrigley), CRP soil 1-3, Alaska.
- 7966 LA Lacey (12A). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 4 Oct 2005. USA: Site 2 (Dufenbach), forest soil 13-15, Alaska.
- 7968 LA Lacey (16A). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 4 Oct 2005. USA: Site 3 (Green), field soil 25-27, Alaska.
- 7969 LA Lacey. Overwintering larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. Rec'd 7 Mar 2006.
- 8032 NV Meyling (KVL 03-129). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from field soil. 18 Sep 2002. Denmark: Bakkegården, Copenhagen, Tåstrup, Zealand. 55°40' N, 12°18' E.
- 8033 NV Meyling (KVL 03-136). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil of hedge. 6 Sep 2002. Denmark: Bakkegården, Copenhagen, Tåstrup, Zealand. 55°40' N, 12°18' E.
- 8035 NV Meyling (KVL 03-142). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil of hedge. 6 Sep 2002. Denmark: Bakkegården, Copenhagen, Tåstrup, Zealand. 55°40' N, 12°18' E.
- 8039 NV Meyling (KVL 04-92). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Jul 2004. Greenland: Disko Island. 70° N, 53° W.

- 8040 NV Meyling (KVL 04-93). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Jul 2004. Greenland: Disko Island. 70° N, 53° W.
- 8066 [CSIRO FI-0571] *Helicoverpa* sp. [Lepidoptera: Noctuidae] on *Medicago sativa* L., lucerne. 24 Jan 1990. Australia: Gattton, Queensland.
- 8339 Z Demirbag (KTU-7). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 17 Jul 2006. Turkey: Yomra, Trabzon.
- 8340 Z Demirbag (KTU-8). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 22 Jul 2006. Turkey: Bolaman, Ordu.
- 8343 Z Demirbag (KTU-11). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 22 Jul 2006. Turkey: Bolaman, Ordu.
- 8349 Z Demirbag (KTU-17). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 16 Sep 2006. Turkey: Borçka, Artvin.
- 8354 Z Demirbag (KTU-22). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 16 Sep 2006. Turkey: Borçka, Artvin.
- 8355 Z Demirbag (KTU-23). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 16 Sep 2006. Turkey: Hemsin, Rize.
- 8356 Z Demirbag (KTU-24). *Thaumetopoea pityocampa* [Lepidoptera: Thaumetopoeidae]. 11 Dec 2006. Turkey: Samsun.
- 8431 Z Demirbag (KTU-25). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 21 Mar 2007. Turkey: Ünye, Ordu.
- 8444 Z Demirbag (KTU-38). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 20 Mar 2007. Turkey: Ulubey, Ordu.
- 8493 [CSIRO FI-0016] *Oncopera alboguttata* [Lepidoptera: Hepialidae]. 13 Feb 1980. Australia: Ebor, New South Wales.
- 8661 Z Demirbag (KTU-50). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 4 Jun 2007. Turkey: Gümüşhane.
- 8663 Z Demirbag (KTU-52). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 4 Jun 2007. Turkey: Gümüşhane.
- 8664 Z Demirbag (KTU-53). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 7 Jul 2007. Turkey: Erzurum.
- 8666 Z Demirbag (KTU-55). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 7 Jul 2007. Turkey: Askale, Erzurum.
- 8667 Z Demirbag (KTU-56). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 7 Jul 2007. Turkey: Gümüşhane.
- 8670 Z Demirbag (KTU-59). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 7 Jul 2007. Turkey: Gümüşhane.
- 8672 Z Demirbag (KTU-61). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 7 Jul 2007. Turkey: Gümüşhane.
- 8673 Z Demirbag (KTU-62). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 7 Jul 2007. Turkey: Bayburt.
- 8674 Z Demirbag (KTU-63). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 7 Jul 2007. Turkey: Bayburt.
- 8709 RG Hollingsworth (H6). [Lepidoptera]. 26 Jan 2007. USA: Waiakea Experiment Station, Hilo, Hawaii.
- 8843 [CSIRO FI-1311] *Opodiphthera eucalypti* [Lepidoptera: Saturniidae]. 10 Mar 1999. Australia: Dorrigo, New South Wales.
- 8891 [CSIRO FI-0079] *Danaus plexippus* [Lepidoptera: Danaidae]. 11 Oct 1984. Australia: Queensland.
- 9445 [SRCAMB B-234/2] V Likhovidov ← BA Borisov. Adult, [Lepidoptera]. 12 Jul 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-355.

***Beauveria bassiana*(?)** (Balsamo-Crivelli) Vuillemin
[Sordariomycetes: Hypocreales]
Cordycipitaceae

- 5644 [IITA 82] A Cherry. *Eldana saccharina* [Lepidoptera: Pyralidae]. 3 Jul 1996. Benin: IITA field, Cotonou, Atlantique.
- 6892 E Zhioua (T73). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Rec'd May 2001.

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

- 1829 [ARSEF 1481 (lost)] SB Alves (258). *Castnia licus* [Lepidoptera: Castniidae] on sugar cane. Acc'd 29 Jan 1985. Brazil: Pernambuco.
- 1830 [ARSEF 1482 (lost)] SB Alves (210). *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. Acc'd 29 Jan 1985. Brazil: São Paulo.
- 7555 I Klingen (NCRI 57/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: organic apple orchard, Balestrand, Sogn og Fjordane.
- 7556 I Klingen (NCRI 71/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: Målsnes, organic apple orchard, Balestrand, Sogn og Fjordane.
- 7557 I Klingen (NCRI 73/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: Målsnes, field margin of organic apple orchard, Balestrand, Sogn og Fjordane.
- 7558 I Klingen (NCRI 74/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: organic apple orchard, Balestrand, Sogn og Fjordane.

7559 I Klingen (NCRI 86/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: field margin of organic apple orchard, Balestrand, Sogn og Fjordane.

7560 I Klingen (NCRI 223/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, organic apple orchard, Balestrand, Sogn og Fjordane.

7561 I Klingen (NCRI 233/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: field margin of conventional apple orchard, Balestrand, Sogn og Fjordane.

8034 NV Meyling (KVL 03-140). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil of hedge. 6 Sep 2002. Denmark: Bakkegården, Copenhagen, Tåstrup, Zealand. 55°40' N, 12°18' E.

9599 X Zou (6). [Lepidoptera: Noctuidae]. Rec'd 19 Jan 2010. PR China: Guizhou Province.

Beauveria pseudobassiana (sp. nov., unpubl.)

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Defined primarily by genotypic characters

3220 LA Lacey. *Cydia pomonella* [Lepidoptera: Tortricidae]. Rec'd Feb 1991. Portugal. Identification verified genomically.

3405 AE Hajek (18). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 1991. USA: Koontz Lokey, Page County, Virginia. EX-TYPE ISOLATE for species defined genomically.

3529 AE Hajek (73a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 1991. USA: Resurrection, Prince Georges County, Maryland. Identification verified genomically.

***Beniowskia* sp.**

[Hyphomycetes]

2751 GW Riethmacher (EB1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 5 Apr 1989. Philippines: La Trinidad, Benguet.

***Cladosporium* sp.** Mycosphaerellaceae

[Dothideomycetes: Capnodiales]

6226 JL Hatting (Sample A). *Orachrysops ariadne* [Lepidoptera: Lycaenidae: Polyommatainae]. Rec'd 16 Jul 1999. South Africa.

Clonostachys rosea (Link : Fries) Schroers, Samuels,

Seifert & W Gams

[Sordariomycetes: Hypocreales]

Bionectriaceae

9493 [SRCAMB VL-1344] V Likhovidov. [Lepidoptera] Isolated from *Cordyceps* sp. 12 Aug 2003. Russian Federation: Caucasus region, Sochi District, Krasnodarsky Krai. Field Collection Number F-916.

***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*.

92 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 1976. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.

93 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 1976. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.

94 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 1976. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.

147 JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 26 Jun 1977. USA: Carroll, Maine.

148 JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 20 Jun 1977. USA: forest, Maine.

2771 GW Riethmacher (C3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 11 Apr 1989. Philippines: La Trinidad, Benguet.

2772 GW Riethmacher (C4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 14 Apr 1989. Philippines: La Trinidad, Benguet.

2815 GW Riethmacher (C5). *Plutella xylostella* [Lepidoptera: Plutellidae]. 14 Apr 1989. Philippines: La Trinidad, Benguet.

2816 GW Riethmacher (C6). *Plutella xylostella* [Lepidoptera: Plutellidae]. 9 Jun 1989. Philippines: La Trinidad, Benguet.

3208 GW Riethmacher (C4.1a). *Plutella xylostella* [Lepidoptera: Plutellidae]. 16 Oct 1990. Philippines: La Trinidad, Benguet.

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.

1884 [CP 173] DW Roberts ← J Brunes. *Mocis latipes*

Fungal Cultures

[Lepidoptera: Noctuidae]. 31 Jan 1985. Brazil: CNPAF, Goiânia, Goiás.

2730 GW Riethmacher (C1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 6 Apr 1989. Philippines: La Trinidad, Benguet.

4797 [INIA 2193] J Eilenberg (KVL 614). *Epinotia aporema* [Lepidoptera: Tortricidae]. 4 May 1994. Uruguay.

Conidiobolus firmipilleus Drechsler

[Entomophthoromycotina: Entomophthorales]

Ancylistaceae

2731 GW Riethmacher (C2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Apr 1989. Philippines: La Trinidad, Benguet.

***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

7808 [SRCAMB VL-470] V Likhovidov. [Lepidoptera] Isolated from stroma. Jul 2001. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-164.

7811 [SRCAMB VL-375] V Likhovidov. [Lepidoptera] Isolated from stroma. Jul 2002. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-166.

9486 [SRCAMB VL-1610/3] V Likhovidov. Pupa, [Lepidoptera]. Sep 2004. Russian Federation: Kavkazkiy Nature Reserve, Krasnodarsky Krai. Field Collection Number F-766.

Cordyceps bassiana ZZ Li, CR Li, B Huang & MZ Fan

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Anamorph: resembles *Beauveria bassiana* (Balsamo-Crivelli) Vuillemin

7047 [RCEF 0711] M Fan and Z Li. Larva, [Lepidoptera: Cossidae]. 3 Sep 2000. PR China: Guniujiang National Nature Reserve, Shitai County, Anhui. CULTURE EX TYPE.

Cordyceps cardinalis Sung & Spatafora

[Sordariomycetes: Hypocreales]

Cordycipitaceae

7192 JW Spatafora (OSC 93609) and GH Sung. [Lepidoptera: Tineidae: Archolophinae]. 19 Jul 2000. USA: Hen Wallow Trail, Great Smoky Mountains National Park, Tennessee. CULTURE EX HOLOTYPE.

7193 JW Spatafora (OSC 93610) and GH Sung. [Lepidoptera: Tineidae: Archolophinae]. 19 Jul 2000. USA: Hen Wallow Trail, Great Smoky Mountains National Park, Tennessee.

Cordyceps isarioides Curtis ex Masee

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Synonym: *Cordyceps tuberculata* (Lebert) Maire

5688 JM Sung (KEFC-199). [Lepidoptera]. 25 Jun 1992. Republic of Korea: Bong-Myung Ri, Chuncheon, Kangwon-do.

Cordyceps militaris (Linnaeus:Fries) Link

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Anamorph: *Verticillium* sp. This species has not produced stromata, perithecia, or ascospores in culture. Vegetative hyphae and conidia are all that have been observed with standard culture media and routine physical conditions of incubation in the laboratory and/or incubator.

2416 M Shimazu (F-522). [Lepidoptera: Geometridae]. 17 Jun 1985. Japan: Mt. Akagi.

4081 KT Hodge (C1). Pupa, [Lepidoptera] Mixed hemlock/beechness. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.

4082 KT Hodge (C2). Pupa, [Lepidoptera] Mixed hemlock/beechness. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.

4083 KT Hodge (C3). Pupa, [Lepidoptera] Mixed hemlock/beechness. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.

4084 KT Hodge (C4). Pupa, [Lepidoptera] Mixed hemlock/beechness. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.

4085 KT Hodge (D1). Pupa, [Lepidoptera] Mixed hemlock/beechness. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.

4086 KT Hodge (D2). Pupa, [Lepidoptera] Mixed hemlock/beechness. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.

4087 KT Hodge (D3). Pupa, [Lepidoptera] Mixed hemlock/beechness. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.

4088 KT Hodge (D4). Pupa, [Lepidoptera] Mixed hemlock/beechness. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.

4089 KT Hodge (D5). Pupa, [Lepidoptera] Mixed hemlock/beechness. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.

4838 KT Hodge (kth28a). Pupa, [Lepidoptera] Soil. 11 Sep 1994. USA: Raquette Lake, New York. Single-ascospore isolate from a single fruit body.

4839 KT Hodge (kth28b). Pupa, [Lepidoptera] Soil. 11 Sep 1994. USA: Raquette Lake, New York. Single-ascospore isolate from a single fruit body.

4840 KT Hodge (kth28c). Pupa, [Lepidoptera] Soil. 11 Sep 1994. USA: Raquette Lake, New York. Single-ascospore isolate from a single fruit body.

- 4841 KT Hodge (kth28d). Pupa, [Lepidoptera] Soil. 11 Sep 1994. USA: Raquette Lake, New York. Single-ascospore isolate from a single fruit body.
- 4842 KT Hodge (kth28e). Pupa, [Lepidoptera] Soil. 11 Sep 1994. USA: Raquette Lake, New York. Single-ascospore isolate from a single fruit body.
- 4845 JM Sung (C-171). Pupa inside of cocoon, [Lepidoptera]. 12 Sep 1992. Republic of Korea: Kangweon Nation University Experiment Forest.
- 5002 KT Hodge (kth31A-1). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31A. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63803.
- 5003 KT Hodge (kth31A-2). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31A. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63803.
- 5004 KT Hodge (kth31A-3). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31A. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63803.
- 5005 KT Hodge (kth31A-4). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31A. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63803.
- 5006 KT Hodge (kth31A-5). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31A. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63803.
- 5007 KT Hodge (kth31A-6). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31A. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63803.
- 5008 KT Hodge (kth31A-7). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31A. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63803.
- 5009 KT Hodge (kth31A-8). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31A. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63803.
- 5010 KT Hodge (kth31A-9). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31A. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63803.
- 5011 KT Hodge (kth31A-10). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31A. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63803.
- 5012 KT Hodge (kth31C-1). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31C. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63805.
- 5013 KT Hodge (kth31C-2). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31C. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63805.
- 5014 KT Hodge (kth31C-3). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31C. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63805.
- 5015 KT Hodge (kth31C-4). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31C. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63805.
- 5016 KT Hodge (kth31C-5). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31C. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63805.
- 5017 KT Hodge (kth31C-6). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31C. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63805.
- 5018 KT Hodge (kth31C-7). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31C. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63805.
- 5019 KT Hodge (kth31C-8). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31C. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63805.
- 5020 KT Hodge (kth31C-9). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31C. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63805.
- 5021 KT Hodge (kth31C-10). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31C. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63805.

- 5044 KT Hodge (kth31F-2). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31F. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63808.
- 5045 KT Hodge (kth31F-3). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31F. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63808.
- 5046 KT Hodge (kth31F-4). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31F. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63808.
- 5047 KT Hodge (kth31F-5). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31F. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63808.
- 5048 KT Hodge (kth31F-6). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31F. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63808.
- 5049 KT Hodge (kth31F-7). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31F. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63808.
- 5050 KT Hodge (kth31F-8). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31F. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63808.
- 5051 KT Hodge (kth31F-9). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31F. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63808.
- 5052 KT Hodge (kth31F-10). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31F. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63808.
- 5053 KT Hodge (kth31G-1). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31G. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63809.
- 5054 KT Hodge (kth31G-2). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31G. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63809.
- 5055 KT Hodge (kth31G-3). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31G. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63809.
- 5056 KT Hodge (kth31G-4). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31G. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63809.
- 5057 KT Hodge (kth31G-5). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31G. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63809.
- 5058 KT Hodge (kth31G-6). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31G. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63809.
- 5059 KT Hodge (kth31G-7). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31G. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63809.
- 5060 KT Hodge (kth31G-8). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31G. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63809.
- 5061 KT Hodge (kth31G-9). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31G. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63809.
- 5062 KT Hodge (kth31G-10). Pupa, [Lepidoptera]. 16 Sep 1995. USA: Vanderkamp Center Grounds, Cleveland (Oneida County), New York. Single ascospore isolate from kth31G. Ascocarp deposited in Cornell Plant Pathology Herbarium as 63809.
- 6248 [RCEF 0095] Pupa, [Lepidoptera]. 27 Jul 1997. PR China: Anhui. Chains of conidia with Mariannaea-like orientation but not sliming down to Lecanicillium state as normally expected.
- 7809 [SRCAMB B-79] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma. Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-165.
- 7810 [SRCAMB B-90] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma. 6 Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-168.
- 8012 BC King (CmN). Larva, [Lepidoptera]. Spring 2003. USA: Allegheny National Forest, Pennsylvania. **RESTRICTED ACCESS:** *consult Curator.*

9484 [SRCAMB VL-1983] V Likhovidov. Pupa, [Lepidoptera] Isolated from stroma. 12 Aug 2005. Russian Federation: Moscow Region. Field Collection Number F-854.

***Cordyceps pruinosa* Petch**

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Anamorph: *Mariannaea pruinosa* ZQ Liang

7221 [SRCAMB B-297] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma. 8 Jul 2003. Russian Federation: Vladivostok District, Primorsky Krai. Field Collection Number F-324.

***Cylindrocarpon* sp.**

[Sordariomycetes: Hypocreales]

Nectriaceae

8043 E Herrera Navarro (V3 - Aphid). *Diatraea saccharalis* [Lepidoptera: Pyralidae] isolate passed through *Brevicoryne brassicae* [Homoptera: Aphididae]. Rec'd 24 May 2006. Mexico: Tecomán, Colima.

8044 E Herrera Navarro (V3 - Leps). *Diatraea saccharalis* [Lepidoptera: Pyralidae] isolate passed through *Helicoverpa zea* [Lepidoptera: Noctuidae]. Rec'd 24 May 2006. Mexico: Tecomán, Colima.

***Entomophaga* sp.**

[Entomophthoromycotina: Entomophthorales]

Entomophthoraceae

393 [FPMI 770] S Keller (114). Larva, [Lepidoptera]. Rec'd 27 May 1980. Switzerland.

***Entomophaga aulicae* (Reichardt in Bail) Humber**

[Entomophthoromycotina: Entomophthorales]

Entomophthoraceae. Strains will grow as wall-less protoplasts in liquid tissue culture media or as walled hyphae on solid culture media.

51 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 1975. USA: 12.4 mi from Rt. 11/159 in Patten, Shin Pond, Maine.

164 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1977. USA: forest-lower, nr. Carroll, Maine.

165 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. Jul 1977. USA: Sherman, Maine.

166 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 14 Jul 1977. USA: forest-lower, nr. Carroll, Maine.

167 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 14 Jul 1977. USA: forest-upper, nr. Carroll, Maine.

168 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 14 Jul 1977. USA: forest-upper, nr. Carroll, Maine.

172 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. Jul 1977. USA: forest-lower, Shin Pond, Maine.

198 [ARSEF ?998; FPMI 707] RG Kenneth (3136) ← J Aoki. *Aedia leucomelas* [Lepidoptera: Noctuidae] on *Ipomea batatas* (sweet potato). 29 Oct 1976. Japan: Fuchu, Tokyo Prefecture.

251 JG Hamm. ?*Heliothis* sp. [Lepidoptera: Noctuidae] on sorghum. Rec'd Sep 1978. USA: GA Coastal Plain Experiment Station, Tifton, Georgia.

998 [ARSEF ?198] J Aoki (Ent. 14) ← A Ohkawa. *Aedia leucomelas* [Lepidoptera: Noctuidae]. Oct 1976. Japan: Fuchu, Tokyo Prefecture.

1140 [ARSEF 1656] M Shimazu (F-339). [Lepidoptera]. 8 Apr 1982. Japan: Ibaraki Prefecture.

1655 [ARSEF 1142 (lost); CSIRO EM693] M Shimazu (F-343). *Dendrolimus spectabilis* [Lepidoptera: Lasiocampidae]. Rec'd Oct 1984. Japan: Ibaraki Prefecture.

1656 [ARSEF 1140] M Shimazu (F-339). [Lepidoptera]. Rec'd Oct 1984. Japan: Ibaraki Prefecture.

1657 [CSIRO EM690] M Shimazu (F-327). *Mamestra brassicae* [Lepidoptera: Noctuidae]. Acc'd 19 Oct 1984. Japan: Ibaraki Prefecture.

1751 J Mitsuhashi (Emb-1). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 29 Oct 1984. Japan: Ibaraki Prefecture.

1990 FPMI (491). *Lambdina fiscellaria lugubrosa* [Lepidoptera: Geometridae]. 16 Aug 1972. Canada: Coquitlam, British Columbia.

1991 FPMI (458). *Lambdina fiscellaria fiscellaria* [Lepidoptera: Geometridae]. 8 Sep 1970. Canada: Boots Brook, Newfoundland.

1992 FPMI (889). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 5 Jul 1985. Canada: Black Sturgeon, Ontario.

1993 FPMI (771). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 25 Jun 1984. Canada: Black Sturgeon, Ontario.

1994 FPMI (776). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 22 Jun 1984. Canada: Black Sturgeon, Ontario.

1995 FPMI (777). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 22 Jun 1984. Canada: Black Sturgeon, Ontario.

1997 FPMI (894). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 29 Jul 1985. Canada: Black Sturgeon, Ontario.

1998 FPMI (877). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 11 Sep 1979. Canada: Thessalon, Ontario.

1999 FPMI (576). *Pseudaletia* sp. [Lepidoptera: Noctuidae]. 18 Jul 1976. Canada: Sault Ste. Marie, Ontario.

- 2000 FPMI (513). *Enypia griseata* [Lepidoptera: Geometridae]. 1975. Canada: British Columbia.
- 2362 M Shimazu (F-554-4). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2363 M Shimazu (F-553-3). *Autographa gamma* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2365 M Shimazu (F-553-1). *Autographa gamma* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2366 M Shimazu (F-555). *Colias erate poliographus* [Lepidoptera: Pieridae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2367 M Shimazu (F-554-3). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2368 M Shimazu (F-554-2). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2369 M Shimazu (F-554-1). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2372 M Shimazu (F-531). *Spilosoma niveum* [Lepidoptera: Arctiidae]. 14 May 1986. Japan: Chiyoda-mura, Ibaraki Prefecture.
- 2373 M Shimazu (F-530-2). *Spilosoma niveum* [Lepidoptera: Arctiidae]. 6 May 1986. Japan: Sakura-mura, Chiba Prefecture.
- 2374 M Shimazu (F-530-1). *Spilosoma niveum* [Lepidoptera: Arctiidae]. 6 May 1986. Japan: Sakura-mura, Chiba Prefecture.
- 2843 JC Silver ← A Sands. *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. Aug 1989. USA: Wilmington, Vermont.
- 2896 FPMI (521). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 13 Jul 1973. Canada: Newfoundland.
- 2897 FPMI (626). *Dryocampa rubicunda* [Lepidoptera: Saturniidae]. 1973. Canada: Ontario.
- 2898 FPMI (646). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 27 Jul 1978. Canada: Newfoundland.
- 2899 FPMI (717). *Rheumaptera hastata* [Lepidoptera: Geometridae]. 16 Aug 1982. Canada: Gargantua, Ontario.
- 2900 FPMI (893). *Lambdina fiscellaria fiscellaria* [Lepidoptera: Geometridae]. 29 Jul 1983. Canada: Gander, Newfoundland.
- 2901 FPMI (934). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 2 Jul 1986. Canada: Black Sturgeon, Ontario.
- 2902 FPMI (597). *Heterocampa* sp. [Lepidoptera: Notodontidae]. 2 Aug 1976. Canada: St. Joseph's Island, Ontario.
- 2903 FPMI (598). *Ellida caniplaga* [Lepidoptera: Notodontidae]. 10 Aug 1976. Canada: St. Joseph's Island, Ontario.
- 2904 FPMI (600). *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. 22 Jul 1976. Canada: Hilton Beach, Ontario.
- 2905 FPMI (602). *Heterocampa biundata* [Lepidoptera: Notodontidae]. 14 Aug 1976. Canada: St. Joseph's Island, Ontario.
- 3016 MH Griggs. Larva, [Lepidoptera: Noctuidae]. 9 Jul 1990. USA: Game Farm Rd., Ithaca, New York.
- 3039 AE Hajek. *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. 3 Aug 1990. USA: Stamford, New York.
- 3212 AE Hajek. *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. 3 Aug 1990. USA: Stamford, New York. Resting spores from ARSEF 3039.
- 3602 AE Hajek. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 10 Jun 1991. USA: McGowan Woods, Ithaca, New York. Resting spores.
- 4004 [AE Hajek A-OV] Larva, *Orgyia vetusta* [Lepidoptera: Lymantriidae] *Lupinus arboreus*. Rec'd 12 Aug 1993. USA: Bodega Bay, California.
- 4005 [AE Hajek] Larva, *Orgyia vetusta* [Lepidoptera: Lymantriidae] *Lupinus arboreus*. Rec'd 12 Aug 1993. USA: Bodega Bay, California.
- 4006 [AE Hajek] Larva, *Orgyia vetusta* [Lepidoptera: Lymantriidae] *Lupinus arboreus*. Rec'd 12 Aug 1993. USA: Bodega Bay, California.
- 4007 AE Hajek. Larva, *Orgyia vetusta* [Lepidoptera: Lymantriidae] *Lupinus arboreus*. Rec'd 12 Aug 1993. USA: Bodega Bay, California.
- 4008 AE Hajek (D-OV). Larva, *Orgyia vetusta* [Lepidoptera: Lymantriidae] *Lupinus arboreus*. Rec'd 17 Aug 1993. USA: Bodega Bay, California.
- 7140 AE Hajek (03 ME 1-1-1). *Euproctis chrysorrhoea* [Lepidoptera: Lymantriidae]. 16 Jun 2003. USA: Coastal Studies Center, Orrs Island, Maine.
- 7141 AE Hajek (03 ME 2-1-1). *Euproctis chrysorrhoea* [Lepidoptera: Lymantriidae]. 16 Jun 2003. USA: 601 Merriman Point, Harpswell Neck, Maine.
- 7142 AE Hajek (03 ME 3-1-2). *Euproctis chrysorrhoea* [Lepidoptera: Lymantriidae]. 16 Jun 2003. USA: Yarmouth, Maine.
- 7143 AE Hajek (03 ME 4-1-1). *Euproctis chrysorrhoea* [Lepidoptera: Lymantriidae]. 16 Jun 2003. USA: Old Ledge School, Yarmouth, Maine.
- 7144 AE Hajek (03 ME 5-1-1). *Euproctis chrysorrhoea* [Lepidoptera: Lymantriidae]. 16 Jun 2003. USA: Windy Hill, Bailey Island, Maine.
- 7145 AE Hajek (03 ME 6-1-1). *Euproctis chrysorrhoea* [Lepidoptera: Lymantriidae]. 16 Jun 2003. USA: CCI CV, Bailey Island, Maine.

- Entomophaga maimaiga*** Humber, Shimazu & Soper in Soper, Shimazu, Humber, Ramos & Hajek [Entomophthoromycotina: Entomophthorales]
Entomophthoraceae. Strains will grow as wall-less protoplasts in liquid tissue culture media or as walled hyphae on solid culture media.
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- 1390 RS Soper (84626-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 1984. Japan: Torigoe, Ishikawa Prefecture.
- 1391 [FPMI 963] RS Soper (84626-7-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 1984. Japan: Torigoe, Ishikawa Prefecture.
- 1392 [FPMI 964] RS Soper (84626-7-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 1984. Japan: Torigoe, Ishikawa Prefecture.
- 1400 [FPMI 952] RS Soper (84626-7). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 1984. Japan: Torigoe, Ishikawa Prefecture.
- 1658 M Shimazu (F-446). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 1984. Japan: Ishikawa Prefecture.
- 2370 M Shimazu (F-541-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jul 1986. Japan: Sakuramura, Chiba Prefecture.
- 2371 M Shimazu (F-541-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jul 1986. Japan: Sakuramura, Chiba Prefecture.
- 2775 AE Hajek (CTIV-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 21 Jun 1989. USA: Wilton, Connecticut.
- 2779 AE Hajek. *Lymantria dispar* [Lepidoptera: Lymantriidae]. 25 Jun 1989. USA: Northampton, Massachusetts.
- 2780 AE Hajek. *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jul 1989. USA: North Conway, New Hampshire.
- 3052 AE Hajek (L1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 1990. USA: Ward Pound Ridge Reservation, Westchester County, New York.
- 3053 AE Hajek (L3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 1990. USA: Ward Pound Ridge Reservation, Westchester County, New York.
- 3828 AE Hajek (001-TA). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3829 AE Hajek (001-TB). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3830 AE Hajek (001-TC). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3831 AE Hajek (001-TD). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3832 AE Hajek (001-TE). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3833 AE Hajek (001-TF). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3834 AE Hajek (001-TG). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3835 AE Hajek (001-TH). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3913 M Welton (FPMI 992). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 8 Jun 1992. Canada: Kingston, Ontario region, Adolphostown Twp, Ontario.
- 4504 AE Hajek (Ci-1) ← S Talley. Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 18 May 1994. USA: George Washington National Park, Rockbridge County, Virginia. Fungus collected from *Catocala ilia*. *L. dispar* died 5 days after conidial shower, then produced conidia. Fungus isolated from *L. dispar*.
- 4505 AE Hajek (C.i.-2) ← S Talley. Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 18 May 1994. USA: George Washington National Park, Rockbridge County, Virginia. Fungus collected from *Catocala ilia*. *L. dispar* died 5 days after conidial shower, then produced conidia. Fungus isolated from *L. dispar*.
- 4506 AE Hajek (C.i.-3) ← S Talley. Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 18 May 1994. USA: George Washington National Forest, Rockbridge County, Virginia. Fungus collected from *Catocala ilia*. *L. dispar* died 5 days after conidial shower, then produced conidia. Fungus isolated from *L. dispar*.
- 4507 AE Hajek (C.i.-4) ← S Talley. Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 18 May 1994. USA: George Washington National Forest, Rockbridge County, Virginia. Fungus collected from *Catocala ilia*. *L. dispar* died 5 days after conidial shower, then produced conidia. Fungus isolated from *L. dispar*.
- 4508 AE Hajek (I.S.-1). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 1994. USA: Irish Settlement Road; Yellow Barn Forest, Ithaca, New York.
- 4509 AE Hajek (I.S.-2). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 1994. USA: Irish Settlement Road; Yellow Barn Forest, Ithaca, New York.
- 4510 AE Hajek (I.A.-3). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 1994. USA: Irish Settlement Road; Yellow Barn Forest, Ithaca, New York.
- 4545 AE Hajek (B-20MD#2). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 30 May 1994. Isolated through *Lymantria dispar* larvae.

- 4549 AE Hajek (I.S. 4) or (94 NY1-4A). *Lymantria dispar* [Lepidoptera: Lymantriidae] Soil sith resting spores. Rec'd 22 Aug 1994. USA: Irish Settlement Rd; Yellow Barn State Forest, Dryden, New York.
- 4550 AE Hajek (I.S. 5). *Lymantria dispar* [Lepidoptera: Lymantriidae] Soil sith resting spores. Rec'd 22 Aug 1994. USA: Irish Settlement Rd; Yellow Barn State Forest, Dryden, New York.
- 4551 AE Hajek (I.S. 6). *Lymantria dispar* [Lepidoptera: Lymantriidae] Soil sith resting spores. Rec'd 22 Aug 1994. USA: Irish Settlement Rd; Yellow Barn State Forest, Dryden, New York.
- 4552 AE Hajek (VA - A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 22 Aug 1994. USA: Union Springs, Rockingham County, Virginia.
- 4553 AE Hajek (VA - C). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 22 Aug 1994. USA: Little River, Rockingham County, Virginia.
- 4554 AE Hajek (VA - E). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 22 Aug 1994. USA: Big Mary's, Rockingham County, Virginia.
- 4555 AE Hajek (VA - F). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 22 Aug 1994. USA: Wiggins Springs, Rockingham County, Virginia.
- 5377 AE Hajek (96 MD A2-1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5378 AE Hajek (96 MD A2-2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5379 AE Hajek (96 MD B2-1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5380 AE Hajek (96 MD B2-2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5381 AE Hajek (96 MD B2-3). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5382 AE Hajek (96 MD B2-4). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5383 AE Hajek (96 MD B2-5). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5384 AE Hajek (96 MD B2-6). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5385 AE Hajek (96 MD C2-1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5386 AE Hajek (96 MD D2-1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5387 AE Hajek (96 MD D2-2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5388 AE Hajek (96 MD E2-1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5389 AE Hajek (96 MD E2-2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5390 AE Hajek (96 MD F2-1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5391 AE Hajek (96 NY B2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5392 AE Hajek (96 NY C2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5393 AE Hajek (96 NY C3). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5394 AE Hajek (96 NY D1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5395 AE Hajek (96 NY D2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5396 AE Hajek (96 NY D3). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5397 AE Hajek (96 NY E1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5398 AE Hajek (96 NY E2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5399 AE Hajek (96 NY E3). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5400 AE Hajek (96 NY F1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5401 AE Hajek (96 NY F3). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.

- 5564 AE Hajek (96MA1-1B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 9 May 1996. USA: Quabbin Reservoir, Franklin County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 5568 AE Hajek (97VA10-1A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 1997. USA: Elliot Spring Run, Butler field plot 1, George Washington National Forest, Virginia. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 5570 AE Hajek (96VA9-1B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Dec 1996. USA: Archer Run, Deerfield Ranger District, Butler field plot 2, George Washington National Forest, Virginia. Host infected in laboratory upon exposure to germinating resting spores in field collected soil.
- 6004 AE Hajek (98 MA2-8A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1998. USA: The Notch, Hampshire County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6005 AE Hajek (98 MA2-14A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1998. USA: The Notch, Hampshire County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6168 AE Hajek (94 WV1-1A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 1994. USA: Hawes Run, Pendleton County, West Virginia. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6169 AE Hajek (94 VA8-1A) or (VA-IVY). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 1994. USA: IVY Branch, Amherst County, Virginia. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6170 AE Hajek (99 WV2-2C). *Malacosoma americanum* [Lepidoptera: Lasiocampidae]. May 1999. Isolated from *Malacosoma disstria* exposed to sporulating cadaver.
- 6171 AE Hajek (98 JP3-5A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2 Sep 1998. Japan: Namiki, Tsukuba, Ibaraki Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6172 AE Hajek (98 JP3-5B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2 Sep 1998. Japan: Namiki, Tsukuba, Ibaraki Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6173 AE Hajek (99 WV2-2A). *Malacosoma americanum* [Lepidoptera: Lasiocampidae]. May 1999. Isolated from *Lymantria dispar* after passage through *Malacosoma disstria* exposed to sporulating cadaver of *M. americanum*.
- 6174 AE Hajek (99 WV2-2B). *Malacosoma americanum* [Lepidoptera: Lasiocampidae]. May 1999. Isolated from *Lymantria dispar* after passage through *Malacosoma disstria* exposed to sporulating cadaver of *M. americanum*.
- 6212 AE Hajek (98 JP2-5A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6218 AE Hajek (94 VA4-3A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 1994. USA: Mines Run, George Washington National Forest, Rockingham County, Virginia. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6224 AE Hajek (98 JP2-10B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6253 AE Hajek (98 JP2-4A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6254 AE Hajek (98 JP2-10A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6255 AE Hajek (98 JP2-14A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6256 AE Hajek (98 JP2-14B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6257 AE Hajek (98 JP2-22A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6258 AE Hajek (98 JP3-8A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2 Sep 1998. Japan: Namiki, Tsukuba, Ibaraki Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6264 AE Hajek (98 JP2-22B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.

- 6265 AE Hajek (98 JP3-8B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2 Sep 1998. Japan: Namiki, Tsukuba, Ibaraki Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6266 AE Hajek (98 JP3-9A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2 Sep 1998. Japan: Namiki, Tsukuba, Ibaraki Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6267 AE Hajek (98 JP2-21A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6268 AE Hajek (98 JP3-9B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2 Sep 1998. Japan: Namiki, Tsukuba, Ibaraki Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6269 AE Hajek (98 MA2-2A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1998. USA: The Notch, Hampshire County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6270 AE Hajek (98 MA2-2B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1998. USA: The Notch, Hampshire County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6271 AE Hajek (98 MA2-6A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1998. USA: The Notch, Hampshire County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6272 AE Hajek (98 MA2-14B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1998. USA: The Notch, Hampshire County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6523 AE Hajek (99 MI9-1A). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1999. USA: Site #9, Oceana County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6524 AE Hajek (99 MI9-2A). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1999. USA: Site #9, Oceana County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6625 AE Hajek (00 NY 1-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 2000. USA: Yellow Barn State Forest, Dryden, New York. Host infected in laboratory upon exposure to field-collected sporulating cadaver of *L. dispar*.
- 6626 AE Hajek (00 MI 3-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 3, Manistee County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6627 AE Hajek (00 MI 17-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 17, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6628 AE Hajek (00 MI 19-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 19, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6629 AE Hajek (00 MI 24-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 24, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6630 AE Hajek (00 MI 27-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 27, Kalkaska County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6652 AE Hajek (00 MI 2-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 2000. USA: Stand 2, Grand Traverse County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6653 AE Hajek (00 MI 4-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 14 Jun 2000. USA: Stand 4, Manistee County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6654 AE Hajek (00 MI 18-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Jun 2000. USA: Stand 18, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6655 AE Hajek (00 MI 28-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 28, Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6656 AE Hajek (00 MI 29-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 29, Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6657 AE Hajek (00 MI 33-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 2000. USA: Stand 33, Clare County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.

- 6663 AE Hajek (00 MI 2-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 2000. USA: Stand 2, Grand Traverse County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6664 AE Hajek (00 MI 3-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 14 Jun 2000. USA: Stand 3, Manistee County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6665 AE Hajek (00 MI 3-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 14 Jun 2000. USA: Stand 3, Manistee County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6666 AE Hajek (00 MI 12-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 2000. USA: Stand 12, Lake County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6667 AE Hajek (00 MI 12-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 2000. USA: Stand 12, Lake County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6668 AE Hajek (00 MI 12-2-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 2000. USA: Stand 12, Lake County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6724 AE Hajek (00 MI 3-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 14 Jun 2000. USA: Stand 3, Manistee County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6725 AE Hajek (00 MI 19-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Jun 2001. USA: Stand 19, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6726 AE Hajek (00 MI 24-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 2003. USA: Stand 24, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6727 AE Hajek (00 MI 27-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 2000. USA: Stand 27, Kalkaska County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6728 AE Hajek (00 MI 17-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Jun 2000. USA: Stand 17, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6729 AE Hajek (00 MI 17-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Jun 2000. USA: Stand 17, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7101 AE Hajek (99 MI 5-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1999. USA: Mason County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7102 AE Hajek (99 MI 27). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1999. USA: Kalkaska County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7103 AE Hajek (00 MI 29-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 29, Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7104 AE Hajek (01 JP 4-11-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2001. Japan: Tmayama Village, Morioka City, Iwate Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7105 AE Hajek (01 JP 4-12-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2001. Japan: Tmayama Village, Morioka City, Iwate Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7106 AE Hajek (99 MI 28-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1999. USA: Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7107 AE Hajek (00 MI 28-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 28, Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7108 AE Hajek (00 MI 28-1-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 28, Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7109 AE Hajek (00 MI 29-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 29, Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7110 AE Hajek (00 MI 33-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 2000. USA: Stand 33, Clare County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7111 AE Hajek (00 MI 33-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 2000. USA: Stand 33, Clare County, Michigan. Host infected in labora-

- tory upon exposure to germinating resting spores in field-collected soil.
- 7112 AE Hajek (01 JP 4-11-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2001. Japan: Tmayama Village, Morioka City, Iwate Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7113 AE Hajek (01 JP 4-11-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2001. Japan: Tmayama Village, Morioka City, Iwate Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7114 AE Hajek (01 JP 4-12-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2001. Japan: Tmayama Village, Morioka City, Iwate Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7115 AE Hajek (99 MI 21). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1999. USA: Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7116 AE Hajek (01 JP 4-12-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2001. Japan: Tmayama Village, Morioka City, Iwate Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7120 AE Hajek (03 PA 1-1-1A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Metzger Trail, Lycoming County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7121 AE Hajek (03 PA 1-1-1B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Metzger Trail, Lycoming County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7122 AE Hajek (03 PA 1-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Metzger Trail, Lycoming County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7123 AE Hajek (03 MA 3-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 2003. USA: Myles Standish State Forest, South Carver, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7124 AE Hajek (03 MA 3-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 2003. USA: Myles Standish State Forest, South Carver, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7125 AE Hajek (03 MA 3-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 2003. USA: Myles Standish State Forest, South Carver, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7126 AE Hajek (03 MA 3-2-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 2003. USA: Myles Standish State Forest, South Carver, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7127 AE Hajek (03 RU 1-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 8 Jul 1999. Russian Federation: oak stand, Khabarovsk. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7131 AE Hajek (03 PA 2-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Route 54, north of Danville, Montour County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7132 AE Hajek (03 PA 3-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Klein Road, Montour County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7133 AE Hajek (03 PA 4-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Comfort Road, Montour County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7134 AE Hajek (03 PA 5-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Cold Run Road, Northumberland County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7135 AE Hajek (03 PA 6-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Route 890, north of Trevorton, Northumberland County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7136 AE Hajek (03 PA 7-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Southampton Twp near town of Chaneyville, Bedford County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7137 AE Hajek (03 MA 3-2-4). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 2003. USA: Myles Standish State Forest, South Carver, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7138 AE Hajek (03 MA 3-2-5). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 2003. USA: Myles Standish State Forest, South Carver, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7139 AE Hajek (02 CN 1-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jul 2002. PR China: Soil sample number MS5, Maoershan, Heilongjiang. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.

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- 7183 AE Hajek (02 CN 1-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jul 2002. PR China: Soil sample number MS3, Maoershan, Heilongjiang. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7184 AE Hajek (02 CN 1-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jul 2002. PR China: Soil sample number MS3, Maoershan, Heilongjiang. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7185 AE Hajek (03 JP 5-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 May 2003. Japan: Soil sample beneath tree number 1, Takehara, Hiroshima Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7186 AE Hajek (03 JP 5-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 May 2003. Japan: Soil sample beneath tree number 1, Takehara, Hiroshima Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7187 AE Hajek (03 JP 5-1-4). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 May 2003. Japan: Soil sample beneath tree number 1, Takehara, Hiroshima Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7188 AE Hajek (03 JP 5-1-6). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 May 2003. Japan: Soil sample beneath tree number 1, Takehara, Hiroshima Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7189 AE Hajek (03 JP 5-1-5). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 May 2003. Japan: Soil sample beneath tree number 1, Takehara, Hiroshima Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7190 AE Hajek (03 PA 1-1-5). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Metzger Trail, Lycoming County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7352 AE Hajek (03 PA 5-1-5). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Cold Run Road, Northumberland County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7353 AE Hajek (03 PA 6-1-4). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Route 890, north of Trevorton, Northumberland County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.

Erynia sp.

[Zygomycetes: Entomophthoromycotini]

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.

- 983 J Aoki (Ent. 18) ← H Tomiyama. *Plutella xylostella* [Lepidoptera: Plutellidae]. Nov 1976. Japan: Fuchu, Tokyo Prefecture.
- 1143 [CSIRO EM694] M Shimazu (F-344). *Eana argentana* [Lepidoptera: Tortricidae]. Acc'd 4 Apr 1984. Japan: Hokkaido Prefecture.
- 1241 [CNPAF 84-04-13-1C; CP 141] DW Roberts. Larva, [Lepidoptera]. 13 Apr 1984. Brazil: CNPAF, Goiânia, Goiás.
- 2027 JA Harper. 4th instar larva, *Pseudoplusia includens* [Lepidoptera: Noctuidae]. Acc'd 28 Oct 1985. USA: Auburn, Alabama.

Evlachovaea sp.

[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 959 [CNPAF 83-01-06B (CB 15); CP 105] RA Daoust ← SM de Carvalho. *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 6 Jan 1983. Brazil: Londrina, Paraná.
- 2297 DA Rodriguez Sierra (103 Bb). Larva, *Brassolis* sp. [Lepidoptera: Brassolidae]. Oct 1985. Colombia: Cumaral, Meta.
- 2613 SB Alves (715). *Brassolis sophorea* [Lepidoptera: Brassolidae]. Apr 1988. Brazil: Moju, Pará.
- 2614 SB Alves (716). *Anteotricha* sp. [Lepidoptera: Oecophoridae]. Apr 1988. Brazil: Moju, Pará.
- 2615 SB Alves (717). *Anteotricha* sp. [Lepidoptera: Oecophoridae]. Apr 1988. Brazil: Moju, Pará.
- 2620 SB Alves (758). *Brassolis sophorea* [Lepidoptera: Brassolidae]. Jun 1988. Brazil: Aracajú, Sergipe.
- 5703 JL Hatting (1). *Sitotroga cerealella* [Lepidoptera: Gelechiidae]. Sep 1997. South Africa: Bethlehem, Orange Free State.
- 7599 [SRCAMB B-411] V Likhovidov ← BA Borisov. Larva, [Lepidoptera]. 1 Oct 1990. Ukraine: Kherson Oblast. Field Collection Number F-228.
- 7600 [SRCAMB VL-767] V Likhovidov. Pupa, [Lepidoptera] Isolated from synnema. 20 Jul 2002. Russian Federation: Kunashir Island, Sakhalin Region. Field Collection Number F-226.
- 7601 [SRCAMB VL-768] V Likhovidov. Pupa, [Lepidoptera] Isolated from synnema. 20 Jul 2002. Russian Federation: Kunashir Island, Sakhalin Region. Field Collection Number F-227.

- 8439 Z Demirbag (KTU-33). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 23 Jul 2006. Turkey: Kesap, Giresun.
- 8441 Z Demirbag (KTU-35). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 21 Mar 2007. Turkey: Ikizce, Ordu.
- 8442 Z Demirbag (KTU-36). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 21 Mar 2007. Turkey: Ikizce, Ordu.
- 8449 Z Demirbag (KTU-43). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 20 Mar 2007. Turkey: Gürgentepe, Ordu.
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- Furia gastropachae*** (Raciborski) Filotas, Hajek & Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae. Synonym: *Furia crustosa* (MacLeod & Tyrrell) Humber
-
- 2906 FPML. [Lepidoptera]. Acc'd 3 Apr 1990. Canada.
- 5541 M Filotas (NY I1). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. Apr 1997. USA: Tug Hill Plateau, Richland, New York. Host infected in laboratory upon exposure to germinating resting spores in field collected soil.
- 5542 M Filotas (NY I2). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. Apr 1997. USA: Tug Hill Plateau, Richland, New York. Host infected in laboratory upon exposure to germinating resting spores in field collected soil.
- 5543 M Filotas (NY V). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. Apr 1997. USA: Tug Hill Plateau, Richland, New York. Host infected in laboratory upon exposure to germinating resting spores in field collected soil.
- 5544 M Filotas (NY Z). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. Apr 1997. USA: Tug Hill Plateau, Richland, New York. Host infected in laboratory upon exposure to germinating resting spores in field collected soil.
- 5545 M Filotas (MD97 S1-1). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 6 Jun 1997. USA: Snow Hill, Maryland.
- 5546 M Filotas (MD97 S1-2). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 6 Jun 1997. USA: Snow Hill, Maryland.
- 5547 M Filotas (CTLD A). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 19 Jun 1997. USA: State University of New York campus, Cortland, New York.
- 5869 [Forest Pest Management Institute FPMI 713] M Filotas. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 9 Jun 1982. Canada: Webbwood, Ontario.
- 5870 [Forest Pest Management Institute FPMI 922-1a] M Filotas. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 20 Jun 1986. Canada: New Liskeard, Ontario.
- 5871 [Forest Pest Management Institute FPMI 922-2a] M Filotas. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 20 Jun 1986. Canada: New Liskeard, Ontario.
- 5872 [Forest Pest Management Institute FPMI 922-3a] M Filotas. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 20 Jun 1986. Canada: New Liskeard, Ontario.
- 8926 [ERL 1539b] VS Gouli (FTC). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 2007. USA: Vermont.
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- Furia neopyralidarum*** (Ben-Ze'ev) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae
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- 1145 M Shimazu (F-356). [Lepidoptera]. Acc'd 4 Apr 1984. Japan: Ibaraki Prefecture.
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- Furia pieris*** (Li & Humber) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae
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- 781 BF Usher. *Pieris rapae* [Lepidoptera: Pieridae]. 27 Aug 1982. USA: Ellis Hollow Rd, Community Gardens, Ithaca, New York.
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- Furia virescens*** (Thaxter) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae
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- 427 S Keller (250). Larva, [Lepidoptera]. Rec'd 6 Feb 1980. Switzerland.
- 470 S Keller (251). [Lepidoptera: Noctuidae]. Rec'd 27 May 1980. Switzerland.
- 1129 S Keller (416). [Lepidoptera: Noctuidae]. 18 Aug 1982. Switzerland.
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- Fusarium* sp.**
[Sordariomycetes: Hypocreales]
Nectriaceae
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- 2418 [NRRL 25090; SBI 87-2] H David. *Emmalocera depressella* [Lepidoptera: Phycitinae]. Acc'd 19 May 1987. India.
- 2595 [NRRL 25093] RC Rajak (ENT/10A). *Hyblaea puer* [Lepidoptera: Hyblaeidae] on teak, *Tectona grandis*. Acc'd 12 Sep 1988. India.
- 2736 [NRRL 25094] GW Riethmacher (Ma2). *Spodoptera* sp. [Lepidoptera: Noctuidae]. 4 Jan 1989. Philippines: La Trinidad, Benguet.
- 2776 G Riethmacher (EB4). *Plutella xylostella* [Lepidoptera: Plutellidae]. Acc'd 12 Nov 913. Philippines: La Trinidad, Benguet.
- 3300 [NRRL 25102] J Gutierrez Samperio (16) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.
- 3532 [NRRL 25105] AE Hajek (167a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 1991. USA: nr. C & O Canal, Allegany County, Maryland.

- 3976 [NRRL 25121] LA Lacey (93013) ← F Herard. Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 4 May 1993. France: Le Vigan, Gard.
- 5219 [NRRL 52753] M Melo (1). Larva, *Scrobipalpuloides absoluta* [Lepidoptera: Gelechiidae] on tomato. Rec'd 12 Jul 1996. Brazil: Pelotas, Rio Grande do Sul.
- 5560 I Klingen (PVF 8.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 5 Sep 1996. Norway: Bodø, Nordland.
- 5881 FE Vega (EBCL 98021). Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. Nov 1997. Benin: Cotonou, Atlantique.
- 6102 JL Hatting. *Orachrysops subravus* [Lepidoptera: Lycaenidae: Polyommatainae]. Rec'd Winter 1999. South Africa.
- 6649 [NRRL 52696] KU Devi (PIV). Larva, *Spodoptera litura* [Lepidoptera: Noctuidae]. Mar 2000. India: Visakhapatnam, Andhra Pradesh.
- 7045 JL Hatting (Field 934). *Chilo sacchariphagus* [Lepidoptera: Pyralidae]. Jun 2002. Mozambique: Mafambisse.
- 7046 JL Hatting (Field 1012). *Chilo sacchariphagus* [Lepidoptera: Pyralidae]. Jun 2002. Mozambique: Mafambisse.
- 10470 NB Murray (5.1.B). Adult, *Epiphyas postvittana* [Lepidoptera: Tortricidae] on *Myrica californica* Chamisso, Pacific wax-myrtle. Rec'd 26 Nov 2010. USA: Santa Cruz County, California.

Fusarium avenaceum (Fries) Saccardo
[Sordariomycetes: Hypocreales]
Nectriaceae

- 2060 [NRRL 25125] GC Carroll (2(HO-O-Hatch IV)). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.

Fusarium merismoides Corda
[Sordariomycetes: Hypocreales]
Nectriaceae

- 2059 [NRRL 25130] GC Carroll (B). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.

Fusarium nygamai Burgess & Trimboli
[Sordariomycetes: Hypocreales]
Nectriaceae

- 2316 [NRRL 25030; PSU M-3959] VS Bhatnagar. *Raghuva albipunctella* [Lepidoptera: Noctuidae]. 8 Oct 1986. Senegal: Kaolack.

Fusarium polyphialidicum Marasas, Nelson, Tousseun & van Wyk
[Sordariomycetes: Hypocreales]
Nectriaceae

- 3692 [NRRL 25529] AE Hajek (114). 5th instar larva,

Lymantria dispar [Lepidoptera: Lymantriidae]. 7 Jun 1991. USA: nr. Freese Rd., Ithaca, New York.

- 3693 [NRRL 25530] AE Hajek (325). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 1991. USA: nr. Birchwood So., Ithaca, New York.
- 3694 [NRRL 25531] AE Hajek (E.M.F. #3) or (325) ← J Boettner. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Oct 1991. USA: , Holyoke Range, Massachusetts.
- 3695 [NRRL 25532] AE Hajek (11). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 21 Jun 1991. USA: Weakley Hollow, Madison County, Virginia.
- 3696 [NRRL 25533] AE Hajek (26). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 1991. USA: nr. C & O Canal, Allegany County, Maryland.
- 3916 [NRRL 52759] AE Hajek (92-165). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jul 1992. USA: State Game Land #203, Allegheny County, Pennsylvania.

Fusarium subglutinans (Wollenweber & Reinking)
Nelson, Tousson & Marasas
[Sordariomycetes: Hypocreales]
Nectriaceae

- 2141 [NRRL 25031] H David (1). *Scirpophaga excerptalis* [Lepidoptera: Pyralidae]. Acc'd 2 Apr 1986. India: Coimbatore, Tamil Nadu. Appreciable source of beauvericin (Gupta, Krasnoff, Underwood, Renwick, and Roberts. 1991. Mycopathologia 115: 185-189. Isolation of beauvericin as an insect toxin from *Fusarium semitectum* and *Fusarium moniliforme* var. *subglutinans*).
- 2142 [NRRL 25139] H David (3). *Chilo sacchariphagus indicus* [Lepidoptera: Pyralidae]. Acc'd 2 Apr 1986. India: Coimbatore, Tamil Nadu.

Fusarium torulosum (Berkeley & MA Curtis) Nirenberg
[Sordariomycetes: Hypocreales]
Nectriaceae. Major synonym: *Fusarium sambucinum* Fuckel

- 3483 [NRRL 25132, 52755] AE Hajek ← VC Mastro. 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 30 May 1991. USA: St. Paul's Church, Vesuvius, Virginia.

***Geotrichum* sp.**
[Saccharomycetes: Saccaromycetales]
Dipodasaceae

- 2752 GW Riethmacher (A1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 14 Mar 1989. Philippines: La Trinidad, Benguet. Arthroconidial hyphomycete.

Gliocladium sp.

[Sordariomycetes: Hypocreales]

6632 JL Hatting. [Lepidoptera: Sesiidae] on *Aspalathus contaminatus*, Rooibos tea. Rec'd 27 Sep 2000. South Africa: Western Cape, Cape Province.

Hirsutella sp.

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae. Strains listed here have not been satisfactorily identified to species largely due to the lack of adequate taxonomic information for the majority of species in this large and important genus. *Hirsutella* is a known or possible synanamorph for many other hyphomycete entomopathogens with teleomorphs classified in the Clavicipitaceae (Pyrenomycetes: Clavicipitaceae).

2581 DD Strongman (1). [Lepidoptera]. Acc'd 9 Aug 1988. Canada.

Hirsutella liboensis X Zou, AY Liu & ZQ Liang

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

9603 X Zou (10). [Lepidoptera: Cossidae]. Rec'd 19 Jan 2010. PR China: Guizhou Province.

Hirsutella longicolla var. *cornuta* Strongman,

Eveleigh & Royama

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

177 [FPMI 755] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 10 May 1977. USA: Lincoln, Maine.

178 [FPMI 756] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. May 1977. USA: Greenville, Maine.

Hirsutella nodulosa Petch

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

5473 EA Eliason (P10E). Larva, *Dioryctria zimmermani* [Lepidoptera: Pyralidae]. Rec'd 28 Aug 1995. USA: Kalamazoo, Michigan.

Hirsutella satumaensis Aoki

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

996 J Aoki (Hir. 1) ← K Katagiri ← T Kushida. *Dioryctria sylvestrella* [Lepidoptera: Pyralidae]. May 1969. Japan: Hachioji, Tokyo Prefecture.

Hirsutella sinensis X Liu, YL Guo, YX Yu & W Zeng

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae. Possible anamorphic state of *Ophiocordyceps sinensis* (Berkeley) GH Sung, JM Sung, Hywel-Jones & Spatafora [= *Cordyceps sinensis* (Berkeley) Saccardo]

6282 Larva, [Lepidoptera: Hepialidae]. Rec'd 24 Aug 1999. PR China: Qinghan.

Hirsutella subulata Petch

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

2227 S Balazy (1809) ← RT Mietkiewski. [Lepidoptera: Microlepidoptera]. Acc'd 4 Sep 1986. Poland: Siedlce.

Humicola sp.

[Hyphomycetes]

2069 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.

Isaria cateniannulata (ZQ Liang) Samson & Hywel-

Jones

[Sordariomycetes: Hypocreales]

Cordycipitaceae

6240 [RCEF 0107] [Lepidoptera]. Rec'd 24 Aug 1999. PR China: Anhui.

6242 [RCEF 0507] *Lymantria dissoluta* [Lepidoptera: Lymantriidae]. 27 Jan 1999. PR China: Anhui.

9601 X Zou (8). Larva, [Lepidoptera]. Rec'd 19 Jan 2010. PR China: Guizhou Province.

Isaria farinosa (Holmsk.) Fries

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Major synonym: *Paecilomyces farinosus* (Holmsk. ex Gray) Brown & Smith. Reclassified during a phylogenetically necessary reclassification of *Paecilomyces* Section *Isarioidea*. Teleomorph: *Cordyceps memorabilis* Ces.

3 [ATCC 24319] PW Schaefer. 3rd instar larva, *Malacosoma americanum* [Lepidoptera: Lasiocampidae]. 6 Jun 1972. USA: Chapin Beach, Dennis, Massachusetts.

20 RS Soper ← I Majchrowicz (1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 Oct 1972. USA: Harrisburg, Pennsylvania.

38 *Leucoma salicis* [Lepidoptera: Lymantriidae]. 6 Dec 1974. Location not specified.

648 [FPMI 759] RG Lawlor. Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Sep 1981. USA: Michigan Hollow, West Danby, New York.

697 [FPMI 760] C Glenister. *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jan 1982. USA: Twin Glens, Tompkins County, New York.

975 [GCRI 112-82] RA Hall. *Cydia pomonella* [Lepidoptera: Tortricidae]. Acc'd 17 Oct 1983. United Kingdom: England.

981 [GCRI 52-81] RA Hall. [Lepidoptera: Nymphalidae]. Acc'd 17 Oct 1983. United Kingdom: England.

1042 J Aoki (Cordy. 1). *Quadicalcarifera punctatella* [Lepidoptera: Notodontidae]. Aug 1982. Japan: Morioka City, Iwate Prefecture.

1065 [CNPS 26] F Moscardi. Pupa, *Chlosyne lacinia saundersii* [Lepidoptera: Nymphalidae]. 1983. Brazil: Londrina, Paraná.

- 1108 KV Deseö (27) ← Menarini. Larva, *Conopia myopaeformis* [Lepidoptera: Sesiidae]. Apr 1982. Italy: Ferrara, Emilia-Romagna.
- 1111 KV Deseö (32A) ← Becchi. Pupa, *Lobesia botrana* [Lepidoptera: Tortricidae]. Apr 1982. Italy: Modena, Emilia-Romagna.
- 1225 [INRA Pf-46] TJ Poprawski. *Laspeyresia medicaginis* [Lepidoptera: Tortricidae]. Apr 1981. France: Lusignan, Vienne.
- 2057 [NRRL A-27473] GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.
- 2131 AE Hajek. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 4 Mar 1986. USA: Tuckahoe, Maryland.
- 2269 BT Forschler (RF-1). Larva, *Prionoxystus robiniae* [Lepidoptera: Cossidae]. Oct 1985. USA: Robinson Forest, Univ. of Kentucky, Breathitt County, Kentucky.
- 2344 [ARSEF 2375 (never frozen)] MC Rombach (221086-1). *Rivula atimeta* [Lepidoptera: Noctuidae]. 22 Oct 1986. Philippines: IRRRI farm, Los Baños, Manila.
- 2546 SR Sánchez Peña. *Spodoptera* sp. [Lepidoptera: Noctuidae]. Acc'd 29 Feb 1988. Location not specified.
- 2564 AE Hajek. Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Mar 1988. USA: Canadice Lake, New York.
- 2822 SR Sánchez Peña (3). Pupa, [Lepidoptera]. Jul 1987. Mexico: elev. 2900 m, Pseudotsuga-Abies forest, Pueblo Nuevo, Durango.
- 2835 AE Hajek ← K Tatman (MD109#3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 1989. USA: Baltimore County, Maryland.
- 3017 SB Krasnoff. *Pyrrharctia isabella* [Lepidoptera: Arctiidae]. 5 Jul 1990. USA: Troy Road, Ithaca, New York.
- 3152 KT Hodge. Pupa, [Lepidoptera]. 10 Oct 1991. USA: Lost Gorge, Tompkins County, New York. 25261.
- 3221 AE Hajek. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 8 Feb 1991. USA: Luzerne County, Pennsylvania.
- 3490 AE Hajek (1b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 29 May 1991. USA: nr. Crossroads, Albemarle County, Virginia.
- 3491 AE Hajek (4a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 1991. USA: nr. Cool Spring, Mercer County, Pennsylvania.
- 3492 AE Hajek (9b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 1991. USA: Poplar Hill, Prince Georges County, Maryland.
- 3493 AE Hajek (18b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 1991. USA: Union Springs, Rockingham County, Virginia.
- 3494 AE Hajek (21a). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 30 May 1991. USA: Hunting Creek, Bedford County, Virginia.
- 3495 AE Hajek (26a). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 4 Jun 1991. USA: Hawes Run, Pendleton County, West Virginia.
- 3496 AE Hajek (32c). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 1991. USA: Holloway Draft, Augusta County, Virginia.
- 3497 AE Hajek (36a). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 1991. USA: Big Mary's Creek, Rockbridge County, Virginia.
- 3498 AE Hajek (37c). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 1991. USA: Piscataway, Maryland.
- 3499 AE Hajek (Red b (40)). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 1991. USA: Shenango River Reservoir, Mercer County, Pennsylvania.
- 3500 AE Hajek (47b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 5 Jun 1991. USA: Belle Acre, Allegheny County, Pennsylvania.
- 3501 AE Hajek (49b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 5 Jun 1991. USA: Lovingston Spring, Nelson County, Virginia.
- 3502 AE Hajek (52b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 1991. USA: Piney River, Virginia.
- 3503 AE Hajek (53a). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 1991. USA: Hog Camp, Amherst County, Virginia.
- 3504 AE Hajek (54b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 31 May 1991. USA: White Rock Trail, Augusta County, Virginia.
- 3505 AE Hajek (57b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Jun 1991. USA: Wiggins Spring, Amherst County, Virginia.
- 3506 AE Hajek (62a). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 1991. USA: Brady Run, Beaver County, Pennsylvania.
- 3507 AE Hajek (64a). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 4 Jun 1991. USA: Accokeek, Maryland.
- 3508 AE Hajek (68c). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 1991. USA: nr. Ruckersville, Greene County, Virginia.
- 3517 AE Hajek (91a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 31 May 1991. USA: Darnell Hollow, Monongalia County, West Virginia.
- 3518 AE Hajek (94b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Jun 1991. USA: Clifton Mills Rd., Preston County, West Virginia.
- 3519 AE Hajek (95a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 1991. USA: Sandy Creek, Preston County, West Virginia.
- 3520 AE Hajek (102a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 1991. USA: Harris Lake, Monongalia County, West Virginia.

- 3521 AE Hajek (128b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 1991. USA: Camp Run, Pendleton County, West Virginia.
- 3522 AE Hajek (140a). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 31 May 1991. USA: Quarry Run, Monongalia County, West Virginia.
- 3523 AE Hajek (145b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 4 Jun 1991. USA: State Game Land # 203, Allegheny County, Pennsylvania.
- 3524 AE Hajek (166a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 1991. USA: nr. C & O Canal, Allegany County, Maryland.
- 3525 AE Hajek (203b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Jun 1991. USA: Galloway Rd., Preston County, West Virginia.
- 3526 AE Hajek (216b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 1991. USA: nr. Piclic Run, Allegany County, Maryland.
- 3533 AE Hajek (298b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 31 May 1991. USA: Parker Run, Preston County, West Virginia.
- 3537 M Brownbridge (HL-1.1). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. 4 Dec 1991. USA: Whitington, Vermont.
- 3538 M Brownbridge (HL-2.3). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. 4 Dec 1991. USA: Whitington, Vermont.
- 3595 AE Hajek (35). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 24 Jun 1991. USA: horse-track at Equine Center, Freese Rd., Ithaca, New York.
- 3596 AE Hajek (146). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 1991. USA: Salem Park, Ithaca, New York.
- 3597 AE Hajek (149). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 1991. USA: 35 Sapsucker Woods Rd., Ithaca, New York.
- 3598 AE Hajek (370). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 17 Jun 1991. USA: Uhl, Ithaca, New York.
- 3599 AE Hajek (438). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 1991. USA: nr. Equine Center, Freese Rd., Ithaca, New York.
- 3664 AE Hajek (1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 1991. USA: Weakley Hollow, Madison County, Virginia.
- 3665 AE Hajek (23). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 1991. USA: Runkles Gap, Rockingham County, Virginia.
- 3666 AE Hajek (27). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 1991. USA: nr. C & O Canal, Allegany County, Maryland.
- 3983 [INRA Pfr040] LA Lacey (93020). *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. 1977. France: Béarn.
- 4010 T Steenberg (137) ← L Øgaard. 5th instar larva, *Agrotis segetum* [Lepidoptera: Noctuidae]. Sep 1988. Denmark: Stengård, Zealand.
- 4090 KT Hodge (kth12). Pupa, [Lepidoptera] soil. 8 Sep 1993. USA: Ringwood Forest Preserve, Ithaca, New York.
- 5368 MS Goettel. Larva, *Alosophila pometaria* [Lepidoptera: Geometridae] Ex field collected, lab reared larva. Rec'd 23 Sep 1996. Canada: Lethbridge, Alberta.
- 5883 FE Vega (EBCL 98024). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 19 Feb 1998. France: Crespian, Gard.
- 5884 FE Vega (EBCL 98025). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 19 Feb 1998. France: Crespian, Gard.
- 5885 FE Vega (EBCL 98026). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 19 Feb 1998. France: Crespian, Gard.
- 5996 KT Hodge. Pupa, [Lepidoptera] in leaf litter. 22 Oct 1998. USA: McDonald Forest, Oak Creek entrance, Benton County, Oregon. Specimen deposited in Oregon State University Herbarium as 67889.
- 6200 FE Vega (EBCL 98026). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 19 Feb 1998. France: Crespian, Gard.
- 6202 FE Vega (EBCL 98028). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 19 Feb 1998. France: Crespian, Gard.
- 6207 FE Vega (EBCL 98052). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 5 Oct 1998. Bulgaria: Jabalkovo.
- 6245 [RCEF 0097] [Lepidoptera]. Rec'd 24 Aug 1999. PR China: Yunnan.
- 7118 [CBS 111113] Pupa, [Lepidoptera] in moss under *Quercus*, oak. 30 Sep 2002. Denmark: Kås Skov, Jutland Salling, Jutland. CULTURE EX EPITYPE.
- 7531 S Keller (955). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait fom soil. 29 Sep 2003. Switzerland: Matten, Bern.
- 7574 I Klingen (NCRI 95/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: Målsnes, field margin of conventional apple orchard, Balestrand, Sogn og Fjordane.
- 7575 I Klingen (NCRI 164/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, conventional apple orchard, Balestrand, Sogn og Fjordane.
- 7576 I Klingen (NCRI 170/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, field margin of conventional apple orchard, Balestrand, Sogn og Fjordane.
- 7714 [SRCAMB B-181] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera]. Aug 2002. Russian Federation: Vladivostok District, Primorsky Krai. Field Collection Number F-184.

- 7720 [SRCAMB VL-576/1] V Likhovidov. Pupa, [Lepidoptera]. 7 Aug 2001. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-180.
- 7722 [SRCAMB B-49] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps* sp. Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-199.
- 7723 [SRCAMB B-108] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera]. 31 Aug 2002. Russian Federation: Caucasus region, Karachayev-Cherkessiya Republ. Field Collection Number F-185.
- 7724 [SRCAMB VL-405] V Likhovidov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps* sp. 30 Jul 2001. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-294.
- 7725 [SRCAMB B-62] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps* sp. 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-286.
- 7726 [SRCAMB VL-497] V Likhovidov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps* sp. 21 Jul 2001. Russian Federation: environs of Vladivostok, Vladivostok, Primorsky Krai. Field Collection Number F-272.
- 7730 [SRCAMB B-77] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera]. Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-286.
- 7731 [SRCAMB VL-576] V Likhovidov. [Lepidoptera]. 7 Aug 2001. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-180.
- 7961 LA Lacey (4A). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 29 Sep 2005. USA: Alaska. 69°25'26" N, 148°41'41" W, 1001 ft elevation.
- 7962 LA Lacey (5A). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 28 Sep 2005. USA: Deadhorse, Alaska. 70°12'42" N, 148°28'57" W, 37 ft elevation.
- 8770 A Torres Barragan (Ral 6). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from vermicompost. 16 Jul 2008. USA: Red Hen Enterprises, Raleigh, North Carolina.
- 9515 [SRCAMB B-186] V Likhovidov ← BA Borisov. [Lepidoptera: Lasiocampidae]. Apr 2003. Russian Federation: Moscow Region. Field Collection Number F-919.
- Isaria fumosorosea* Wize**
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Major synonym: *Paecilomyces fumosoroseus* (Wize) Brown & Smith. Reclassified during a phylogenetically necessary reclassification of *Paecilomyces* Section *Isarioidea*.
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- 720 RS Soper. *Bombyx mori* [Lepidoptera: Bombycidae]. 11 Nov 1981. PR China: Hangzhou, Zhijiang.
- 989 J Aoki (Paec. 3) ← Y Sekizima. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 1983. Japan: Kumagaya, Saitama Prefecture.
- 1005 J Aoki (Paec. 2). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 1983. Japan: Fuchu, Tokyo Prefecture.
- 1568 KV Deseö (101) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 1984. Italy: Villa Cadé (Reggio Emilia), Emilia-Romagna.
- 1569 KV Deseö (107) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 1984. Italy: Villa Cadé (Reggio Emilia), Emilia-Romagna.
- 1577 KV Deseö (104) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 1984. Italy: Villa Cadé (Reggio Emilia), Emilia-Romagna.
- 1578 KV Deseö (108) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 1984. Italy: Villa Cadé (Reggio Emilia), Emilia-Romagna.
- 1579 KV Deseö (110) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 1984. Italy: Villa Cadé (Reggio Emilia), Emilia-Romagna.
- 2734 GW Riethmacher (M1). *Spodoptera* sp. [Lepidoptera: Noctuidae]. 28 Dec 1988. Philippines: La Trinidad, Benguet.
- 2749 GW Riethmacher (L4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 21 Mar 1989. Philippines: La Trinidad, Benguet.
- 3302 J Gutierrez Samperio (18) ← ERD Reyes. *Diaphania hyalinata* [Lepidoptera: Pyralidae] on melon. 1990. Mexico: Michoacán, Baja California.
- 5251 SARL (1) ← SP Wraight (LEP-1). Larva, [Lepidoptera] Broccoli leaf. 18 Nov 1992. USA: Santa Maria, Texas.
- 5252 SARL (2) ← SP Wraight (LEP-2). Larva, [Lepidoptera] Broccoli leaf. 18 Nov 1992. USA: Santa Maria, Texas.
- 5874 FE Vega (EBCL 98001). Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. 22 Aug 1997. Romania: Voronetz.
- 6192 FE Vega (EBCL 99029). Adult, *Cydia pomonella* [Lepidoptera: Tortricidae]. 5 Oct 1998. Bulgaria: Jabalkovo.
- 6203 FE Vega (EBCL 98039). Adult, *Cydia pomonella* [Lepidoptera: Tortricidae]. 19 Feb 1998. France: Crespian, Gard.
- 6204 FE Vega (EBCL 98040). Adult, *Cydia pomonella* [Lepidoptera: Tortricidae]. 19 Feb 1998. France: Crespian, Gard.

- 6206 FE Vega (EBCL 98042). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jul 1998. France: Pujaudrau.
- 6799 G Mercadier (EBCL 00051). Pupa, *Plutella xylostella* [Lepidoptera: Plutellidae] on *Brassica oleracea* L., cabbage. 13 Jul 2000. Australia: Tableland, Atherton, Queensland.
- 6800 G Mercadier (EBCL 00052). Pupa, *Plutella xylostella* [Lepidoptera: Plutellidae] on *Brassica oleracea* L., cabbage. 13 Jul 2000. Australia: Tableland, Atherton, Queensland.
- 6893 E Zhioua (T81). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Rec'd May 2001.
- 7743 [SRCAMB B-101] V Likhovidov ← BA Borisov. [Lepidoptera] Isolated from stroma of *Cordyceps takaomontana*. Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-282.
- 8333 Z Demirbag (KTU-1). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Jul 2006. Turkey: Yomra, Trabzon.
- 8337 Z Demirbag (KTU-5). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Jul 2006. Turkey: Derepazari, Rize.
- 8345 Z Demirbag (KTU-13). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 23 Jul 2006. Turkey: Kesap, Giresun.
- 8348 Z Demirbag (KTU-16). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 16 Sep 2006. Turkey: Muratli, Artvin.
- 8448 Z Demirbag (KTU-42). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: Ikizdere, Rize.
- 9380 E Groden. Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. 17 Jun 2009. USA: Acadia National Park, Mt. Desert Island, Maine.
- 9520 [SRCAMB VL-1528] V Likhovidov. Larva, [Lepidoptera]. 11 Sep 2004. Russian Federation: Caucasus region, Sochi District, Krasnodarsky Krai. Field Collection Number F-518.
- 10224 M Kereselidze. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae] from bark of *Morus* sp., mulberry. Sep 2008. Republic of Georgia: western Georgia.
- 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*.
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- 3981 LA Lacey (93018) ← INRA (Pfr028). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 1975. France: Ile de France.
- Isaria tenuipes*** Peck
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Major synonym: *Paecilomyces tenuipes* (Peck) Samson. Reclassified during a phylogenetically necessary reclassification of *Paecilomyces* Section *Isarioidea*.
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- 2488 SR Sánchez Peña (A1). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 16 Sep 1987. Mexico: Gómez Farias, Tamaulipas.
- 2489 SR Sánchez Peña (A2). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 16 Sep 1987. Mexico: Gómez Farias, Tamaulipas.
- 2490 SR Sánchez Peña (B1). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 16 Sep 1987. Mexico: Gómez Farias, Tamaulipas.
- 2491 SR Sánchez Peña (B2). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 16 Sep 1987. Mexico: Gómez Farias, Tamaulipas.
- 3938 DR Sosa-Gómez (CNPSO-P41). [Lepidoptera: Noctuidae]. 31 Jan 1990. Brazil: Ivatuba, Paraná.
- 3939 DR Sosa-Gómez (CNPSO-P42). [Lepidoptera: Noctuidae]. Acc'd 18 Oct 1993. Brazil: Ponta Porã, Mato Grosso.
- 4096 LA Lacey (94006). Pupa, [Lepidoptera: Noctuidae]. Rec'd 28 Mar 1994. Brazil.
- 5134 KT Hodge (kth32a). Pupa, [Lepidoptera]. 17 Sep 1995. USA: Swamp off Hogsback Rd., Verona, New York. Specimen deposited in Cornell Plant Pathology Herbarium as CUP 63810.
- 5135 KT Hodge (kth32b). Pupa, [Lepidoptera]. 17 Sep 1995. USA: Swamp off Hogsback Rd., Verona, New York. Specimen deposited in Cornell Plant Pathology Herbarium as CUP 63811.
- 6249 [RCEF 0205] Pupa, [Lepidoptera]. Rec'd 24 Aug 1999. PR China: Anhui.
- 6788 FJ Posada (CEFC P-0003). Pupa, *Agraulis vanillae* [Lepidoptera: Nymphalidae] on *Passiflora edulis* Sims, maracuyá or purple granadilla. May 2000. Colombia: Butterfly rearing garden, Chinchiná, Caldas.
- 6889 H Cortez Madrigal (Pm). *Mocis latipes* [Lepidoptera: Noctuidae] on grass. Nov 2000. Mexico: Cárdenas, Tabasco.
- 9531 [SRCAMB VL-1667] V Likhovidov. Pupa, [Lepidoptera]. 19 Sep 2004. Russian Federation: Caucasus region, Mostovsky District, Krasnodarsky Krai. Field Collection Number F-476.
- 9532 [SRCAMB VL-1564] V Likhovidov. Pupa, [Lepidoptera]. 14 Sep 2004. Russian Federation: Caucasus region, Sochi District, Krasnodarsky Krai. Field Collection Number F-488.
- 9534 [SRCAMB B-667] V Likhovidov ← BA Borisov. Larva, [Lepidoptera]. 8 Jul 2005. Ukraine: Kiev. Field Collection Number F-1033.

***Lecanicillium* sp.**

[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 9458 [SRCAMB VL-1169] V Likhovidov. *Tortrix viridana* [Lepidoptera: Tortricidae]. 22 Jul 2003. Russian Federation: Serpukhov District, Moscow Region. Field Collection Number F-352.

***Lecanicillium lecanii*(?) (Zimmermann) Zare & Gams**

[Sordariomycetes: Hypocreales]

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

- 1109 KV Deseö (29) ← Pasqualini. *Cydia pomonella* [Lepidoptera: Tortricidae]. Apr 1982. Italy: Ravenna, Emilia-Romagna.

***Lecanicillium muscarium* (Petch) Zare & W Gams**

[Sordariomycetes: Hypocreales]

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

- 900 Z Feng. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Spring 1983. USA: Batavia, New York.
- 973 [GCRI 59-81] RA Hall. *Cossula cossus* [Lepidoptera: Cossidae]. Acc'd 17 Oct 1983. Italy.
- 994 J Aoki (Vert. 1). *Adoxophyes orana* [Lepidoptera: Tortricidae]. Feb 1980. Japan: Iruma, Saitama Prefecture.
- 1102 [FPMI 708] KV Deseö (6). Larva, *Cossula cossus* [Lepidoptera: Cossidae]. Apr 1981. Italy: Galliera.
- 2065 GC Carroll (6(HO-O-Hatch VIII)). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.
- 2066 GC Carroll (4(HO-O-Hatch VIII)). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.
- 3531 AE Hajek (93a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Jun 1991. USA: Harris Lake, Monongalia County, West Virginia.
- 3600 AE Hajek (130). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 18 Jun 1991. USA: Salem Park, Ithaca, New York.
- 3601 AE Hajek (363). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 17 Jun 1991. USA: Sapsucker Woods, Ithaca, New York.
- 6591 [CCFC 006759; DAOM 198499] J Brodeur. Pupa, *Cydia pomonella* [Lepidoptera: Tortricidae]. 1 Jun 1988. Canada: Cantley, Québec.
- 7568 I Klingen (NCRI 227/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, organic apple orchard, Balestrand, Sogn og Fjordane.
- 7621 [SRCAMB VL-770/2] V Likhovidov. Pupa, [Lepidoptera]. Jul 2002. Russian Federation: Kunashir Island, Sakhalin Region. Field Collection Number F-167.

- 9468 [SRCAMB B-244] V Likhovidov ← BA Borisov. Adult, [Lepidoptera]. 12 Jul 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-310.
- 9469 [SRCAMB B-245/2] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps militaris*. 13 Jul 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-353.
- 9477 [SRCAMB B-234/1] V Likhovidov ← BA Borisov. [Lepidoptera]. Aug 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-582.

***Lecanicillium muscarium*(?) (Petch) Zare & Gams**

[Sordariomycetes: Hypocreales]

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

- 1032 [GCRI 80-82] RA Hall. *Cydia pomonella* [Lepidoptera: Tortricidae]. 1982. Australia.

***Lecanicillium psalliotae* (Treschow) Zare & W Gams**

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Major synonym: *Verticillium psalliotae* Treschow

- 5685 BL Parker (SPT-087). [Lepidoptera]. 17 Jan 1998. Turkey: Karabykly, Narli, Kahraman Maras.

***Mariannaea pruinosa* Liang**

[Sordariomycetes: Hypocreales]

Cordycipitaceae; correct generic assignment remaining to be determined.

- 5413 ZQ Liang (CGAC-2281). *Iragoides fasciata* [Lepidoptera: Limacodidae]. Rec'd Fall 1996. PR China: tea garden, Guiyang City, Guizhou Province.

***Metarhizium* sp.**

[Sordariomycetes: Hypocreales]

Clavicipitaceae

- 4997 SR Booth (Waara). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. 9 May 1995. USA: Cranberry bog, Grayland, Washington.
- 4998 SR Booth (Gant). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. 1 Jun 1995. USA: Cranberry bog, Bandon, Oregon.
- 4999 SR Booth (Quinby; MSP). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. 9 May 1995. USA: Cranberry bog, Grayland, Washington.
- 5000 SR Booth (Scherer). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. 1 Jun 1995. USA: Cranberry bog, Bandon, Oregon.
- 5001 SR Booth (Johnson). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. 17 Jul 1995. USA: Cranberry bog, Grayland, Washington.

- 5076 SR Booth (Warnock). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. 23 Apr 1995. USA: Cranberry bog, Bandon, Oregon.
- 5077 SR Booth (McMahon). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. 23 Feb 1995. USA: Cranberry bog, Bandon, Oregon.
- Metarhizium anisopliae sensu lato** (Metschnikoff)
Sorokin
[Sordariomycetes: Hypocreales]
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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- 1059 [CNPS 39C] F Moscardi. Larva, *Chlosyne lacinia saundersii* [Lepidoptera: Nymphalidae]. 1983. Brazil: Londrina, Paraná.
- 1094 DW Roberts ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). [Lepidoptera]. Acc'd 16 Feb 1984. Laboratory manipulation.
- 2424 DG Holdom (080287-1). Larva, [Lepidoptera]. 8 Feb 1987. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 3064 [MAF F25] T Glare. Larva, [Lepidoptera: Crambidae]. Rec'd Oct 1990. New Zealand: Christchurch, South Island.
- 3290 J Gutierrez Samperio (6) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1988. Mexico: Colima.
- 3291 J Gutierrez Samperio (7) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1987. Mexico: Colima.
- 3292 J Gutierrez Samperio (8) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1987. Mexico: Colima.
- 3293 J Gutierrez Samperio (9) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.
- 4234 [DAT 119] AC Rath (F119). Larva, *Oncopera intrucata* [Lepidoptera: Hepialidae]. 2 Jan 1988. Australia: Richmond, Tasmania.
- 4522 JD Vandenberg (DBM11C). Larva, *Plutella xylostella* [Lepidoptera: Plutellidae] broccoli. Rec'd 13 Jul 1994. USA: Ontario County, New York.
- 4681 [DAT 508] AC Rath (F508). Larva, *Wiseana* sp. [Lepidoptera: Hepialidae]. 17 Nov 1993. New Zealand: Waitati, Dunedin, South Island.
- 4904 LA Lacey (95006). *Galleria mellonella* [Lepidoptera: Pyralidae] Used as bait. Feb 1995. Portugal: Terceira Island, Azores.
- 4905 LA Lacey (95007). *Galleria mellonella* [Lepidoptera: Pyralidae] Used as bait. Feb 1995. Portugal: Terceira Island, Azores.
- 4906 LA Lacey (95008). *Galleria mellonella* [Lepidoptera: Pyralidae] Used as bait. Feb 1995. Portugal: Terceira Island, Azores.
- 5369 I Klingen (NCRI 1-96 (01)). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] Soil sample (marine calcareous soil). 16 Sep 1996. Norway: Potato land (63.57° N), Åfjord, Sør Trøndelag.
- 5469 TJ Poprawski (TJP934). Larva, *Eoreuma loftini* [Lepidoptera: Pyralidae]. Rec'd 9 May 1997. USA: sugarcane field, Weslaco, Texas.
- 5513 I Klingen (PVF 10.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 5 Sep 1996. Norway: Bodø, Nordland. **RESTRICTED ACCESS:** contact Curator.
- 5514 I Klingen (PVF 10.2). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 5 Sep 1996. Norway: Bodø, Nordland.
- 5515 I Klingen (PVF 4.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 5 Sep 1996. Norway: Bodø, Nordland.
- 5516 I Klingen (PVF 6). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 5 Sep 1996. Norway: Bodø, Nordland.
- 5517 I Klingen (PVF 9.2). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 5 Sep 1996. Norway: Bodø, Nordland.
- 5518 I Klingen (TØF 22.4). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 26 Sep 1996. Norway: Steinkjer, Nord Trøndelag.
- 5519 I Klingen (TØF 22.5). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 26 Sep 1996. Norway: Steinkjer, Nord Trøndelag.
- 5521 I Klingen (TØF 25.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 26 Sep 1996. Norway: Steinkjer, Nord Trøndelag.
- 5554 I Klingen (F1C.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 26 Jun 1997. Norway: Finnøy, Rogaland.
- 5555 I Klingen (F2C.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 26 Jun 1997. Norway: Finnøy, Rogaland.
- 5556 I Klingen (F3D.1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 26 Jun 1997. Norway: Finnøy, Rogaland.
- 6167 M Filotas. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. Apr 1998. USA: Tug Hill Plateau, Richland, New York. Host infected in laboratory upon exposure to field collected soil.
- 6475 I Klingen (HVI.99). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Fall 1999. Norway: Hvitvingfoss, Buskerud.
- 6558 D Chandler (HRI 378.93). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from woodland soil. Rec'd 13 Jul 2000. United Kingdom.
- 7014 I Klingen (NCRI 08/02). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.

- 7015 I Klingen (NCRI 09/02). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.
- 7016 I Klingen (NCRI 12/02). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.
- 7017 I Klingen (NCRI 14/02). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.
- 7018 I Klingen (NCRI 17/02). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.
- 7019 I Klingen (NCRI 19/02). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.
- 7020 I Klingen (NCRI 20/02). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.
- 7021 [I Klingen NCRI 21/02] *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.
- 7022 I Klingen (NCRI 26/02). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.
- 7023 I Klingen (NCRI 32/02). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.
- 7024 I Klingen (NCRI 40/02). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.
- 7025 I Klingen (NCRI 51/02). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.
- 7026 I Klingen (NCRI 52/02). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Oct 2001. Norway: apple orchard, Balestrand, Sogn og Fjordane.
- 7569 I Klingen (NCRI 53/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: field margin of organic apple orchard, Balestrand, Sogn og Fjordane.
- 7570 I Klingen (NCRI 211/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, organic apple orchard, Balestrand, Sogn og Fjordane.
- 7571 I Klingen (NCRI 240/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, field margin of organic apple orchard, Balestrand, Sogn og Fjordane.
- 7572 I Klingen (NCRI 241/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, organic apple orchard, Balestrand, Sogn og Fjordane.
- 7573 I Klingen (NCRI 221/02). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 1 Oct 2001. Norway: Nessane, field margin of conventional apple orchard, Balestrand, Sogn og Fjordane.
- 7612 H Cortez Madrigal (MaA1). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] baiting in *Saccharum officinarum* L., sugar cane crop. Rec'd 14 Mar 2005. Mexico: Cárdenas, Tabasco.
- 7613 H Cortez Madrigal (MaA2). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] baiting in *Saccharum officinarum* L., sugar cane crop. Rec'd 14 Mar 2005. Mexico: Cárdenas, Tabasco.
- 7614 H Cortez Madrigal (MaA3). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] baiting in *Saccharum officinarum* L., sugar cane crop. Rec'd 14 Mar 2005. Mexico: Cárdenas, Tabasco.
- 7615 H Cortez Madrigal (MaA4). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] baiting in *Saccharum officinarum* L., sugar cane crop. Rec'd 14 Mar 2005. Mexico: Cárdenas, Tabasco.
- 7820 [CSIRO FI-0120] *Oncopera alboguttata* [Lepidoptera: Hepialidae]. 17 Dec 1985. Australia: Ebor, New South Wales.
- 7821 [CSIRO FI-0121] *Oncopera alboguttata* [Lepidoptera: Hepialidae]. 17 Dec 1985. Australia: Ebor, New South Wales.
- 7822 [CSIRO FI-0122] *Oncopera alboguttata* [Lepidoptera: Hepialidae]. 17 Dec 1985. Australia: Ebor, New South Wales.
- 7823 [CSIRO FI-0123] *Oncopera alboguttata* [Lepidoptera: Hepialidae]. 17 Dec 1985. Australia: Ebor, New South Wales.
- 7847 DEN Rangel and DW Roberts (DWR 200). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Mar 2005. USA: Soil sample #13, Snowflake, Arizona. 34.42.924 N, 110.01.860 W, 5280 ft elevation.
- 7967 LA Lacey (14B). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil sample. 4 Oct 2005. USA: Site 3 (Green), CRP soil 19-21, Alaska.
- 8212 S Entz (20W-5). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. May 2004. Canada: fallow wheat field 30 km east of Milk River, Alberta.
- 8334 Z Demirbag (KTU-2). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Jul 2006. Turkey: Ardesen, Rize.

- 8335 Z Demirbag (KTU-3). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Jul 2006. Turkey: Derepazari, Rize.
- 8336 Z Demirbag (KTU-4). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Jul 2006. Turkey: Derepazari, Rize.
- 8338 Z Demirbag (KTU-6). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Jul 2006. Turkey: Derepazari, Rize.
- 8341 Z Demirbag (KTU-9). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 22 Jul 2006. Turkey: Terme, Samsun.
- 8342 Z Demirbag (KTU-10). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 22 Jul 2006. Turkey: Ordu.
- 8344 Z Demirbag (KTU-12). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 22 Jul 2006. Turkey: Persembel, Ordu.
- 8346 Z Demirbag (KTU-14). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 3 Aug 2006. Turkey: Çambunu, Sürmene, Trabzon.
- 8347 Z Demirbag (KTU-15). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 16 Sep 2006. Turkey: Borçka, Artvin.
- 8350 Z Demirbag (KTU-18). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 16 Sep 2006. Turkey: Murgul, Artvin.
- 8351 Z Demirbag (KTU-19). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 16 Sep 2006. Turkey: Murgul, Artvin.
- 8352 Z Demirbag (KTU-20). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 16 Sep 2006. Turkey: Camili, Artvin.
- 8353 Z Demirbag (KTU-21). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 16 Sep 2006. Turkey: Borçka, Artvin.
- 8432 Z Demirbag (KTU-26). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: Kalkandere, Rize.
- 8433 Z Demirbag (KTU-27). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: İkizdere, Rize.
- 8434 Z Demirbag (KTU-28). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: İkizdere, Rize.
- 8435 Z Demirbag (KTU-29). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: Güneysu, Rize.
- 8436 Z Demirbag (KTU-30). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: Çaykara, Trabzon.
- 8437 Z Demirbag (KTU-31). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 22 Jul 2006. Turkey: Bolaman, Ordu.
- 8438 Z Demirbag (KTU-32). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 22 Jul 2006. Turkey: Bolaman, Ordu.
- 8440 Z Demirbag (KTU-34). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 22 Jul 2006. Turkey: Fatsa, Ordu.
- 8443 Z Demirbag (KTU-37). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Mar 2007. Turkey: Görele, Giresun.
- 8445 Z Demirbag (KTU-39). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 20 Mar 2007. Turkey: Ulubey, Ordu.
- 8446 Z Demirbag (KTU-40). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: Akçaabat, Trabzon.
- 8447 Z Demirbag (KTU-41). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: Kalkandere, Rize.
- 8450 Z Demirbag (KTU-44). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: Of, Trabzon.
- 8451 Z Demirbag (KTU-45). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: Of, Trabzon.
- 8452 Z Demirbag (KTU-46). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: Güneysu, Rize.
- 8453 Z Demirbag (KTU-47). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: Salarha, Rize.
- 8454 Z Demirbag (KTU-48). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: Of, Trabzon.
- 8560 [CSIRO FI-0860] *Galleria mellonella* [Lepidoptera: Pyralidae]. 11 Jun 1991. Australia: Chapman, Australian Capital Territory.
- 8660 Z Demirbag (KTU-49). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 13 Apr 2007. Turkey: Hemsin, Rize.
- 8662 Z Demirbag (KTU-51). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 4 Jun 2007. Turkey: Gümüşhane.
- 8665 Z Demirbag (KTU-54). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 7 Jul 2007. Turkey: Çalidere, Bayburt.
- 8669 Z Demirbag (KTU-58). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 7 Jul 2007. Turkey: Bayburt.
- 8680 MJ Bidochka (43A 2i). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: Bewdley, Ontario.
- 8681 MJ Bidochka (56B 1iv). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: Norwood, Ontario.

- 8682 MJ Bidochka (FRB2 1iv). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: Frankford, Ontario.
- 8683 MJ Bidochka (GUB2 1iv). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: Guelph, Ontario.
- 8684 MJ Bidochka (HKB1 1b). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: Havelock, Ontario.
- 8685 MJ Bidochka (MAA1 2ii). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: Madoc, Ontario.
- 8686 MJ Bidochka (ORB1 1ii). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: Orillia, Ontario.
- 8687 MJ Bidochka (PHA1 2i). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: Parkhill, Ontario.
- 8688 MJ Bidochka (ROA1 1b). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: Rodney, Ontario.
- 8689 MJ Bidochka (ROA2 2a). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: Rodney, Ontario.
- 8690 MJ Bidochka (SCB2 2i). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: St. Catharines, Ontario.
- 8691 MJ Bidochka (SHB1 2i). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: Sharbot Lake, Ontario.
- 8692 MJ Bidochka (TIB2 1iii). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Summer 1996. Canada: Tillsonburg, Ontario.
- 8735 [CSIRO FI-0999] *Spodoptera* sp. [Lepidoptera: Noctuidae]. 11 May 1993. Malaysia: Cameron Highlands.
- 8769 A Torres Barragan (Ral 5). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from vermicompost. Jul 2008. USA: Red Hen Enterprises, Raleigh, North Carolina.
- 9541 [SRCAMB VL-1691/4] V Likhovidov. Pupa, [Lepidoptera]. 19 Sep 2004. Russian Federation: Caucasus region, Mostovsky District, Krasnodarsky Krai. Field Collection Number F-571.
- Metarhizium anisopliae* sensu stricto** (Metschnikoff) Sorokin
[Sordariomycetes: Hypocreales]
Clavicipitaceae. These isolates have been confirmed to belong in this narrowly redefined species in an emergent genomically based classification
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- 587 JM Lenné (C7). *Mocis* sp. [Lepidoptera: Noctuidae]. Rec'd 13 Apr 1981. Colombia: Carimagua.
- 1080 LA Lacey. *Helicoverpa zea* [Lepidoptera: Noctuidae]. Fall 1983. USA: Gainesville, Florida.
- 1489 [INRA Ma-139] GG Soares ← G Riba. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Acc'd 21 Aug 1984. France.
- 5471 TJ Poprawski (TJP936). Larva, *Eoreuma loftini* [Lepidoptera: Pyralidae]. Rec'd 9 May 1997. USA: sugarcane field, Weslaco, Texas.
- 10473 C Thamarai Chelvi (2). *Spodoptera litura* [Lepidoptera: Noctuidae]. 21 Oct 2009. India: Coimbatore, Tamil Nadu. Tamil Nadu Agricultural University, Department of Plant Pathology.
- Metarhizium anisopliae* var. *majus*** (Johnston) Tulloch
[Sordariomycetes: Hypocreales]
Clavicipitaceae. Species remaining here need genomic confirmation before reclassification, presumably as *M. majus*, under the classification of Bischoff et al. (2009).
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- 8736 [CSIRO FI-1000] *Spodoptera* sp. [Lepidoptera: Noctuidae]. 11 May 1993. Malaysia: Cameron Highlands.
- 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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- 988 J Aoki (Met. 1). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 1983. Japan: Fuchu, Tokyo Prefecture.
- 1095 DW Roberts ← S Keller (Ma 43). *Carpocapsa pomonella* [Lepidoptera: Olethreutidae]. Acc'd 16 Feb 1984. Austria. Strong destruxin producer.
- 1112 KV Deseö (32B) ← Becchi. Pupa, *Lobesia botrana* [Lepidoptera: Tortricidae]. Apr 1982. Italy: Modena, Emilia-Romagna.
- 1116 KV Deseö (40B) ← Celli. Pupa, *Leucoptera scitella* [Lepidoptera: Lyonetiidae]. Aug 1982. Italy: Ravenna, Emilia-Romagna.
- 1187 [INRA Ma-23] TJ Poprawski ← GCN Latch. *Oxyacan* sp. [Lepidoptera: Hepialidae]. 20 Jan 1966. New Zealand: Palmerston North, North Island.
- 3294 J Gutierrez Samperio (10) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1989. Mexico: Colima.
- 3295 J Gutierrez Samperio (11) ← ERD Reyes. *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] on soybeans. 1987. Mexico: Tamaulipas.
- 6474 I Klingen (SKA.99). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Sep 1999. Norway: Skavanget.
- 8671 Z Demirbag (KTU-60). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 7 Jul 2007. Turkey: Gümüşhane. Identification confirmed by gene sequences.

Metarhizium flavoviride var. *novazealandicum*

Driver, Milner & Trueman
[Sordariomycetes: Hypocreales]
Clavicipitaceae

8214 [CSIRO FI-0702] Larva, [Lepidoptera: Crambidae].
8 Oct 1990. New Zealand: Christchurch, South
Island.

Metarhizium globosum JF Bischoff, SA Rehner &
Humber

[Sordariomycetes: Hypocreales]
Clavicipitaceae. Recognized as part of an emergent ge-
nomic reclassification by Bischoff et al. (2009).

2596 RC Rajak (ENT/12). *Pyrausta machaeralis* [Lepi-
doptera: Pyralidae] on teak, *Tectona grandis*. Acc'd
12 Sep 1988. India. Ex-type isolate used to typify
this species.

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). Synonym: *M. taii* ZQ Liang & AY Liu.
Teleomorph: *Cordyceps taii* ZQ Liang & AY Liu.

703 RS Soper. *Bombyx mori* [Lepidoptera: Bombycidae].
11 Nov 1981. PR China: Hangzhou, Zhejiang.
2140 T Searle (N). Larva, [Lepidoptera: Noctuidae]. Jul
1985. Canada: Southern Québec.
6238 [RCEF 0262] Pupa, [Lepidoptera]. 30 Jun 1996. PR
China: Anhui.

Metarhizium majus (JR Johnston) JF Bischoff, SA
Rehner & Humber

[Sordariomycetes: Hypocreales]
Clavicipitaceae. Synonym: *M. anisopliae* var. *majus*
(JR Johnston) MC Tulloch. Placement of isolates here
has been confirmed under the genomic classification of
Bischoff et al. (2009).

1015 J Aoki (Met. 4) ← T Kushida. *Bombyx mori* [Le-
pidoptera: Bombycidae]. Rec'd 7 Nov 1983. Japan:
Hachioji, Tokyo Prefecture.

Metarhizium pingshaense QT Chen & HL Guo

[Sordariomycetes: Hypocreales]
Clavicipitaceae. Genomically confirmed and distinguished
from *M. anisopliae* by the reclassification of Bischoff et
al. (2009).

552 DW Roberts ← MA Naves. *Galactica* sp. [Lepidop-
tera]. Nov 1980. Brazil: Brasília, Distrito Federal.
2735 GW Riethmacher (Ma1). *Spodoptera* sp. [Lepi-
doptera: Noctuidae]. 29 Dec 1988. Philippines: La
Trinidad, Benguet.

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 reisolat of ARSEF 2575) is being compiled.

1057 [CNPS 30A] F Moscardi. Larva, *Chlosyne lacinia*
saundersii [Lepidoptera: Nymphalidae]. 1983. Brazil:
Londrina, Paraná.
4903 LA Lacey (95005). *Galleria mellonella* [Lepidoptera:
Pyralidae] Used as bait. Feb 1995. Portugal: Terceira
Island, Azores.
5873 FE Vega (EBCL 97095). Larva, *Plutella xylostella*
[Lepidoptera: Plutellidae]. 22 Aug 1997. Romania:
Voronetz.
6476 I Klingen (EFF.99). Larva, *Galleria mellonella*
[Lepidoptera: Pyralidae] as bait from soil. 1 Sep
1999. Norway: Effeløt.

Microhilum oncooperae Yip & Rath

[Sordariomycetes: Hypocreales]
Cordycipitaceae

4358 [DAT 424] AC Rath (F424) ← Harradine. Larva,
Oncopera intricata [Lepidoptera: Hepialidae]. Rec'd
6 Jun 1994. Australia: Melton Vale, York Plains,
Tasmania.
4769 [DAT 420] AC Rath (F420). *Oncopera intricata* [Le-
pidoptera: Hepialidae]. Acc'd 20 Jul 1989. Australia:
Rosehill, Jericho, Tasmania. Appears contaminated
with a possible *Fusarium* sp.
4770 [DAT 421] AC Rath (F421). Larva, *Oncopera in-*
tricata [Lepidoptera: Hepialidae]. 20 Jul 1989.
Australia: Rosehill, Jericho, Tasmania.
4771 [DAT 422] AC Rath (F422). Larva, *Oncopera in-*
tricata [Lepidoptera: Hepialidae]. 20 Sep 1989.
Australia: Jericho, Tasmania.

Mixed Culture sp.

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

2738 GW Riethmacher (B4). *Corcyra cephalonica* [Le-
pidoptera: Pyralidae] after soil passage. 17 Jan
1989. Philippines: La Trinidad, Benguet. Contains
Paecilomyces fumosoroseus.

Mortierella histoplasmatoides W Gams

[Mucormycotina: Mucorales]
Mortierellaceae. 1991. *Boletus* 15(2): 35-36.

2063 [CBS] GC Carroll. Egg mass, *Lymantria dispar*
[Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA:
Dexter, Oregon.

Fungal Cultures

Mortierella hyalina (Harz) W Gams

[Mucormycotina: Mucorales]

Mortierellaceae

- 2061 [ATCC 64258] GC Carroll (RSRS-0/62). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.

Nomuraea sp.

[Sordariomycetes: Hypocreales]

Clavicipitaceae

- 2413 K Narayanan (15). *Helicoverpa armigera* [Lepidoptera: Noctuidae]. Acc'd 6 May 1987. India.

Nomuraea rileyi (Farlow) Samson

[Sordariomycetes: Hypocreales]

Clavicipitaceae. Early vegetative development of cultures on solid media usually occurs in mucoid colonies of fusoid yeast-like cells; mycelial development should begin after several days. Most strains are observed to sporulate most abundantly on Sabouraud maltose agar + 1% yeast extract.

- 135 JV Bell. [Lepidoptera: Noctuidae]. Acc'd 11 Nov 1982. USA: Stoneville, Mississippi.
- 323 RS Soper. *Spodoptera* sp. [Lepidoptera: Noctuidae]. 14 Feb 1979. Australia: Arriga, Queensland.
- 358 RS Soper. *Spodoptera* sp. [Lepidoptera: Noctuidae]. 26 Feb 1979. Australia: Queensland.
- 380 [FPMI 753] RS Soper. *Spodoptera* sp. [Lepidoptera: Noctuidae]. 26 Feb 1979. Australia: Queensland.
- 481 RS Soper (10). *Lymantria* sp. [Lepidoptera: Lymantriidae]. 5 May 1980. Philippines: IRRRI, Los Baños, Manila.
- 482 RS Soper. *Lymantria* sp. [Lepidoptera: Lymantriidae]. 5 May 1980. Philippines: IRRRI, Los Baños, Manila.
- 483 RS Soper. *Lymantria* sp. [Lepidoptera: Lymantriidae]. 5 May 1980. Philippines: IRRRI, Los Baños, Manila.
- 539 DW Roberts ← M Panyarjun. *Spodoptera exigua* [Lepidoptera: Noctuidae]. 26 Aug 1980. Thailand.
- 711 RS Soper. *Bombyx mori* [Lepidoptera: Bombycidae]. Fall 1981. PR China: Hangzhou, Zhijiang.
- 762 TA Coudron ← B Puttler. *Plathypena scabra* [Lepidoptera: Noctuidae] on alfalfa. 2 Jul 1982. USA: Columbia, Missouri.
- 935 [CNPAF 83-2-17-01; CP 74] RA Daoust ← E Ferreira. *Spodoptera* sp. [Lepidoptera: Noctuidae]. 17 Feb 1983. Brazil: CNPAF, Goiânia, Goiás.
- 936 [CNPAF 83-02-18-01; CP 75] RA Daoust ← SM dos Santos. Larva, [Lepidoptera]. 18 Feb 1983. Brazil: CNPAF, Goiânia, Goiás.
- 1014 J Aoki (Nom. 2). *Prodenia litura* [Lepidoptera: Noctuidae]. Oct 1978. Japan: Fuchu, Tokyo Prefecture.
- 1047 [FPMI 754] J Aoki (Nom. 3). *Plusia* sp. [Lepidoptera: Noctuidae]. Jan 1980. Japan: Fuchu, Tokyo Prefecture.
- 1756 MC Rombach ← BM Shepard (NrMin-14). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 1984. Philippines: Mindanao.
- 1757 MC Rombach ← BM Shepard (NrMin-19). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 1984. Philippines: Mindanao.
- 1758 MC Rombach ← BM Shepard (NrMin-1). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 1984. Philippines: Mindanao.
- 1759 MC Rombach ← BM Shepard (NrMin-5). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 1984. Philippines: Mindanao.
- 1760 MC Rombach ← BM Shepard (NrMin-23). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 1984. Philippines: Mindanao.
- 1761 MC Rombach (Nr-B). *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. Aug 1984. Philippines: insectary, IRRRI, Los Baños, Manila.
- 1762 MC Rombach ← G Barrion (Nr-BS). *Mocis frugalis* [Lepidoptera: Noctuidae] on rice. Nov 1984. Philippines: Bangued, Abra.
- 1879 DW Roberts (090485-3). Larva, [Lepidoptera] on rice. 9 Apr 1985. Solomon Islands: nr. Honiara, Guadalcanal.
- 1893 MC Rombach (3). Larva, [Lepidoptera] on rice. Acc'd 10 Jun 1985. Solomon Islands: nr. Metapona, Guadalcanal.
- 1950 [CNPAF 85-06-14; CP 175] JMG Ferraz. *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 14 Jun 1985. Brazil: Bragança Paulista, Pará.
- 1972 [CNPAF 85-7-24-5; CP 192] JC Lord and BP Magalhães. *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 24 Jul 1985. Brazil: Ribeira do Pombal, Bahia.
- 2013 [ARSEF 2466] CIRPON ← DR Sosa-Gómez. *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 1985. Argentina: Tucumán.
- 2174 MC Rombach (130586-14). *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. 13 May 1986. Philippines: nr. Baybay, Leyte.
- 2201 LC Piazza ← L da Silva (A285). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. Mar 1984. Brazil: Guaíba, Rio Grande do Sul.
- 2202 LC Piazza ← NM de Barros (A485). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 24 Mar 1985. Brazil: Vacaria, Rio Grande do Sul.
- 2203 LC Piazza (A86). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 13 Mar 1986. Brazil: Vacaria, Rio Grande do Sul.
- 2204 LC Piazza ← FM Ellwanger (B86). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 12 Mar 1986. Brazil: Ijuí, Rio Grande do Sul.
- 2205 LC Piazza ← L Baloch (C86). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 10 Mar 1986. Brazil: Sarandi, Rio Grande do Sul.

- 2206 LC Piazza ← DN Gassen (D86). *Rachiplusia nu* [Lepidoptera: Noctuidae]. 8 May 1986. Brazil: Passo Fundo, Rio Grande do Sul.
- 2207 LC Piazza ← DN Gassen (E86). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 25 Apr 1986. Brazil: Santa Rosa, Rio Grande do Sul.
- 2345 [ARSEF 2390 (never frozen)] MC Rombach (111286-2). *Naranga* sp. [Lepidoptera: Noctuidae] on rice. 11 Dec 1986. Indonesia: nr. Klaten, Jawa Tengah, Java.
- 2395 MC Rombach (121186-1). *Rivula atimeta* [Lepidoptera: Noctuidae]. 12 Nov 1986. Philippines: IRRRI farm, Los Baños, Manila.
- 2465 TJ Poprawski (8708) ← AJ Nasca (Nr-IY3). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 1986. Argentina: Santiago del Estero.
- 2466 [ARSEF 2013] TJ Poprawski (8709) ← AJ Nasca (Nr-T2). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 1985. Argentina: Tucumán.
- 2492 SR Sánchez Peña. *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. Sep 1986. Mexico: Estacion Manuel, Tamaulipas.
- 3301 J Gutierrez Samperio (17) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.
- 3940 DR Sosa-Gómez (CNPSO-NR66) ← JJ Silva. *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. Rec'd Jun 1993. Brazil: Londrina, Paraná.
- 4094 LA Lacey (94004). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. Rec'd 28 Mar 1994. Brazil.
- 5208 C López Lastra (4). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] Soybean crop. 22 Mar 1996. Argentina: Chivilcoy, Buenos Aires.
- 5209 C López Lastra (5). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] Soybean crop. 7 May 1996. Argentina: Chivilcoy, Buenos Aires.
- 5210 C López Lastra (6). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] Soybean crop. 18 Apr 1996. Argentina: Chivilcoy, Buenos Aires.
- 5211 C López Lastra (11). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] Soybean crop. 7 May 1996. Argentina: Chivilcoy, Buenos Aires.
- 5212 C López Lastra (14). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] Soybean crop. 18 Apr 1996. Argentina: Chivilcoy, Buenos Aires.
- 6239 [RCEF 0290] *Helicoverpa armigera* [Lepidoptera: Noctuidae]. Rec'd 24 Aug 1999. PR China: Anhui.
- 6645 KU Devi (GIV). Larva, *Spodoptera litura* [Lepidoptera: Noctuidae]. Mar 2000. India: Peanut fields, Visakhapatnam, Andhra Pradesh.
- 6732 DR Sosa-Gómez (CNPSO Nr 27). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 22 Jan 1990. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná.
- 6734 [ARSEF 3940] DR Sosa-Gómez (CNPSO Nr 66). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 2 Jun 1992. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná.
- 6735 DR Sosa-Gómez (CNPSO Nr 72). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 20 May 1993. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná.
- 6736 DR Sosa-Gómez (CNPSO Nr 135). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 11 Mar 1998. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná.
- 6737 DR Sosa-Gómez (CNPSO Nr 166). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 2 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS: consult Curator.**
- 6738 DR Sosa-Gómez (CNPSO Nr 167). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 2 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS: consult Curator.**
- 6739 DR Sosa-Gómez (CNPSO Nr 168). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 2 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS: consult Curator.**
- 6740 DR Sosa-Gómez (CNPSO Nr 169). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 2 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS: consult Curator.**
- 6741 DR Sosa-Gómez (CNPSO Nr 170). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 2 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS: consult Curator.**
- 6742 DR Sosa-Gómez (CNPSO Nr 171). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 14 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS: consult Curator.**
- 6743 DR Sosa-Gómez (CNPSO Nr 172). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 25 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná.
- 6744 DR Sosa-Gómez (CNPSO Nr 173). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 25 Jan 2001. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS: consult Curator.**
- 6745 DR Sosa-Gómez (CNPSO Nr 174). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 25 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS: consult Curator.**
- 6746 DR Sosa-Gómez (CNPSO Nr 175). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 25 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS: consult Curator.**
- 6747 DR Sosa-Gómez (CNPSO Nr 176). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 25 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS: consult Curator.**

- 6748 DR Sosa-Gómez (CNPSo Nr 177). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 25 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6749 DR Sosa-Gómez (CNPSo Nr 178). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 25 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6764 DR Sosa-Gómez (CNPSo Nr 179). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 25 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6765 DR Sosa-Gómez (CNPSo Nr 180). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 25 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6766 DR Sosa-Gómez (CNPSo Nr 181). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 28 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6767 DR Sosa-Gómez (CNPSo Nr 182). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 28 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6768 DR Sosa-Gómez (CNPSo Nr 183). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 26 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6769 DR Sosa-Gómez (CNPSo Nr 184). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 26 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6770 DR Sosa-Gómez (CNPSo Nr 185). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 26 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6771 DR Sosa-Gómez (CNPSo Nr 186). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 20 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6772 DR Sosa-Gómez (CNPSo Nr 187). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 28 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6773 DR Sosa-Gómez (CNPSo Nr 189). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 27 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6774 DR Sosa-Gómez (CNPSo Nr 190). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 27 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6775 DR Sosa-Gómez (CNPSo Nr 191). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 25 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6776 DR Sosa-Gómez (CNPSo Nr 192). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 28 Jan 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6777 DR Sosa-Gómez (CNPSo Nr 193). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. Winter 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6778 DR Sosa-Gómez (CNPSo Nr 194). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 9 Feb 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6779 DR Sosa-Gómez (CNPSo Nr 195). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 9 Feb 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6780 DR Sosa-Gómez (CNPSo Nr 196). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 9 Feb 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6781 DR Sosa-Gómez (CNPSo Nr 197). *Plusiinae* sp. [Lepidoptera: Noctuidae]. 9 Feb 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6782 DR Sosa-Gómez (CNPSo Nr 198). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 9 Feb 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6783 DR Sosa-Gómez (CNPSo Nr 199). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 9 Feb 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6784 DR Sosa-Gómez (CNPSo Nr 200). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 9 Feb 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6785 DR Sosa-Gómez (CNPSo Nr 201). *Plusiinae* sp. [Lepidoptera: Noctuidae]. 9 Feb 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6786 DR Sosa-Gómez (CNPSo Nr 202). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 9 Feb 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6787 DR Sosa-Gómez (CNPSo Nr 202). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 9 Feb 1999. Brazil: Warta, Faz. Sta Terezinha, Londrina, Paraná. **RESTRICTED ACCESS:** *consult Curator.*
- 6866 DG Boucias (5762). *Pseudoplusia includens* [Lepidoptera: Noctuidae]. 1974. USA: Gainesville, Florida.
- 6867 DG Boucias (1795). *Spodoptera* sp. [Lepidoptera: Noctuidae]. Rec'd 7 Jun 2001. India.
- 6868 DG Boucias (6009). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 24 Sep 2000. USA: Gainesville, Florida.

- 6869 DG Boucias (94-5a). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 24 Aug 1994. USA: Quincy, Florida.
- 6870 DG Boucias (6011). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 24 Sep 2000. USA: Quincy, Florida.
- 6871 DG Boucias (31b). *Plathypena scabra* [Lepidoptera: Noctuidae]. 5 Oct 1993. USA: Quincy, Florida.
- 6872 DG Boucias (9b). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 13 Sep 1993. USA: Quincy, Florida.
- 6873 DG Boucias (5561). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. Aug 1984. USA: Gainesville, Florida.
- 6874 DG Boucias (F178). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 2 Jan 1999. Brazil: Warta, Londrina, Paraná.
- 6875 DG Boucias (Nr10). [Lepidoptera: Noctuidae]. Rec'd 7 Jun 2001. Brazil: São Paulo, São Paulo.
- 6876 DG Boucias (94-5c). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 7 Sep 1994. USA: Quincy, Florida.
- 6877 DG Boucias (NrCH6). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 18 Apr 1996. Argentina: Buenos Aires, Buenos Aires.
- 6878 DG Boucias (Nr24). *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 22 Jan 1990. Brazil: Paraná.
- 6879 DG Boucias (Nr32). *Plusiinae* sp. [Lepidoptera: Noctuidae]. 6 Feb 1990. Brazil: Paraná.
- 6881 DG Boucias (33b). *Plathypena scabra* [Lepidoptera: Noctuidae]. 13 Sep 1993. USA: Quincy, Florida.
- 6882 DG Boucias (8b). *Pseudoplusia includens* [Lepidoptera: Noctuidae]. 13 Sep 1993. USA: Quincy, Florida.
- 7052 C López Lastra (B5). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] on *Glycine max* (L.) Merr., soybean crop. Apr 2002. Argentina: Bartolomé Bavio, Buenos Aires.
- 7053 C López Lastra (Ch 2 b). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] on *Glycine max* (L.) Merr., soybean crop. Apr 2002. Argentina: Chivilcoy, Buenos Aires.
- 7054 C López Lastra (Ch 90). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] on *Glycine max* (L.) Merr., soybean crop. Apr 2002. Argentina: Chivilcoy, Buenos Aires.
- 7055 C López Lastra (Ch 91). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] on *Glycine max* (L.) Merr., soybean crop. Apr 2002. Argentina: Chivilcoy, Buenos Aires.
- 7056 C López Lastra (LP1). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] on *Glycine max* (L.) Merr., soybean crop. Apr 2002. Argentina: La Plata, Buenos Aires.
- 7148 C López Lastra (AL IS INTA). Larva, *Alabama argillacea* [Lepidoptera: Noctuidae] on *Gossypium hirsutum*, cotton crop. Mar 2001. Argentina: Santiago del Estero.
- 7149 C López Lastra (B3). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] on *Glycine max* (L.) Merr., soybean crop. 9 Apr 2001. Argentina: Partido Magdalena, Bartolomé Bavio, Buenos Aires.
- 7150 C López Lastra (SF 9). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] on *Glycine max* (L.) Merr., soybean crop. 20 May 2002. Argentina: Bombal, Santa Fe.
- 7151 C López Lastra (SF15). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] on *Glycine max* (L.) Merr., soybean crop. 20 May 2002. Argentina: Zavalla, Santa Fe.
- 7479 [CEP 019] C López Lastra (Ch 9). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 9 Apr 2001. Argentina: Chivilcoy, Buenos Aires.
- 7480 [CEP 022] C López Lastra (Ch 66). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 9 Apr 2001. Argentina: Chivilcoy, Buenos Aires.
- 7481 [CEP 023] C López Lastra (Ch 90). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. Apr 2001. Argentina: Chivilcoy, Buenos Aires.
- 7482 [CEP 064] C López Lastra (P11). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 2003. Argentina: INTA Pergamino, Pergamino, Buenos Aires.
- 7484 [CEP 034] C López Lastra (SF2). Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 20 May 2002. Argentina: Zavalla, Santa Fe.
- 7778 [CEP 021] C López Lastra ← V Dikgolz. Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae] on *Glycine max* (L.) Merr., soybean crop. 9 Apr 2001. Argentina: Chivilcoy, Buenos Aires.
- 7779 [CEP 035] C López Lastra ← B Díaz. Larva, *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 20 May 2002. Argentina: Zavalla, Santa Fe.
- 7780 [CEP 037] C López Lastra ← B Díaz. *Anticarsia gemmatalis* [Lepidoptera: Noctuidae]. 20 May 2002. Argentina: Zavalla, Santa Fe.
- 9489 [SRCAMB VL-2125] V Likhovidov. Larva, [Lepidoptera: Noctuidae]. Aug 2006. Russian Federation: Moscow Region. Field Collection Number F-139.
- 9490 [SRCAMB B-412] V Likhovidov ← BA Borisov. Larva, [Lepidoptera: Noctuidae]. Sep 1995. Russian Federation: Vladivostok, Primorsky Krai. Field Collection Number F-364.

***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.

- 309 DW Roberts ← FL Briggs. *Epiphyas postvittana* [Lepidoptera: Tortricidae]. Acc'd Mar 1979. New Zealand.
- 1008 J Aoki (Nom. 1) ← K Katagiri ← T Kushida. *Sesamia inferens* [Lepidoptera: Noctuidae]. Dec 1968. Japan: Hachioji, Tokyo Prefecture.
- 2616 SB Alves (718). *Natada michonta* [Lepidoptera: Limacodidae]. Apr 1988. Brazil: Moju, Pará.
- 2617 SB Alves (719). *Natada michonta* [Lepidoptera: Limacodidae]. Apr 1988. Brazil: Moju, Pará.
- 2618 SB Alves (720). *Natada michonta* [Lepidoptera: Limacodidae]. Apr 1988. Brazil: Moju, Pará.
- 6193 FE Vega (EBCL 99030). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 28 Dec 1998. France: Crespian, Gard.
- 6198 FE Vega (EBCL 99037). Larva, *Cydia pomonella* [Lepidoptera: Tortricidae]. 28 Dec 1998. France: Crespian, Gard.
- 7995 BC King (2). Pupa, [Lepidoptera]. Rec'd 7 Apr 2006. Canada: Pacific Spirit Regional Park, Vancouver, British Columbia. GenBank match - AY624179 (100%) ITS. **RESTRICTED ACCESS: consult Curator.**
- 8001 BC King (27). Larva, [Lepidoptera]. Rec'd 7 Apr 2006. Canada: Pacific Spirit Regional Park, Vancouver, British Columbia. GenBank match - AY624179 (100%) ITS. **RESTRICTED ACCESS: consult Curator.**

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.

- 990 [FPMI 758] J Aoki (Paec. 7) ← K Katagiri ← T Kushida. *Gastropacha orientalis* [Lepidoptera: Lasiocampidae]. Jul 1969. Japan: Hachioji, Tokyo Prefecture.

Paecilomyces sinensis QT Chen, SR Xiao & ZY Shi
[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae. Possible anamorphic state of *Ophiocordyceps sinensis* (Berkeley) GH Sung, JM Sung, Hywel-Jones & Spatafora [= *Cordyceps sinensis* (Berkeley) Saccardo]

- 6284 [RCEF 0204] Larva, [Lepidoptera: Hepialidae]. Rec'd 24 Aug 1999. PR China: Qinghan.
- 6285 [RCEF 0263] Larva, [Lepidoptera: Hepialidae]. Rec'd 24 Aug 1999. PR China: Qinghan.

***Pandora* sp.**

[Entomophthoromycotina: Entomophthorales]

Entomophthoraceae

- 3201 GW Riethmacher (EB6). *Plutella xylostella* [Lepidoptera: Plutellidae]. 13 May 1989. Philippines: La Trinidad, Benguet.

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

Entomophthoraceae

- 217 [ATCC 34698; CBS 194.77; IMI 211910] G Zimmermann (2). Larva, *Plutella maculipennis* [Lepidoptera: Plutellidae]. 27 Mar 1978. Germany: Gross-Bieberau, Darmstadt, Hesse. CULTURE EX NEOTYPE.
- 1000 J Aoki (Ent. 30) ← H Tomiyama. *Plutella xylostella* [Lepidoptera: Plutellidae]. Nov 1977. Japan: Fuchu, Tokyo Prefecture.
- 2824 GW Riethmacher (EB4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Apr 1989. Philippines: La Trinidad, Benguet. ARSEF 2776, *Fusarium* sp., also isolated from Riethmacher # EB4.
- 3075 DG Holdom. *Plutella* sp. [Lepidoptera: Plutellidae]. 27 Apr 1990. Australia: Lockyer Valley, Queensland.
- 3200 GW Riethmacher (EB3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Apr 1989. Philippines: La Trinidad, Benguet.
- 3202 GW Riethmacher (EB7). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Jun 1989. Philippines: La Trinidad, Benguet.
- 6293 R Alatorre Rosas (Jav.1). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6294 R Alatorre Rosas (Jav.3). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6295 R Alatorre Rosas (Jav.4). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6296 R Alatorre Rosas (Jav.6). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6297 R Alatorre Rosas (Jav.7). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6298 R Alatorre Rosas (Jav.8). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6299 R Alatorre Rosas (Jav.9). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6300 R Alatorre Rosas (Jav.10). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.

- 6301 R Alatorre Rosas (Jav.11). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6302 R Alatorre Rosas (Jav.12). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6304 R Alatorre Rosas (Andres.2). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6305 R Alatorre Rosas (Andres.3). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6306 R Alatorre Rosas (Andres.5). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6307 R Alatorre Rosas (Andres.6). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6308 R Alatorre Rosas (Andres.7). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6309 R Alatorre Rosas (Bujanos.1). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6310 R Alatorre Rosas (Bujanos.3). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6311 R Alatorre Rosas (Bujanos.4). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6312 R Alatorre Rosas (Bujanos.5). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6316 R Alatorre Rosas (Mina.19). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.

Pandora delphacis (Hori) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 1265 J Aoki (Ent. 7) ← H Tomiyama. *Mamestra brassicae* [Lepidoptera: Noctuidae]. Nov 1975. Japan: Fuchu, Tokyo Prefecture.

***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.

- 2834 AE Hajek ← K Tatman (MD97#18). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Jun 1989. USA: Baltimore County, Maryland.
- 2836 AE Hajek ← K Tatman (MD110#28). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Jun 1989. USA: Baltimore County, Maryland.

- 4263 [DAT 43] AC Rath (F043) ← RJ Milner (F117). Live, *Oncopera alboguttata* [Lepidoptera: Hepialidae]. 13 Feb 1980. Australia: Ebor, New South Wales.

Penicillium thomii Maire
[Eurotiomycetes: Eurotiales]
Trichocomaceae

- 2056 [NRRL A-27471] GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.

Phialophora malorum (Kidd & Beaumont) McColloch
[Hyphomycetes]

- 2072 GC Carroll (RSRS-24/68). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.

Phoma cava Schulzer
[Dothideomycetes: Pleosporales]

- 2071 GC Carroll (HO-O-Hatch VIII). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.

Pochonia suchlasporia* var. *catenata (Gams & Dackman) Zare & W Gams
[Sordariomycetes: Hypocreales]
Clavicipitaceae. Major synonym: *Verticillium suchlasporium* var. *catenatum* W. Gams & Dackman

- 2064 [ATCC 64259; CBS 789.85; NRRL A-27472] GC Carroll (E). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.

Polycephalomyces ramosus (Peck) Mains
[Sordariomycetes: Hypocreales]

- 7095 J Bischoff ← GF Bills and JF White. Larva, [Lepidoptera]. Jun 1999. Mexico: Xalapa.

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

Synonym: it *Paecilomyces lilacinus*. Ophiocordycipitaceae. This species is the type of a monotypic new genus erected following the phylogenetic reclassification of *Paecilomyces* Section *Isarioidea*. 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.

- 986 J Aoki (Paec. 5) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 1983. Japan: Suginami, Tokyo Prefecture.
- 1058 [CNPS 30B] F Moscardi. Larva, *Chlosyne lacinia saundersii* [Lepidoptera: Nymphalidae]. 1983. Brazil: Londrina, Paraná.

Fungal Cultures

- 5805 DA Rodríguez Sierra (UJ89001). *Opsiphanes cassinae* [Lepidoptera: Nymphalidae] on *Elaeis guineensis*. Rec'd 7 Aug 1998. Colombia: Cesar.
- 6183 FE Vega (EBCL 99017). Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. 2 Dec 1998. Benin: Porto-Novo, Ouémé.
- 6197 FE Vega (EBCL 99036). Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. 2 Dec 1998. Benin: Porto-Novo, Ouémé.
- 8311 A Monzón (BE157). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Mar 2006. Nicaragua: Masatepe, Masaya. Soil samples collected from a plot of low input coffee with nitrogen fixing shade species *Albizia saman* (Jacq.) F. Muell. and *Inga laurina* (Sw.) Willd.
- 8312 A Monzón (BE175). *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. Mar 2006. Nicaragua: Masatepe, Masaya.

Scopulariopsis sp.

[Sordariomycetes: Microascales]

- 2255 TJ Poprawski (8628). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] on oak tree. 7 Jul 1986. France: Porto-Vecchio, Corsica.
- 3203 GW Riethmacher (EB10). *Plutella xylostella* [Lepidoptera: Plutellidae]. 12 Mar 1990. Philippines: La Trinidad, Benguet.

Scopulariopsis brevicaulis (Saccardo) Bainier

[Sordariomycetes: Microascales]
Microascaceae

- 9943 A Torres Barragan (Ral12T). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from vermicompost. Rec'd 23 Apr 2010. USA: Raleigh, North Carolina.

Sporothrix insectorum de Hoog & HC Evans

[Sordariomycetes: Ophiostomatales]
Ophiostomataceae

- 6286 [RCEF 0264] [Lepidoptera]. Rec'd 24 Aug 1999. PR China: Qinghan.
- 7924 KT Hodge ← AE Hajek. Larva, [Lepidoptera]. Aug 2005. USA: Carlo Creek, near Denali National Park, Denali Borough, Alaska.
- 9501 [SRCAMB VL-2051] V Likhovidov. [Lepidoptera: Pyralidae]. 2004. Russian Federation: Novosibirsk Region. Field Collection Number F-880.

Sterile mycelium

- 2073 GC Carroll (CH-O-66/201). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.

Tolypocladium cylindrosporium W Gams

[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae

- 2777 T Steenberg (186). [Lepidoptera: Noctuidae]. 6 Jun 1989. Denmark.
- 2778 T Steenberg (187). [Lepidoptera: Noctuidae]. 19 Jun 1989. Denmark.

Tolypocladium inflatum W Gams

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

- 3321 [ARSEF 3397 (deaccessioned); J Bissett 88M-143] CCFC (DAOM 199924) ← D Perry (1602). *Choristoneura fumiferana* [Lepidoptera: Tortricidae] on spruce. Rec'd 30 Apr 1991. Canada: Acadia Forest Exp. Station, Fredericton, New Brunswick.

Trichoderma sp.

[Sordariomycetes: Hypocreales]
Hypocreaceae

- 5730 TJ Poprawski. *Elasmopalpus lignosellus* [Lepidoptera: Pyralidae] in *Saccharum officinarum*. Apr 1998. USA: Weslaco, Texas.

Trichothecium roseum Link:Fries

[Sordariomycetes: Hypocreales]
Hypocreaceae

- 2055 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 1985. USA: Dexter, Oregon.

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.

- 991 J Aoki (Har. 2) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 1983. Japan: Suginami, Tokyo Prefecture.

Zoophthora radicans (Brefeld) Batko

[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae. Major synonyms: *Entomophthora sphaerosperma* Fresenius, *Entomophthora radicans* Brefeld, *Erynia radicans* (Brefeld) Humber, Ben-Ze'ev & Kenneth in Humber & Ben-Ze'ev.

- 21 RS Soper ← DE Leonard (BBIV-20). Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 1973. USA: Maine.
- 44 [FPMI 697; RG Kenneth 3045] JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 1975. USA: Oxbow-Masardis, Maine.

- 45 JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 1975. USA: Oxbow-Masardis, Maine.
- 50 [FPMI 698] JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 1975. USA: 0.1 mi N of Oxbow Rd. on Rt. 11, Oxbow-Masardis, Maine.
- 52 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 19 Jun 1975. USA: 1.5 mi E of bridge at S. Bancroft, Bancroft Township, Maine.
- 68 [FPMI 688; IPLB 624] G Remaudière. *Tortrix viridana* [Lepidoptera: Tortricidae]. 22 May 1975. France: Forêt de Dourdan, Essonne.
- 72 [CSIRO EM532; FPMI 487] RG Kenneth (3046) ← ATCC (24493) ← DM MacLeod. *Lambdina fiscellaria fiscellaria* [Lepidoptera: Geometridae]. 7 Aug 1982. Canada: Ming's Bight, Newfoundland.
- 88 [CSIRO EM569] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 1976. USA: nr. Selden Road, Haynesville Woods, Maine.
- 141 [FPMI 687] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 1977. USA: Map reference: T4R10, Maine.
- 142 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 20 Jun 1977. USA: Perham, Maine.
- 143 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 1977. USA: Perham, Maine.
- 144 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 1977. USA: Perham, Maine.
- 145 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 23 Jun 1977. USA: Carroll, Maine.
- 146 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 1977. USA: Map reference: T6R7, Shin Pond, Maine.
- 163 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 1 Jul 1977. USA: forest-upper, Perham, Maine.
- 221 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Presque Isle, Maine.
- 223 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 1978. USA: Springfield, Maine.
- 224 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 1978. USA: Springfield, Maine.
- 225 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 1978. USA: Macwahog, Maine.
- 226 S Ignatowicz. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 1978. USA: Macwahog, Maine.
- 227 S Ignatowicz. Pupa, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 3 Jul 1978. USA: Mamarda, Maine.
- 228 S Ignatowicz. Pupa, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 3 Jul 1978. USA: Mamarda, Maine.
- 229 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Princeton, Maine.
- 230 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Princeton, Maine.
- 231 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Princeton, Maine.
- 232 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Princeton, Maine.
- 233 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Princeton, Maine.
- 234 S Ignatowicz. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 30 Jun 1978. USA: Oak Hill, Maine.
- 235 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 30 Jun 1978. USA: Oak Hill, Maine.
- 404 [FPMI 705] S Keller (59). Adult, [Lepidoptera]. 20 Jul 1977. Switzerland.
- 407 [FPMI 706] FPMI (655) ← P Degroot. 4th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 26 Jun 1979. Canada: Thessalon, Ontario.
- 1048 J Aoki (Ent. 8) ← H Kawamoto. *Plutella xylostella* [Lepidoptera: Plutellidae]. Dec 1975. Japan: Fuchu, Tokyo Prefecture.
- 1082 CSIRO (EM752) ← G Lutton. *Merophyas divulsana* [Lepidoptera: Tortricidae]. 28 Jul 1983. Australia: Boonah, Queensland.
- 1100 AR Rashid. Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. Apr 1981. Malaysia: Cameron Highlands.
- 1341 S Balazy (1577/6). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 1983. Poland: Sadurki.
- 1342 S Balazy (1577/7). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 1983. Poland: Sadurki.
- 1343 S Balazy (1577/8). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 1983. Poland: Sadurki.
- 1344 S Balazy (1578/1). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 1983. Poland: gardens, Turka.
- 1345 S Balazy (1578/2). Larva, *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 1983. Poland: Turka.
- 1346 S Balazy (1578/1-2). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 1983. Poland: Turka.

- 1674 M Shimazu (F-448(1)). *Ptycholoma aeriferana* [Lepidoptera: Tortricidae]. 29 Jun 1984. Japan: Hokkaido Prefecture.
- 1675 M Shimazu (F-448(2)). *Ptycholoma aeriferana* [Lepidoptera: Tortricidae]. 29 Jun 1984. Japan: Hokkaido Prefecture.
- 1699 MC Rombach (A). *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. Acc'd 6 Nov 1984. Philippines: IRRI, Los Baños, Manila.
- 2410 DG Holdom (300187). Larva, *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. 30 Jan 1987. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2411 DG Holdom (130287-2). Adult, *Sesamia inferens* [Lepidoptera: Noctuidae]. 13 Feb 1987. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2732 GW Riethmacher (EB2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 6 Apr 1989. Philippines: La Trinidad, Benguet.
- 2893 GW Riethmacher (E2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 Apr 1989. Philippines: La Trinidad, Benguet.
- 3204 GW Riethmacher (E3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 5 Apr 1989. Philippines: La Trinidad, Benguet.
- 3205 GW Riethmacher (E5). *Plutella xylostella* [Lepidoptera: Plutellidae]. 7 Apr 1989. Philippines: La Trinidad, Benguet.
- 3206 GW Riethmacher (E6). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 May 1989. Philippines: La Trinidad, Benguet.
- 4781 [INIA 2330] J Eilenberg (KVL 608). *Epinotia aporema* [Lepidoptera: Tortricidae]. 7 May 1994. Uruguay.
- 4782 [INIA 2553] J Eilenberg (KVL 609). *Epinotia aporema* [Lepidoptera: Tortricidae]. 13 May 1994. Uruguay.
- 4783 [INIA 228] J Eilenberg (KVL 613). *Anacamptis humilis* [Lepidoptera: Gelechiidae]. Rec'd 13 Sep 1994. Uruguay.
- 4784 [INIA 2562] J Eilenberg (KVL 610). *Epinotia aporema* [Lepidoptera: Tortricidae]. 13 May 1994. Uruguay.
- 4785 [INIA 2377] J Eilenberg (KVL 611). *Epinotia aporema* [Lepidoptera: Tortricidae]. 7 May 1994. Uruguay.
- 5814 C López Lastra. Larva, *Epinotia aporema* [Lepidoptera: Tortricidae] on *Lupinus* sp. Rec'd 28 Aug 1998. Argentina: Los Hornos, La Plata, Buenos Aires.
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Unidentified / Hyphomycetes

- [Lepidoptera]
Unknown species 9540
[Lepidoptera: Lymantriidae]
Lymantria dispar 4899 4900
[Lepidoptera: Pyralidae]
Galleria mellonella 5199

Unidentified sp.

- [Lepidoptera: Geometridae]
Hibernia defoliaria 1415 1417
Lambdina athasaria 3567 3568 3569
[Lepidoptera: Incurvariidae]
Paraclemensia acericaulis 3794 3796 3797
[Lepidoptera: Plutellidae]
Plutella xylostella 2821
[Lepidoptera: Pyralidae]
Cnaphalocrocis medinalis 1703
Diatraea saccharalis 3298 3299 3804
[Lepidoptera: Riodinidae]
Euselasia 3467 3468
[Lepidoptera: Yponomeutidae]
Yponomeuta 3998

Acronium berkeleyanum

- [Lepidoptera: Lymantriidae]
Lymantria dispar 2067

Acronium roseum

- [Lepidoptera: Noctuidae]
Pseudoplusia ni 1964

Acrodontium crateriforme

- [Lepidoptera: Lymantriidae]
Lymantria dispar 2070

Aspergillus sp.

- [Lepidoptera: Noctuidae]
Rachiplusia nu 5205
[Lepidoptera: Plutellidae]
Plutella xylostella 2765 2817 2820

Aspergillus flavus

- [Lepidoptera: Bombycidae]
Bombyx mori 1003 1010
[Lepidoptera: Gelechiidae]
Phthorimaea operculella 4126
[Lepidoptera: Plutellidae]
Plutella xylostella 2818

Aspergillus flavus(?)

- [Lepidoptera: Pyralidae]
Galleria mellonella 5503 5504 5505 5506 5507 5508 5509

Aspergillus ochraceus

- [Lepidoptera: Lymantriidae]
Lymantria dispar 2833

Aspergillus parasiticus

- [Lepidoptera: Pyralidae]
Eoreuma loftini 5470

Aspergillus tamarii

- [Lepidoptera: Gelechiidae]
Phthorimaea operculella 4127

Basidiobolus ranarum

- [Lepidoptera: Lasiocampidae]
Dendrolimus spectabilis 1139

Batkoa sp.

- [Lepidoptera: Lasiocampidae]
Malacosoma disstria 7370
[Lepidoptera: Noctuidae]
Panolis flammea 6179

Beauveria sp.

- [Lepidoptera]
Unknown species 2998 5832 7579 7586 7587 7594 7598 9596
[Lepidoptera: Bombycidae]
Bombyx mori 1040
[Lepidoptera: Noctuidae]
Mocis 590
Spodoptera frugiperda 3289
[Lepidoptera: Pyralidae]
Chilo infuscatellus 1886
Galleria mellonella 5078 7562 7563 7564 7565 7566 7567 7960 8675
[Lepidoptera: Tortricidae]
Cydia pomonella 6533 6534 6535 6536 6537

Beauveria amorphia

- [Lepidoptera]
Unknown species 6227

Beauveria bassiana

- [Lepidoptera]
Unknown species 2633 2637 2857 6109 6557 7274 7585 7593 8709 9445
[Lepidoptera: Arctiidae]
Hyphantria cunea 1564 1565
[Lepidoptera: Bombycidae]
Bombyx mori 302 303 304 305 718 1007 2737 5704
[Lepidoptera: Brassolidae]
Brassolis sophorea 2619 6514
[Lepidoptera: Cossidae]
Cossula cossus 1103 1104 1558
Zeuzera pyrina 1105
[Lepidoptera: Danaidae]
Danaus plexippus 7093 8891
[Lepidoptera: Eupterotidae]
Unknown species 6984
[Lepidoptera: Geometridae]
Isturgia exerrariae 6972 6973
[Lepidoptera: Hepialidae]
Oncopera 4273
Oncopera alboguttata 4589 4607 8493
Oncopera intricata 4258 4672
[Lepidoptera: Hyblaeidae]
Hyblaea puer 2597
[Lepidoptera: Incurvariidae]
Paraclemensia acerifoliella 5492
[Lepidoptera: Lasiocampidae]
Dendrolimus spectabilis 1677
Malacosoma americanum 1
[Lepidoptera: Lymantriidae]
Lymantria dispar 155 299 2054 2267 2570 2571 2572 2573 2831 3404 3527 3528 3530 6205
Lymantria dissoluta 6233
[Lepidoptera: Lyonetiidae]
Leucoptera coffeella 6801 6802 6803 6804 6805 6806 6807 6808 6809
Leucoptera scitella 1115 1117

[Lepidoptera: Noctuidae]

- Unknown species 1627 1628 1629
Autographa gamma 2253 2254
Helicoverpa 8066
Helicoverpa armigera 1149 1166
Helicoverpa virescens 1314 1315 1316 1788
Panolis flammea 6100 6101 6177 6178
Sesamia calamistis 5649 5654
Sesamia cretica 1118
Simyra henrici 5988
Spodoptera frugiperda 3288
Spodoptera littoralis 1512 1513 3286
Spodoptera litura 6646 6647 6648 6650

[Lepidoptera: Noctuidae: Plusiinae]

- Unknown species 3937
[Lepidoptera: Olethreutidae]
Carpocapsa pomonella 503
[Lepidoptera: Phycitinae]
Emmalocera depressella 2417
[Lepidoptera: Plutellidae]
Plutella xylostella 2727 2728 2729 4525 4526 4527 4528 4529 4530 4531 4532 4533 4534 4535 4536 4537 4538 4539 4540 4543 6150 6151 6152 6153

[Lepidoptera: Pyralidae]

- Acigona sp.* 5647 5648
Chilo plejadellus 326
Cnaphalocrocis medinalis 2041
Coniesta sp. 5646
Diatraea saccharalis 1484 1832 1834 2629 3020 3858 5500 5502
Dioryctria sylvestrella 1001
Eldana saccharina 5645 5653 5655
Galleria mellonella 1113 1114 5370 5510 5557 6147 6148 6556 6894 6904 6905 6931 6932 6933 6934 6935 6936 6937 6938 6939 6940 6941 6943 6949 6950 6951 6952 6953 7060 7356 7357 7358 7359 7362 7364 7365 7552 7553 7554 7955 7956 7957 7958 7959 7963 7964 7965 7966 7968 8032 8033 8035 8039 8040 8339 8340 8343 8349 8354 8355 8431 8444 8661 8663 8664 8666 8667 8670 8672 8673 8674

- Gymnancyla canella* 6796
Ostrinia nubilalis 501 502 533 652 1038 1121 2976

Terastia meticulosalis 1836

[Lepidoptera: Saturniidae]

- Unknown species 843
Opodiphthera eucalypti 8843
Schirius 2962

[Lepidoptera: Sesiidae]

- Monopetalotaxis doleriformis* 6971 6974 6975 6976 6977 6981

[Lepidoptera: Stenomatinae]

- Stenoma decora* 1479

[Lepidoptera: Thaumetopoeidae]

- Thaumetopoea pityocampa* 8356

[Lepidoptera: Tortricidae]

- Unknown species 5169
Choristoneura 1850

Host by Fungus

<i>Cydia pomonella</i> 151 1122 3972 3973 3974 3975 3977 3978 3979 5064 5066 5067 5229 5230 5231 5233 5234 5235 5886 5887 5888 6181 6182 6184 6185 6186 6187 6189 6191 6194 6195 6196 6201 6208 6209 7969	Cordyceps sp. [Lepidoptera] Unknown species 7808 7811 9486	<i>Aedia leucomelas</i> 198 998 <i>Autographa gamma</i> 2363 2365 <i>Mamestra brassicae</i> 1657 1751 2362 2367 2368 2369 <i>Pseudaletia</i> 1999 [Lepidoptera: Notodontidae] <i>Ellida caniplaga</i> 2903 <i>Heterocampa</i> 2902 <i>Heterocampa biundata</i> 2905 <i>Heterocampa guttivitta</i> 2843 2904 3039 3212 [Lepidoptera: Pieridae] <i>Colias erate poliographus</i> 2366 [Lepidoptera: Saturniidae] <i>Dryocampa rubicunda</i> 2897 [Lepidoptera: Tortricidae] <i>Choristoneura fumiferana</i> 51 164 165 166 167 168 172 1992 1993 1994 1995 1997 1998 2896 2898 2901
<i>Hedya nubiferana</i> 6199 <i>Lobesia botrana</i> 1107 1110 <i>Rhyacionia frustrana</i> 5573 [Lepidoptera: Yponomeutidae] <i>Yponomeutidae</i> 3965 3966 3967 3968 3969 3970	Cordyceps bassiana [Lepidoptera: Cossidae] Unknown species 7047	
Beauveria bassiana (?) [Lepidoptera: Pyralidae] <i>Eldana saccharina</i> 5644 <i>Galleria mellonella</i> 6892	Cordyceps cardinalis [Lepidoptera: Tineidae: Archolophinae] Unknown species 7192 7193	
Beauveria brongniartii [Lepidoptera: Castniidae] <i>Castnia licus</i> 1829 [Lepidoptera: Noctuidae] Unknown species 9599 [Lepidoptera: Pyralidae] <i>Diatraea saccharalis</i> 1830 <i>Galleria mellonella</i> 7555 7556 7557 7558 7559 7560 7561 8034	Cordyceps isarioides [Lepidoptera] Unknown species 5688	
Beauveria pseudobassiana [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 3405 3529 [Lepidoptera: Tortricidae] <i>Cydia pomonella</i> 3220	Cordyceps militaris [Lepidoptera] Unknown species 4081 4082 4083 4084 4085 4086 4087 4088 4089 4838 4839 4840 4841 4842 4845 5002 5003 5004 5005 5006 5007 5008 5009 5010 5011 5012 5013 5014 5015 5016 5017 5018 5019 5020 5021 5022 5023 5024 5025 5026 5027 5028 5029 5030 5031 5032 5033 5034 5035 5036 5037 5038 5039 5040 5041 5042 5043 5044 5045 5046 5047 5048 5049 5050 5051 5052 5053 5054 5055 5056 5057 5058 5059 5060 5061 5062 6248 7809 7810 8012 9484 [Lepidoptera: Geometridae] Unknown species 2416	
Beniowskia sp. [Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2751	Cordyceps pruinos [Lepidoptera] Unknown species 7221	Entomophaga maimaiga [Lepidoptera: Lasiocampidae] <i>Malacosoma americanum</i> 6170 6173 6174 <i>Malacosoma disstria</i> 4545 [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 1390 1391 1392 1400 1658 2370 2371 2775 2779 2780 3052 3053 3828 3829 3830 3831 3832 3833 3834 3835 3913 4504 4505 4506 4507 4508 4509 4510 4549 4550 4551 4552 4553 4554 4555 5377 5378 5379 5380 5381 5382 5383 5384 5385 5386 5387 5388 5389 5390 5391 5392 5393 5394 5395 5396 5397 5398 5399 5400 5401 5564 5568 5570 6004 6005 6168 6169 6171 6172 6212 6218 6224 6253 6254 6255 6256 6257 6258 6264 6265 6266 6267 6268 6269 6270 6271 6272 6523 6524 6625 6626 6627 6628 6629 6630 6652 6653 6654 6655 6656 6657 6663 6664 6665 6666 6667 6668 6724 6725 6726 6727 6728 6729 7101 7102 7103 7104 7105 7106 7107 7108 7109 7110 7111 7112 7113 7114 7115 7116 7120 7121 7122 7123 7124 7125 7126 7127 7131 7132 7133 7134 7135 7136 7137 7138 7139 7183 7184 7185 7186 7187 7188 7189 7190 7352 7353
Cladosporium sp. [Lepidoptera: Lycaenidae: Polyommati- nae] <i>Orachrysops ariadne</i> 6226	Cylindrocarpon sp. [Lepidoptera: Pyralidae] <i>Diatraea saccharalis</i> 8043 8044	
Clonostachys rosea [Lepidoptera] Unknown species 9493	Entomophaga sp. [Lepidoptera] Unknown species 393	
Conidiobolus sp. [Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2771 2772 2815 2816 3208 [Lepidoptera: Tortricidae] <i>Choristoneura fumiferana</i> 92 93 94 147 148	Entomophaga aulicae [Lepidoptera] Unknown species 1140 1656 [Lepidoptera: Arctiidae] <i>Spilosoma niveum</i> 2372 2373 2374 [Lepidoptera: Geometridae] <i>Enypia griseata</i> 2000 <i>Lambdina fiscellaria fiscellaria</i> 1991 2900 <i>Lambdina fiscellaria lugubrosa</i> 1990 <i>Rheumaptera hastata</i> 2899 [Lepidoptera: Lasiocampidae] <i>Dendrolimus spectabilis</i> 1655 <i>Malacosoma disstria</i> 3602 [Lepidoptera: Lymantriidae] <i>Euproctis chryorrhoea</i> 7140 7141 7142 7143 7144 7145 <i>Orgyia vetusta</i> 4004 4005 4006 4007 4008 [Lepidoptera: Noctuidae] Unknown species 3016 <i>?Heliopsis</i> 251	
Conidiobolus coronatus [Lepidoptera: Noctuidae] <i>Mocis latipes</i> 1884 [Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2730 [Lepidoptera: Tortricidae] <i>Epinotia aporema</i> 4797		Erynia sp. [Lepidoptera] Unknown species 1241 [Lepidoptera: Noctuidae] <i>Pseudoplusia includens</i> 2027 [Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 983 [Lepidoptera: Tortricidae] <i>Eana argentana</i> 1143
Conidiobolus firmipilleus [Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2731		

Evlachovaea sp. [Lepidoptera] Unknown species 7599 7600 7601 [Lepidoptera: Brassolidae] <i>Brassolis</i> 2297 <i>Brassolis sophorea</i> 2613 2620 [Lepidoptera: Gelechiidae] <i>Sitotroga cerealella</i> 5703 [Lepidoptera: Noctuidae] <i>Spodoptera frugiperda</i> 959 [Lepidoptera: Oecophoridae] <i>Anteotricha</i> 2614 2615 [Lepidoptera: Pyralidae] <i>Galleria mellonella</i> 8439 8441 8442 8449	Fusarium merismoides [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2059 Fusarium nygamai [Lepidoptera: Noctuidae] <i>Raghuva albipunctella</i> 2316 Fusarium polyphialidicum [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 3692 3693 3694 3695 3696 3916 Fusarium subglutinans [Lepidoptera: Pyralidae] <i>Chilo sacchariphagus indicus</i> 2142 <i>Scirpophaga excerptalis</i> 2141 Fusarium torulosum [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 3483 Geotrichum sp. [Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2752 Gliocladium sp. [Lepidoptera: Sesiidae] Unknown species 6632 Hirsutella sp. [Lepidoptera] Unknown species 2581 Hirsutella liboensis [Lepidoptera: Cossidae] Unknown species 9603 Hirsutella longicolla var. cornuta [Lepidoptera: Tortricidae] <i>Choristoneura fumiferana</i> 177 178 Hirsutella nodulosa [Lepidoptera: Pyralidae] <i>Dioryctria zimmermani</i> 5473 Hirsutella satumaensis [Lepidoptera: Pyralidae] <i>Dioryctria sylvestrella</i> 996 Hirsutella sinensis [Lepidoptera: Hepialidae] Unknown species 6282 Hirsutella subulata [Lepidoptera: Microlepidoptera] Unknown species 2227 Humicola sp. [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 2069 Isaria cateniannulata [Lepidoptera] Unknown species 6240 9601 [Lepidoptera: Lymantriidae] <i>Lymantria dissoluta</i> 6242	Isaria farinosa [Lepidoptera] Unknown species 2822 3152 4090 5996 6245 7118 7714 7720 7722 7723 7724 7725 7726 7730 7731 [Lepidoptera: Arctiidae] <i>Pyrrharctia isabella</i> 3017 [Lepidoptera: Cossidae] <i>Prionoxystus robiniae</i> 2269 [Lepidoptera: Geometridae] <i>Alosophila pometaria</i> 5368 <i>Lambdina athasaria</i> 3537 3538 [Lepidoptera: Lasiocampidae] Unknown species 9515 <i>Malacosoma americanum</i> 3 [Lepidoptera: Lymantriidae] <i>Leucoma salicis</i> 38 <i>Lymantria dispar</i> 20 648 697 2057 2131 2564 2835 3221 3490 3491 3492 3493 3494 3495 3496 3497 3498 3499 3500 3501 3502 3503 3504 3505 3506 3507 3508 3517 3518 3519 3520 3521 3522 3523 3524 3525 3526 3533 3595 3596 3597 3598 3599 3664 3665 3666 [Lepidoptera: Noctuidae] <i>Agrotis segetum</i> 4010 <i>Rivula atimeta</i> 2344 <i>Spodoptera</i> 2546 [Lepidoptera: Notodontidae] <i>Quadicalcarifera punctatella</i> 1042 [Lepidoptera: Nymphalidae] Unknown species 981 <i>Chlosyne lacinia saundersii</i> 1065 [Lepidoptera: Pyralidae] <i>Galleria mellonella</i> 7531 7574 7575 7576 7961 7962 8770 <i>Ostrinia nubilalis</i> 3983 [Lepidoptera: Sesiidae] <i>Conopia myopaeformis</i> 1108 [Lepidoptera: Tortricidae] <i>Cydia pomonella</i> 975 5883 5884 5885 6200 6202 6207 <i>Laspeyresia medicagicus</i> 1225 <i>Lobesia botrana</i> 1111 Isaria fumosorosea [Lepidoptera] Unknown species 5251 5252 7743 9520 [Lepidoptera: Arctiidae] <i>Hyphantria cunea</i> 1568 1569 1577 1578 1579 10224 [Lepidoptera: Bombycidae] <i>Bombyx mori</i> 720 989 1005 [Lepidoptera: Lymantriidae] <i>Lymantria dispar</i> 6206 [Lepidoptera: Noctuidae] <i>Spodoptera</i> 2734 [Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 2749 5874 6799 6800 [Lepidoptera: Pyralidae] <i>Diaphania hyalinata</i> 3302 <i>Galleria mellonella</i> 6893 8333 8337 8345 8348 8448 9380 [Lepidoptera: Tortricidae] <i>Cydia pomonella</i> 6192 6203 6204
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Host by Fungus

Isaria javanica	<i>Spodoptera frugiperda</i> 3293	Metarhizium guizhouense
[Lepidoptera: Noctuidae]	[Lepidoptera: Nymphalidae]	[Lepidoptera]
<i>Mamestra brassicae</i> 3981	<i>Chlosyne lacinia saundersii</i> 1059	Unknown species 6238
Isaria tenuipes	[Lepidoptera: Plutellidae]	[Lepidoptera: Bombycidae]
[Lepidoptera]	<i>Plutella xylostella</i> 4522	<i>Bombyx mori</i> 703
Unknown species 5134 5135 6249 9531	[Lepidoptera: Pyralidae]	[Lepidoptera: Noctuidae]
9532 9534	<i>Diatraea saccharalis</i> 3290 3291 3292	Unknown species 2140
[Lepidoptera: Noctuidae]	<i>Eoreuma loftini</i> 5469	Metarhizium majus
Unknown species 3938 3939 4096	<i>Galleria mellonella</i> 4904 4905 4906	[Lepidoptera: Bombycidae]
<i>Mocis latipes</i> 6889	5369 5513 5514 5515 5516 5517	<i>Bombyx mori</i> 1015
<i>Spodoptera frugiperda</i> 2488 2489 2490	5518 5519 5521 5554 5555 5556	Metarhizium pingshaense
2491	6475 6558 7014 7015 7016 7017	[Lepidoptera]
[Lepidoptera: Nymphalidae]	7018 7019 7020 7021 7022 7023	<i>Galactica</i> 552
<i>Agraulis vanillae</i> 6788	7024 7025 7026 7569 7570 7571	[Lepidoptera: Noctuidae]
Lecanicillium sp.	7572 7573 7612 7613 7614 7615	<i>Spodoptera</i> 2735
[Lepidoptera: Tortricidae]	7847 7967 8212 8334 8335 8336	Metarhizium robertsii
<i>Tortrix viridana</i> 9458	8338 8341 8342 8344 8346 8347	[Lepidoptera: Nymphalidae]
Lecanicillium lecanii(?)	8350 8351 8352 8353 8432 8433	<i>Chlosyne lacinia saundersii</i> 1057
[Lepidoptera: Tortricidae]	8434 8435 8436 8437 8438 8440	[Lepidoptera: Plutellidae]
<i>Cydia pomonella</i> 1109	8443 8445 8446 8447 8450 8451	<i>Plutella xylostella</i> 873
Lecanicillium muscarium	8452 8453 8454 8560 8660 8662	[Lepidoptera: Pyralidae]
[Lepidoptera]	8665 8669 8680 8681 8682 8683	<i>Galleria mellonella</i> 4903 6476
Unknown species 7621 9468 9469 9477	8684 8685 8686 8687 8688 8689	Microhilum oncoperae
[Lepidoptera: Cossidae]	8690 8691 8692 8769	[Lepidoptera: Hepialidae]
<i>Cossula cossus</i> 973 1102	Metarhizium anisopliae sensu stricto	<i>Oncopera intricata</i> 4358 4769 4770
[Lepidoptera: Lymantriidae]	[Lepidoptera: Noctuidae]	4771
<i>Lymantria dispar</i> 2065 2066 3531 3600	<i>Helicoverpa zea</i> 1080	Mixed Culture sp.
3601	<i>Mocis</i> 587	[Lepidoptera: Pyralidae]
[Lepidoptera: Pyralidae]	<i>Spodoptera litura</i> 10473	<i>Corecyra cephalonica</i> 2738
<i>Galleria mellonella</i> 7568	[Lepidoptera: Pyralidae]	Mortierella histoplasmatoides
<i>Ostrinia nubilalis</i> 900	<i>Eoreuma loftini</i> 5471	[Lepidoptera: Lymantriidae]
[Lepidoptera: Tortricidae]	<i>Ostrinia nubilalis</i> 1489	<i>Lymantria dispar</i> 2063
<i>Adoxophyes orana</i> 994	Metarhizium anisopliae var. majus	Mortierella hyalina
<i>Cydia pomonella</i> 6591	[Lepidoptera: Noctuidae]	[Lepidoptera: Lymantriidae]
Lecanicillium muscarium(?)	<i>Spodoptera</i> 8736	<i>Lymantria dispar</i> 2061
[Lepidoptera: Tortricidae]	Metarhizium brunneum	Nomuraea sp.
<i>Cydia pomonella</i> 1032	[Lepidoptera: Bombycidae]	[Lepidoptera: Noctuidae]
Lecanicillium psalliotae	<i>Bombyx mori</i> 988	<i>Helicoverpa armigera</i> 2413
[Lepidoptera]	[Lepidoptera: Hepialidae]	Nomuraea rileyi
Unknown species 5685	<i>Oxycanus</i> 1187	[Lepidoptera]
Mariannaea pruinosa	[Lepidoptera: Lyonetiidae]	Unknown species 936 1879 1893
[Lepidoptera: Limacodidae]	<i>Leucoptera scitella</i> 1116	[Lepidoptera: Bombycidae]
<i>Iragoides fasciata</i> 5413	[Lepidoptera: Noctuidae]	<i>Bombyx mori</i> 711
Metarhizium sp.	<i>Anticarsia gemmatalis</i> 3295	[Lepidoptera: Lymantriidae]
[Lepidoptera: Pyralidae]	<i>Spodoptera frugiperda</i> 3294	<i>Lymantria</i> 481 482 483
<i>Galleria mellonella</i> 4997 4998 4999	[Lepidoptera: Olethreutidae]	[Lepidoptera: Noctuidae]
5000 5001 5076 5077	<i>Carpocapsa pomonella</i> 1095	Unknown species 135 6875 9489 9490
Metarhizium anisopliae sensu lato	[Lepidoptera: Pyralidae]	<i>Alabama argillacea</i> 7148
[Lepidoptera]	<i>Galleria mellonella</i> 6474 8671	<i>Anticarsia gemmatalis</i> 1950 2013 2201
Unknown species 1094 2424 9541	[Lepidoptera: Tortricidae]	2202 2203 2204 2205 2207 2465
[Lepidoptera: Crambidae]	<i>Lobesia botrana</i> 1112	2466 2492 3940 5208 5209 5210
Unknown species 3064	Metarhizium flavoviride var. no-	5211 5212 6732 6734 6736 6737
[Lepidoptera: Hepialidae]	vazealandicum	6738 6739 6740 6741 6742 6743
<i>Oncopera alboguttata</i> 7820 7821 7822	[Lepidoptera: Crambidae]	6744 6745 6746 6747 6748 6749
7823	Unknown species 8214	6764 6765 6766 6767 6775 6776
<i>Oncopera intrucata</i> 4234	Metarhizium globosum	6777 6778 6779 6780 6782 6783
<i>Wiseana sp.</i> 4681	[Lepidoptera: Pyralidae]	6784 6786 6787 6868 6869 6870
[Lepidoptera: Lasiocampidae]	<i>Pyrausta machaeralis</i> 2596	6872 6873 6874 6876 6877 6878
<i>Malacosoma disstria</i> 6167		7052 7053 7054 7055 7056 7149
[Lepidoptera: Noctuidae]		7150 7151 7479 7480 7481 7482
<i>Spodoptera</i> 8735		7484 7778 7779 7780

- Helicoverpa armigera* 6239
Mocis frugalis 1762
Naranga 2345
Plathypena scabra 762 6871 6881
Plusia 1047
Plusiinae 6781 6785 6879
Prodenia litura 1014
Pseudoplusia includens 6866 6882
Rachiplusia nu 2206
Rivula atimeta 1756 1757 1758 1759
1760 2395
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- Phoma cava**
[Lepidoptera: Lymantriidae]
Lymantria dispar 2071
- Pochonia suchlasporia var. catenata**
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[Lepidoptera: Pyralidae]
Unknown species 9501
- Sterile mycelium**
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[Lepidoptera: Noctuidae]
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- Tolypocladium inflatum**
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- Trichoderma sp.**
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Cordyceps pruinosa 7221
Cordyceps sp. 7808 7811 9486 7600 7601
Isaria farinosa 7714 7720 7722 7723 7724 7725 7726 7730 7731
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Isaria tenuipes 9531 9532

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Cordyceps militaris 4081 4082 4083 4084 4085 4086 4087 4088 4089 4838 4839 4840 4841 4842 5002 5003 5004 5005 5006 5007 5008 5009 5010 5011 5012 5013 5014 5015 5016 5017 5018 5019 5020 5021 5022 5023 5024 5025 5026 5027 5028 5029 5030 5031 5032 5033 5034 5035 5036 5037 5038 5039 5040 5041 5042 5043 5044 5045 5046 5047 5048 5049 5050 5051 5052 5053 5054 5055 5056 5057 5058 5059 5060 5061 5062

Isaria farinosa 3152 4090
Isaria tenuipes 5134 5135

USA, Oregon
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USA, Pennsylvania
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Italy
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USA, New York
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Japan
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Japan
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PR China
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Brassolis sp.
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Brazil, São Paulo
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Castnia licus
Brazil, Pernambuco
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PR China
Cordyceps bassiana 7047
Hirsutella liboensis 9603

Cossula cossus
Italy
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Lecanicillium muscarium 973 1102

Prionoxystus robiniae
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Isaria farinosa 2269

Zeuzera pyrina
Italy
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Metarhizium flavoviride var. *novaezealandicum* 8214

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Danaus plexippus
Beauveria bassiana 7093

Australia
Beauveria bassiana 8891

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South Africa	Australia	<i>Iragoides fasciata</i>
<i>Beauveria bassiana</i> 6984	<i>Beauveria bassiana</i> 4258 4672	PR China
Lepidoptera: Gelechiidae	<i>Microhilum oncoperae</i> 4358 4769	<i>Mariannaea pruinosa</i> 5413
<i>Tuta absoluta</i>	4770 4771	<i>Natada michonta</i>
Argentina	<i>Oncopera intrucata</i>	Brazil, Pará
<i>Zoophthora radicans</i> 6917	Australia	<i>Paecilomyces</i> sp. 2616 2617 2618
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<i>Anacamptis humilis</i>	4234	ommatainae
Uruguay	<i>Oxycaenus</i> sp.	<i>Orachrysops ariadne</i>
<i>Zoophthora radicans</i> 4783	New Zealand	South Africa
<i>Phthorimaea operculella</i>	<i>Metarhizium brunneum</i> 1187	<i>Cladosporium</i> sp. 6226
Australia	<i>Wiseana</i> sp.	<i>Orachrysops subravus</i>
<i>Aspergillus flavus</i> 4126	New Zealand	South Africa
<i>Aspergillus tamarii</i> 4127	<i>Metarhizium anisopliae</i> sensu lato	<i>Fusarium</i> sp. 6102
<i>Scrobipalpuoides absoluta</i>	4681	Lepidoptera: Lymantriidae
Brazil, Rio Grande do Sul	Lepidoptera: Hyblaeidae	<i>Euproctis chrysorrhoea</i>
<i>Fusarium</i> sp. 5219	<i>Hyblaea puer</i>	USA, Maine
<i>Sitotroga cerealella</i>	India	<i>Entomophaga aulicae</i> 7140 7141
South Africa	<i>Beauveria bassiana</i> 2597	7142 7143 7144 7145
<i>Evlachovaea</i> sp. 5703	<i>Fusarium</i> sp. 2595	<i>Leucoma salicis</i>
Lepidoptera: Geometridae	Lepidoptera: Incurvariidae	Location not specified
Japan	<i>Paraclemensia acericaulis</i>	<i>Isaria farinosa</i> 38
<i>Cordyceps militaris</i> 2416	Unidentified sp. 3794 3796	<i>Lymantria</i> sp.
<i>Alosophila pometaria</i>	Location not specified	Philippines
Canada, Alberta	Unidentified sp. 3797	<i>Nomuraea rileyi</i> 481 482 483
<i>Isaria farinosa</i> 5368	<i>Paraclemensia acerifoliella</i>	<i>Lymantria dispar</i>
<i>Enypia griseata</i>	USA, Vermont	Canada, Ontario
Canada, British Columbia	<i>Beauveria bassiana</i> 5492	<i>Beauveria bassiana</i> 2267
<i>Entomophaga aulicae</i> 2000	Lepidoptera: Lasiocampidae	<i>Entomophaga maimaiga</i> 3913
<i>Hibernia defoliaria</i>	Russian Federation	Commonwealth of Independent States
Poland	<i>Isaria farinosa</i> 9515	<i>Beauveria bassiana</i> 155
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<i>Isturgia exerrariae</i>	Japan	<i>Beauveria bassiana</i> 6205
South Africa	<i>Basidiobolus ranarum</i> 1139	<i>Isaria fumosorosea</i> 6206
<i>Beauveria bassiana</i> 6972 6973	<i>Beauveria bassiana</i> 1677	<i>Scopulariopsis</i> sp. 2255
<i>Lambdina athasaria</i>	<i>Entomophaga aulicae</i> 1655	Unidentified / Hyphomycetes 4899
USA, Vermont	<i>Gastropacha orientalis</i>	4900
<i>Isaria farinosa</i> 3537 3538	Japan	Japan
Unidentified sp. 3567 3568 3569	<i>Paecilomyces canadensis</i> 990	<i>Entomophaga maimaiga</i> 1390 1391
<i>Lambdina fiscellaria fiscellaria</i>	<i>Malacosoma americanum</i>	1392 1400 1658 2370 2371 6171
Canada, Newfoundland	<i>Entomophaga maimaiga</i> 6170 6173	6172 6212 6224 6253 6254 6255
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<i>Zoophthora radicans</i> 72	USA, Massachusetts	6267 6268 7104 7105 7112 7113
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<i>Oncopera</i> sp.	USA, New York	USA, Connecticut
Australia	5351 7370	<i>Entomophaga maimaiga</i> 2775
<i>Beauveria bassiana</i> 4273	<i>Entomophaga aulicae</i> 3602	USA, Delaware
<i>Oncopera alboguttata</i>	<i>Furia gastropachae</i> 5541 5542 5543	<i>Beauveria bassiana</i> 2570 2571 2572
Australia	5544 5547	2573
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3507 3524 3526 3666
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6004 6005 6269 6270 6271 6272
7123 7124 7125 7126 7137 7138
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USA, Michigan
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6626 6627 6628 6629 6630 6652
6653 6654 6655 6656 6657 6663
6664 6665 6666 6667 6668 6724
6725 6726 6727 6728 6729 7101
7102 7103 7106 7107 7108 7109
7110 7111 7115
USA, New Hampshire
Entomophaga maimaiga 2780
USA, New York
Entomophaga maimaiga 3052 3053
3828 3829 3830 3831 3832 3833
3834 3835 4508 4509 4510 4549
4550 4551 5391 5392 5393 5394
5395 5396 5397 5398 5399 5400
5401 6625
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Beauveria bassiana 2054
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Isaria farinosa 2057
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Mortierella hyalina 2061
Penicillium thomii 2056
Phialophora malorum 2072
Phoma cava 2071
Pochonia suchlasporia var. *catenata*
2064
Sterile mycelium 2073
Trichothecium roseum 2055
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6804 6805 6806 6807 6808 6809
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Italy
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- Lepidoptera: Microlepidoptea**
Poland
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- Lepidoptera: Noctuidae**
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Isaria tenuipes 4096
Brazil, Mato Grosso
Isaria tenuipes 3939
Brazil, Paraná
Isaria tenuipes 3938
Brazil, São Paulo
Nomuraea rileyi 6875
Canada
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Denmark
Tolypocladium cylindrosporium
2777 2778
Hungary
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7052 7053 7054 7055 7056 7149
7150 7151 7479 7480 7481 7482
7484 7778 7779 7780
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6736 6737 6738 6739 6740 6741
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6748 6749 6764 6765 6766 6767
6775 6776 6777 6778 6779 6780
6782 6783 6784 6786 6787 6874
6878
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2204 2205 2207
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6872 6873 6876
Autographa gamma
France
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Japan
Entomophaga aulicae 2363 2365
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Australia
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Helicoverpa armigera
India
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Helicoverpa virescens
France
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Spain
Beauveria bassiana 1788
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USA, Florida
Metarhizium anisopliae sensu
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Mamestra brassicae
France
Isaria javanica 3981
Japan
Entomophaga aulicae 1657 1751
2362 2367 2368 2369
Pandora delphacis 1265
Mocis sp.
Colombia
Beauveria sp. 590
Metarhizium anisopliae sensu
stricto 587

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 Philippines
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- Mocis latipes*
 Brazil, Goiás
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 Mexico
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- Naranga* sp.
 Indonesia, Jawa Tengah, Java
Nomuraea rileyi 2345
- Panolis flammea*
 United Kingdom
Batkoa sp. 6179
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- Plathypena scabra*
 USA, Florida
Nomuraea rileyi 6871 6881
 USA, Missouri
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- Plusia* sp.
 Japan
Nomuraea rileyi 1047
- Plusiinae* sp.
 Brazil, Paraná
Nomuraea rileyi 6781 6785 6879
- Prodenia litura*
 Japan
Nomuraea rileyi 1014
- Pseudaletia* sp.
 Canada, Ontario
Entomophaga aulicae 1999
- Pseudoplusia includens*
 USA, Alabama
Erynia sp. 2027
 USA, Florida
Nomuraea rileyi 6866 6882
- Pseudoplusia ni*
 Brazil
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- Rachiplusia nu*
 Argentina
Aspergillus sp. 5205
 Brazil, Rio Grande do Sul
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- Raghuva albipunctella*
 Senegal
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 1759 1760 2395
- Sesamia calamistis*
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- Sesamia cretica*
 Italy
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 Indonesia, Jawa Barat, Java
Zoophthora radicans 2411
 Japan
Paecilomyces sp. 1008
- Simyra henrici*
 USA, Florida
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- Spodoptera* sp.
 Australia
Nomuraea rileyi 323 358 380
 Brazil, Goiás
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 India
Nomuraea rileyi 6867
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Metarhizium anisopliae var. *majus*
 8736
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- Spodoptera exigua*
 Thailand
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- Spodoptera frugiperda*
 Brazil
Nomuraea rileyi 4094
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Nomuraea rileyi 1972
 Brazil, Paraná
Evlachovaea sp. 959
Nomuraea rileyi 6735 6768 6769
 6770 6771 6772 6773 6774
- Mexico
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 3293
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Beauveria bassiana 1512 1513 3286
- Spodoptera litura*
 India
Beauveria bassiana 6646 6647 6648
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- Lepidoptera: Noctuidae: Plusiinae**
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- Lepidoptera: Notodontidae**
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 Canada, Ontario
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 Canada, Ontario
Entomophaga aulicae 2902
- Heterocampa biundata*
 Canada, Ontario
Entomophaga aulicae 2905
- Heterocampa guttivitta*
 Canada, Ontario
Entomophaga aulicae 2904
 USA, New York
Entomophaga aulicae 3039 3212
 USA, Vermont
Entomophaga aulicae 2843
- Quadicalcarifera punctatella*
 Japan
Isaria farinosa 1042
- Lepidoptera: Nymphalidae**
 United Kingdom
Isaria farinosa 981
- Agraulis vanillae*
 Colombia
Isaria tenuipes 6788
- Chlosyne lacinia saundersii*
 Brazil, Paraná
Isaria farinosa 1065
Metarhizium anisopliae sensu lato
 1059
Metarhizium robertsii 1057
Purpureocillium lilacinum 1058
- Opsiphanes cassinae*
 Colombia
Purpureocillium lilacinum 5805
- Lepidoptera: Oecophoridae**
Anteotricha sp.
 Brazil, Pará
Evlachovaea sp. 2614 2615
- Lepidoptera: Olethreutidae**
Carpocapsa pomonella
 Austria
Metarhizium brunneum 1095
 Yugoslavia, Serbia
Beauveria bassiana 503
- Lepidoptera: Phycitinae**
Emmalocera depressella
 India
Beauveria bassiana 2417
Fusarium sp. 2418
- Lepidoptera: Pieridae**
Colias erate poliographus
 Japan
Entomophaga aulicae 2366
- Pieris brassicae*
 Poland
Zoophthora radicans 1341 1342
 1343 1344 1345 1346
- Pieris rapae*
 USA, New York
Furia pieris 781
- Lepidoptera: Plutellidae**
Plutella sp.
 Australia
Pandora blunckii 3075
Plutella maculipennis
 Germany
Pandora blunckii 217

Fungus by Host and Location

Lepidoptera: Plutellidae

Lepidoptera: Pyralidae

<i>Plutella xylostella</i>	Philippines	<i>Beauveria brongniartii</i> 8034
Australia	<i>Beauveria bassiana</i> 2041	Greenland
<i>Isaria fumosorosea</i> 6799 6800	<i>Nomuraea rileyi</i> 1761 2174	<i>Beauveria bassiana</i> 8039 8040
Benin	Unidentified sp. 1703	Iran
<i>Fusarium</i> sp. 5881	<i>Zoophthora radicans</i> 1699	<i>Beauveria bassiana</i> 6904 6905
<i>Purpureocillium lilacinum</i> 6183	<i>Coniesta</i> sp.	Italy
6197	Benin	<i>Beauveria bassiana</i> 1113 1114
Japan	<i>Beauveria bassiana</i> 5646	Mexico
<i>Erynia</i> sp. 983	<i>Corcyra cephalonica</i>	<i>Metarhizium anisopliae</i> sensu lato
<i>Pandora blunckii</i> 1000	Philippines	7612 7613 7614 7615
<i>Zoophthora radicans</i> 1048	<i>Mixed Culture</i> sp. 2738	Nicaragua
Malaysia	<i>Diaphantia hyalinata</i>	<i>Purpureocillium lilacinum</i> 8311
<i>Zoophthora radicans</i> 1100	Mexico	8312
Mexico	<i>Isaria fumosorosea</i> 3302	Norway
<i>Pandora blunckii</i> 6293 6294 6295	<i>Diatraea saccharalis</i>	<i>Aspergillus flavus</i> (?) 5503 5504
6296 6297 6298 6299 6300 6301	Argentina	5505 5506 5507 5508 5509
6302 6304 6305 6306 6307 6308	<i>Beauveria bassiana</i> 5500 5502	<i>Beauveria bassiana</i> 5370 5510 5557
6309 6310 6311 6312 6316	Brazil	7552 7553 7554
<i>Zoophthora radicans</i> 6303 6313	<i>Beauveria bassiana</i> 1832 1834 3858	<i>Beauveria brongniartii</i> 7555 7556
6314 6315	Brazil, Pernambuco	7557 7558 7559 7560 7561
Philippines	<i>Beauveria bassiana</i> 1484 2629 3020	<i>Beauveria</i> sp. 7562 7563 7564 7565
<i>Aspergillus flavus</i> 2818	Brazil, São Paulo	7566 7567 5560
<i>Aspergillus</i> sp. 2765 2817 2820	<i>Beauveria brongniartii</i> 1830	<i>Isaria farinosa</i> 7574 7575 7576
<i>Beauveria bassiana</i> 2727 2728 2729	Mexico	<i>Lecanicillium muscarium</i> 7568
<i>Beniowskia</i> sp. 2751	<i>Cylindrocarpon</i> sp. 8043 8044	<i>Metarhizium anisopliae</i> sensu lato
<i>Conidiobolus coronatus</i> 2730	<i>Metarhizium anisopliae</i> sensu lato	5369 5513 5514 5515 5516 5517
<i>Conidiobolus firmipilleus</i> 2731	3290 3291 3292	5518 5519 5521 5554 5555 5556
<i>Conidiobolus</i> sp. 2771 2772 2815	Unidentified sp. 3298 3299 3804	6475 7014 7015 7016 7017 7018
2816 3208 2776	<i>Dioryctria sylvestrella</i>	7019 7020 7021 7022 7023 7024
<i>Geotrichum</i> sp. 2752	Japan	7025 7026 7569 7570 7571 7572
<i>Isaria fumosorosea</i> 2749	<i>Beauveria bassiana</i> 1001	7573
<i>Pandora blunckii</i> 2824 3200 3202	<i>Hirsutella satumaensis</i> 996	<i>Metarhizium brunneum</i> 6474
<i>Pandora</i> sp. 3201 3203 2821	<i>Dioryctria zimmermani</i>	<i>Metarhizium robertsii</i> 6476
<i>Zoophthora radicans</i> 2732 2893	USA, Michigan	Portugal
3204 3205 3206	<i>Hirsutella nodulosa</i> 5473	<i>Metarhizium anisopliae</i> sensu lato
Romania	<i>Elasmopalpus lignosellus</i>	4904 4905 4906
<i>Isaria fumosorosea</i> 5874	USA, Texas	<i>Metarhizium robertsii</i> 4903
<i>Metarhizium robertsii</i> 5873	<i>Trichoderma</i> sp. 5730	Switzerland
USA, New York	<i>Eldana saccharina</i>	<i>Isaria farinosa</i> 7531
<i>Beauveria bassiana</i> 4525 4526 4527	Benin	Turkey
4528 4529 4530 4531 4532 4533	<i>Beauveria bassiana</i> 5645 5653 5655	<i>Beauveria bassiana</i> 8339 8340 8343
4534 4535 4536 4537 4538 4539	<i>Beauveria bassiana</i> (?) 5644	8349 8354 8355 8431 8444 8661
4540 4543 6150 6151 6152 6153	<i>Eoreuma loftini</i>	8663 8664 8666 8667 8670 8672
<i>Metarhizium anisopliae</i> sensu lato	USA, Texas	8673 8674
4522	<i>Aspergillus parasiticus</i> 5470	<i>Beauveria</i> sp. 8675 8439 8441 8442
Lepidoptera: Pyralidae	<i>Metarhizium anisopliae</i> sensu lato	8449
Russian Federation	5469	<i>Isaria fumosorosea</i> 8333 8337 8345
<i>Sporothrix insectorum</i> 9501	<i>Metarhizium anisopliae</i> sensu	8348 8448
<i>Acigona</i> sp.	stricto 5471	<i>Metarhizium anisopliae</i> sensu lato
Benin	<i>Galleria mellonella</i>	8334 8335 8336 8338 8341 8342
<i>Beauveria bassiana</i> 5647 5648	<i>Beauveria bassiana</i> 6894	8344 8346 8347 8350 8351 8352
<i>Chilo infuscatellus</i>	<i>Beauveria bassiana</i> (?) 6892	8353 8432 8433 8434 8435 8436
India	<i>Isaria fumosorosea</i> 6893	8437 8438 8440 8443 8445 8446
<i>Beauveria</i> sp. 1886	Australia	8447 8450 8451 8452 8453 8454
<i>Chilo plejadellus</i>	<i>Metarhizium anisopliae</i> sensu lato	8660 8662 8665 8669
Australia	8560	<i>Metarhizium brunneum</i> 8671
<i>Beauveria bassiana</i> 326	Canada, Alberta	United Kingdom
<i>Chilo sacchariphagus</i>	<i>Metarhizium anisopliae</i> sensu lato	<i>Beauveria bassiana</i> 6556
Mozambique	8212	<i>Metarhizium anisopliae</i> sensu lato
<i>Fusarium</i> sp. 7045 7046	Canada, Ontario	6558
<i>Chilo sacchariphagus indicus</i>	<i>Metarhizium anisopliae</i> sensu lato	USA, Alaska
India	8680 8681 8682 8683 8684 8685	<i>Beauveria bassiana</i> 7955 7956 7957
<i>Fusarium subglutinans</i> 2142	8686 8687 8688 8689 8690 8691	7958 7959 7963 7964 7965 7966
<i>Cnaphalocrocis medinalis</i>	8692	7968
Indonesia, Jawa Barat, Java	Denmark	<i>Beauveria</i> sp. 7960
<i>Zoophthora radicans</i> 2410	<i>Beauveria bassiana</i> 8032 8033 8035	<i>Isaria farinosa</i> 7961 7962

- Metarhizium anisopliae* sensu lato 7967
USA, Arizona
Metarhizium anisopliae sensu lato 7847
USA, California
Beauveria bassiana 6147 6148 7060
USA, Maine
Isaria fumosorosea 9380
USA, Montana
Beauveria bassiana 6931 6932 6933 6934 6935 6936 6937 6938 6939 6940 6941 6943 6949 6950 6951 6952 6953
USA, North Carolina
Isaria farinosa 8770
Metarhizium anisopliae sensu lato 8769
Scopulariopsis brevicaulis 9943
USA, Oregon
Beauveria bassiana 7356 7357 7358 7359 7362 7364 7365
Metarhizium sp. 4998 5000 5076 5077
Unidentified / Hyphomycetes 5199
USA, Washington
Beauveria sp. 5078 4997 4999 5001
Gymnancyla canella
France
Beauveria bassiana 6796
Ostrinia nubilalis
France
Isaria farinosa 3983
Metarhizium anisopliae sensu stricto 1489
Italy
Beauveria bassiana 1121
PR China
Beauveria bassiana 501 502 533 652
USA, New York
Beauveria bassiana 1038
Lecanicillium muscarium 900
USA, Pennsylvania
Beauveria bassiana 2976
Pyrausta machaeralis
India
Metarhizium globosum 2596
Scirpophaga excerptalis
India
Fusarium subglutinans 2141
Terastia meticulosalis
Brazil
Beauveria bassiana 1836
- Lepidoptera: Riodinidae**
Euselasia sp.
Brazil, Rio Grande do Sul
Unidentified sp. 3467 3468
- Lepidoptera: Saturniidae**
Costa Rica
Beauveria bassiana 843
Dryocampa rubicunda
Canada, Ontario
Entomophaga aulicae 2897
- Opodiphthera eucalypti*
Australia
Beauveria bassiana 8843
Schirius sp.
Brazil, Paraná
Beauveria bassiana 2962
- Lepidoptera: Sesiidae**
South Africa
Gliocladium sp. 6632
Conopia myopaeformis
Italy
Isaria farinosa 1108
Monopetalotaxis doleriformis
South Africa
Beauveria bassiana 6971 6974 6975 6976 6977 6981
- Lepidoptera: Stenommatinae**
Stenoma decora
Brazil, Bahia
Beauveria bassiana 1479
- Lepidoptera: Thaumetopoeidae**
Thaumetopoea pityocampa
Turkey
Beauveria bassiana 8356
- Lepidoptera: Tineidae: Archolophinae**
USA, Tennessee
Cordyceps cardinalis 7192 7193
- Lepidoptera: Tortricidae**
USA, Massachusetts
Beauveria bassiana 5169
Adoxophyes orana
Japan
Lecanicillium muscarium 994
Choristoneura sp.
Canada, British Columbia
Beauveria bassiana 1850
Choristoneura fumiferana
Canada, New Brunswick
Tolypocladium inflatum 3321
Canada, Newfoundland
Entomophaga aulicae 2896 2898
Canada, Ontario
Entomophaga aulicae 1992 1993 1994 1995 1997 1998 2901
Zoophthora radicans 407
USA, Maine
Conidiobolus sp. 92 93 94 147 148 221 223 224 225 226 227 228 229 166 167 168 172
Hirsutella longicolla var. *cornuta* 177 178
Zoophthora radicans 21 44 45 50 52 88 141 142 143 144 145 146 163 221 223 224 225 226 227 228 229 230 231 232 233 234 235
Cydia pomonella
Beauveria bassiana 7969
Australia
Lecanicillium muscarium(?) 1032
Bulgaria
Beauveria bassiana 6181 6187 6194 6195 6208 6209
- Isaria farinosa* 6207
Isaria fumosorosea 6192
Canada, Québec
Lecanicillium muscarium 6591
France
Beauveria bassiana 151 3972 3973 3974 3975 3977 3978 3979 5064 5066 5067 5229 5230 5231 5233 5234 5235 5886 5887 5888 6182 6184 6185 6186 6189 6191 6196 6201
Fusarium sp. 3976
Isaria farinosa 5883 5884 5885 6200 6202
Isaria fumosorosea 6203 6204
Paecilomyces sp. 6193 6198
Italy
Beauveria bassiana 1122
Lecanicillium lecanii(?) 1109
Portugal
Beauveria pseudobassiana 3220
Republic of Georgia
Beauveria sp. 6533 6534 6535 6536 6537
United Kingdom
Isaria farinosa 975
Eana argentana
Japan
Erynia sp. 1143
Epinotia aporema
Argentina
Zoophthora radicans 5814
Uruguay
Conidiobolus coronatus 4797
Zoophthora radicans 4781 4782 4784 4785
Epiphyas postvittana
New Zealand
Paecilomyces sp. 309
USA, California
Fusarium sp. 10470
Hedya nubiferana
France
Beauveria bassiana 6199
Laspeyresia medicagicus
France
Isaria farinosa 1225
Lobesia botrana
Italy
Beauveria bassiana 1107 1110
Isaria farinosa 1111
Metarhizium brunneum 1112
Merophyas divulsana
Australia
Zoophthora radicans 1082
Ptycholoma aeriferana
Japan
Zoophthora radicans 1674 1675
Rhyacionia frustrana
USA, Georgia
Beauveria bassiana 5573
Tortrix viridana
France
Zoophthora radicans 68
Russian Federation
Lecanicillium sp. 9458

Lepidoptera: Yponomeutidae

Yponomeuta sp.

France

Unidentified sp. 3998

Yponomeutidae sp.

France

Beauveria bassiana 3965 3966 3967

3968 3969 3970

Argentina

Buenos Aires
Aspergillus sp. 5205
Nomuraea rileyi 5208 5209 5210 5211
 5212 6877 7052 7053 7054 7055 7056
 7149 7479 7480 7481 7482 7778
Zoophthora radicans 5814 6917
 Santa Fe
Beauveria bassiana 5500 5502
Nomuraea rileyi 7150 7151 7484 7779
 7780
 Santiago del Estero
Nomuraea rileyi 2465 7148
 Tucumán
Nomuraea rileyi 2013 2466

Australia

Lecanicillium muscarium(?) 1032
 Australian Capital Territory
Metarhizium anisopliae sensu lato
 8560
 New South Wales
Aspergillus flavus 4126
Aspergillus tamarii 4127
Beauveria bassiana 4589 4607 8493
 8843
Metarhizium anisopliae sensu lato
 7820 7821 7822 7823
Penicillium sp. 4263
 Queensland
Beauveria bassiana 326 8066 8891
Isaria fumosorosea 6799 6800
Nomuraea rileyi 323 358 380
Pandora blunckii 3075
Zoophthora radicans 1082
 South Australia
Beauveria bassiana 4273
 Tasmania
Beauveria bassiana 4258 4672
Metarhizium anisopliae sensu lato
 4234
Microhilum oncooperae 4358 4769 4770
 4771

Austria

Metarhizium brunneum 1095

Benin

Beauveria bassiana 5649 5653
 Atakora
Beauveria bassiana 5654 5655
 Atlantique
Beauveria bassiana 5645
Beauveria bassiana(?) 5644
Fusarium sp. 5881
 Borgou
Beauveria bassiana 5646 5647 5648
 Ouémé
Purpureocillium lilacinum 6183 6197

Brazil

Acremonium roseum 1964
Beauveria bassiana 1832 1834 1836
 3858
Isaria tenuipes 4096
Nomuraea rileyi 4094
 Bahia
Beauveria bassiana 1479
Nomuraea rileyi 1972
 Ceará
Beauveria bassiana 2637
 Distrito Federal
Metarhizium pingshaense 552
 Goiás
Conidiobolus coronatus 1884
Erynia sp. 1241
Nomuraea rileyi 935 936
 Mato Grosso
Isaria tenuipes 3939
 Pará
Beauveria bassiana 2619
Evlachovaea sp. 2613 2614 2615
Nomuraea rileyi 1950
Paecilomyces sp. 2616 2617 2618
 Paraná
Beauveria bassiana 2962 3937
Evlachovaea sp. 959
Isaria farinosa 1065
Isaria tenuipes 3938
Metarhizium anisopliae sensu lato
 1059
Metarhizium robertsii 1057
Nomuraea rileyi 3940 6732 6734 6735
 6736 6737 6738 6739 6740 6741 6742
 6743 6744 6745 6746 6747 6748 6749
 6764 6765 6766 6767 6768 6769 6770
 6771 6772 6773 6774 6775 6776 6777
 6778 6779 6780 6781 6782 6783 6784
 6785 6786 6787 6874 6878 6879
Purpureocillium lilacinum 1058
 Pernambuco
Beauveria bassiana 1484 2629 3020
Beauveria brongniartii 1829
 Rio Grande do Sul
Fusarium sp. 5219
Nomuraea rileyi 2201 2202 2203 2204
 2205 2206 2207
 Unidentified sp. 3467 3468
 São Paulo
Beauveria bassiana 2633 6514
Beauveria brongniartii 1830
Nomuraea rileyi 6875
 Sergipe
Evlachovaea sp. 2620
 Bulgaria
Beauveria bassiana 6181 6187 6194
 6195 6208 6209
Isaria farinosa 6207
Isaria fumosorosea 6192

Canada

Furia gastropachae 2906
Hirsutella sp. 2581
Metarhizium guizhouense 2140
 Alberta
Isaria farinosa 5368
Metarhizium anisopliae sensu lato
 8212
 British Columbia
Beauveria bassiana 1850
Entomophaga aulicae 1990 2000
Paecilomyces sp. 7995 8001
 New Brunswick
Tolypocladium inflatum 3321
 Newfoundland
Entomophaga aulicae 1991 2896 2898
 2900
Zoophthora radicans 72
 Ontario
Beauveria bassiana 2267
Entomophaga aulicae 1992 1993 1994
 1995 1997 1998 1999 2897 2899 2901
 2902 2903 2904 2905
Entomophaga maimaiga 3913
Furia gastropachae 5869 5870 5871
 5872
Metarhizium anisopliae sensu lato
 8680 8681 8682 8683 8684 8685 8686
 8687 8688 8689 8690 8691 8692
Zoophthora radicans 407
 Québec
Lecanicillium muscarium 6591
 Colombia
Beauveria sp. 590
Metarhizium anisopliae sensu stricto
 587
 Caldas
Isaria tenuipes 6788
 Cesar
Purpureocillium lilacinum 5805
 Meta
Evlachovaea sp. 2297
 Commonwealth of Independent States
Beauveria bassiana 155
 Costa Rica
Beauveria bassiana 843
 Denmark
Tolypocladium cylindrosporum 2777
 2778
 Jutland
Isaria farinosa 7118
 Zealand
Beauveria bassiana 8032 8033 8035
Beauveria brongniartii 8034
Isaria farinosa 4010
 Ecuador
Beauveria sp. 2998

Geographical Origin

France

Beauveria bassiana 151 1314 1315
1316 1512 1513 6182 6184 6185 6186
6189 6191 6196 6199 6205
Isaria fumosorosea 6206
Metarhizium anisopliae sensu stricto
1489

Alsace

Unidentified / *Hyphomycetes* 4899
4900

Béarn

Isaria farinosa 3983

Corsica

Scopulariopsis sp. 2255

Essonne

Zoophthora radicans 68

Gard

Beauveria bassiana 3972 3973 3974
3975 3977 3978 3979 5886 5887 5888
6201 6796
Fusarium sp. 3976
Isaria farinosa 5883 5884 5885 6200
6202
Isaria fumosorosea 6203 6204
Paecilomyces sp. 6193 6198

Hérault

Beauveria bassiana 3286 5229 5230
5231 5233 5234 5235

Ile de France

Isaria javanica 3981

Port d' Hérault

Beauveria bassiana 5064 5066 5067

S/Céze

Beauveria bassiana 3965 3966 3967
3968 3969 3970
Unidentified sp. 3998

Vienne

Isaria farinosa 1225

Yvelines

Beauveria bassiana 2253 2254

Germany

Hesse

Pandora blunckii 217

Greenland

Disko Island

Beauveria bassiana 8039 8040

Hungary

Beauveria bassiana 1627 1628 1629

India

Beauveria bassiana 2417 2597
Fusarium sp. 2418 2595
Metarhizium globosum 2596
Nomuraea rileyi 6867
Nomuraea sp. 2413

Andhra Pradesh

Beauveria bassiana 6646 6647 6648
6650
Fusarium sp. 6649
Nomuraea rileyi 6645

Tamil Nadu

Beauveria sp. 1886
Fusarium subglutinans 2141 2142
Metarhizium anisopliae sensu stricto
10473

Indonesia

Jawa Barat, Java

Metarhizium anisopliae sensu lato
2424

Zoophthora radicans 2410 2411

Jawa Tengah, Java

Nomuraea rileyi 2345

Iran

Beauveria bassiana 6905

Tehran

Beauveria bassiana 6904

Italy

Beauveria bassiana 1105

Lecanicillium muscarium 973 1102

Emilia-Romagna

Beauveria bassiana 1103 1104 1107
1110 1113 1114 1115 1117 1118 1122
1558 1564 1565

Isaria farinosa 1108 1111

Isaria fumosorosea 1568 1569 1577
1578 1579

Lecanicillium lecanii(?) 1109

Metarhizium brunneum 1112 1116

Venetia

Beauveria bassiana 1121

Japan

Beauveria bassiana 302 303 304 305

Cordyceps militaris 2416

Chiba Prefecture

Entomophaga aulicae 2373 2374

Entomophaga maimaiga 2370 2371

6212 6224 6253 6254 6255 6256 6257
6264 6267

Hiroshima Prefecture

Entomophaga maimaiga 7185 7186

7187 7188 7189

Hokkaido Prefecture

Entomophaga aulicae 2362 2363 2365
2366 2367 2368 2369

Erynia sp. 1143

Zoophthora radicans 1674 1675

Ibaraki Prefecture

Entomophaga aulicae 1140 1655 1656
1657 1751 2372

Entomophaga maimaiga 6171 6172

6258 6265 6266 6268

Furia neopyralidarum 1145

Ishikawa Prefecture

Beauveria bassiana 1677

Entomophaga maimaiga 1390 1391

1392 1400 1658

Iwate Prefecture

Entomophaga maimaiga 7104 7105

7112 7113 7114 7116

Isaria farinosa 1042

Saitama Prefecture

Basidiobolus ranarum 1139

Isaria fumosorosea 989

Lecanicillium muscarium 994

Tokyo Prefecture

Aspergillus flavus 1003 1010

Beauveria bassiana 1001 1007

Beauveria sp. 1040

Entomophaga aulicae 198 998

Erynia sp. 983

Hirsutella satumaensis 996

Isaria fumosorosea 1005

Metarhizium brunneum 988

Metarhizium majus 1015

Nomuraea rileyi 1014 1047

Paecilomyces canadensis 990

Purpureocillium lilacinum 986

Paecilomyces sp. 1008

Pandora blunckii 1000

Pandora delphacis 1265

Verticillium lecanii 991

Zoophthora radicans 1048

Laboratory manipulation

Metarhizium anisopliae sensu lato
1094

Malaysia

Metarhizium anisopliae var. *majus*
8736

Metarhizium anisopliae sensu lato
8735

Zoophthora radicans 1100

Mexico

Beauveria bassiana 3288

Beauveria sp. 3289

Fusarium sp. 3300

Metarhizium anisopliae sensu lato
3290 3291 3292 3293

Metarhizium brunneum 3294

Nomuraea rileyi 3301

Polycephalomyces ramosus 7095

Unidentified sp. 3298 3299

Baja California

Isaria fumosorosea 3302

Coahuila

Zoophthora radicans 6003

Colima

Cylindrocarpon sp. 8043 8044

Unidentified sp. 3804

Durango

Beauveria bassiana 2857

Isaria farinosa 2822

Guanajuato State

Pandora blunckii 6293 6294 6295 6296
6297 6298 6299 6300 6301 6302 6304
6305 6306 6307 6308 6309 6310 6311
6312 6316

Zoophthora radicans 6303 6313 6314
6315

Tabasco

Isaria tenuipes 6889

Metarhizium anisopliae sensu lato
7612 7613 7614 7615

Tamaulipas

Isaria tenuipes 2488 2489 2490 2491

Metarhizium brunneum 3295

Nomuraea rileyi 2492

Mozambique

Fusarium sp. 7045 7046

Nepal

Beauveria bassiana 7274

New Zealand

Paecilomyces sp. 309
North Island
Metarhizium brunneum 1187
South Island
Metarhizium anisopliae sensu lato
3064 4681
Metarhizium flavoviride var. *novaezealandicum* 8214

Nicaragua

Carazo
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6804 6805 6806 6807 6808 6809
Masaya
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Metarhizium robertsii 6476
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Beauveria bassiana 5370
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Metarhizium anisopliae sensu lato
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Beauveria brongniartii 7555 7556
7557 7558 7559 7560 7561
Beauveria sp. 7562 7563 7564 7565
7566 7567
Isaria farinosa 7574 7575 7576
Lecanicillium muscarium 7568
Metarhizium anisopliae sensu lato
7014 7015 7016 7017 7018 7019 7020
7021 7022 7023 7024 7025 7026 7569
7570 7571 7572 7573
Sør Trøndelag
Metarhizium anisopliae sensu lato
5369
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Beauveria bassiana 5557

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Conidiobolus sp. 2771 2772 2815 2816
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Fusarium sp. 2736 2776
Geotrichum sp. 2752
Isaria fumosorosea 2734 2749
Mixed Culture sp. 2738
Metarhizium pingshaense 2735
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Pandora sp. 3201
Scopulariopsis sp. 3203
Unidentified sp. 2821
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3205 3206

Leyte

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Manila

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Isaria farinosa 2344
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2395
Unidentified sp. 1703
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Poland

Hirsutella subulata 2227
Unidentified sp. 1415 1417
Zoophthora radicans 1341 1342 1343
1344 1345 1346

Portugal

Beauveria pseudobassiana 3220
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Beauveria bassiana 501 502 533 652
Hirsutella sinensis 6282
Paecilomyces sinensis 6284 6285
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Isaria tenuipes 6249
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Beauveria brongniartii 9599
Beauveria sp. 9596
Hirsutella liboensis 9603
Isaria cateniannulata 9601
Mariannaea pruinosa 5413

Heilongjiang

Entomophaga maimaiga 7139 7183
7184

Yunnan

Isaria farinosa 6245

Zhijiang

Beauveria bassiana 718
Isaria fumosorosea 720
Metarhizium guizhouense 703
Nomuraea rileyi 711

Republic of Georgia

Beauveria sp. 6533 6534 6535 6536
6537
Isaria fumosorosea 10224

Republic of Korea

Cordyceps militaris 4845
Kangwon-do
Cordyceps isarioides 5688

Romania

Isaria fumosorosea 5874
Metarhizium robertsii 5873

Rumania

Muntenia
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Russian Federation

Irkutsk Region
Beauveria bassiana 7593
Karachayevo-Cherkessiya Republ
Beauveria sp. 7579
Isaria farinosa 7723
Khabarovsk
Entomophaga maimaiga 7127
Krasnodarsky Krai
Beauveria sp. 7587
Clonostachys rosea 9493
Cordyceps sp. 9486
Isaria fumosorosea 9520
Isaria tenuipes 9531 9532
Metarhizium anisopliae sensu lato
9541

Moscow Region

Cordyceps militaris 9484
Isaria farinosa 9515
Lecanicillium sp. 9458
Nomuraea rileyi 9489

Novosibirsk Region

Sporothrix insectorum 9501

Primorsky Krai

Beauveria bassiana 7585 9445
Beauveria sp. 7586 7594 7598
Cordyceps militaris 7809 7810
Cordyceps pruinosa 7221
Cordyceps sp. 7808 7811
Isaria farinosa 7714 7720 7722 7724
7725 7726 7730 7731
Isaria fumosorosea 7743
Lecanicillium muscarium 9468 9469
9477
Nomuraea rileyi 9490
Sakhalin Region
Evlachovaea sp. 7600 7601
Lecanicillium muscarium 7621

Senegal

Fusarium nygamai 2316

Geographical Origin

Solomon Islands	Samsun	Kentucky
Guadalcanal	<i>Beauveria bassiana</i> 8356	<i>Isaria farinosa</i> 2269
<i>Nomuraea rileyi</i> 1879 1893	<i>Metarhizium anisopliae</i> sensu lato 8341	Maine
South Africa	Trabzon	<i>Conidiobolus</i> sp. 92 93 94 147 148
<i>Cladosporium</i> sp. 6226	<i>Beauveria bassiana</i> 8339	<i>Entomophaga aulicae</i> 51 164 165 166 167 168 172 7140 7141 7142 7143 7144 7145
<i>Fusarium</i> sp. 6102	<i>Isaria fumosorosea</i> 8333	<i>Hirsutella longicolla</i> var. <i>cornuta</i> 177 178
Cape Province	<i>Metarhizium anisopliae</i> sensu lato 8346 8436 8446 8450 8451 8454	<i>Isaria fumosorosea</i> 9380
<i>Beauveria bassiana</i> 6971 6973 6974 6975 6976 6977 6981 6984	Ukraine	<i>Zoophthora radicans</i> 21 44 45 50 52 88 141 142 143 144 145 146 163 221 223 224 225 226 227 228 229 230 231 232 233 234 235
<i>Gliocladium</i> sp. 6632	<i>Isaria tenuipes</i> 9534	Maryland
Orange Free State	Autonomous Republic of Crimea	<i>Aspergillus ochraceus</i> 2833
<i>Beauveria bassiana</i> 5704 6972	Unidentified / Hyphomycetes 9540	<i>Beauveria bassiana</i> 2831 3404 3530
<i>Evlachovaea</i> sp. 5703	Kherson Oblast	<i>Beauveria pseudobassiana</i> 3529
Spain	<i>Evlachovaea</i> sp. 7599	<i>Entomophaga maimaiga</i> 5377 5378 5379 5380 5381 5382 5383 5384 5385 5386 5387 5388 5389 5390
<i>Beauveria bassiana</i> 1149 1166 1788	United Kingdom	<i>Fusarium polyphialidicum</i> 3696
Switzerland	<i>Beauveria bassiana</i> 6556 6557	<i>Furia gastropachae</i> 5545 5546
<i>Entomophaga</i> sp. 393	<i>Metarhizium anisopliae</i> sensu lato 6558	<i>Fusarium</i> sp. 3532
<i>Furia virescens</i> 427 470 1129	England	<i>Isaria farinosa</i> 2131 2835 3492 3498 3507 3524 3526 3666
<i>Zoophthora radicans</i> 404	<i>Isaria farinosa</i> 975 981	<i>Penicillium</i> sp. 2834 2836
Bern	Scotland	Massachusetts
<i>Isaria farinosa</i> 7531	<i>Batkoa</i> sp. 6179	<i>Beauveria bassiana</i> 1 5169
Thailand	<i>Beauveria bassiana</i> 6100 6101 6177 6178	<i>Entomophaga maimaiga</i> 2779 5564 6004 6005 6269 6270 6271 6272 7123 7124 7125 7126 7137 7138
<i>Nomuraea rileyi</i> 539	Uruguay	<i>Fusarium polyphialidicum</i> 3694
Turkey	<i>Conidiobolus coronatus</i> 4797	<i>Isaria farinosa</i> 3
Artvin	<i>Zoophthora radicans</i> 4781 4782 4783 4784 4785	Michigan
<i>Beauveria bassiana</i> 8349 8354	USA	<i>Entomophaga maimaiga</i> 6523 6524 6626 6627 6628 6629 6630 6652 6653 6654 6655 6656 6657 6663 6664 6665 6666 6667 6668 6724 6725 6726 6727 6728 6729 7101 7102 7103 7106 7107 7108 7109 7110 7111 7115
<i>Isaria fumosorosea</i> 8348	Alabama	<i>Hirsutella nodulosa</i> 5473
<i>Metarhizium anisopliae</i> sensu lato 8347 8350 8351 8352 8353	<i>Erynia</i> sp. 2027	Mississippi
Bayburt	Alaska	<i>Nomuraea rileyi</i> 135
<i>Beauveria bassiana</i> 8673 8674	<i>Beauveria bassiana</i> 7955 7956 7957 7958 7959 7963 7964 7965 7966 7968	Missouri
<i>Metarhizium anisopliae</i> sensu lato 8665 8669	<i>Beauveria</i> sp. 7960	<i>Nomuraea rileyi</i> 762
Erzurum	<i>Isaria farinosa</i> 7961 7962	Montana
<i>Beauveria bassiana</i> 8664 8666	<i>Metarhizium anisopliae</i> sensu lato 7967	<i>Beauveria bassiana</i> 6931 6932 6933 6934 6935 6936 6937 6938 6939 6940 6941 6943 6949 6950 6951 6952 6953
Gaziantep	<i>Sporothrix insectorum</i> 7924	New Hampshire
<i>Beauveria</i> sp. 5832	Arizona	<i>Entomophaga maimaiga</i> 2780
Giresun	<i>Metarhizium anisopliae</i> sensu lato 7847	New York
<i>Evlachovaea</i> sp. 8439	California	<i>Batkoa</i> sp. 7370
<i>Isaria fumosorosea</i> 8345	<i>Beauveria bassiana</i> 6147 6148 7060	<i>Beauveria bassiana</i> 1038 4525 4526 4527 4528 4529 4530 4531 4532 4533 4534 4535 4536 4537 4538 4539 4540 4543 6150 6151 6152 6153
<i>Metarhizium anisopliae</i> sensu lato 8443	<i>Entomophaga aulicae</i> 4004 4005 4006 4007 4008	<i>Cordyceps militaris</i> 4081 4082 4083 4084 4085 4086 4087 4088 4089 4838 4839 4840 4841 4842 5002 5003 5004 5005 5006 5007 5008 5009 5010 5011 5012 5013 5014 5015 5016 5017 5018 5019 5020 5021 5022 5023 5024 5025 5026 5027 5028 5029 5030 5031 5032 5033 5034 5035 5036 5037 5038 5039
Gümüşhane	<i>Fusarium</i> sp. 10470	
<i>Beauveria bassiana</i> 8661 8663 8667 8670 8672	Connecticut	
<i>Beauveria</i> sp. 8675	<i>Entomophaga maimaiga</i> 2775	
<i>Metarhizium anisopliae</i> sensu lato 8662	Delaware	
<i>Metarhizium brunneum</i> 8671	<i>Beauveria bassiana</i> 2570 2571 2572 2573	
Kahraman Maras	Florida	
<i>Lecanicillium psalliotae</i> 5685	<i>Beauveria bassiana</i> 5988	
Ordu	<i>Metarhizium anisopliae</i> sensu stricto 1080	
<i>Beauveria bassiana</i> 8340 8343 8431 8444	<i>Nomuraea rileyi</i> 6866 6868 6869 6870 6871 6872 6873 6876 6881 6882	
<i>Evlachovaea</i> sp. 8441 8442 8449	Georgia	
<i>Metarhizium anisopliae</i> sensu lato 8342 8344 8437 8438 8440 8445	<i>Beauveria bassiana</i> 5573	
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<i>Isaria fumosorosea</i> 8337 8448	<i>Beauveria bassiana</i> 8709	
<i>Metarhizium anisopliae</i> sensu lato 8334 8335 8336 8338 8432 8433 8434 8435 8447 8452 8453 8660		

- 5040 5041 5042 5043 5044 5045 5046
5047 5048 5049 5050 5051 5052 5053
5054 5055 5056 5057 5058 5059 5060
5061 5062
- Entomophaga aulicae* 3016 3039 3212
3602
- Entomophaga maimaiga* 3052 3053
3828 3829 3830 3831 3832 3833 3834
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- Fusarium polyphialidicum* 3692 3693
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- Furia gastropachae* 5541 5542 5543
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- Isaria farinosa* 648 697 2564 3017
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- Isaria tenuipes* 5134 5135
- Lecanicillium muscarium* 900 3600
3601
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- North Carolina
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8769
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Acrodontium crateriforme 2070
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7358 7359 7362 7364 7365
Fusarium avenaceum 2060
Fusarium merismoides 2059
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Isaria farinosa 2057 5996
Lecanicillium muscarium 2065 2066
Mortierella histoplasmatoides 2063
Mortierella hyalina 2061
Metarhizium sp. 4998 5000 5076 5077
Penicillium thomii 2056
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Phoma cava 2071
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2064
Sterile mycelium 2073
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Cordyceps militaris 8012
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7122 7131 7132 7133 7134 7135 7136
7190 7352 7353
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Alves, Sergio Batista

196 *Beauveria bassiana* 1484
197 *Beauveria bassiana* 1832
210 *Beauveria brongniartii* 1830
246 *Beauveria bassiana* 1479
258 *Beauveria brongniartii* 1829
268 *Beauveria bassiana* 1834
309 *Beauveria bassiana* 1836
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716 *Evlachovaea* sp. 2614
717 *Evlachovaea* sp. 2615
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719 *Paecilomyces* sp. 2617
720 *Paecilomyces* sp. 2618
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Aoki, Joji

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Asp. 26 *Aspergillus flavus* 1010
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Beau. 3 *Beauveria bassiana* 1007
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1140 *Entomophaga aulicae* 1656
1142 (lost) *Entomophaga aulicae* 1655
1481 (lost) *Beauveria brongniartii* 1829
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23 *Metarhizium anisopliae* sensu lato 1094
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2390 (never frozen) *Nomuraea rileyi* 2345
2466 *Nomuraea rileyi* 2013
3397 (deaccessioned) *Tolypocladium inflatum* 3321
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24318 *Beauveria bassiana* 1
24319 *Isaria farinosa* 3
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34698 *Pandora blunckii* 217
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64259 *Pochonia suchlasporia* var. *catenata* 2064
64865 *Acremonium berkeleyanum* 2067

Balazy, Stanislaw

1547b Unidentified sp. 1417
1550 Unidentified sp. 1415
1577/6 *Zoophthora radicans* 1341
1577/7 *Zoophthora radicans* 1342
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Baloch, Lori

C86 *Nomuraea rileyi* 2205

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Nr-BS *Nomuraea rileyi* 1762

Bidochka, Michael J.

43A 2i *Metarhizium anisopliae* sensu lato 8680
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GUB2 1iv *Metarhizium anisopliae* sensu lato 8683
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ORB1 1ii *Metarhizium anisopliae* sensu lato 8686

PHA1 2i *Metarhizium anisopliae* sensu lato 8687
ROA1 1b *Metarhizium anisopliae* sensu lato 8688
ROA2 2a *Metarhizium anisopliae* sensu lato 8689
SCB2 2i *Metarhizium anisopliae* sensu lato 8690
SHB1 2i *Metarhizium anisopliae* sensu lato 8691
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Bissett, John

88M-143 *Tolypocladium inflatum* 3321

Booth, Steve R.

Cox Unidentified / *Hyphomycetes* 5199
Gant *Metarhizium* sp. 4998
Johnson *Metarhizium* sp. 5001
McMahon *Metarhizium* sp. 5077
Quinby; BSP *Beauveria* sp. 5078
Quinby; MSP *Metarhizium* sp. 4999
Scherer *Metarhizium* sp. 5000
Waara *Metarhizium* sp. 4997
Warnock *Metarhizium* sp. 5076

Boucias, Drion G.

1795 *Nomuraea rileyi* 6867
31b *Nomuraea rileyi* 6871
33b *Nomuraea rileyi* 6881
5561 *Nomuraea rileyi* 6873
5762 *Nomuraea rileyi* 6866
6009 *Nomuraea rileyi* 6868
6011 *Nomuraea rileyi* 6870
8b *Nomuraea rileyi* 6882
94-5a *Nomuraea rileyi* 6869
94-5c *Nomuraea rileyi* 6876
9b *Nomuraea rileyi* 6872
F178 *Nomuraea rileyi* 6874
Nr10 *Nomuraea rileyi* 6875
Nr24 *Nomuraea rileyi* 6878
Nr32 *Nomuraea rileyi* 6879
NrCH6 *Nomuraea rileyi* 6877

Bradley, Cliff

GMP1 *Beauveria bassiana* 2570
GMP2 *Beauveria bassiana* 2571

Brownbridge, Michael

CA 603 *Beauveria bassiana* 7060
HL-1.1 *Isaria farinosa* 3537
HL-2.3 *Isaria farinosa* 3538
HL-4 Unidentified sp. 3567
HL-5 Unidentified sp. 3568
HL-6 Unidentified sp. 3569
MLC1 Unidentified sp. 3794
MLC11 Unidentified sp. 3797
MLC8 *Beauveria bassiana* 5492
MLC9 Unidentified sp. 3796

Bruck, Denny J.

IP-238 *Beauveria bassiana* 7364
IP-241 *Beauveria bassiana* 7365
IP-36 *Beauveria bassiana* 7356
IP-57 *Beauveria bassiana* 7357
IP-62 *Beauveria bassiana* 7358
IP-63 *Beauveria bassiana* 7359
IP-94 *Beauveria bassiana* 7362

Carroll, George C.

2(HO-O-Hatch IV) *Fusarium avenaceum* 2060
3(RSRS-0/34) *Acremonium berkeleyanum* 2067
4(HO-O-Hatch VIII) *Lecanicillium muscarium* 2066
6(HO-O-Hatch VIII) *Lecanicillium muscarium* 2065
B *Fusarium merismoides* 2059
CH-O-66/201 Sterile mycelium 2073
E *Pochonia suchlasporia* var. *catenata* 2064
HO-O-Hatch VIII *Phoma cava* 2071
RSRS-0/62 *Mortierella hyalina* 2061
RSRS-24/68 *Phialophora malorum* 2072

CBS

111113 *Isaria farinosa* 7118
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194.77 *Pandora blunckii* 217
607.80 *Beauveria* sp. 2998
789.85 *Pochonia suchlasporia* var. *catenata* 2064

CCFC

006759 *Lecanicillium muscarium* 6591
DAOM 199924 *Tolyposcladium inflatum* 3321

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CG 134 Unidentified sp. 3467
CG 135 Unidentified sp. 3468
CG 166 *Beauveria bassiana* 2962
CG 86 *Beauveria bassiana* 3020

CEP

019 *Nomuraea rileyi* 7479
021 *Nomuraea rileyi* 7778
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 I.S. 4 *Entomophaga maimaiga* 4549
 I.S. 5 *Entomophaga maimaiga* 4550
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 I.S.-1 *Entomophaga maimaiga* 4508
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 L3 *Entomophaga maimaiga* 3053
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 VA - C *Entomophaga maimaiga* 4553
 VA - E *Entomophaga maimaiga* 4554
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 VA-IVY *Entomophaga maimaiga* 6169
- Hatting, Justin L.**
 1 *Evlachovaea* sp. 5703
 2 *Beauveria bassiana* 5704
 Field 1012 *Fusarium* sp. 7046
 Field 934 *Fusarium* sp. 7045
 Sample A *Cladosporium* sp. 6226
- Herrera Navarro, Eliú**
 V3 - Aphid *Cylindrocarpon* sp. 8043
 V3 - Leps *Cylindrocarpon* sp. 8044
- Hicks, Barry J.**
 1 *Beauveria bassiana* 6177
 2 *Beauveria bassiana* 6178
 3 *Batkoa* sp. 6179
 A *Beauveria bassiana* 6100
 B *Beauveria bassiana* 6101
- Hodge, Kathie T.**
 C1 *Cordyceps militaris* 4081
 C2 *Cordyceps militaris* 4082
 C3 *Cordyceps militaris* 4083
 C4 *Cordyceps militaris* 4084
 D1 *Cordyceps militaris* 4085
 D2 *Cordyceps militaris* 4086
 D3 *Cordyceps militaris* 4087
 D4 *Cordyceps militaris* 4088
 D5 *Cordyceps militaris* 4089
 kth12 *Isaria farinosa* 4090
 kth28a *Cordyceps militaris* 4838
 kth28b *Cordyceps militaris* 4839
 kth28c *Cordyceps militaris* 4840
 kth28d *Cordyceps militaris* 4841
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 kth31A-10 *Cordyceps militaris* 5011
 kth31A-2 *Cordyceps militaris* 5003
 kth31A-3 *Cordyceps militaris* 5004
 kth31A-4 *Cordyceps militaris* 5005
 kth31A-5 *Cordyceps militaris* 5006
 kth31A-6 *Cordyceps militaris* 5007
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 kth31A-8 *Cordyceps militaris* 5009
 kth31A-9 *Cordyceps militaris* 5010
 kth31C-1 *Cordyceps militaris* 5012
 kth31C-10 *Cordyceps militaris* 5021
 kth31C-2 *Cordyceps militaris* 5013

kth31C-3 *Cordyceps militaris* 5014
kth31C-4 *Cordyceps militaris* 5015
kth31C-5 *Cordyceps militaris* 5016
kth31C-6 *Cordyceps militaris* 5017
kth31C-7 *Cordyceps militaris* 5018
kth31C-8 *Cordyceps militaris* 5019
kth31C-9 *Cordyceps militaris* 5020
kth31D-1 *Cordyceps militaris* 5022
kth31D-10 *Cordyceps militaris* 5031
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kth31D-8 *Cordyceps militaris* 5029
kth31D-9 *Cordyceps militaris* 5030
kth31E-1 *Cordyceps militaris* 5032
kth31E-10 *Cordyceps militaris* 5041
kth31E-11 *Cordyceps militaris* 5042
kth31E-2 *Cordyceps militaris* 5033
kth31E-3 *Cordyceps militaris* 5034
kth31E-4 *Cordyceps militaris* 5035
kth31E-5 *Cordyceps militaris* 5036
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kth31E-8 *Cordyceps militaris* 5039
kth31E-9 *Cordyceps militaris* 5040
kth31F-1 *Cordyceps militaris* 5043
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kth31F-2 *Cordyceps militaris* 5044
kth31F-3 *Cordyceps militaris* 5045
kth31F-4 *Cordyceps militaris* 5046
kth31F-5 *Cordyceps militaris* 5047
kth31F-6 *Cordyceps militaris* 5048
kth31F-7 *Cordyceps militaris* 5049
kth31F-8 *Cordyceps militaris* 5050
kth31F-9 *Cordyceps militaris* 5051
kth31G-1 *Cordyceps militaris* 5053
kth31G-10 *Cordyceps militaris* 5062
kth31G-2 *Cordyceps militaris* 5054
kth31G-3 *Cordyceps militaris* 5055
kth31G-4 *Cordyceps militaris* 5056
kth31G-5 *Cordyceps militaris* 5057
kth31G-6 *Cordyceps militaris* 5058
kth31G-7 *Cordyceps militaris* 5059
kth31G-8 *Cordyceps militaris* 5060
kth31G-9 *Cordyceps militaris* 5061
kth32a *Isaria tenuipes* 5134
kth32b *Isaria tenuipes* 5135

Holdom, David G.

080287-1 *Metarhizium anisopliae* sensu lato 2424
130287-2 *Zoophthora radicans* 2411
300187 *Zoophthora radicans* 2410

Hollingsworth, Robert G.

H6 *Beauveria bassiana* 8709

IITA

184 *Beauveria bassiana* 5645
185 *Beauveria bassiana* 5646
279 *Beauveria bassiana* 5647
295 *Beauveria bassiana* 5648
313 *Beauveria bassiana* 5649
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583 *Beauveria bassiana* 5654
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211910 *Pandora blunckii* 217
298915 *Aspergillus flavus* 4126

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2330 *Zoophthora radicans* 4781
2377 *Zoophthora radicans* 4785
2553 *Zoophthora radicans* 4782
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Ma-139 *Metarhizium anisopliae* sensu stricto 1489
Ma-23 *Metarhizium brunneum* 1187
Pf-46 *Isaria farinosa* 1225
Pfr028 *Isaria javanica* 3981
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624 *Zoophthora radicans* 68

Jaronski, Stefan T.

TM12 *Beauveria bassiana* 6931
TM13 *Beauveria bassiana* 6932
TM17 *Beauveria bassiana* 6933
TM18 *Beauveria bassiana* 6934
TM24 *Beauveria bassiana* 6935
TM26 *Beauveria bassiana* 6936
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TM30 *Beauveria bassiana* 6938
TM31 *Beauveria bassiana* 6939
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TM37 *Beauveria bassiana* 6941
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TM71 *Beauveria bassiana* 6950
TM72 *Beauveria bassiana* 6951
TM75 *Beauveria bassiana* 6952
TM77 *Beauveria bassiana* 6953

Kaya, Harry K.

2 *Beauveria bassiana* 6147
5 *Beauveria bassiana* 6148

Keller, Siegfried

114 *Entomophaga* sp. 393
250 *Furia virescens* 427
251 *Furia virescens* 470
416 *Furia virescens* 1129
59 *Zoophthora radicans* 404
955 *Isaria farinosa* 7531
Ma 43 *Metarhizium brunneum* 1095

Kenneth, Robert G.

3045 *Zoophthora radicans* 44
3046 *Zoophthora radicans* 72
3136 *Entomophaga aulicae* 198

King, Brian C.

2 *Paecilomyces* sp. 7995
27 *Paecilomyces* sp. 8001
CmN *Cordyceps militaris* 8012

Klingen, Ingeborg

EFF.99 *Metarhizium robertsii* 6476
F1C.1 *Metarhizium anisopliae* sensu lato 5554
F2C.1 *Metarhizium anisopliae* sensu lato 5555
F3D.1 *Metarhizium anisopliae* sensu lato 5556
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MFF 8.1 *Aspergillus flavus*(?) 5503
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NCRI 08/02 *Metarhizium anisopliae* sensu lato 7014
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NCRI 1-96 (01) *Metarhizium anisopliae* sensu lato 5369
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- NCRI 40/02 *Metarhizium anisopliae* sensu lato 7024
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 SKA.99 *Metarhizium brunneum* 6474
 STF 14.1 *Beauveria bassiana* 5557
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- Lacey, Lawrence A.**
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 16A *Beauveria bassiana* 7968
 1B *Beauveria bassiana* 7955
 1C *Beauveria bassiana* 7956
 2B *Beauveria bassiana* 7957
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 7 *Beauveria bassiana* 7963
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 93002 *Beauveria bassiana* 3965
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- 93010 *Beauveria bassiana* 3973
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 93012 *Beauveria bassiana* 3975
 93013 *Fusarium* sp. 3976
 93014 *Beauveria bassiana* 3977
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 93016 *Beauveria bassiana* 3979
 93018 *Isaria javanica* 3981
 93020 *Isaria farinosa* 3983
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 94004 *Nomuraea rileyi* 4094
 94006 *Isaria tenuipes* 4096
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 95005 *Metarhizium robertsii* 4903
 95006 *Metarhizium anisopliae* sensu lato 4904
 95007 *Metarhizium anisopliae* sensu lato 4905
 95008 *Metarhizium anisopliae* sensu lato 4906
 95056 *Beauveria bassiana* 5064
 95058 *Beauveria bassiana* 5066
 95059 *Beauveria bassiana* 5067
 96007 *Beauveria bassiana* 5229
 96008 *Beauveria bassiana* 5230
 96009 *Beauveria bassiana* 5231
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- Lenné, Jillian M.**
 C7 *Metarhizium anisopliae* sensu stricto 587
- Leonard, David E.**
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- Liang, Zong-Qi**
 CGAC-2281 *Mariannaea pruinosa* 5413
- Likhovidov, Vladimir**
 24/89 *Beauveria bassiana* 7593
- López Lastra, Claudia**
 1 *Zoopthora radicans* 6917
 11 *Nomuraea rileyi* 5211
 14 *Nomuraea rileyi* 5212
 4 *Nomuraea rileyi* 5208
 408 *Aspergillus* sp. 5205
 5 *Nomuraea rileyi* 5209
 6 *Nomuraea rileyi* 5210
 AL IS INTA *Nomuraea rileyi* 7148
 B3 *Nomuraea rileyi* 7149
 B5 *Nomuraea rileyi* 7052
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 Ch 66 *Nomuraea rileyi* 7480
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 LP1 *Nomuraea rileyi* 7056
 P11 *Nomuraea rileyi* 7482
 SF 9 *Nomuraea rileyi* 7150
 SF15 *Nomuraea rileyi* 7151
 SF2 *Nomuraea rileyi* 7484
- MAF**
 F25 *Metarhizium anisopliae* sensu lato 3064
- Majchrowicz, Irena**
 1 *Isaria farinosa* 20
- Melo, Mirtes**
 1 *Fusarium* sp. 5219
- Mercadier, Guy**
 EBCL 00048 *Beauveria bassiana* 6796
 EBCL 00051 *Isaria fumosorosea* 6799
 EBCL 00052 *Isaria fumosorosea* 6800
- Meyling, Nicolai Vitt**
 KVL 03-129 *Beauveria bassiana* 8032
 KVL 03-136 *Beauveria bassiana* 8033
 KVL 03-140 *Beauveria brongniartii* 8034
 KVL 03-142 *Beauveria bassiana* 8035
 KVL 04-92 *Beauveria bassiana* 8039
 KVL 04-93 *Beauveria bassiana* 8040
- Milner, Richard J.**
 FI17 *Penicillium* sp. 4263
 FI17 *Beauveria bassiana* 4607
 FI25 *Beauveria bassiana* 4589
- Mitsuhashi, Jun**
 Emb-1 *Entomophaga aulicae* 1751
- Monzòn, Arnulfo**
 BE157 *Purpureocillium lilacinum* 8311
 BE175 *Purpureocillium lilacinum* 8312
- Murray, Neal B.**
 5.1.B *Fusarium* sp. 10470
- Narayanan, K.**
 15 *Nomuraea* sp. 2413
- Nasca, A.J.**
 Nr-IY3 *Nomuraea rileyi* 2465
 Nr-T2 *Nomuraea rileyi* 2466
- NRRL**
 25030 *Fusarium nygamai* 2316
 25031 *Fusarium subglutinans* 2141
 25090 *Fusarium* sp. 2418
 25093 *Fusarium* sp. 2595
 25094 *Fusarium* sp. 2736
 25102 *Fusarium* sp. 3300
 25105 *Fusarium* sp. 3532
 25121 *Fusarium* sp. 3976
 25125 *Fusarium avenaceum* 2060
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 25132 *Fusarium torulosum* 3483
 25139 *Fusarium subglutinans* 2142
 25529 *Fusarium polyphialidicum* 3692
 25530 *Fusarium polyphialidicum* 3693
 25531 *Fusarium polyphialidicum* 3694
 25532 *Fusarium polyphialidicum* 3695
 25533 *Fusarium polyphialidicum* 3696
 52696 *Fusarium* sp. 6649
 52753 *Fusarium* sp. 5219
 52755 *Fusarium torulosum* 3483
 52759 *Fusarium polyphialidicum* 3916
 A-27471 *Penicillium thomii* 2056
 A-27472 *Pochonia suchlasporia* var. *catenata* 2064
 A-27473 *Isaria farinosa* 2057

Parker, Bruce L.

SPT 11(a) *Beauveria* sp. 5832
SPT-087 *Lecanicillium psalliotae* 5685
SPT-U-257 *Beauveria bassiana* 6109

Perry, David

1602 *Tolytocladium inflatum* 3321

Piazza, Lucy Corsetti

A86 *Nomuraea rileyi* 2203

Poprawski, Tadeusz J.

0102A *Beauveria bassiana* 1512
0102B *Beauveria bassiana* 1513
0104 *Beauveria bassiana* 1627
0105 *Beauveria bassiana* 1628
0106 *Beauveria bassiana* 1629
0147 *Beauveria bassiana* 1788
070A *Beauveria bassiana* 1314
070B *Beauveria bassiana* 1315
070C *Beauveria bassiana* 1316
83-77 *Beauveria bassiana* 1166
83-79 *Beauveria bassiana* 1149
8628 *Scopulariopsis* sp. 2255
8629 *Beauveria bassiana* 2253
8630 *Beauveria bassiana* 2254
8708 *Nomuraea rileyi* 2465
8709 *Nomuraea rileyi* 2466
TJP934 *Metarhizium anisopliae* sensu lato 5469
TJP935 *Aspergillus parasiticus* 5470
TJP936 *Metarhizium anisopliae* sensu stricto 5471

Posada, Francisco J.

CEFC P-0003 *Isaria tenuipes* 6788

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7054 *Beauveria bassiana* 6971
7055 *Beauveria bassiana* 6972
7056 *Beauveria bassiana* 6973
7057 *Beauveria bassiana* 6974
7058 *Beauveria bassiana* 6975
7059 *Beauveria bassiana* 6976
7060 *Beauveria bassiana* 6977
7065 *Beauveria bassiana* 6981
7082 *Beauveria bassiana* 6984

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M-3959 *Fusarium nygamai* 2316

Rajak, R.C.

ENT/10A *Fusarium* sp. 2595
ENT/12 *Metarhizium globosum* 2596
ENT/42 *Beauveria bassiana* 2597

Rangel, Drauzio Eduardo Naretto

Inbioter2 *Beauveria bassiana* 6514

Rath, Andrew C.

F003 *Aspergillus flavus* 4126
F004 *Aspergillus tamarii* 4127
F009 *Beauveria bassiana* 4273
F041 *Beauveria bassiana* 4607
F043 *Penicillium* sp. 4263
F048 *Beauveria bassiana* 4672
F049 *Beauveria bassiana* 4258
F119 *Metarhizium anisopliae* sensu lato 4234
F42 *Beauveria bassiana* 4589
F420 *Microhilum oncoperae* 4769
F421 *Microhilum oncoperae* 4770
F422 *Microhilum oncoperae* 4771
F424 *Microhilum oncoperae* 4358
F508 *Metarhizium anisopliae* sensu lato 4681

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0095 *Cordyceps militaris* 6248
0097 *Isaria farinosa* 6245
0107 *Isaria cateniannulata* 6240
0204 *Paecilomyces sinensis* 6284
0205 *Isaria tenuipes* 6249
0262 *Metarhizium guizhouense* 6238
0263 *Paecilomyces sinensis* 6285
0264 *Sporothrix insectorum* 6286
0288 *Beauveria amorpha* 6227
0290 *Nomuraea rileyi* 6239
0471 *Beauveria bassiana* 6233
0507 *Isaria cateniannulata* 6242
0711 *Cordyceps bassiana* 7047

Reyes, Enrique Reyes Dominguez

VD Unidentified sp. 3804

Riethmacher, Guenter W.

A1 *Geotrichum* sp. 2752
A3 *Aspergillus* sp. 2765
B4 *Mixed Culture* sp. 2738
BP *Beauveria bassiana* 2737
C1 *Conidiobolus coronatus* 2730
C2 *Conidiobolus firmipilleus* 2731
C3 *Conidiobolus* sp. 2771
C4 *Conidiobolus* sp. 2772
C4.1a *Conidiobolus* sp. 3208
C5 *Conidiobolus* sp. 2815
C6 *Conidiobolus* sp. 2816
E1 *Aspergillus* sp. 2817
E2 *Zoophthora radicans* 2893
E3 *Zoophthora radicans* 3204
E4 *Aspergillus flavus* 2818
E5 *Zoophthora radicans* 3205
E6 *Zoophthora radicans* 3206
E7 *Aspergillus* sp. 2820
E8 Unidentified sp. 2821
EB1 *Beniowskia* sp. 2751
EB10 *Scopulariopsis* sp. 3203
EB2 *Zoophthora radicans* 2732
EB3 *Pandora blunckii* 3200
EB4 *Pandora blunckii* 2824
EB6 *Pandora* sp. 3201
EB7 *Pandora blunckii* 3202
L1 *Beauveria bassiana* 2727
L2 *Beauveria bassiana* 2728
L3 *Beauveria bassiana* 2729
L4 *Isaria fumosorosea* 2749

M1 *Isaria fumosorosea* 2734
Ma1 *Metarhizium pingshaense* 2735
Ma2 *Fusarium* sp. 2736

Riethmacher, Günther

EB4 *Fusarium* sp. 2776

Roberts, Donald W.

090485-3 *Nomuraea rileyi* 1879
101981-1 *Beauveria bassiana* 652
Bbass-2 *Beauveria bassiana* 302
Bbass-3 *Beauveria bassiana* 303
Bbass-4 *Beauveria bassiana* 304
Bbass-5 *Beauveria bassiana* 305
DWR 200 *Metarhizium anisopliae* sensu lato 7847

Rodriguez Sierra, Dora Alba

103 Bb *Evlachovaea* sp. 2297
UJ89001 *Purpureocillium lilacinum* 5805

Rombach, Michiel C.

111286-2 *Nomuraea rileyi* 2345
121186-1 *Nomuraea rileyi* 2395
130586-14 *Nomuraea rileyi* 2174
221086-1 *Isaria farinosa* 2344
281085-1 *Beauveria bassiana* 2041
3 *Nomuraea rileyi* 1893
A *Zoophthora radicans* 1699
E Unidentified sp. 1703
Nr-B *Nomuraea rileyi* 1761

Sánchez Peña, Sergio René

3 *Isaria farinosa* 2822
3-2 *Beauveria bassiana* 2857
A1 *Isaria tenuipes* 2488
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20	<i>Isaria farinosa</i>	502	<i>Beauveria bassiana</i>	1116	<i>Metarhizium brunneum</i>
21	<i>Zoopthora radicans</i>	503	<i>Beauveria bassiana</i>	1117	<i>Beauveria bassiana</i>
38	<i>Isaria farinosa</i>	533	<i>Beauveria bassiana</i>	1118	<i>Beauveria bassiana</i>
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142	<i>Zoopthora radicans</i>	843	<i>Beauveria bassiana</i>	1314	<i>Beauveria bassiana</i>
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144	<i>Zoopthora radicans</i>	935	<i>Nomuraea rileyi</i>	1316	<i>Beauveria bassiana</i>
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165	<i>Entomophaga aulicae</i>	989	<i>Isaria fumosorosea</i>	1392	<i>Entomophaga maimaiga</i>
166	<i>Entomophaga aulicae</i>	990	<i>Paecilomyces canadensis</i>	1400	<i>Entomophaga maimaiga</i>
167	<i>Entomophaga aulicae</i>	991	<i>Verticillium lecanii</i>	1415	<i>Unidentified sp.</i>
168	<i>Entomophaga aulicae</i>	994	<i>Lecanicillium muscarium</i>	1417	<i>Unidentified sp.</i>
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234	<i>Zoopthora radicans</i>	1057	<i>Metarhizium robertsii</i>	1656	<i>Entomophaga aulicae</i>
235	<i>Zoopthora radicans</i>	1058	<i>Purpureocillium lilacinum</i>	1657	<i>Entomophaga aulicae</i>
251	<i>Entomophaga aulicae</i>	1059	<i>Metarhizium anisopliae sensu lato</i>	1658	<i>Entomophaga maimaiga</i>
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302	<i>Beauveria bassiana</i>	1080	<i>Metarhizium anisopliae sensu stricto</i>	1675	<i>Zoopthora radicans</i>
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305	<i>Beauveria bassiana</i>	1095	<i>Metarhizium brunneum</i>	1703	<i>Unidentified sp.</i>
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407	<i>Zoopthora radicans</i>	1109	<i>Lecanicillium lecanii(?)</i>	1762	<i>Nomuraea rileyi</i>
427	<i>Furia virescens</i>	1110	<i>Beauveria bassiana</i>	1788	<i>Beauveria bassiana</i>
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481	<i>Nomuraea rileyi</i>	1112	<i>Metarhizium brunneum</i>	1830	<i>Beauveria brongniartii</i>
482	<i>Nomuraea rileyi</i>	1113	<i>Beauveria bassiana</i>	1832	<i>Beauveria bassiana</i>

1834	<i>Beauveria bassiana</i>	2371	<i>Entomophaga maimaiga</i>	2824	<i>Pandora blunckii</i>
1836	<i>Beauveria bassiana</i>	2372	<i>Entomophaga aulicae</i>	2831	<i>Beauveria bassiana</i>
1850	<i>Beauveria bassiana</i>	2373	<i>Entomophaga aulicae</i>	2833	<i>Aspergillus ochraceus</i>
1879	<i>Nomuraea rileyi</i>	2374	<i>Entomophaga aulicae</i>	2834	<i>Penicillium sp.</i>
1884	<i>Conidiobolus coronatus</i>	2395	<i>Nomuraea rileyi</i>	2835	<i>Isaria farinosa</i>
1886	<i>Beauveria sp.</i>	2410	<i>Zoopthora radicans</i>	2836	<i>Penicillium sp.</i>
1893	<i>Nomuraea rileyi</i>	2411	<i>Zoopthora radicans</i>	2843	<i>Entomophaga aulicae</i>
1950	<i>Nomuraea rileyi</i>	2413	<i>Nomuraea sp.</i>	2857	<i>Beauveria bassiana</i>
1964	<i>Acremonium roseum</i>	2416	<i>Cordyceps militaris</i>	2893	<i>Zoopthora radicans</i>
1972	<i>Nomuraea rileyi</i>	2417	<i>Beauveria bassiana</i>	2896	<i>Entomophaga aulicae</i>
1990	<i>Entomophaga aulicae</i>	2418	<i>Fusarium sp.</i>	2897	<i>Entomophaga aulicae</i>
1991	<i>Entomophaga aulicae</i>	2424	<i>Metarhizium anisopliae sensu lato</i>	2898	<i>Entomophaga aulicae</i>
1992	<i>Entomophaga aulicae</i>	2465	<i>Nomuraea rileyi</i>	2899	<i>Entomophaga aulicae</i>
1993	<i>Entomophaga aulicae</i>	2466	<i>Nomuraea rileyi</i>	2900	<i>Entomophaga aulicae</i>
1994	<i>Entomophaga aulicae</i>	2488	<i>Isaria tenuipes</i>	2901	<i>Entomophaga aulicae</i>
1995	<i>Entomophaga aulicae</i>	2489	<i>Isaria tenuipes</i>	2902	<i>Entomophaga aulicae</i>
1997	<i>Entomophaga aulicae</i>	2490	<i>Isaria tenuipes</i>	2903	<i>Entomophaga aulicae</i>
1998	<i>Entomophaga aulicae</i>	2491	<i>Isaria tenuipes</i>	2904	<i>Entomophaga aulicae</i>
1999	<i>Entomophaga aulicae</i>	2492	<i>Nomuraea rileyi</i>	2905	<i>Entomophaga aulicae</i>
2000	<i>Entomophaga aulicae</i>	2546	<i>Isaria farinosa</i>	2906	<i>Furia gastropachae</i>
2013	<i>Nomuraea rileyi</i>	2564	<i>Isaria farinosa</i>	2962	<i>Beauveria bassiana</i>
2027	<i>Erynia sp.</i>	2570	<i>Beauveria bassiana</i>	2976	<i>Beauveria bassiana</i>
2041	<i>Beauveria bassiana</i>	2571	<i>Beauveria bassiana</i>	2998	<i>Beauveria sp.</i>
2054	<i>Beauveria bassiana</i>	2572	<i>Beauveria bassiana</i>	3016	<i>Entomophaga aulicae</i>
2055	<i>Trichothecium roseum</i>	2573	<i>Beauveria bassiana</i>	3017	<i>Isaria farinosa</i>
2056	<i>Penicillium thomii</i>	2581	<i>Hirsutella sp.</i>	3020	<i>Beauveria bassiana</i>
2057	<i>Isaria farinosa</i>	2595	<i>Fusarium sp.</i>	3039	<i>Entomophaga aulicae</i>
2059	<i>Fusarium merismoides</i>	2596	<i>Metarhizium globosum</i>	3052	<i>Entomophaga maimaiga</i>
2060	<i>Fusarium avenaceum</i>	2597	<i>Beauveria bassiana</i>	3053	<i>Entomophaga maimaiga</i>
2061	<i>Mortierella hyalina</i>	2613	<i>Evlachovaea sp.</i>	3064	<i>Metarhizium anisopliae sensu lato</i>
2063	<i>Mortierella histoplasmatoides</i>	2614	<i>Evlachovaea sp.</i>	3075	<i>Pandora blunckii</i>
2064	<i>Pochonia suchlasporia var. catenata</i>	2615	<i>Evlachovaea sp.</i>	3152	<i>Isaria farinosa</i>
2065	<i>Lecanicillium muscarium</i>	2616	<i>Paecilomyces sp.</i>	3200	<i>Pandora blunckii</i>
2066	<i>Lecanicillium muscarium</i>	2617	<i>Paecilomyces sp.</i>	3201	<i>Pandora sp.</i>
2067	<i>Acremonium berkeleyanum</i>	2618	<i>Paecilomyces sp.</i>	3202	<i>Pandora blunckii</i>
2069	<i>Humicola sp.</i>	2619	<i>Beauveria bassiana</i>	3203	<i>Scopulariopsis sp.</i>
2070	<i>Acrodontium crateriforme</i>	2620	<i>Evlachovaea sp.</i>	3204	<i>Zoopthora radicans</i>
2071	<i>Phoma cava</i>	2629	<i>Beauveria bassiana</i>	3205	<i>Zoopthora radicans</i>
2072	<i>Phialophora malorum</i>	2633	<i>Beauveria bassiana</i>	3206	<i>Zoopthora radicans</i>
2073	<i>Sterile mycelium</i>	2637	<i>Beauveria bassiana</i>	3208	<i>Conidiobolus sp.</i>
2131	<i>Isaria farinosa</i>	2727	<i>Beauveria bassiana</i>	3212	<i>Entomophaga aulicae</i>
2140	<i>Metarhizium guizhouense</i>	2728	<i>Beauveria bassiana</i>	3220	<i>Beauveria pseudobassiana</i>
2141	<i>Fusarium subglutinans</i>	2729	<i>Beauveria bassiana</i>	3221	<i>Isaria farinosa</i>
2142	<i>Fusarium subglutinans</i>	2730	<i>Conidiobolus coronatus</i>	3286	<i>Beauveria bassiana</i>
2174	<i>Nomuraea rileyi</i>	2731	<i>Conidiobolus firmipilleus</i>	3288	<i>Beauveria bassiana</i>
2201	<i>Nomuraea rileyi</i>	2732	<i>Zoopthora radicans</i>	3289	<i>Beauveria sp.</i>
2202	<i>Nomuraea rileyi</i>	2734	<i>Isaria fumosorosea</i>	3290	<i>Metarhizium anisopliae sensu lato</i>
2203	<i>Nomuraea rileyi</i>	2735	<i>Metarhizium pingshaense</i>	3291	<i>Metarhizium anisopliae sensu lato</i>
2204	<i>Nomuraea rileyi</i>	2736	<i>Fusarium sp.</i>	3292	<i>Metarhizium anisopliae sensu lato</i>
2205	<i>Nomuraea rileyi</i>	2737	<i>Beauveria bassiana</i>	3293	<i>Metarhizium anisopliae sensu lato</i>
2206	<i>Nomuraea rileyi</i>	2738	<i>Mixed Culture sp.</i>	3294	<i>Metarhizium brunneum</i>
2207	<i>Nomuraea rileyi</i>	2749	<i>Isaria fumosorosea</i>	3295	<i>Metarhizium brunneum</i>
2227	<i>Hirsutella subulata</i>	2751	<i>Beniowskia sp.</i>	3298	<i>Unidentified sp.</i>
2253	<i>Beauveria bassiana</i>	2752	<i>Geotrichum sp.</i>	3299	<i>Unidentified sp.</i>
2254	<i>Beauveria bassiana</i>	2765	<i>Aspergillus sp.</i>	3300	<i>Fusarium sp.</i>
2255	<i>Scopulariopsis sp.</i>	2771	<i>Conidiobolus sp.</i>	3301	<i>Nomuraea rileyi</i>
2267	<i>Beauveria bassiana</i>	2772	<i>Conidiobolus sp.</i>	3302	<i>Isaria fumosorosea</i>
2269	<i>Isaria farinosa</i>	2775	<i>Entomophaga maimaiga</i>	3321	<i>Tolypocladium inflatum</i>
2297	<i>Evlachovaea sp.</i>	2776	<i>Fusarium sp.</i>	3404	<i>Beauveria bassiana</i>
2316	<i>Fusarium nygamai</i>	2777	<i>Tolypocladium cylindrosporum</i>	3405	<i>Beauveria pseudobassiana</i>
2344	<i>Isaria farinosa</i>	2778	<i>Tolypocladium cylindrosporum</i>	3467	<i>Unidentified sp.</i>
2345	<i>Nomuraea rileyi</i>	2779	<i>Entomophaga maimaiga</i>	3468	<i>Unidentified sp.</i>
2362	<i>Entomophaga aulicae</i>	2780	<i>Entomophaga maimaiga</i>	3483	<i>Fusarium torulosum</i>
2363	<i>Entomophaga aulicae</i>	2815	<i>Conidiobolus sp.</i>	3490	<i>Isaria farinosa</i>
2365	<i>Entomophaga aulicae</i>	2816	<i>Conidiobolus sp.</i>	3491	<i>Isaria farinosa</i>
2366	<i>Entomophaga aulicae</i>	2817	<i>Aspergillus sp.</i>	3492	<i>Isaria farinosa</i>
2367	<i>Entomophaga aulicae</i>	2818	<i>Aspergillus flavus</i>	3493	<i>Isaria farinosa</i>
2368	<i>Entomophaga aulicae</i>	2820	<i>Aspergillus sp.</i>	3494	<i>Isaria farinosa</i>
2369	<i>Entomophaga aulicae</i>	2821	<i>Unidentified sp.</i>	3495	<i>Isaria farinosa</i>
2370	<i>Entomophaga maimaiga</i>	2822	<i>Isaria farinosa</i>	3496	<i>Isaria farinosa</i>

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3497	<i>Isaria farinosa</i>	3966	<i>Beauveria bassiana</i>	4552	<i>Entomophaga maimaiga</i>
3498	<i>Isaria farinosa</i>	3967	<i>Beauveria bassiana</i>	4553	<i>Entomophaga maimaiga</i>
3499	<i>Isaria farinosa</i>	3968	<i>Beauveria bassiana</i>	4554	<i>Entomophaga maimaiga</i>
3500	<i>Isaria farinosa</i>	3969	<i>Beauveria bassiana</i>	4555	<i>Entomophaga maimaiga</i>
3501	<i>Isaria farinosa</i>	3970	<i>Beauveria bassiana</i>	4589	<i>Beauveria bassiana</i>
3502	<i>Isaria farinosa</i>	3972	<i>Beauveria bassiana</i>	4607	<i>Beauveria bassiana</i>
3503	<i>Isaria farinosa</i>	3973	<i>Beauveria bassiana</i>	4672	<i>Beauveria bassiana</i>
3504	<i>Isaria farinosa</i>	3974	<i>Beauveria bassiana</i>	4681	<i>Metarhizium anisopliae sensu lato</i>
3505	<i>Isaria farinosa</i>	3975	<i>Beauveria bassiana</i>	4769	<i>Microhilum oncoperae</i>
3506	<i>Isaria farinosa</i>	3976	<i>Fusarium sp.</i>	4770	<i>Microhilum oncoperae</i>
3507	<i>Isaria farinosa</i>	3977	<i>Beauveria bassiana</i>	4771	<i>Microhilum oncoperae</i>
3508	<i>Isaria farinosa</i>	3978	<i>Beauveria bassiana</i>	4781	<i>Zoophthora radicans</i>
3517	<i>Isaria farinosa</i>	3979	<i>Beauveria bassiana</i>	4782	<i>Zoophthora radicans</i>
3518	<i>Isaria farinosa</i>	3981	<i>Isaria javanica</i>	4783	<i>Zoophthora radicans</i>
3519	<i>Isaria farinosa</i>	3983	<i>Isaria farinosa</i>	4784	<i>Zoophthora radicans</i>
3520	<i>Isaria farinosa</i>	3998	Unidentified sp.	4785	<i>Zoophthora radicans</i>
3521	<i>Isaria farinosa</i>	4004	<i>Entomophaga aulicae</i>	4797	<i>Conidiobolus coronatus</i>
3522	<i>Isaria farinosa</i>	4005	<i>Entomophaga aulicae</i>	4838	<i>Cordyceps militaris</i>
3523	<i>Isaria farinosa</i>	4006	<i>Entomophaga aulicae</i>	4839	<i>Cordyceps militaris</i>
3524	<i>Isaria farinosa</i>	4007	<i>Entomophaga aulicae</i>	4840	<i>Cordyceps militaris</i>
3525	<i>Isaria farinosa</i>	4008	<i>Entomophaga aulicae</i>	4841	<i>Cordyceps militaris</i>
3526	<i>Isaria farinosa</i>	4010	<i>Isaria farinosa</i>	4842	<i>Cordyceps militaris</i>
3527	<i>Beauveria bassiana</i>	4081	<i>Cordyceps militaris</i>	4845	<i>Cordyceps militaris</i>
3528	<i>Beauveria bassiana</i>	4082	<i>Cordyceps militaris</i>	4899	Unidentified / <i>Hyphomycetes</i>
3529	<i>Beauveria pseudobassiana</i>	4083	<i>Cordyceps militaris</i>	4900	Unidentified / <i>Hyphomycetes</i>
3530	<i>Beauveria bassiana</i>	4084	<i>Cordyceps militaris</i>	4903	<i>Metarhizium robertsii</i>
3531	<i>Lecanicillium muscarium</i>	4085	<i>Cordyceps militaris</i>	4904	<i>Metarhizium anisopliae sensu lato</i>
3532	<i>Fusarium sp.</i>	4086	<i>Cordyceps militaris</i>	4905	<i>Metarhizium anisopliae sensu lato</i>
3533	<i>Isaria farinosa</i>	4087	<i>Cordyceps militaris</i>	4906	<i>Metarhizium anisopliae sensu lato</i>
3537	<i>Isaria farinosa</i>	4088	<i>Cordyceps militaris</i>	4997	<i>Metarhizium sp.</i>
3538	<i>Isaria farinosa</i>	4089	<i>Cordyceps militaris</i>	4998	<i>Metarhizium sp.</i>
3567	Unidentified sp.	4090	<i>Isaria farinosa</i>	4999	<i>Metarhizium sp.</i>
3568	Unidentified sp.	4094	<i>Nomuraea rileyi</i>	5000	<i>Metarhizium sp.</i>
3569	Unidentified sp.	4096	<i>Isaria tenuipes</i>	5001	<i>Metarhizium sp.</i>
3595	<i>Isaria farinosa</i>	4126	<i>Aspergillus flavus</i>	5002	<i>Cordyceps militaris</i>
3596	<i>Isaria farinosa</i>	4127	<i>Aspergillus tamarii</i>	5003	<i>Cordyceps militaris</i>
3597	<i>Isaria farinosa</i>	4234	<i>Metarhizium anisopliae sensu lato</i>	5004	<i>Cordyceps militaris</i>
3598	<i>Isaria farinosa</i>	4258	<i>Beauveria bassiana</i>	5005	<i>Cordyceps militaris</i>
3599	<i>Isaria farinosa</i>	4263	<i>Penicillium sp.</i>	5006	<i>Cordyceps militaris</i>
3600	<i>Lecanicillium muscarium</i>	4273	<i>Beauveria bassiana</i>	5007	<i>Cordyceps militaris</i>
3601	<i>Lecanicillium muscarium</i>	4358	<i>Microhilum oncoperae</i>	5008	<i>Cordyceps militaris</i>
3602	<i>Entomophaga aulicae</i>	4504	<i>Entomophaga maimaiga</i>	5009	<i>Cordyceps militaris</i>
3664	<i>Isaria farinosa</i>	4505	<i>Entomophaga maimaiga</i>	5010	<i>Cordyceps militaris</i>
3665	<i>Isaria farinosa</i>	4506	<i>Entomophaga maimaiga</i>	5011	<i>Cordyceps militaris</i>
3666	<i>Isaria farinosa</i>	4507	<i>Entomophaga maimaiga</i>	5012	<i>Cordyceps militaris</i>
3692	<i>Fusarium polyphialidicum</i>	4508	<i>Entomophaga maimaiga</i>	5013	<i>Cordyceps militaris</i>
3693	<i>Fusarium polyphialidicum</i>	4509	<i>Entomophaga maimaiga</i>	5014	<i>Cordyceps militaris</i>
3694	<i>Fusarium polyphialidicum</i>	4510	<i>Entomophaga maimaiga</i>	5015	<i>Cordyceps militaris</i>
3695	<i>Fusarium polyphialidicum</i>	4522	<i>Metarhizium anisopliae sensu lato</i>	5016	<i>Cordyceps militaris</i>
3696	<i>Fusarium polyphialidicum</i>	4525	<i>Beauveria bassiana</i>	5017	<i>Cordyceps militaris</i>
3794	Unidentified sp.	4526	<i>Beauveria bassiana</i>	5018	<i>Cordyceps militaris</i>
3796	Unidentified sp.	4527	<i>Beauveria bassiana</i>	5019	<i>Cordyceps militaris</i>
3797	Unidentified sp.	4528	<i>Beauveria bassiana</i>	5020	<i>Cordyceps militaris</i>
3804	Unidentified sp.	4529	<i>Beauveria bassiana</i>	5021	<i>Cordyceps militaris</i>
3828	<i>Entomophaga maimaiga</i>	4530	<i>Beauveria bassiana</i>	5022	<i>Cordyceps militaris</i>
3829	<i>Entomophaga maimaiga</i>	4531	<i>Beauveria bassiana</i>	5023	<i>Cordyceps militaris</i>
3830	<i>Entomophaga maimaiga</i>	4532	<i>Beauveria bassiana</i>	5024	<i>Cordyceps militaris</i>
3831	<i>Entomophaga maimaiga</i>	4533	<i>Beauveria bassiana</i>	5025	<i>Cordyceps militaris</i>
3832	<i>Entomophaga maimaiga</i>	4534	<i>Beauveria bassiana</i>	5026	<i>Cordyceps militaris</i>
3833	<i>Entomophaga maimaiga</i>	4535	<i>Beauveria bassiana</i>	5027	<i>Cordyceps militaris</i>
3834	<i>Entomophaga maimaiga</i>	4536	<i>Beauveria bassiana</i>	5028	<i>Cordyceps militaris</i>
3835	<i>Entomophaga maimaiga</i>	4537	<i>Beauveria bassiana</i>	5029	<i>Cordyceps militaris</i>
3858	<i>Beauveria bassiana</i>	4538	<i>Beauveria bassiana</i>	5030	<i>Cordyceps militaris</i>
3913	<i>Entomophaga maimaiga</i>	4539	<i>Beauveria bassiana</i>	5031	<i>Cordyceps militaris</i>
3916	<i>Fusarium polyphialidicum</i>	4540	<i>Beauveria bassiana</i>	5032	<i>Cordyceps militaris</i>
3937	<i>Beauveria bassiana</i>	4543	<i>Beauveria bassiana</i>	5033	<i>Cordyceps militaris</i>
3938	<i>Isaria tenuipes</i>	4545	<i>Entomophaga maimaiga</i>	5034	<i>Cordyceps militaris</i>
3939	<i>Isaria tenuipes</i>	4549	<i>Entomophaga maimaiga</i>	5035	<i>Cordyceps militaris</i>
3940	<i>Nomuraea rileyi</i>	4550	<i>Entomophaga maimaiga</i>	5036	<i>Cordyceps militaris</i>
3965	<i>Beauveria bassiana</i>	4551	<i>Entomophaga maimaiga</i>	5037	<i>Cordyceps militaris</i>

5038	<i>Cordyceps militaris</i>	5393	<i>Entomophaga maimaiga</i>	5873	<i>Metarhizium robertsii</i>
5039	<i>Cordyceps militaris</i>	5394	<i>Entomophaga maimaiga</i>	5874	<i>Isaria fumosorosea</i>
5040	<i>Cordyceps militaris</i>	5395	<i>Entomophaga maimaiga</i>	5881	<i>Fusarium</i> sp.
5041	<i>Cordyceps militaris</i>	5396	<i>Entomophaga maimaiga</i>	5883	<i>Isaria farinosa</i>
5042	<i>Cordyceps militaris</i>	5397	<i>Entomophaga maimaiga</i>	5884	<i>Isaria farinosa</i>
5043	<i>Cordyceps militaris</i>	5398	<i>Entomophaga maimaiga</i>	5885	<i>Isaria farinosa</i>
5044	<i>Cordyceps militaris</i>	5399	<i>Entomophaga maimaiga</i>	5886	<i>Beauveria bassiana</i>
5045	<i>Cordyceps militaris</i>	5400	<i>Entomophaga maimaiga</i>	5887	<i>Beauveria bassiana</i>
5046	<i>Cordyceps militaris</i>	5401	<i>Entomophaga maimaiga</i>	5888	<i>Beauveria bassiana</i>
5047	<i>Cordyceps militaris</i>	5413	<i>Mariannaea pruinosa</i>	5988	<i>Beauveria bassiana</i>
5048	<i>Cordyceps militaris</i>	5469	<i>Metarhizium anisopliae</i> sensu lato	5996	<i>Isaria farinosa</i>
5049	<i>Cordyceps militaris</i>	5470	<i>Aspergillus parasiticus</i>	6003	<i>Zoophthora radicans</i>
5050	<i>Cordyceps militaris</i>	5471	<i>Metarhizium anisopliae</i> sensu stricto	6004	<i>Entomophaga maimaiga</i>
5051	<i>Cordyceps militaris</i>	5473	<i>Hirsutella nodulosa</i>	6005	<i>Entomophaga maimaiga</i>
5052	<i>Cordyceps militaris</i>	5492	<i>Beauveria bassiana</i>	6100	<i>Beauveria bassiana</i>
5053	<i>Cordyceps militaris</i>	5500	<i>Beauveria bassiana</i>	6101	<i>Beauveria bassiana</i>
5054	<i>Cordyceps militaris</i>	5502	<i>Beauveria bassiana</i>	6102	<i>Fusarium</i> sp.
5055	<i>Cordyceps militaris</i>	5503	<i>Aspergillus flavus</i> (?)	6109	<i>Beauveria bassiana</i>
5056	<i>Cordyceps militaris</i>	5504	<i>Aspergillus flavus</i> (?)	6147	<i>Beauveria bassiana</i>
5057	<i>Cordyceps militaris</i>	5505	<i>Aspergillus flavus</i> (?)	6148	<i>Beauveria bassiana</i>
5058	<i>Cordyceps militaris</i>	5506	<i>Aspergillus flavus</i> (?)	6150	<i>Beauveria bassiana</i>
5059	<i>Cordyceps militaris</i>	5507	<i>Aspergillus flavus</i> (?)	6151	<i>Beauveria bassiana</i>
5060	<i>Cordyceps militaris</i>	5508	<i>Aspergillus flavus</i> (?)	6152	<i>Beauveria bassiana</i>
5061	<i>Cordyceps militaris</i>	5509	<i>Aspergillus flavus</i> (?)	6153	<i>Beauveria bassiana</i>
5062	<i>Cordyceps militaris</i>	5510	<i>Beauveria bassiana</i>	6167	<i>Metarhizium anisopliae</i> sensu lato
5064	<i>Beauveria bassiana</i>	5513	<i>Metarhizium anisopliae</i> sensu lato	6168	<i>Entomophaga maimaiga</i>
5066	<i>Beauveria bassiana</i>	5514	<i>Metarhizium anisopliae</i> sensu lato	6169	<i>Entomophaga maimaiga</i>
5067	<i>Beauveria bassiana</i>	5515	<i>Metarhizium anisopliae</i> sensu lato	6170	<i>Entomophaga maimaiga</i>
5076	<i>Metarhizium</i> sp.	5516	<i>Metarhizium anisopliae</i> sensu lato	6171	<i>Entomophaga maimaiga</i>
5077	<i>Metarhizium</i> sp.	5517	<i>Metarhizium anisopliae</i> sensu lato	6172	<i>Entomophaga maimaiga</i>
5078	<i>Beauveria</i> sp.	5518	<i>Metarhizium anisopliae</i> sensu lato	6173	<i>Entomophaga maimaiga</i>
5134	<i>Isaria tenuipes</i>	5519	<i>Metarhizium anisopliae</i> sensu lato	6174	<i>Entomophaga maimaiga</i>
5135	<i>Isaria tenuipes</i>	5521	<i>Metarhizium anisopliae</i> sensu lato	6177	<i>Beauveria bassiana</i>
5169	<i>Beauveria bassiana</i>	5541	<i>Furia gastropachae</i>	6178	<i>Beauveria bassiana</i>
5199	Unidentified / <i>Hypomyces</i>	5542	<i>Furia gastropachae</i>	6179	<i>Batkoa</i> sp.
5205	<i>Aspergillus</i> sp.	5543	<i>Furia gastropachae</i>	6181	<i>Beauveria bassiana</i>
5208	<i>Nomuraea rileyi</i>	5544	<i>Furia gastropachae</i>	6182	<i>Beauveria bassiana</i>
5209	<i>Nomuraea rileyi</i>	5545	<i>Furia gastropachae</i>	6183	<i>Purpureocillium lilacinum</i>
5210	<i>Nomuraea rileyi</i>	5546	<i>Furia gastropachae</i>	6184	<i>Beauveria bassiana</i>
5211	<i>Nomuraea rileyi</i>	5547	<i>Furia gastropachae</i>	6185	<i>Beauveria bassiana</i>
5212	<i>Nomuraea rileyi</i>	5554	<i>Metarhizium anisopliae</i> sensu lato	6186	<i>Beauveria bassiana</i>
5219	<i>Fusarium</i> sp.	5555	<i>Metarhizium anisopliae</i> sensu lato	6187	<i>Beauveria bassiana</i>
5229	<i>Beauveria bassiana</i>	5556	<i>Metarhizium anisopliae</i> sensu lato	6189	<i>Beauveria bassiana</i>
5230	<i>Beauveria bassiana</i>	5557	<i>Beauveria bassiana</i>	6191	<i>Beauveria bassiana</i>
5231	<i>Beauveria bassiana</i>	5560	<i>Fusarium</i> sp.	6192	<i>Isaria fumosorosea</i>
5233	<i>Beauveria bassiana</i>	5564	<i>Entomophaga maimaiga</i>	6193	<i>Paecilomyces</i> sp.
5234	<i>Beauveria bassiana</i>	5568	<i>Entomophaga maimaiga</i>	6194	<i>Beauveria bassiana</i>
5235	<i>Beauveria bassiana</i>	5570	<i>Entomophaga maimaiga</i>	6195	<i>Beauveria bassiana</i>
5251	<i>Isaria fumosorosea</i>	5573	<i>Beauveria bassiana</i>	6196	<i>Beauveria bassiana</i>
5252	<i>Isaria fumosorosea</i>	5644	<i>Beauveria bassiana</i> (?)	6197	<i>Purpureocillium lilacinum</i>
5351		5645	<i>Beauveria bassiana</i>	6198	<i>Paecilomyces</i> sp.
5368	<i>Isaria farinosa</i>	5646	<i>Beauveria bassiana</i>	6199	<i>Beauveria bassiana</i>
5369	<i>Metarhizium anisopliae</i> sensu lato	5647	<i>Beauveria bassiana</i>	6200	<i>Isaria farinosa</i>
5370	<i>Beauveria bassiana</i>	5648	<i>Beauveria bassiana</i>	6201	<i>Beauveria bassiana</i>
5377	<i>Entomophaga maimaiga</i>	5649	<i>Beauveria bassiana</i>	6202	<i>Isaria farinosa</i>
5378	<i>Entomophaga maimaiga</i>	5653	<i>Beauveria bassiana</i>	6203	<i>Isaria fumosorosea</i>
5379	<i>Entomophaga maimaiga</i>	5654	<i>Beauveria bassiana</i>	6204	<i>Isaria fumosorosea</i>
5380	<i>Entomophaga maimaiga</i>	5655	<i>Beauveria bassiana</i>	6205	<i>Beauveria bassiana</i>
5381	<i>Entomophaga maimaiga</i>	5685	<i>Lecanicillium psalliotae</i>	6206	<i>Isaria fumosorosea</i>
5382	<i>Entomophaga maimaiga</i>	5688	<i>Cordyceps isarioides</i>	6207	<i>Isaria farinosa</i>
5383	<i>Entomophaga maimaiga</i>	5703	<i>Evlachovaea</i> sp.	6208	<i>Beauveria bassiana</i>
5384	<i>Entomophaga maimaiga</i>	5704	<i>Beauveria bassiana</i>	6209	<i>Beauveria bassiana</i>
5385	<i>Entomophaga maimaiga</i>	5730	<i>Trichoderma</i> sp.	6212	<i>Entomophaga maimaiga</i>
5386	<i>Entomophaga maimaiga</i>	5805	<i>Purpureocillium lilacinum</i>	6218	<i>Entomophaga maimaiga</i>
5387	<i>Entomophaga maimaiga</i>	5814	<i>Zoophthora radicans</i>	6224	<i>Entomophaga maimaiga</i>
5388	<i>Entomophaga maimaiga</i>	5832	<i>Beauveria</i> sp.	6226	<i>Cladosporium</i> sp.
5389	<i>Entomophaga maimaiga</i>	5869	<i>Furia gastropachae</i>	6227	<i>Beauveria amorpha</i>
5390	<i>Entomophaga maimaiga</i>	5870	<i>Furia gastropachae</i>	6233	<i>Beauveria bassiana</i>
5391	<i>Entomophaga maimaiga</i>	5871	<i>Furia gastropachae</i>	6238	<i>Metarhizium guizhouense</i>
5392	<i>Entomophaga maimaiga</i>	5872	<i>Furia gastropachae</i>	6239	<i>Nomuraea rileyi</i>

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6240	<i>Isaria cateniannulata</i>	6645	<i>Nomuraea rileyi</i>	6802	<i>Beauveria bassiana</i>
6242	<i>Isaria cateniannulata</i>	6646	<i>Beauveria bassiana</i>	6803	<i>Beauveria bassiana</i>
6245	<i>Isaria farinosa</i>	6647	<i>Beauveria bassiana</i>	6804	<i>Beauveria bassiana</i>
6248	<i>Cordyceps militaris</i>	6648	<i>Beauveria bassiana</i>	6805	<i>Beauveria bassiana</i>
6249	<i>Isaria tenuipes</i>	6649	<i>Fusarium</i> sp.	6806	<i>Beauveria bassiana</i>
6253	<i>Entomophaga maimaiga</i>	6650	<i>Beauveria bassiana</i>	6807	<i>Beauveria bassiana</i>
6254	<i>Entomophaga maimaiga</i>	6652	<i>Entomophaga maimaiga</i>	6808	<i>Beauveria bassiana</i>
6255	<i>Entomophaga maimaiga</i>	6653	<i>Entomophaga maimaiga</i>	6809	<i>Beauveria bassiana</i>
6256	<i>Entomophaga maimaiga</i>	6654	<i>Entomophaga maimaiga</i>	6866	<i>Nomuraea rileyi</i>
6257	<i>Entomophaga maimaiga</i>	6655	<i>Entomophaga maimaiga</i>	6867	<i>Nomuraea rileyi</i>
6258	<i>Entomophaga maimaiga</i>	6656	<i>Entomophaga maimaiga</i>	6868	<i>Nomuraea rileyi</i>
6264	<i>Entomophaga maimaiga</i>	6657	<i>Entomophaga maimaiga</i>	6869	<i>Nomuraea rileyi</i>
6265	<i>Entomophaga maimaiga</i>	6663	<i>Entomophaga maimaiga</i>	6870	<i>Nomuraea rileyi</i>
6266	<i>Entomophaga maimaiga</i>	6664	<i>Entomophaga maimaiga</i>	6871	<i>Nomuraea rileyi</i>
6267	<i>Entomophaga maimaiga</i>	6665	<i>Entomophaga maimaiga</i>	6872	<i>Nomuraea rileyi</i>
6268	<i>Entomophaga maimaiga</i>	6666	<i>Entomophaga maimaiga</i>	6873	<i>Nomuraea rileyi</i>
6269	<i>Entomophaga maimaiga</i>	6667	<i>Entomophaga maimaiga</i>	6874	<i>Nomuraea rileyi</i>
6270	<i>Entomophaga maimaiga</i>	6668	<i>Entomophaga maimaiga</i>	6875	<i>Nomuraea rileyi</i>
6271	<i>Entomophaga maimaiga</i>	6724	<i>Entomophaga maimaiga</i>	6876	<i>Nomuraea rileyi</i>
6272	<i>Entomophaga maimaiga</i>	6725	<i>Entomophaga maimaiga</i>	6877	<i>Nomuraea rileyi</i>
6282	<i>Hirsutella sinensis</i>	6726	<i>Entomophaga maimaiga</i>	6878	<i>Nomuraea rileyi</i>
6284	<i>Paecilomyces sinensis</i>	6727	<i>Entomophaga maimaiga</i>	6879	<i>Nomuraea rileyi</i>
6285	<i>Paecilomyces sinensis</i>	6728	<i>Entomophaga maimaiga</i>	6881	<i>Nomuraea rileyi</i>
6286	<i>Sporothrix insectorum</i>	6729	<i>Entomophaga maimaiga</i>	6882	<i>Nomuraea rileyi</i>
6293	<i>Pandora blunckii</i>	6732	<i>Nomuraea rileyi</i>	6889	<i>Isaria tenuipes</i>
6294	<i>Pandora blunckii</i>	6734	<i>Nomuraea rileyi</i>	6892	<i>Beauveria bassiana</i> (?)
6295	<i>Pandora blunckii</i>	6735	<i>Nomuraea rileyi</i>	6893	<i>Isaria fumosorosea</i>
6296	<i>Pandora blunckii</i>	6736	<i>Nomuraea rileyi</i>	6894	<i>Beauveria bassiana</i>
6297	<i>Pandora blunckii</i>	6737	<i>Nomuraea rileyi</i>	6904	<i>Beauveria bassiana</i>
6298	<i>Pandora blunckii</i>	6738	<i>Nomuraea rileyi</i>	6905	<i>Beauveria bassiana</i>
6299	<i>Pandora blunckii</i>	6739	<i>Nomuraea rileyi</i>	6917	<i>Zoopthora radicans</i>
6300	<i>Pandora blunckii</i>	6740	<i>Nomuraea rileyi</i>	6931	<i>Beauveria bassiana</i>
6301	<i>Pandora blunckii</i>	6741	<i>Nomuraea rileyi</i>	6932	<i>Beauveria bassiana</i>
6302	<i>Pandora blunckii</i>	6742	<i>Nomuraea rileyi</i>	6933	<i>Beauveria bassiana</i>
6303	<i>Zoopthora radicans</i>	6743	<i>Nomuraea rileyi</i>	6934	<i>Beauveria bassiana</i>
6304	<i>Pandora blunckii</i>	6744	<i>Nomuraea rileyi</i>	6935	<i>Beauveria bassiana</i>
6305	<i>Pandora blunckii</i>	6745	<i>Nomuraea rileyi</i>	6936	<i>Beauveria bassiana</i>
6306	<i>Pandora blunckii</i>	6746	<i>Nomuraea rileyi</i>	6937	<i>Beauveria bassiana</i>
6307	<i>Pandora blunckii</i>	6747	<i>Nomuraea rileyi</i>	6938	<i>Beauveria bassiana</i>
6308	<i>Pandora blunckii</i>	6748	<i>Nomuraea rileyi</i>	6939	<i>Beauveria bassiana</i>
6309	<i>Pandora blunckii</i>	6749	<i>Nomuraea rileyi</i>	6940	<i>Beauveria bassiana</i>
6310	<i>Pandora blunckii</i>	6764	<i>Nomuraea rileyi</i>	6941	<i>Beauveria bassiana</i>
6311	<i>Pandora blunckii</i>	6765	<i>Nomuraea rileyi</i>	6943	<i>Beauveria bassiana</i>
6312	<i>Pandora blunckii</i>	6766	<i>Nomuraea rileyi</i>	6949	<i>Beauveria bassiana</i>
6313	<i>Zoopthora radicans</i>	6767	<i>Nomuraea rileyi</i>	6950	<i>Beauveria bassiana</i>
6314	<i>Zoopthora radicans</i>	6768	<i>Nomuraea rileyi</i>	6951	<i>Beauveria bassiana</i>
6315	<i>Zoopthora radicans</i>	6769	<i>Nomuraea rileyi</i>	6952	<i>Beauveria bassiana</i>
6316	<i>Pandora blunckii</i>	6770	<i>Nomuraea rileyi</i>	6953	<i>Beauveria bassiana</i>
6474	<i>Metarhizium brunneum</i>	6771	<i>Nomuraea rileyi</i>	6971	<i>Beauveria bassiana</i>
6475	<i>Metarhizium anisopliae sensu lato</i>	6772	<i>Nomuraea rileyi</i>	6972	<i>Beauveria bassiana</i>
6476	<i>Metarhizium robertsii</i>	6773	<i>Nomuraea rileyi</i>	6973	<i>Beauveria bassiana</i>
6514	<i>Beauveria bassiana</i>	6774	<i>Nomuraea rileyi</i>	6974	<i>Beauveria bassiana</i>
6523	<i>Entomophaga maimaiga</i>	6775	<i>Nomuraea rileyi</i>	6975	<i>Beauveria bassiana</i>
6524	<i>Entomophaga maimaiga</i>	6776	<i>Nomuraea rileyi</i>	6976	<i>Beauveria bassiana</i>
6533	<i>Beauveria</i> sp.	6777	<i>Nomuraea rileyi</i>	6977	<i>Beauveria bassiana</i>
6534	<i>Beauveria</i> sp.	6778	<i>Nomuraea rileyi</i>	6981	<i>Beauveria bassiana</i>
6535	<i>Beauveria</i> sp.	6779	<i>Nomuraea rileyi</i>	6984	<i>Beauveria bassiana</i>
6536	<i>Beauveria</i> sp.	6780	<i>Nomuraea rileyi</i>	7014	<i>Metarhizium anisopliae sensu lato</i>
6537	<i>Beauveria</i> sp.	6781	<i>Nomuraea rileyi</i>	7015	<i>Metarhizium anisopliae sensu lato</i>
6556	<i>Beauveria bassiana</i>	6782	<i>Nomuraea rileyi</i>	7016	<i>Metarhizium anisopliae sensu lato</i>
6557	<i>Beauveria bassiana</i>	6783	<i>Nomuraea rileyi</i>	7017	<i>Metarhizium anisopliae sensu lato</i>
6558	<i>Metarhizium anisopliae sensu lato</i>	6784	<i>Nomuraea rileyi</i>	7018	<i>Metarhizium anisopliae sensu lato</i>
6591	<i>Lecanicillium muscarium</i>	6785	<i>Nomuraea rileyi</i>	7019	<i>Metarhizium anisopliae sensu lato</i>
6625	<i>Entomophaga maimaiga</i>	6786	<i>Nomuraea rileyi</i>	7020	<i>Metarhizium anisopliae sensu lato</i>
6626	<i>Entomophaga maimaiga</i>	6787	<i>Nomuraea rileyi</i>	7021	<i>Metarhizium anisopliae sensu lato</i>
6627	<i>Entomophaga maimaiga</i>	6788	<i>Isaria tenuipes</i>	7022	<i>Metarhizium anisopliae sensu lato</i>
6628	<i>Entomophaga maimaiga</i>	6796	<i>Beauveria bassiana</i>	7023	<i>Metarhizium anisopliae sensu lato</i>
6629	<i>Entomophaga maimaiga</i>	6799	<i>Isaria fumosorosea</i>	7024	<i>Metarhizium anisopliae sensu lato</i>
6630	<i>Entomophaga maimaiga</i>	6800	<i>Isaria fumosorosea</i>	7025	<i>Metarhizium anisopliae sensu lato</i>
6632	<i>Gliocladium</i> sp.	6801	<i>Beauveria bassiana</i>	7026	<i>Metarhizium anisopliae sensu lato</i>

7045	<i>Fusarium</i> sp.	7357	<i>Beauveria bassiana</i>	7820	<i>Metarhizium anisopliae</i> sensu lato
7046	<i>Fusarium</i> sp.	7358	<i>Beauveria bassiana</i>	7821	<i>Metarhizium anisopliae</i> sensu lato
7047	<i>Cordyceps bassiana</i>	7359	<i>Beauveria bassiana</i>	7822	<i>Metarhizium anisopliae</i> sensu lato
7052	<i>Nomuraea rileyi</i>	7362	<i>Beauveria bassiana</i>	7823	<i>Metarhizium anisopliae</i> sensu lato
7053	<i>Nomuraea rileyi</i>	7364	<i>Beauveria bassiana</i>	7847	<i>Metarhizium anisopliae</i> sensu lato
7054	<i>Nomuraea rileyi</i>	7365	<i>Beauveria bassiana</i>	7924	<i>Sporothrix insectorum</i>
7055	<i>Nomuraea rileyi</i>	7370	<i>Batkoa</i> sp.	7955	<i>Beauveria bassiana</i>
7056	<i>Nomuraea rileyi</i>	7479	<i>Nomuraea rileyi</i>	7956	<i>Beauveria bassiana</i>
7060	<i>Beauveria bassiana</i>	7480	<i>Nomuraea rileyi</i>	7957	<i>Beauveria bassiana</i>
7093	<i>Beauveria bassiana</i>	7481	<i>Nomuraea rileyi</i>	7958	<i>Beauveria bassiana</i>
7095	<i>Polycephalomyces ramosus</i>	7482	<i>Nomuraea rileyi</i>	7959	<i>Beauveria bassiana</i>
7101	<i>Entomophaga maimaiga</i>	7484	<i>Nomuraea rileyi</i>	7960	<i>Beauveria</i> sp.
7102	<i>Entomophaga maimaiga</i>	7531	<i>Isaria farinosa</i>	7961	<i>Isaria farinosa</i>
7103	<i>Entomophaga maimaiga</i>	7552	<i>Beauveria bassiana</i>	7962	<i>Isaria farinosa</i>
7104	<i>Entomophaga maimaiga</i>	7553	<i>Beauveria bassiana</i>	7963	<i>Beauveria bassiana</i>
7105	<i>Entomophaga maimaiga</i>	7554	<i>Beauveria brongniartii</i>	7964	<i>Beauveria bassiana</i>
7106	<i>Entomophaga maimaiga</i>	7555	<i>Beauveria brongniartii</i>	7965	<i>Beauveria bassiana</i>
7107	<i>Entomophaga maimaiga</i>	7556	<i>Beauveria brongniartii</i>	7966	<i>Beauveria bassiana</i>
7108	<i>Entomophaga maimaiga</i>	7557	<i>Beauveria brongniartii</i>	7967	<i>Metarhizium anisopliae</i> sensu lato
7109	<i>Entomophaga maimaiga</i>	7558	<i>Beauveria brongniartii</i>	7968	<i>Beauveria bassiana</i>
7110	<i>Entomophaga maimaiga</i>	7559	<i>Beauveria brongniartii</i>	7969	<i>Beauveria bassiana</i>
7111	<i>Entomophaga maimaiga</i>	7560	<i>Beauveria brongniartii</i>	7995	<i>Paecilomyces</i> sp.
7112	<i>Entomophaga maimaiga</i>	7561	<i>Beauveria brongniartii</i>	8001	<i>Paecilomyces</i> sp.
7113	<i>Entomophaga maimaiga</i>	7562	<i>Beauveria</i> sp.	8012	<i>Cordyceps militaris</i>
7114	<i>Entomophaga maimaiga</i>	7563	<i>Beauveria</i> sp.	8032	<i>Beauveria bassiana</i>
7115	<i>Entomophaga maimaiga</i>	7564	<i>Beauveria</i> sp.	8033	<i>Beauveria bassiana</i>
7116	<i>Entomophaga maimaiga</i>	7565	<i>Beauveria</i> sp.	8034	<i>Beauveria brongniartii</i>
7118	<i>Isaria farinosa</i>	7566	<i>Beauveria</i> sp.	8035	<i>Beauveria bassiana</i>
7120	<i>Entomophaga maimaiga</i>	7567	<i>Beauveria</i> sp.	8039	<i>Beauveria bassiana</i>
7121	<i>Entomophaga maimaiga</i>	7568	<i>Lecanicillium muscarium</i>	8040	<i>Beauveria bassiana</i>
7122	<i>Entomophaga maimaiga</i>	7569	<i>Metarhizium anisopliae</i> sensu lato	8043	<i>Cylindrocarpus</i> sp.
7123	<i>Entomophaga maimaiga</i>	7570	<i>Metarhizium anisopliae</i> sensu lato	8044	<i>Cylindrocarpus</i> sp.
7124	<i>Entomophaga maimaiga</i>	7571	<i>Metarhizium anisopliae</i> sensu lato	8066	<i>Beauveria bassiana</i>
7125	<i>Entomophaga maimaiga</i>	7572	<i>Metarhizium anisopliae</i> sensu lato	8212	<i>Metarhizium anisopliae</i> sensu lato
7126	<i>Entomophaga maimaiga</i>	7573	<i>Metarhizium anisopliae</i> sensu lato	8214	<i>Metarhizium flavoviride</i> var. <i>novazealandicum</i>
7127	<i>Entomophaga maimaiga</i>	7574	<i>Isaria farinosa</i>	8311	<i>Purpureocillium lilacinum</i>
7131	<i>Entomophaga maimaiga</i>	7575	<i>Isaria farinosa</i>	8312	<i>Purpureocillium lilacinum</i>
7132	<i>Entomophaga maimaiga</i>	7576	<i>Isaria farinosa</i>	8333	<i>Isaria fumosorosea</i>
7133	<i>Entomophaga maimaiga</i>	7579	<i>Beauveria</i> sp.	8334	<i>Metarhizium anisopliae</i> sensu lato
7134	<i>Entomophaga maimaiga</i>	7585	<i>Beauveria bassiana</i>	8335	<i>Metarhizium anisopliae</i> sensu lato
7135	<i>Entomophaga maimaiga</i>	7586	<i>Beauveria</i> sp.	8336	<i>Metarhizium anisopliae</i> sensu lato
7136	<i>Entomophaga maimaiga</i>	7587	<i>Beauveria</i> sp.	8337	<i>Isaria fumosorosea</i>
7137	<i>Entomophaga maimaiga</i>	7593	<i>Beauveria bassiana</i>	8338	<i>Metarhizium anisopliae</i> sensu lato
7138	<i>Entomophaga maimaiga</i>	7594	<i>Beauveria</i> sp.	8339	<i>Beauveria bassiana</i>
7139	<i>Entomophaga maimaiga</i>	7598	<i>Beauveria</i> sp.	8340	<i>Beauveria bassiana</i>
7140	<i>Entomophaga aulicae</i>	7599	<i>Evlachovaea</i> sp.	8341	<i>Metarhizium anisopliae</i> sensu lato
7141	<i>Entomophaga aulicae</i>	7600	<i>Evlachovaea</i> sp.	8342	<i>Metarhizium anisopliae</i> sensu lato
7142	<i>Entomophaga aulicae</i>	7601	<i>Evlachovaea</i> sp.	8343	<i>Beauveria bassiana</i>
7143	<i>Entomophaga aulicae</i>	7612	<i>Metarhizium anisopliae</i> sensu lato	8344	<i>Metarhizium anisopliae</i> sensu lato
7144	<i>Entomophaga aulicae</i>	7613	<i>Metarhizium anisopliae</i> sensu lato	8345	<i>Isaria fumosorosea</i>
7145	<i>Entomophaga aulicae</i>	7614	<i>Metarhizium anisopliae</i> sensu lato	8346	<i>Metarhizium anisopliae</i> sensu lato
7148	<i>Nomuraea rileyi</i>	7615	<i>Metarhizium anisopliae</i> sensu lato	8347	<i>Metarhizium anisopliae</i> sensu lato
7149	<i>Nomuraea rileyi</i>	7621	<i>Lecanicillium muscarium</i>	8348	<i>Isaria fumosorosea</i>
7150	<i>Nomuraea rileyi</i>	7714	<i>Isaria farinosa</i>	8349	<i>Beauveria bassiana</i>
7151	<i>Nomuraea rileyi</i>	7720	<i>Isaria farinosa</i>	8350	<i>Metarhizium anisopliae</i> sensu lato
7183	<i>Entomophaga maimaiga</i>	7722	<i>Isaria farinosa</i>	8351	<i>Metarhizium anisopliae</i> sensu lato
7184	<i>Entomophaga maimaiga</i>	7723	<i>Isaria farinosa</i>	8352	<i>Metarhizium anisopliae</i> sensu lato
7185	<i>Entomophaga maimaiga</i>	7724	<i>Isaria farinosa</i>	8353	<i>Metarhizium anisopliae</i> sensu lato
7186	<i>Entomophaga maimaiga</i>	7725	<i>Isaria farinosa</i>	8354	<i>Beauveria bassiana</i>
7187	<i>Entomophaga maimaiga</i>	7726	<i>Isaria farinosa</i>	8355	<i>Beauveria bassiana</i>
7188	<i>Entomophaga maimaiga</i>	7730	<i>Isaria farinosa</i>	8356	<i>Beauveria bassiana</i>
7189	<i>Entomophaga maimaiga</i>	7731	<i>Isaria farinosa</i>	8431	<i>Beauveria bassiana</i>
7190	<i>Entomophaga maimaiga</i>	7743	<i>Isaria fumosorosea</i>	8432	<i>Metarhizium anisopliae</i> sensu lato
7192	<i>Cordyceps cardinalis</i>	7778	<i>Nomuraea rileyi</i>	8433	<i>Metarhizium anisopliae</i> sensu lato
7193	<i>Cordyceps cardinalis</i>	7779	<i>Nomuraea rileyi</i>	8434	<i>Metarhizium anisopliae</i> sensu lato
7221	<i>Cordyceps pruinosa</i>	7780	<i>Nomuraea rileyi</i>	8435	<i>Metarhizium anisopliae</i> sensu lato
7274	<i>Beauveria bassiana</i>	7808	<i>Cordyceps</i> sp.	8436	<i>Metarhizium anisopliae</i> sensu lato
7352	<i>Entomophaga maimaiga</i>	7809	<i>Cordyceps militaris</i>	8437	<i>Metarhizium anisopliae</i> sensu lato
7353	<i>Entomophaga maimaiga</i>	7810	<i>Cordyceps militaris</i>	8438	<i>Metarhizium anisopliae</i> sensu lato
7356	<i>Beauveria bassiana</i>	7811	<i>Cordyceps</i> sp.		

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8439	<i>Evlachovaea</i> sp.	9534	<i>Isaria tenuipes</i>
8440	<i>Metarhizium anisopliae</i> sensu lato	9540	Unidentified / <i>Hyphomycetes</i>
8441	<i>Evlachovaea</i> sp.	9541	<i>Metarhizium anisopliae</i> sensu lato
8442	<i>Evlachovaea</i> sp.	9596	<i>Beauveria</i> sp.
8443	<i>Metarhizium anisopliae</i> sensu lato	9599	<i>Beauveria brongniartii</i>
8444	<i>Beauveria bassiana</i>	9601	<i>Isaria cateniannulata</i>
8445	<i>Metarhizium anisopliae</i> sensu lato	9603	<i>Hirsutella liboensis</i>
8446	<i>Metarhizium anisopliae</i> sensu lato	9943	<i>Scopulariopsis brevicaulis</i>
8447	<i>Metarhizium anisopliae</i> sensu lato	10224	<i>Isaria fumosorosea</i>
8448	<i>Isaria fumosorosea</i>	10470	<i>Fusarium</i> sp.
8449	<i>Evlachovaea</i> sp.	10473	<i>Metarhizium anisopliae</i> sensu stricto
8450	<i>Metarhizium anisopliae</i> sensu lato		
8451	<i>Metarhizium anisopliae</i> sensu lato		
8452	<i>Metarhizium anisopliae</i> sensu lato		
8453	<i>Metarhizium anisopliae</i> sensu lato		
8454	<i>Metarhizium anisopliae</i> sensu lato		
8493	<i>Beauveria bassiana</i>		
8560	<i>Metarhizium anisopliae</i> sensu lato		
8660	<i>Metarhizium anisopliae</i> sensu lato		
8661	<i>Beauveria bassiana</i>		
8662	<i>Metarhizium anisopliae</i> sensu lato		
8663	<i>Beauveria bassiana</i>		
8664	<i>Beauveria bassiana</i>		
8665	<i>Metarhizium anisopliae</i> sensu lato		
8666	<i>Beauveria bassiana</i>		
8667	<i>Beauveria bassiana</i>		
8669	<i>Metarhizium anisopliae</i> sensu lato		
8670	<i>Beauveria bassiana</i>		
8671	<i>Metarhizium brunneum</i>		
8672	<i>Beauveria bassiana</i>		
8673	<i>Beauveria bassiana</i>		
8674	<i>Beauveria bassiana</i>		
8675	<i>Beauveria</i> sp.		
8680	<i>Metarhizium anisopliae</i> sensu lato		
8681	<i>Metarhizium anisopliae</i> sensu lato		
8682	<i>Metarhizium anisopliae</i> sensu lato		
8683	<i>Metarhizium anisopliae</i> sensu lato		
8684	<i>Metarhizium anisopliae</i> sensu lato		
8685	<i>Metarhizium anisopliae</i> sensu lato		
8686	<i>Metarhizium anisopliae</i> sensu lato		
8687	<i>Metarhizium anisopliae</i> sensu lato		
8688	<i>Metarhizium anisopliae</i> sensu lato		
8689	<i>Metarhizium anisopliae</i> sensu lato		
8690	<i>Metarhizium anisopliae</i> sensu lato		
8691	<i>Metarhizium anisopliae</i> sensu lato		
8692	<i>Metarhizium anisopliae</i> sensu lato		
8709	<i>Beauveria bassiana</i>		
8735	<i>Metarhizium anisopliae</i> sensu lato		
8736	<i>Metarhizium anisopliae</i> var. <i>majus</i>		
8769	<i>Metarhizium anisopliae</i> sensu lato		
8770	<i>Isaria farinosa</i>		
8843	<i>Beauveria bassiana</i>		
8891	<i>Beauveria bassiana</i>		
8926	<i>Furia gastropachae</i>		
9380	<i>Isaria fumosorosea</i>		
9445	<i>Beauveria bassiana</i>		
9458	<i>Lecanicillium</i> sp.		
9468	<i>Lecanicillium muscarium</i>		
9469	<i>Lecanicillium muscarium</i>		
9477	<i>Lecanicillium muscarium</i>		
9484	<i>Cordyceps militaris</i>		
9486	<i>Cordyceps</i> sp.		
9489	<i>Nomuraea rileyi</i>		
9490	<i>Nomuraea rileyi</i>		
9493	<i>Clonostachys rosea</i>		
9501	<i>Sporothrix insectorum</i>		
9515	<i>Isaria farinosa</i>		
9520	<i>Isaria fumosorosea</i>		
9531	<i>Isaria tenuipes</i>		
9532	<i>Isaria tenuipes</i>		