

USDA-ARS Collection
of Entomopathogenic
Fungal Cultures

ARSef

Slime-Spored Genera:

Lecanicillium and similar genera



Biological Integrated Pest Management Research
Robert W. Holley Center for Agriculture & Health
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New nomenclatural rules bring new challenges, and new taxonomic revisions for entomopathogenic fungi

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

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

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

Table 1. UPDATES for probable outcomes under 1F=1N standards for which genera of entomopathogens in Hypocreales are likely to be treated as ‘correct’ (in boldface) that differ (where underlined>) from what was suggested in Humber’s (2012) poster presented at the SIP meeting in Buenos Aires, AR.

Family Clavicipitaceae

Humber (2012)

Metarhizium (synonyms: *Metacordyceps*, *Nomuraea*, *Pochonia*, *Rotiferophthora*, etc.)

Aschersonia (synonym: *Hypocrella*)

Other aschersonioid genera;

Moelleriella*, *Orbiocrella*, *Regiocrella*, *Samuelsia

Updated (see Kepler et al. 2014)

Metarhizium (synonyms: *Chamaeleomyces*, *Metacordyceps*, *Nomuraea*)
Pochonia

Metapochonia

Rotiferophthora

Aschersonia (synonym: *Hypocrella*)

Other aschersonioid genera;

Moelleriella*, *Orbiocrella*, *Regiocrella*, *Samuelsia

Family Cordycipitaceae

Humber (2012)

Cordyceps (synonyms: *Beauveria*, *Isaria*, *Lecanicillium*, *Evlachovaea*, *Microhilum*, *Simplicillium*, etc.)

Torrubiella (synonyms: *Akanthomyces*, *Gibellula*, *Granulomanus*, *Pseudogibellula*)

Ascopolyporus

Conoidiocrella

Updated probable choices:

Cordyceps (possible synonyms: *Torrubiella*^{1,2}, *Lecanicillium*¹)

Beauveria

Gibellula (synonym: *Granulomanus*)

Isaria (synonym: *Evlachovaea*)

Ascopolyporus

Conoidiocrella

Family Ophiocordycipitaceae

Humber (2012)

Elaphocordyceps (synonym: *Tolypocladium*)

Ophiocordyceps (synonyms: *Hirsutella*³, *Hymenostilbe*, *Paraisaria*, *Sorosporrella*, *Syngliocladium*)

Updated probable choices:

Elaphocordyceps (synonym: *Tolypocladium*)

Ophiocordyceps (synonyms *Hirsutella*³, *Hymenostilbe*, *Paraisaria*, *Sorosporrella*, *Syngliocladium*)

Polycephalomyces (see Kepler et al. 2012)

¹ Separate status or synonymy depends on more complete determination for status of type species.

² As traditionally defined, a polyphyletic group with spp attributable to all clavicipitoid families; see Johnson et al. 2009.

³ May be recognized as separate from *Ophiocordyceps* but status and circumscription still undetermined.

IMPORTANT NOTE: If not treated as a separate genus, *Hirsutella* might be recognized as a correct name to replace the younger generic name *Ophiocordyceps*.

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

How correct names will be chosen: The ultimate selection of correct names over all possible competing names will depend on a number of sequential actions by a significant number of persons in a series of committees, and will be subject to all of the difficulties that routinely accompany committee actions. The exact set of actions that will be occurring still remain uncertain in many quarters. For fungi in the Hypocreales (the entomopathogens most affected by the new rule and also raising the greatest concerns for insect pathologists), there is a world-wide group of mycologists with strong taxonomic/systematics expertise who

will consider the demonstrated phylogenies of these fungi, assemble lists of generic names that appear to apply to monophyletic groups of taxa, and that will formally propose a set of choices of correct genera (and their synonyms) to the IAPT's Nomenclature Committee for Fungi. Once this committee has cast their votes to accept (or to modify) any of the proposed choices, the lists of accepted and rejected names will be sent forward to the General Committee of the IAPT for ratification, and then to the Nomenclature Session of the next International Botanical Congress (the next such meeting will be in 2017, in Beijing; any reports from the Committee for Fungi that miss the deadlines for this next Congress would be passed on to the following Congress in 2023 (wherever that may be held). No nomenclatural changes or decisions of any type become completely official until they have been accepted by majority votes during the Nomenclature Session at an International Botanical Congress and then ratified by a plenary vote of the Congress participants at that Congress. It is interesting to note that the only constitutive reason for holding any International Botanical Congress is actually for holding these Nomenclatural Sessions (before the main Congress) and the final, obligatory vote on the acceptance of the report from the Nomenclatural Session during the closing plenary session of the Congress.

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

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

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

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

ARSEF responses to taxonomic revisions: The identifications in the ARSEF catalog have always incorporated new taxa and appropriately revised classifications as soon as the collection staff can confirm the correct new identifications for ARSEF holdings. We make every attempt in the catalog to note specifically when those identifications are based on genomic sequence data. For taxa where extensive molecular revisions have occurred, those isolates with genomically confirmed identifications—for example, for isolates of *Beauveria bassiana* and *Metarhizium anisopliae* in their molecularly redefined, phylogenetically narrowed,

strict senses (*sensu stricto*)—are listed in the catalog as these species; isolates that have not been molecular confirmed are placed in separate listings for these species in their broad senses (*sensu lato*).

GENERAL AND PHYLOGENETIC RECLASSIFICATIONS OF FUNGI

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

Beauveria — **Rehner et al. 2011**

Fusarium — **O'Donnell et al. 2012**

Metarhizium — **Bischoff et al. 2009; Kepler & Rehner 2013; Kepler et al. 2014**

Metacordyceps — **Kepler et al. 2012**

Polycephalomyces — **Kepler et al. 2013**

FLAGELLATE FUNGI AND FUNGAL ALLIES

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

ENTOMOPHTHOROMYCOTA: A NEW PHYLUM

The phylogenetically driven reclassification of all fungi (**Hibbett et al., 2007**) resulted in the abandonment of the phylum Zygomycota (as well as the subphylum Zygomycotina and class Zygomycetes) because these long-recognized taxa were finally proven to be distinctly polyphyletic. A series of subphyla not assigned to any phylum were described in **Hibbett et al. (2007)** while placing arbuscular mycorrhizal fungi (Glomales) in a clearly distinct phylum, Glomeromycota. Since that initial formal dispersal of zygomycete fungi, the new (still unassigned) subphylum Mortierellomycotina was described (**Hoffmann et al. 2011**). It was always understood that it was probable that further phylogenetic studies on these unassigned subphyla of zygomycetous fungi could eventually result in raising each of these subphyla to phylum ranking. In the case of the Entomophthoromycotina, these 'missing' phylogenetic studies have been completed in a sufficiently convincing manner (**Gryganskyi et al. 2012a,b**) to support the description of the phylum Entomophthoromycota (**Humber 2012**) with a new and phylogenetically revised classification of entomophthoroid fungi into three classes (see **Table 2**).

Table 2. Phylum Entomophthoromycota (Humber 2012).

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

¹ Genus with phylogenetic support but still awaiting formal description.

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

³ Subfamily Massosporoideae proposed by Keller & Petrini (2005) is not phylogenetically supported.

⁴ Phylogenetic data support Zoophthora, but distinctions among other genera remain uncertain.

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

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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

1–5 isolates [up to 7 per calendar year]

no charge

6 or more isolates per order [8 or more per calendar year]

US\$60 per strain

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 strain

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. We encourage prepayment for isolates. *Checks or money orders for strains must be payable to the **Boyce Thompson Institute*** but sent directly to the curator of the ARS Collections of Entomopathogenic Fungi. 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**

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

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

***Conidiobolus thromboides* Drechsler**

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

73	ARSEF accession number.
[CSIRO EM534; FPMI 28]	Alternative depositions of this strain in other culture collections.
RG Kenneth (3040)	Depositor and depositor's reference or accession number.
←ATCC (24419)←DM MacLeod ←G Thoizon	Culture provenance: RG Kenneth obtained the culture from ATCC, which received it from DM MacLeod, who received it from G Thoizon.
<i>Rhopalosiphum insertum</i> [Acari: Eriophyidae]	Original host [host's order and family]
Rec'd Jan 18 1976	Date of receipt by ARSEF.
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]. Jan 1 1970. USA: Orlando, Florida.

137	ARSEF accession number.
[ATCC 24874; CBS 952.73]	Alternative depositions of this strain in other culture collections.
CW McCoy (Fla. 68)	Depositor and depositor's reference or accession number.
<i>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://wdcm.nig.ac.jp/WDCHomePage_text.html>

ARSEF	ARS Collection of Entomopathogenic Fungi, USDA-ARS BiolPM Research Unit, Robert W. Holley Center for Agriculture & Health, Tower Rd., Ithaca, New York, 14853-2901, USA
ATCC	American Type Culture Collection, PO Box 1549, Manassas, Virginia 20108, USA
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza, Proyecto UIP, Apdo. Postal 7170, Turrialba, Costa Rica.
CBS	Centraalbureau voor Schimmelcultures, Uppsalalaan 8, 3584 CT Utrecht, The Netherlands
CCF	Culture Collection of Fungi, Department of Botany, Charles University, Prague, Czech Republic
CCFC	Canadian Collection of Fungus Cultures, Centre for Land and Biological Resources Research, Room 1015, K.W. Neatby Bldg., Ottawa, Ontario K1A 0C6, Canada
CDC	Centers for Disease Control and Prevention, Atlanta, Georgia 30333, USA
CENARGEN	Centro Nacional de Pesquisa de Recursos Geéticos e Biotecnologia, S.A.I.N. Parque Rural, C.P. 102372, 70770 Brasília, D.F., Brazil
CIRI	Corn Insects Research Unit, USDA-ARS, R.R. Box 45B, Ankeny, Iowa 50021, USA
CNPAF	National Center for Agricultural Research on Rice and Beans, EMBRAPA, Goiânia, Goiás, Brazil
CNPS	National Center for Agricultural Research on Soybeans, EMBRAPA, Londrina, Paraná, Brazil
CP	Strains isolated during joint US-Brazil program funded by US-AID to study fungal biocontrol of the insect pests of cowpeas
DAOM	National Mycological Herbarium, Centre for Land and Biological Resources Research, Agriculture Canada, Central Experimental Farm, Ottawa, Ontario, K1A 0C6, Canada
DAR	New South Wales Department of Agriculture, 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	The Pennsylvania State University, 211 Buckhout Laboratory, University Park, Pennsylvania 16802, USA
QEC	Queen Elizabeth College, University of London, Department of Biology, Campden Hill Road, London W8 7AH, England, UK
QM	U.S. Army Natick Laboratories (formerly, Quartermaster Research and Development Center), Natick Massachusetts. Note: This collection has been transferred to NRRL.
RSA	Rancho Santa Ana Botanic Garden, 1500 North College Ave., Claremont, California 91711, USA
SBI	Sugarcane Breeding Institute, Indian Council of Agricultural Research, Coimbatore – 641 007, Tamil Nadu, India
UAF	University of Arkansas, Department of Entomology, 321 Agriculture Building, Fayetteville, Arkansas 72701, USA
UAMH	University of Alberta Microfungus Collection, Devonian Botanic Garden, University of Alberta, Alberta T6G 2H7, Canada

***Acremonium* sp.**

[Sordariomycetes: Hypocreales]

- 4058 T Steenberg (BP2). *Bemisia tabaci* [Hemiptera: Aleyrodidae]. Jul 1989. Denmark: Lyngby, Zealand.
- 4059 T Steenberg (BP4). *Bemisia tabaci* [Hemiptera: Aleyrodidae]. Jul 1989. Denmark: Lyngby, Zealand.
- 4063 T Steenberg (TT5) ← H Brødsgaard. *Thrips tabaci* [Thysanoptera: Thripidae]. Jul 1989. Denmark: Greenhouse, Lyngby, Zealand.
- 5773 BL Parker (AT 145). *Adelges tsugae* [Hemiptera: Adelgidae]. Oct 1997. USA: Forest Park, Massachusetts.
- 7402 M Liu (ml189). 17 Dec 2003. USA: Toro Negro, Puerto Rico.
- 11667 JL Hatting (MSIRI 58). *Pulvinaria iceryi* [Hemiptera: Coccidae]. 25 Jul 2011. Mauritius: Sugarcane field, Mare d'Australia, Flacq.

***Acremonium alternatum* Link : Fries**

[Sordariomycetes: Hypocreales]

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

***Acremonium bactrocephalum* W Gams**

[Sordariomycetes: Hypocreales]

- 10166 [ERL 1828] S Gouli (Thr.-10-36) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Richford, Vermont.
- 10167 [ERL 1829] S Gouli and V Gouli (Thr.-10-37). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10168 [ERL 1830] S Gouli (Thr.-10-38) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10169 [ERL 1831] S Gouli and V Gouli (Thr.-10-39). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Langdon, New Hampshire.

***Acremonium 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.

***Acremonium furcatum* F&R Moreau ex Gams**

[Sordariomycetes: Microascales]

Microascaceae

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

***Acremonium psammosporum* W Gams**

[Sordariomycetes: Hypocreales]

- 4062 T Steenberg (TT3) ← H Brødsgaard. *Thrips tabaci* [Thysanoptera: Thripidae]. Jul 1989. Denmark: Greenhouse, Lyngby, Zealand.

***Acremonium 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.

***Acremonium*(?) sp.**

[Sordariomycetes: Hypocreales]

- 7031 RG Hollingsworth (KNF2001-10). *Frankliniella occidentalis* [Thysanoptera: Thripidae] from laboratory colony. 16 May 2001. USA: U. S. Pacific Basin Agricultural Research Center, Hilo, Hawaii.
- 7036 RG Hollingsworth (KNF2002-6). [Hemiptera: Coccidae]. 26 Jan 2002. USA: Bird Park, Volcano, Hawaii.
- 9368 [ERL 1668] S Gouli (HWA-G-17) and V Gouli. *Adelges tsugae* [Hemiptera: Adelgidae]. 2009. USA: New Hampshire.

***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/beechn. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.
- 4082 KT Hodge (C2). Pupa, [Lepidoptera] Mixed hemlock/beechn. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.
- 4083 KT Hodge (C3). Pupa, [Lepidoptera] Mixed hemlock/beechn. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.
- 4084 KT Hodge (C4). Pupa, [Lepidoptera] Mixed hemlock/beechn. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.
- 4085 KT Hodge (D1). Pupa, [Lepidoptera] Mixed hemlock/beechn. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.
- 4086 KT Hodge (D2). Pupa, [Lepidoptera] Mixed hemlock/beechn. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.
- 4087 KT Hodge (D3). Pupa, [Lepidoptera] Mixed hemlock/beechn. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.

- 4088 KT Hodge (D4). Pupa, [Lepidoptera] Mixed hemlock/beechn. 29 Jul 1993. USA: Long Point, Raquette Lake, New York.
- 4089 KT Hodge (D5). Pupa, [Lepidoptera] Mixed hemlock/beechn. 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.
- 4847 JM Sung (C-275). Adult, Host not specified. 4 Sep 1993. Republic of Korea: Yongmoon Mt., Gyeonggi Province.
- 4857 JM Sung (C-418). Pupa, Host not specified. 3 Sep 1994. Republic of Korea: KNU Experiment Forest, Kangwon National University.
- 4869 JM Sung (C-225-1). Larva, Host not specified. 14 Aug 1993. Republic of Korea: Chiag Mt., Kangwon-do.
- 4873 JM Sung (C-238). Pupa, Host not specified. 14 Aug 1993. Republic of Korea: Chiag Mt., Kangwon-do.
- 4874 JM Sung (C-273). Pupa, Host not specified. 14 Aug 1993. Republic of Korea: Mt. Chil-gap, Choong-Chung Nam Do.
- 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.

- 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.
- 5804 DJ Lodge. Rec'd 7 Aug 1998. USA: Big Tree Trail, Puerto Rico. Ascospore culture from specimen accessioned as PR-4894.
- 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.
- 8011 BC King (CmE). Spring 2003. Canada: Pacific Spirit Regional Park, Vancouver, British Columbia. GenBank match - AB027379 (100%) LSU. **RESTRICTED ACCESS:** consult Curator.
- 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.
- 11703 T Wen (LG-11-15). Pupa, [Lepidoptera]. 2011. PR China: Leigong Mountain, Guizhou Province.
- 11704 T Wen (KM-1). Pupa, [Lepidoptera]. 2005. PR China: Kunming, Yunnan Province.
- Culicinomyces bisporalis*** Sigler, Frances & Panter [Sordariomycetes: Hypocreales]
- 1948 [UAMH 5174] SP Frances (MM1) and AW Sweeney. Larva, *Aedes kochi* [Diptera: Culicidae] breeding in leaf axils. 4 Jun 1984. Australia: Millaa Millaa, Queensland.
- 1949 [UAMH 5175] SP Frances (MM2) and AW Sweeney. Larva, *Aedes kochi* [Diptera: Culicidae] breeding in leaf axils. 8 Jun 1985. Australia: Millaa Millaa, Queensland. **RESTRICTED ACCESS:** consult Curator.
- 360 DW Roberts ← JN Couch. *Anopheles quadrimaculatus* [Diptera: Culicidae]. USA: University Lake, Chapel Hill, North Carolina.
- 372 [UAMH 4848] JN Couch. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 1979. USA: University Lake, Chapel Hill, North Carolina.
- 541 [ARSEF 644] DW Roberts ← AW Sweeney (298A). Larva, *Anopheles amictus hilli* [Diptera: Culicidae]. 31 Oct 1980. Australia: Sydney, New South Wales.
- 582 [UAMH 4849] LS Olive (single spore isolate #1) ← SV Romney. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 10 Apr 1981. USA: University Lake, Chapel Hill, North Carolina.
- 583 [UAMH 4869] LS Olive (single spore isolate #2) ← SV Romney. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 10 Apr 1981. USA: University Lake, Chapel Hill, North Carolina.
- 584 [UAMH 4850] LS Olive (single spore isolate #3) ← SV Romney. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 10 Apr 1981. USA: University Lake, Chapel Hill, North Carolina.
- 585 LS Olive (single spore isolate #4) ← SV Romney. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 10 Apr 1981. USA: University Lake, Chapel Hill, North Carolina.
- 644 [ARSEF 541 (lost)] AW Sweeney (298A). Larva, *Anopheles amictus hilli* [Diptera: Culicidae]. Rec'd 13 Oct 1981. Australia: Sydney, New South Wales.
- 645 AW Sweeney (298B). Larva, *Anopheles amictus hilli* [Diptera: Culicidae]. Rec'd 13 Aug 1981. Australia: Sydney, New South Wales.
- 706 [UAMH 4851] AL Knight. Larva, [Diptera: Culicidae]. Rec'd Feb 1982. USA: North Carolina.
- 964 [ATCC 52635; CBS 755.83; IMI 280342] UAMH (4618) ← MS Goettel (FI-59). Larva, *Culiseta inornata* [Diptera: Culicidae]. 12 Aug 1982. Canada: pond, N of Devon, Alberta.
- 1260 UAMH (4854) ← MS Goettel (25B). Larva, *Culiseta inornata* [Diptera: Culicidae]. Acc'd 3 May 1984. Laboratory manipulation.
- 2471 SP Frances (MI2). Larva, *Aedes rupestris* [Diptera: Culicidae]. 8 Dec 1981. Australia: Mittagong, New South Wales.
- 2472 SP Frances (MI4). Larva, *Aedes rupestris* [Diptera: Culicidae]. 5 Jan 1982. Australia: Mittagong, New South Wales.
- 2473 SP Frances (MI5). Larva, *Aedes rupestris* [Diptera: Culicidae]. 12 May 1982. Australia: Mittagong, New South Wales.

- 2474 SP Frances (MI7). Larva, *Aedes rupestris* [Diptera: Culicidae]. 19 May 1982. Australia: Mittagong, New South Wales.
- 2475 SP Frances (MI11). Larva, *Aedes rupestris* [Diptera: Culicidae]. 9 Jun 1982. Australia: Mittagong, New South Wales.
- 2476 SP Frances (MI17). Larva, *Aedes rupestris* [Diptera: Culicidae]. 18 Aug 1982. Australia: Mittagong, New South Wales.
- 2477 SP Frances (MI19). Larva, *Aedes rupestris* [Diptera: Culicidae]. 6 Apr 1983. Australia: Mittagong, New South Wales.
- 2478 SP Frances (MI21). Larva, *Dasyhelea* sp. [Diptera: Ceratopogonidae]. 27 Apr 1983. Australia: Mittagong, New South Wales.
- 2479 SP Frances (VI1). Larva, *Culiseta inconspicua* [Diptera: Culicidae]. 6 Dec 1984. Australia: Mallacoota, Victoria.
- 2480 SP Frances (QI1) ← DW Roberts and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 16 Aug 1985. Australia: Millaa Millaa, Queensland.
- 2481 SP Frances (QI2). Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 30 Oct 1985. Australia: Millaa Millaa, Queensland.
- 2482 UAMH (4854) ← MS Goettel (25B). *Culiseta inornata* [Diptera: Culicidae]. Acc'd 19 Nov 1987. Laboratory manipulation.
- 2526 SP Frances (MI14). Rec'd 26 Oct 1987. Location not specified.
- 2527 SP Frances (MI16). Rec'd 26 Oct 1987. Location not specified.
- 2622 MS Goettel ← SP Frances (MI26) and AW Sweeney. [Diptera: Culicidae]. Acc'd 20 Oct 1988. Australia.

***Gliocladium* sp.**

[Sordariomycetes: Hypocreales]

- 1965 [CNPAF 85-7-25; CP 191] JC Lord and BP Magalhães. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 25 Jul 1985. Brazil: Ribeira do Pombal, Bahia.
- 5175 S Gouli (GP-18). Rec'd 14 May 1996. Location not specified.
- 5177 S Gouli (GP-25). *Adelges tsugae* [Hemiptera: Adelgidae] on *Tsuga canadensis*. 14 Mar 1996. USA: Mt. Tom, Holyoke, Massachusetts.
- 6632 JL Hatting. [Lepidoptera: Sesiidae] on *Aspalathus contaminatus*, Rooibos tea. Rec'd 27 Sep 2000. South Africa: Western Cape, Cape Province.
- 8467 WC Luz (eco 25). Isolated from soil sample. Rec'd 7 Jun 2007. **RESTRICTED ACCESS:** *consult Curator.*

Gliocladium roseum (Link:Fries) Thom

[Sordariomycetes: Hypocreales]

- 3001 SV Krueger (MF-S). Soil. Feb 1990. USA: Geneva, New York.

***Gliocladium*(?) sp.**

[Sordariomycetes: Hypocreales]

- 6579 G Sewify (1). *Icerya purchasi* [Hemiptera: Margarodidae]. May 2000. Egypt.
- 6583 G Sewify (5). *Icerya purchasi* [Hemiptera: Margarodidae]. May 2000. Egypt.
- 6896 E Zhioua (Tick #2). *Ixodes scapularis* [Acari: Ixodidae]. Rec'd May 2001.

Haptocillium balanoides (Drechsler) Zare & Gams

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae. Major synonym: *Verticillium balanoides* (Drechsler) Dowsett, Reid & Hopkin

- 2483 [ATCC 46576; DAOM 185098] UAMH (5256) ← JA Dowsett. Phylum Nemata, Class Secernentea. Acc'd 1 Dec 1987. Canada: Manitoba.
- 3173 P Timper. *Aphelenchoides* sp. [Aphelenchida: Aphelenchoididae]. Rec'd 5 Nov 1991. USA: potato field, Long Island, New York.
- 3350 P Timper ← BA Jaffee. Phylum Nemata, Class Secernentea. Rec'd 19 Jun 1991. USA: California.
- 5617 SL Glockling (K1). Phylum Nemata from rabbit dung. 9 Jul 1996. Japan: Amami Islands.

Haptocillium sinense (KG Zhang, L Cao & ZQ Liang)

Zare & Gams

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae. Major synonym: *Verticillium sinense* KG Zhang, L Cao & ZQ Liang

- 5618 [CBS 101431] SL Glockling (RT). Phylum Nemata from rotten tubers. 28 Jun 1995. Japan: Ibaraki, Ibaraki Prefecture.

Harposporium anguillulae Lohde

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

- 4954 N Viaene (1). Juvenile-2, *Meloidogyne hapla* [Tylenchida: Heteroderidae] soil. 25 Sep 1992. USA: Dutch Ridge Road, Oswego, New York.
- 5407 KT Hodge (1). Phylum Nemata Mixed soils from various apple orchards. Summer 1996. USA: Wayne County, New York.
- 5408 KT Hodge (A). Phylum Nemata Mixed soils from various apple orchards. Summer 1996. USA: Wayne County, New York.
- 5409 KT Hodge (B). Phylum Nemata Mixed soils from various apple orchards. Summer 1996. USA: Wayne County, New York.
- 5593 SL Glockling (CGa). Phylum Nemata from grass cuttings. 10 Jan 1997. Japan: Ibaraki, Ibaraki Prefecture.
- 5594 SL Glockling (RSa). Phylum Nemata from rotten stems. 21 Jul 1995. Japan: Ibaraki, Ibaraki Prefecture.

- 5595 SL Glockling (MA). Phylum Nemata from mud under rotten *Allium*. 18 Jan 1996. Japan: Amami Islands.
- 5659 SL Glockling. Phylum Nemata from rabbit dung. 1 Sep 1995. Japan: Amami Islands.
- Harposporium arcuatum*** GL Barron
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 5596 SL Glockling (VEG). Phylum Nemata from decaying vegetation. 22 Nov 1996. Japan: Ibaraki, Ibaraki Prefecture.
- 5597 SL Glockling (PA). Phylum Nemata from decaying vegetation. 9 May 1996. Japan: Ibaraki, Ibaraki Prefecture.
- 5598 SL Glockling (Drain). Phylum Nemata from drain. 20 Jun 1996. Japan: Ibaraki, Ibaraki Prefecture.
- Harposporium botuliforme*** GL Barron
[Sordariomycetes: Hypocreales]
-
- 10275 CG Wilson (mg40). *Adineta vaga* [Bdelloida: Adinetidae] maintained in culture as bait. 22 Oct 2009. USA: Neimi Road, Cornell Research Ponds facility, Dryden, New York. Isolated from soil.
- Harposporium bysmatosporum*** Drechsler
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 5656 SL Glockling. Phylum Nemata from cow manure. 11 Nov 1997. United Kingdom.
- Harposporium cerberi*** W Gams, KT Hodge & Viaene
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 5123 [ATCC 201113; CBS 600.92] H Velvis (EP 26). Phylum Nemata, Class Secernentea. 1992. Netherlands: soil under grassland, Finsterwolde. Culture ex type. Holotype specimen accessioned in the Cornell Plant Pathology Herbarium as CUP 63892.
- Harposporium cocleatum*** Drechsler
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 9382 CG Wilson (io4). 12 May 2009. USA: Cornell Lab of Ornithology, Ithaca, New York.
- Harposporium cycloides*** Drechsler
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 5599 SL Glockling (N3). Phylum Nemata from soil and dung. 12 May 1995. Japan: Ibaraki, Ibaraki Prefecture.
- 5600 SL Glockling (K2a). Phylum Nemata from rabbit dung. 9 Jul 1996. Japan: Amami Islands.
- Harposporium dicorymbum*** Drechsler
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 5658 SL Glockling. Phylum Nemata from grass cuttings. 10 Jan 1997. Japan.
- Harposporium helicoides*** Drechsler
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 5354 [ATCC 18766; CBS 944.70] GL Barron (No. 10773). Phylum Nemata. Rec'd 24 Oct 1996. Canada.
- Harposporium janus*** Shimazu & Glockling
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 5601 SL Glockling. Larva, [Coleoptera: Cerambycidae] on tree trunk. Rec'd 2 Dec 1997. Japan.
- Harposporium leptospira*** Drechsler
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 5602 SL Glockling (AL). Phylum Nemata from *Allium* leaves. 16 Oct 1995. Japan: Ibaraki, Ibaraki Prefecture.
- 5603 SL Glockling (A2). Phylum Nemata from rabbit dung. 1 Sep 1995. Japan: Amami Islands.
- Harposporium lilliputanum*** S.M. Dixon
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 5604 SL Glockling (DC). Phylum Nemata from decayed chestnuts. 8 Jun 1995. Japan: Ibaraki, Ibaraki Prefecture.
- 8425 ME Smith (Harpo3). Phylum Nemata collected from soil. 22 May 2006. USA: UC Davis Bodega Marine Reserve, Bodega Bay, California.
- Harposporium microsporium*** Glockling
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 8424 ME Smith (Harpo1). Phylum Nemata collected from soil. 25 May 2006. USA: UC Davis Bodega Marine Reserve, Bodega Bay, California.
- Harposporium oxycoracum*** Drechsler
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 8426 ME Smith (Harpo4). Phylum Nemata collected from soil. 22 May 2006. USA: UC Davis Bodega Marine Reserve, Bodega Bay, California.

Harposporium sp.

[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae

5410 KT Hodge ← GJ Samuels (GJS 96-242). Host unknown on log. 6 May 1996. Costa Rica: Los Alturas Biological Station, Parque Internacional La Armistad. Anamorph of *Cordyceps* sp. Produces arthrosporic and *Hirsutella* synanamorphs. Capable of parasitizing *Rhabditis* sp. [Nemata] in vitro. Specimen accessioned as BPI 749196 (S.M. Huhndorf 2243A).

Harposporium spirosporum GL Barron

[Sordariomycetes: Hypocreales]

8821 CG Wilson (db2). *Habrotracha elusa* [Bdelloida: Habrotrachidae]. 16 Jun 2008. USA: Cornell University, Plant Science greenhouse, Ithaca, New York.
10271 CG Wilson (mg38). *Habrotracha elusa* [Bdelloida: Habrotrachidae] maintained in culture as bait. 22 Oct 2009. USA: Neimi Road, Cornell Research Ponds facility, Dryden, New York. Isolated from soil.

Harposporium subuliforme Drechsler

[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae

5605 SL Glockling (E). Phylum Nemata from soil. 25 Feb 1997. Japan: Ibaraki, Ibaraki Prefecture.
5657 SL Glockling. Phylum Nemata from cow manure. 11 Nov 1997. United Kingdom.

Lecanicillium sp.

[Sordariomycetes: Hypocreales]
Cordycipitaceae

2009 CIRPON ← M Yasem de Romero. *Toxoptera citricida* [Hemiptera: Aphididae]. 1985. Argentina: Tucumán.
3253 M Brownbridge (B). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 1990. USA: Allegheny Forest, Elk County, Pennsylvania.
3254 M Brownbridge (C). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 1990. USA: Allegheny Forest, Elk County, Pennsylvania.
3255 M Brownbridge (D). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 1990. USA: Allegheny Forest, Elk County, Pennsylvania.
3259 M Brownbridge (I). Brown larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 12 Dec 1990. USA: Krug, Massachusetts.
3260 M Brownbridge (J). Brown larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 12 Dec 1990. USA: Krug, Massachusetts.
7373 LG Leite. [Acari] on leaves of *Coffea* sp., coffee. Rec'd 20 May 2004. Brazil: São Paulo.
7407 M Liu (ml161). Dec 2003. USA: Maricao Forest Reserve, near visitor's center, Maricao, Puerto Rico.

7544 BJ Cole (C7). *Pogonomyrmex occidentalis* [Hymenoptera: Formicidae] Colony 645. Summer 2004. USA: Mesa County, Colorado.
7622 [SRCAMB VL-925] V Likhovidov. *Parthenolecanium corni* [Hemiptera: Coccidae]. 28 Aug 2002. Russian Federation: Caucasus region, Mostovsky District, Krasnodarsky Krai. Field Collection Number F-163.
7624 [SRCAMB VL-408] V Likhovidov. [Lepidoptera] Isolated from stroma of *Cordyceps* sp. 30 Jul 2001. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-212.
7625 [SRCAMB VL-406] V Likhovidov. [Lepidoptera] Isolated from stroma of *Cordyceps* sp. Jul 2001. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-213.
7626 [SRCAMB B-61] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps militaris*. Aug 2002. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-214.
7627 [SRCAMB B-65] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps militaris*. Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-215.
7628 [SRCAMB B-81] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps militaris*. Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-216.
7629 [SRCAMB B-60] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps militaris*. 12 Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-217.
7630 [SRCAMB B-42] V Likhovidov ← BA Borisov. Pupa, [Hymenoptera: Vespidae] Isolated from stroma. 8 Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-219.
7632 [SRCAMB B-59] V Likhovidov ← BA Borisov. Pupa, [Lepidoptera] Isolated from stroma of *Cordyceps militaris*. Jul 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-238.
7634 [SRCAMB B-259] V Likhovidov ← BA Borisov. Larva, [Diptera: Xylophagidae] Isolated from stroma of *Cordyceps* sp. 13 Jul 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-312.
7635 [SRCAMB B-255] V Likhovidov ← BA Borisov. Larva, [Coleoptera: Elateridae] Isolated from stroma of *Cordyceps corallomyces*. 12 Aug 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-323.

- 7636 [SRCAMB B-260] V Likhovidov ← BA Borisov. Larva, [Coleoptera: Elateridae] Isolated from stroma of *Cordyceps stylophora*. 11 Jul 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-340.
- 7849 [SRCAMB B-88] V Likhovidov ← BA Borisov. Larva, [Diptera: Xylophagidae] Isolated from stroma of *Cordyceps corallomyces*. Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-220.
- 8476 WC Luz (eco 81). Isolated from soil sample. Rec'd 7 Jun 2007. **RESTRICTED ACCESS: consult Curator.**
- 8639 [CENARGEN CG 826] *Leptopharsa heveae* [Hemiptera: Tingidae]. Rec'd 18 Sep 2007. Brazil: Itiquira, Mato Grosso. **RESTRICTED ACCESS: consult Curator.**
- 9163 [ERL 751] VS Gouli (CA-771). Isolated from soil sample. 2002. USA: California.
- 9175 [ERL 1352] VS Gouli (HWA-06/10). *Adelges tsugae* [Hemiptera: Adelgidae]. 2006. USA: Massachusetts.
- 9176 [ERL 1353] VS Gouli (HWA-06/11). *Adelges tsugae* [Hemiptera: Adelgidae]. 2006. USA: Massachusetts.
- 9177 [ERL 1564] VS Gouli (Scale-09/10). [Hemiptera: Coccoidea] on ornamental lemon tree. 2009. USA: Vermont.
- 9458 [SRCAMB VL-1169] V Likhovidov. *Tortrix viridana* [Lepidoptera: Tortricidae]. 22 Jul 2003. Russian Federation: Serpukhov District, Moscow Region. Field Collection Number F-352.
- 9459 [SRCAMB VL-1587/2] V Likhovidov. [Coleoptera: Silphidae]. 14 Sep 2004. Russian Federation: Caucasus region, Karachayevo-Cherkessiya Republ. Field Collection Number F-524.
- 9465 [SRCAMB VL-2005] V Likhovidov. Phylum Myxomycota, Class Myxomycetes. 5 Sep 2005. Russian Federation: Moscow Region. Field Collection Number F-862.
- 9466 [SRCAMB VL-2109] V Likhovidov. *Orthezia urticae* [Hemiptera: Ortheziidae]. 14 Sep 2006. Russian Federation: Moscow Region. Field Collection Number F-1093.
- 9478 [SRCAMB VL-2099] V Likhovidov. Isolated from stroma of *Elaphocordyceps capitata* 25 Aug 2006. Russian Federation: Tver Region. Field Collection Number F-1088.
- 9609 T Myles. Rec'd 16 Mar 2010.
- 9924 [ERL 1768] S Gouli (HWA-G-46) and V Gouli. *Adelges tsugae* [Hemiptera: Adelgidae]. 2009. USA: New Hampshire.
- 9925 [ERL 1769] S Gouli and V Gouli (HWA-G-47). *Adelges tsugae* [Hemiptera: Adelgidae]. 2009. USA: New Hampshire.
- 9926 [ERL 1770] S Gouli (HWA-G-48) and V Gouli. *Adelges tsugae* [Hemiptera: Adelgidae]. 2009. USA: New Hampshire.
- 9930 [ERL 1774] S Gouli (Thr.-09-6) and V Gouli. [Thysanoptera: Thripidae]. 2010. USA: Vermont.
- 9931 [ERL 1775] S Gouli and V Gouli (Thr.-09-7). [Thysanoptera: Thripidae]. 2010. USA: Vermont.
- 9935 [ERL 1779] S Gouli and V Gouli (Thr.-09-11). [Thysanoptera: Thripidae]. 2010. USA: Vermont.
- 9936 [ERL 1780] S Gouli (Thr.-09-12) and V Gouli. [Thysanoptera: Thripidae]. 2010. USA: Vermont.
- 10154 [ERL 1814] S Gouli (Thr.-10-16) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Altona, New York.
- 10164 [ERL 1824] S Gouli (Thr.-10-26) and V Gouli. [Acari] mites. 2010. USA: Rupert, Vermont.
- 10187 [ERL 1865] S Gouli (Thr.-10-73) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10188 [ERL 1866] S Gouli and V Gouli (Thr.-10-74). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10189 [ERL 1867] S Gouli (Thr.-10-75) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10190 [ERL 1868] S Gouli and V Gouli (Thr.-10-76). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10192 [ERL 1870] S Gouli and V Gouli (Thr.-10-78). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Westfield, Vermont.
- 10193 [ERL 1871] S Gouli (Thr.-10-79) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Bakersfield, Vermont.
- 10195 [ERL 1873] S Gouli (Thr.-10-81) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Bakersfield, Vermont.
- 10196 [ERL 1874] S Gouli and V Gouli (Thr.-10-82). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Bakersfield, Vermont.
- 10197 [ERL 1875] S Gouli (Thr.-10-83) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Richford, Vermont.
- 10198 [ERL 1876] S Gouli and V Gouli (Thr.-10-84). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Richford, Vermont.
- 10199 [ERL 1877] S Gouli (Thr.-10-85) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Richford, Vermont.
- 10200 [ERL 1878] S Gouli and V Gouli (Thr.-10-86). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Richford, Vermont.
- 10201 [ERL 1879] S Gouli (Thr.-10-87) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
- 10202 [ERL 1880] S Gouli and V Gouli (Thr.-10-88). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.

- 10203 [ERL 1881] S Gouli (Thr.-10-89) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
- 10206 [ERL 1884] S Gouli and V Gouli (Thr.-10-92). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Orford, New Hampshire.
- 10207 [ERL 1885] S Gouli (Thr.-10-93) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Orford, New Hampshire.
- 10208 [ERL 1886] S Gouli (Thr.-10-94) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10209 [ERL 1887] S Gouli and V Gouli (Thr.-10-95). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10210 [ERL 1888] S Gouli (Thr.-10-96) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10211 [ERL 1889] S Gouli and V Gouli (Thr.-10-97). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10212 [ERL 1890] S Gouli (Thr.-10-98) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10213 [ERL 1891] S Gouli and V Gouli (Thr.-10-99). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10214 [ERL 1892] S Gouli (Thr.-10-100) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Rupert, Vermont.
- 10215 [ERL 1893] S Gouli and V Gouli (Thr.-10-101). [Acari]. 2010. USA: Rupert, Vermont.
- 10216 [ERL 1894] S Gouli (Thr.-10-102) and V Gouli. [Acari]. 2010. USA: Rupert, Vermont.
- 10217 [ERL 1895] S Gouli and V Gouli (Thr.-10-103). [Acari]. 2010. USA: Sharon Springs, New York.
- 10218 [ERL 1896] S Gouli (Thr.-10-104) and V Gouli. [Acari]. 2010. USA: Sharon Springs, New York.
- 10287 [ERL 1932] S Gouli (Thr.-10-138) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10288 [ERL 1933] S Gouli (Thr.-10-139) and D Tobi. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10289 [ERL 1934] S Gouli and V Gouli (Thr.-10-140). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10290 [ERL 1935] S Gouli (Thr.-10-141) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10291 [ERL 1936] S Gouli (Thr.-10-142) and D Tobi. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Bakersfield, Vermont.
- 10294 [ERL 1939] S Gouli (Thr.-10-145) and D Tobi. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
- 10295 [ERL 1940] S Gouli and V Gouli (Thr.-10-146). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
- 10296 [ERL 1941] S Gouli (Thr.-10-147) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
- 10297 [ERL 1942] S Gouli (Thr.-10-148) and D Tobi. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
- 10298 [ERL 1943] S Gouli and V Gouli (Thr.-10-149). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
- 10299 [ERL 1944] S Gouli (Thr.-10-150) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
- 10300 [ERL 1945] S Gouli (Thr.-10-151) and D Tobi. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
- 10301 [ERL 1946] S Gouli and V Gouli (Thr.-10-152). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
- 10302 [ERL 1947] S Gouli (Thr.-10-153) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Orford, New Hampshire.
- 10303 [ERL 1948] S Gouli (Thr.-10-154) and D Tobi. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Orford, New Hampshire.
- 10304 [ERL 1949] S Gouli and V Gouli (Thr.-10-155). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Orford, New Hampshire.
- 10305 [ERL 1950] S Gouli (Thr.-10-156) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Orford, New Hampshire.
- 10306 [ERL 1951] S Gouli (Thr.-10-157) and D Tobi. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Orford, New Hampshire.
- 11638 [ERL 627] S Gouli (CA-736) and V Gouli. Isolated from soil sample. 2002. USA: California.
- 11639 [ERL 580] S Gouli (CA-698) and V Gouli. Isolated from soil sample. 2002. USA: California.
- 11640 [ERL 583] S Gouli and V Gouli (CA-681). Isolated from soil sample. 2002. USA: California.
- 11641 [ERL 584] S Gouli (CA-682) and V Gouli. Isolated from soil sample. 2002. USA: California.
- 11642 [ERL 585] S Gouli and V Gouli (CA-683). Isolated from soil sample. 2002. USA: California.
- 11643 [ERL 586] S Gouli (CA-707) and V Gouli. Isolated from soil sample. 2002. USA: California.
- 11644 [ERL 587] S Gouli and V Gouli (CA-737). Isolated from soil sample. 2002. USA: California.
- 11645 [ERL 588] S Gouli (CA-761) and V Gouli. Isolated from soil sample. 2002. USA: California.

- 11646 [ERL 589] S Gouli and V Gouli (CA-791). Isolated from soil sample. 2002. USA: California.
- 11647 [ERL 590] S Gouli (CA-792) and V Gouli. Isolated from soil sample. 2002. USA: California.
- 11648 [ERL 591] S Gouli and V Gouli (HWA-SP). *Adelges tsugae* [Hemiptera: Adelgidae]. 2002. USA: Massachusetts.
- 11649 [ERL 620] S Gouli (CA-706) and V Gouli. Isolated from soil sample. 2002. USA: California.
- 11696 Z Demirbag (Gg9) ← E Sönmez. *Gryllotalpa gryllotalpa* [Orthoptera: Gryllotalpidae]. Jan 2011. Turkey: Trabzon City, Trabzon.
- 11748 [ERL 1978] Isolated from soil from ant nest. 2011. USA: Brady-Eden, Texas.
- 11798 [ERL 2056] S Gouli (THR-11-45) and V Gouli. [Diptera: Bibionidae]. 2011. USA: Sharon Springs, New York.
- 12052 [ERL 2139] S Gouli (PS-12/1) and V Gouli. Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Vaccinium* sp., blueberry. Sep 2012. USA: Kingston, Rhode Island.
- 12053 [ERL 2140] S Gouli and V Gouli (PS-12/2). Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Carya* sp., hickory. Sep 2012. USA: Charlestown, Rhode Island.
- 12054 [ERL 2141] S Gouli (PS-12/3) and V Gouli. Imago, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Carya* sp., hickory. Sep 2012. USA: Charlestown, Rhode Island.
- 12055 [ERL 2142] S Gouli and V Gouli (PS-12/4). Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Carya* sp., hickory. Sep 2012. USA: Charlestown, Rhode Island.
- 12056 [ERL 2143] S Gouli (PS-12/5) and V Gouli. Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Quercus alba* L., white oak. Sep 2012. USA: Charlestown, Rhode Island.
- 12057 [ERL 2144] S Gouli and V Gouli (PS-12/6). Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Quercus alba* L., white oak. Sep 2012. USA: Charlestown, Rhode Island.
- 12058 [ERL 2145] S Gouli (PS-12/7) and V Gouli. Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Quercus rubra* L., northern red oak. Sep 2012. USA: Charlestown, Rhode Island.
- 12059 [ERL 2146] S Gouli and V Gouli (PS-12/8). Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Betula alleghaniensis* Britton, yellow birch. Sep 2012. USA: Charlestown, Rhode Island.
- 12060 [ERL 2147] S Gouli (PS-12/9) and V Gouli. Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Clethra* sp., sweetpepperbush. Sep 2012. USA: Charlestown, Rhode Island.
- 12061 [ERL 2148] S Gouli and V Gouli (PS-12/10). Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Gaylussacia* sp., huckleberry. Sep 2012. USA: Charlestown, Rhode Island.
- 12062 [ERL 2149] S Gouli (PS-12/11) and V Gouli. Imago, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Quercus rubra* L., northern red oak. Sep 2012. USA: Charlestown, Rhode Island.
- 12063 [ERL 2150] S Gouli and V Gouli (PS-12/12). Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Quercus alba* L., white oak. Sep 2012. USA: Richmond, Rhode Island.
- 12064 [ERL 2151] S Gouli (PS-12/13) and V Gouli. Imago, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Quercus alba* L., white oak. Sep 2012. USA: Richmond, Rhode Island.
- 12065 [ERL 2152] S Gouli and V Gouli (PS-12/14). Imago, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Quercus alba* L., white oak. Sep 2012. USA: Richmond, Rhode Island.
- 12066 [ERL 2153] S Gouli (PS-12/15) and V Gouli. Imago, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Quercus alba* L., white oak. Sep 2012. USA: Richmond, Rhode Island.
- 12067 [ERL 2154] S Gouli and V Gouli (PS-12/16). Imago, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Quercus alba* L., white oak. Sep 2012. USA: Richmond, Rhode Island.
- 12068 [ERL 2155] S Gouli (PS-12/17) and V Gouli. Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Prunus serotina* Ehrh., black cherry. Sep 2012. USA: Richmond, Rhode Island.
- 12069 [ERL 2156] S Gouli and V Gouli (PS-12/18). Imago, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Quercus rubra* L., northern red oak. Sep 2012. USA: Richmond, Rhode Island.
- 12070 [ERL 2157] S Gouli (PS-12/19) and V Gouli. Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Quercus rubra* L., northern red oak. Sep 2012. USA: Richmond, Rhode Island.
- 12071 [ERL 2158] S Gouli and V Gouli (PS-12/20). Larva, *Parthenolecanium* sp. [Hemiptera: Coccidae] on *Betula populifolia* Marshall, gray birch. Sep 2012. USA: Richmond, Rhode Island.
- 12089 [ERL 2176] S Gouli and V Gouli (HWA-12/4). Nymph, *Adelges tsugae* [Hemiptera: Adelgidae] on *Tsuga canadensis* (L.) Carrière, eastern hemlock. Nov 2012. USA: Brattleboro, Vermont.

***Lecanicillium aphanocladii* Zare & W Gams**

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Major synonym: *Aphanocladium araneorum* (Petch) W Gams

- 2324 TJ Poprawski (8648). *Myzus* nr. *persicae* [Hemiptera: Aphididae]. 14 Nov 1986. France: greenhouse, Béhoust, Yvelines.

- 6433 DEN Rangel (FTRI A1) ← Triangulo Agroindustrial S.A.. Rec'd 14 Feb 2001. Brazil: Pontes e Lacerda, Mato Grosso.
- 9440 [SRCAMB B-238] V Likhovidov ← BA Borisov. Isolated from stroma of *Cordyceps variegata* 12 Jul 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-923.
- 9461 [SRCAMB B-230] V Likhovidov ← BA Borisov. Isolated from air sample. Apr 2003. Russian Federation: environs of Moscow, Moscow Region. Field Collection Number F-252.
- 9611 JG Banu (1). *Paracoccus marginatus* [Hemiptera: Pseudococcidae]. Dec 2009. India: Coimbatore, Tamil Nadu.
- 9615 S Jeyarani (TNAU 1). *Tetranychus urticae* [Acari: Tetranychidae] on *Cajanus cajan* (L.) Millsp., red gram. Jan 2010. India: Coimbatore, Tamil Nadu.

Lecanicillium aphanocladii(?) Zare & W Gams

[Sordariomycetes: Hypocreales]

Cordycipitaceae

- 7985 [ARSEF 8640; CENARGEN CG 422] *Leptopharsa heveae* [Hemiptera: Tingidae]. Rec'd 29 Mar 2006. Brazil: Dom Aquino, Mato Grosso. **RESTRICTED ACCESS:** consult Curator.
- 7986 *Leptopharsa heveae* [Hemiptera: Tingidae]. Rec'd 29 Mar 2006. Brazil: Manaus, Amazonas. **RESTRICTED ACCESS:** consult Curator.
- 7987 Rec'd 29 Mar 2006. **RESTRICTED ACCESS:** consult Curator.

Lecanicillium evansii(?) Zare & W. Gams

[Sordariomycetes: Hypocreales]

Cordycipitaceae

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- 11789 [ERL 2014] S Gouli (THR-11-6) and V Gouli. [Thysanoptera: Thripidae]. 2011. USA: Underhill, Vermont.
- 11791 [ERL 2049] S Gouli and V Gouli (THR-11-38). [Thysanoptera: Thripidae]. 2011. USA: Debry, Vermont.
- 11792 [ERL 2050] S Gouli (THR-11-39) and V Gouli. [Thysanoptera: Thripidae]. 2011. USA: Underhill, Vermont.
- 11793 [ERL 2051] S Gouli and V Gouli (THR-11-40). [Thysanoptera: Thripidae]. 2011. USA: Underhill, Vermont.
- 11794 [ERL 2052] S Gouli (THR-11-41) and V Gouli. [Thysanoptera: Thripidae]. 2011. USA: Westfield, Vermont.
- 11795 [ERL 2053] S Gouli and V Gouli (THR-11-42). [Diptera]. 2011. USA: Underhill, Vermont.

- 11796 [ERL 2054] S Gouli (THR-11-43) and V Gouli. [Diptera: Simuliidae]. 2011. USA: Sharon Springs, New York.
- 11797 [ERL 2055] S Gouli and V Gouli (THR-11-44). [Hemiptera: Aphididae]. 2011. USA: Westfield, Vermont.
- 11804 [ERL 2062] S Gouli (THR-11-51) and V Gouli. [Hymenoptera]. 2011. USA: Westfield, Vermont.
- 11805 [ERL 2063] S Gouli and V Gouli (THR-11-52). Larva, [Coleoptera]. 2011. USA: Debry, Vermont.
- 11806 [ERL 2064] S Gouli (THR-11-53) and V Gouli. [Hymenoptera: Trichogrammatidae]. 2011. USA: Debry, Vermont.
- 11807 [ERL 2065] S Gouli and V Gouli (THR-11-54). [Protura]. 2011. USA: Westfield, Vermont.
- 11809 [ERL 2069] S Gouli and V Gouli (THR-11-58). [Thysanoptera: Thripidae]. 2011. USA: Westfield, Vermont.

Lecanicillium flavidum (W Gams & Zaayen) W Gams

& Zare

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Synonym: *Verticillium fungicola* var.*flavidum* W Gams & Zaayen

- 4519 KT Hodge (kth14). Basidiocarp, *Entoloma* sp. [Agaricales: Entolomataceae]. 9 Jul 1994. USA: Forest Home Drive, Ithaca, New York. Mycoparasite. Original specimen deposited in the Cornell University Plant Pathology Herbarium as CUP 63313.

Lecanicillium fungicola (Preuss) Zare & W Gams

[Sordariomycetes: Hypocreales]

Cordycipitaceae. Synonym: *Lecanicillium fungicola*

(Preuss) Hassebrauk

- 9482 [SRCAMB VL-1556/1] V Likhovidov. [Hemiptera: Aleyrodidae]. 12 Sep 2004. Russian Federation: Caucasus region, Sochi District, Krasnodarsky Krai. Field Collection Number F-493.
- 9483 [SRCAMB VL-2063] V Likhovidov. Larva, [Coleoptera: Elateridae] Isolated from *Cordyceps* sp. Aug 2005. Belarus: Belavezhskaya Puscha National Park. Field Collection Number F-928.
- Lecanicillium fusisporum* (W Gams) Zare & W Gams [Sordariomycetes: Hypocreales]
Cordycipitaceae. Synonym: *Verticillium fusisporum* W Gams
- 5583 T Steenberg (MP6-9). *Myzus persicae* [Hemiptera: Aphididae]. Rec'd 17 Nov 1997. Denmark: Lyngby, Zealand. Single spore isolate from ARSEF 4078.
- 11787 [ERL 2011] S Gouli and V Gouli (THR-11-3). [Thysanoptera: Thripidae]. 2011. USA: Altona, New York.
- 11808 [ERL 2068] S Gouli (THR-11-57) and V Gouli. [Thysanoptera: Thripidae]. 2011. USA: Altona, New York.

- Lecanicillium fusisporum*(?) (W Gams) Zare & W Gams
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Synonym: *Verticillium fusisporum* W. Gams
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- 5578 T Steenberg (625). Adult, *Musca domestica* [Diptera: Muscidae]. Aug 1997. Denmark: Store Karleby, Zealand.
- 5579 T Steenberg (626). Adult, *Musca domestica* [Diptera: Muscidae]. Aug 1997. Denmark: Roskilde, Zealand.
- 10184 [ERL 1863] S Gouli and V Gouli (Thr.-10-71). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Orford, New Hampshire.
- Lecanicillium lecanii* (Zimmermann) Zare & W Gams
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Segregate species in *Lecanicillium lecanii* species complex; formerly classified as *Verticillium lecanii* (Zimmermann) Viégas. Teleomorph: *Cordyceps confragosa* (Mains) GH Sung, JM Sung, Hywel-Jones & Spatafora [basonym: *Torrubiella confragosa* Mains]
-
- 555 P Kanagaratnam. *Lecanium viridis* [Hemiptera: Lecaniidae] on coffee on wet leaves under coconut. Dec 1980. Sri Lanka: Bandirippuwa Est., Coconut Res. Inst, Lunuwila.
- 1351 S Balazy (1592). Rec'd 19 May 1984. Poland.
- 1505 I Majchrowicz (70) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 1983. France: Entraigues, Vaucluse.
- 1787 IL Sivcev (287). 3rd instar larva, *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 1 Oct 1984. Yugoslavia: PKB Commune, E. Belgrade.
- 1905 MC Rombach (14). [Araneida] on cacao. Apr 1985. Solomon Islands: nr. Metapona, Guadalcanal.
- 2149 DG Holdom (030386-1). *Coccus viridis* [Hemiptera: Coccidae] on coffee. 3 Mar 1986. Indonesia: Yogyakarta, Java.
- 2150 DG Holdom (030386-2). *Coccus viridis* [Hemiptera: Coccidae] on coffee. 3 Mar 1986. Indonesia: Yogyakarta, Java.
- 3387 I Majchrowicz (40). *Myzus persicae* [Hemiptera: Aphididae] on cabbage. Jul 1991. USA: laboratory cages, Yakima, Washington.
- 3683 AD Ali and M Brownbridge (F1.2) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 1992. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3688 M Brownbridge (F6) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 1992. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 5706 JL Hatting (4). *Diuraphis noxia* [Hemiptera: Aphididae] on *Triticum aestivum*. 5 Sep 1997. South Africa: Moorreesburg, Western Cape Province.
- 5759 BL Parker (AT 128). *Adelges tsugae* [Hemiptera: Adelgidae]. 16 Oct 1997. USA: Gillette Castle State Park, Connecticut.
- 5785 BL Parker (HWA 115/1). *Adelges tsugae* [Hemiptera: Adelgidae]. 2 Apr 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5787 BL Parker (HWA 129). *Adelges tsugae* [Hemiptera: Adelgidae]. 2 Apr 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5794 BL Parker (HWA 242/1). *Adelges tsugae* [Hemiptera: Adelgidae]. 7 Mar 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5829 BL Parker (HWA 143/2). *Adelges tsugae* [Hemiptera: Adelgidae]. 2 Apr 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 6010 BL Parker ← V Gouli (SPT-R-151). Overwintering adult, *Eurygaster* sp. [Hemiptera: Scutelleridae]. 19 Sep 1998. Russian Federation: Volgograd.
- 6791 FJ Posada (CEFC V-0002). Adult, *Ceroplastes* sp. [Hemiptera: Coccidae] on *Passiflora adenopoda* DC., passionflower. Jul 2000. Colombia: Greenhouse, Chinchiná, Caldas.
- 6886 H Cortez Madrigal (Vu). *Uroleucon ambrosiae* [Hemiptera: Aphididae] on weed, *Compositae*. Aug 2000. Mexico: Cárdenas, Tabasco.
- 6887 H Cortez Madrigal (Vs). [Hemiptera: Aphididae] on forest tree. 22 Jun 2000. Mexico: Huimanguillo, Tabasco.
- 6888 H Cortez Madrigal (Ve). [Hemiptera: Coccidae] on ornamental tree. 4 Nov 1999. Mexico: Cárdenas, Tabasco.
- 6915 I Klingen (NCRI 03/01/VI). *Myzus cerasi* [Hemiptera: Aphididae]. 12 Jun 2001. Norway: Kaia, Ås, Akershus.
- 7181 H Liu (MSUFS-701). Adult, *Plectrodera scalator* [Coleoptera: Cerambycidae] from laboratory colony. 18 Dec 2001. USA: East Lansing, Michigan.
- 7182 H Liu (MSUFS-702). Adult, *Plectrodera scalator* [Coleoptera: Cerambycidae] from laboratory colony. 18 Dec 2001. USA: East Lansing, Michigan.
- 7207 [CEP 057] C López Lastra. *Trialeurodes vaporariorum* [Hemiptera: Aleyrodidae] on *Apium graveolens* var. *dulce* (Miller) Pers., celery. 7 Jul 2003. Argentina: El Peligro, La Plata, Buenos Aires. **RESTRICTED ACCESS:** consult Curator.
- 7385 M Liu (ml178-1). 16 Dec 2003. USA: Guilarte, Adjuntas, Puerto Rico. Cultured from *Torrubiella confragosa* Mains.
- 7408 M Liu (ml172-2). [Hemiptera: Coccoidea]. 16 Dec 2003. USA: Guilarte Forest Reserve, outside manager's office, Adjuntas, Puerto Rico. Cultured from *Torrubiella confragosa* Mains.
- 7462 [CEP 108] C López Lastra. *Myzus persicae* [Hemiptera: Aphididae] from laboratory colony. 25 Apr 2004. Argentina: La Plata, Buenos Aires. **RESTRICTED ACCESS:** consult Curator.

- 7530 S Keller (950). *Aphis rumicis* [Hemiptera: Aphididae]. 14 Oct 2003. Switzerland: Watt, Zurich.
- 7550 I Marchizeli Wenzel. [Hemiptera: Coccoidea]. Rec'd 24 Jan 2005. Brazil: Ubirajara, São Paulo.
- 8115 LS Bauer and H Liu (MF-204). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 14 Dec 2005. USA: Brighton, Michigan.
- 8295 YK Caner (21). Rec'd 22 Aug 2006. Turkey: mah 2, Seyhli, Istanbul.
- 11817 [ERL 2083] S Gouli and V Gouli (HWA-12-3). *Adelges tsugae* [Hemiptera: Adelgidae]. 2012. USA: Dummerston, Vermont.
- Lecanicillium lecanii*(?) (Zimmermann) Zare & Gams**
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Segregate species in *Lecanicillium lecanii* species complex; formerly classified as *Verticillium lecanii* (Zimmermann) Viégas.
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- 1109 KV Deseö (29) ← Pasqualini. *Cydia pomonella* [Lepidoptera: Tortricidae]. Apr 1982. Italy: Ravenna, Emilia-Romagna.
- 3689 M Brownbridge (F7) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 1992. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3882 [ARSEF 3836] N Underwood (3836) ← S Meyer (3836). *Diuraphis noxia* [Hemiptera: Aphididae]. Rec'd 24 Feb 1993. Laboratory manipulation. Reisolated from bioassay.
- 3883 [ARSEF 3837] N Underwood (3837) ← S Meyer (3837). *Diuraphis noxia* [Hemiptera: Aphididae]. Rec'd 24 Feb 1993. Laboratory manipulation. Reisolated from bioassay.
- 3884 [ARSEF 3839] S Meyer (3839) ← N Underwood (3839). *Diuraphis noxia* [Hemiptera: Aphididae]. Rec'd 24 Feb 1993. Laboratory manipulation. Reisolated from bioassay.
- 4060 T Steenberg (VT2). *Trialeurodes vaporariorum* [Hemiptera: Aleyrodidae]. Jul 1989. Denmark: Lynby, Zealand.
- 5136 S Onofri (n°1). Moss. Rec'd 26 Feb 1996. Antarctica: Crater Cirque.
- 5137 S Onofri (n°2). Soil. Rec'd 26 Feb 1996. Antarctica: Mt. Melbourne. Isolated from soil heated by volcanism. **RESTRICTED ACCESS:** it contact Curator.
- 5138 S Onofri (n°3). Moss. Rec'd 26 Feb 1996. Antarctica: Kay Island. **RESTRICTED ACCESS:** it contact Curator.
- 5580 T Steenberg (TT4). *Thrips tabaci* [Thysanoptera: Thripidae]. Rec'd 17 Nov 1997. Denmark.
- 5581 T Steenberg (VL10). [Hemiptera: Aphididae]. Rec'd 17 Nov 1997. Denmark.
- 5584 T Steenberg (A2). *Haematobia irritans* [Diptera: Muscidae]. Rec'd 17 Nov 1997. Denmark.
- 5585 T Steenberg (A16). *Haematobia irritans* [Diptera: Muscidae]. Rec'd 17 Nov 1997. Denmark.
- 6289 S Farrokhi (PPDRI 4). *Coccus hesperidum* [Hemiptera: Coccidae]. Oct 1996. Iran: Amal.
- 8293 YK Caner (14). Rec'd 22 Aug 2006. Turkey: Uzgur Köyü, Samsun.
- 8294 YK Caner (15). Rec'd 22 Aug 2006. Turkey: Yagizli, Ordu.
- 11815 [ERL 2080] S Gouli (EHS-12-3) and V Gouli. *Fiorinia externa* [Hemiptera: Diaspididae]. 2012. USA: East Granby, Connecticut.
- 11972 DW Roberts (DWR 2135). Isolated from soil sample SS 19500. 8 Jun 2010. USA: Elko County, Nevada. N 41.884965, W 115.96143.
- Lecanicillium longisporum*** (Petch) Zare & W Gams
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Segregate species in *Lecanicillium lecanii* species complex; formerly classified as *Verticillium lecanii* (Zimmermann) Viégas.
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- 321 GR Buckingham. *Rhopalosiphum nymphaeae* [Hemiptera: Aphididae]. Dec 1978. USA: Crystal River, Gainesville, Florida.
- 974 [GCRI 93-82a] RA Hall. [Hemiptera: Aphididae]. Acc'd 17 Oct 1983. Venezuela.
- 1026 [GCRI 13-74] RA Hall. *Myzus persicae* [Hemiptera: Aphididae]. 1974. India: Nagaich.
- 2460 TJ Poprawski (8705) ← AJ Nasca (VL-T9). *Toxoptera citricida* [Hemiptera: Aphididae]. 1984. Argentina: Tucumán. 29547.
- 3701 LA Lacey (059) ← BL Parker. Adult, [Thysanoptera: Thripidae]. 26 Mar 1992. France: Bellegarde, Gard.
- 4050 T Steenberg (299). *Tachyporus hypnorum* [Coleoptera: Staphylinidae]. Mar 1992. Denmark: Copenhagen, Tåstrup, Zealand.
- 5126 [Horticulture Research International 1.72] D Chandler (HRI 1.72). *Macrosiphoniella sanborni* [Hemiptera: Aphididae] on chrysanthemums in a heated greenhouse. 1972. United Kingdom: Littlehampton, West Sussex, England. Used in Vertalec.
- 7206 [CEP 056] C López Lastra. *Trialeurodes vaporariorum* [Hemiptera: Aleyrodidae] on *Apium graveolens* var. *dulce* (Miller) Pers., celery. 2 Jul 2003. Argentina: El Peligro, La Plata, Buenos Aires. **RESTRICTED ACCESS:** consult Curator.
- 7457 [CEP 100] C López Lastra. [Hemiptera: Aphididae] on *Cynara cardunculus* L., artichoke crop. 16 Mar 2004. Argentina: Bartolomé Baviero, Buenos Aires. **RESTRICTED ACCESS:** consult Curator.
- 7458 [CEP 101] C López Lastra. [Hemiptera: Aphididae] on *Cynara cardunculus* L., artichoke crop. 16 Mar 2004. Argentina: Bartolomé Baviero, Buenos Aires. **RESTRICTED ACCESS:** consult Curator.
- 7459 [CEP 106] C López Lastra. [Hemiptera: Aphididae] on *Cynara cardunculus* L., artichoke crop. 13 Apr 2004. Argentina: Bartolomé Baviero, Buenos Aires.

- 7461 [CEP 056] C López Lastra. *Trialeurodes vaporariorum* [Hemiptera: Aleyrodidae] on *Apium graveolens* L., celery crop. 2 Jul 2003. Argentina: El Peligro, La Plata, Buenos Aires.
- 7783 [CEP 188] C López Lastra ← AC Scorsetti. [Hemiptera: Aphididae] on *Cynara cardunculus* L., artichoke crop. 1 Mar 2005. Argentina: General Mansilla, Partido Magdalena, Buenos Aires.
- 7784 [CEP 190] C López Lastra ← AC Scorsetti. [Hemiptera: Aphididae] on *Cynara cardunculus* L., artichoke crop. 22 Mar 2005. Argentina: General Mansilla, Partido Magdalena, Buenos Aires.
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- 8297 YK Caner (29). Rec'd 22 Aug 2006. Turkey: Bulancak, Giresun.
- Lecanicillium muscarium* (Petch) Zare & W Gams**
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Segregate species in *Lecanicillium lecanii* species complex; formerly classified as *Verticillium lecanii* (Zimmermann) Viégas
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- 204 RT Mietkiewski. *Macrosiphum euphorbiae* [Hemiptera: Aphididae]. 6 Feb 1978. USA: greenhouse, Orono, Maine.
- 310 H Beerman. Single spore isolate of Vertalec. 3 Jan 1979. Laboratory manipulation.
- 311 H Beerman. Single spore isolate of Vertalec. 3 Jan 1979. Laboratory manipulation.
- 312 H Beerman. Single spore isolate of Vertalec. 3 Jan 1979. Laboratory manipulation.
- 313 H Beerman. Single spore isolate of Vertalec. 3 Jan 1979. Laboratory manipulation.
- 314 H Beerman. Single spore isolate of Vertalec. 3 Jan 1979. Laboratory manipulation.
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- 811 RG Lawlor ← Tate and Lyle Ltd. Commercial formulation. Acc'd 9 Feb 1983. Laboratory manipulation.
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- 980 [GCRI 12-74] RA Hall. *Pulvinaria floccifera* [Hemiptera: Coccidae]. Acc'd 17 Oct 1983. Turkey.
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- 1002 J Aoki (Har. 1) ← M Shimazu. Rec'd 7 Nov 1983. Japan: Chikugo, Fukuoka Prefecture.
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- 1033 [GCRI 20-79] RA Hall. *Icerya purchasi* [Hemiptera: Margarodidae]. 1979. Sri Lanka.
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- 1328 TJ Poprawski (084). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 17 May 1983. France: Chichery.
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- 1402 TJ Poprawski (090). Egg, *Hypera postica* [Coleoptera: Curculionidae]. Jun 1983. France.
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- 2878 MG Feng (DN8701). *Diuraphis noxia* [Hemiptera: Aphididae] on wheat. 20 Jul 1987. USA: greenhouse, Parma, Idaho.
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- 3531 AE Hajek (93a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Jun 1991. USA: Harris Lake, Monongalia County, West Virginia.
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- 3601 AE Hajek (363). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 17 Jun 1991. USA: Sapsucker Woods, Ithaca, New York.
- 3684 M Brownbridge (F2.3) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 1992. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3685 M Brownbridge (F3.1) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 1992. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3686 M Brownbridge (F4) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 1992. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3690 M Brownbridge (F9) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 1992. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3691 M Brownbridge (F10) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 1992. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3709 LA Lacey (036A) ← A Kirk. Adult, [Hemiptera: Aleyrodidae]. 18 Dec 1991. Spain.
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- 4036 T Steenberg (244). Pupa, *Dendroctonus micans* [Coleoptera: Scolytidae]. Rec'd Nov 1993. Denmark.
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- 5772 BL Parker (AT 136). *Adelges tsugae* [Hemiptera: Adelgidae]. 19 Oct 1997. USA: Lovingston, Virginia.
- 5778 BL Parker (HWA 8-1). *Adelges tsugae* [Hemiptera: Adelgidae]. 7 Mar 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5779 BL Parker (HWA 8-2). *Adelges tsugae* [Hemiptera: Adelgidae]. 7 Mar 1997. USA: Mt. Tom, Holyoke, Massachusetts.

- 5780 BL Parker (HWA 9). *Adelges tsugae* [Hemiptera: Adelgidae]. 7 Mar 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5782 BL Parker (HWA 61/2). *Adelges tsugae* [Hemiptera: Adelgidae]. 9 Mar 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5791 BL Parker (HWA 159). *Adelges tsugae* [Hemiptera: Adelgidae]. 10 Apr 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5795 BL Parker (HWA 280). *Adelges tsugae* [Hemiptera: Adelgidae]. 16 May 1997. USA: Princeton, New Jersey.
- 5798 BL Parker (HWA 304). *Adelges tsugae* [Hemiptera: Adelgidae]. Oct 1997. USA: Russell, Massachusetts.
- 5822 BL Parker (AT 076). *Adelges tsugae* [Hemiptera: Adelgidae]. 3 Jul 1997. USA: Crabtree Falls, Virginia.
- 5828 BL Parker (HWA 60/1). *Adelges tsugae* [Hemiptera: Adelgidae]. 7 Mar 1998. USA: Mt. Tom, Holyoke, Massachusetts.
- 6035 BL Parker (AT-C-284). 2nd instar, *Adelges tsugae* [Hemiptera: Adelgidae]. 30 Oct 1998. PR China: Site 4, Tree Number 16, Sichuan Province.
- 6118 BL Parker (SPT-2-311). Adult, *Eurygaster* sp. [Hemiptera: Scutelleridae]. Fall 1998. Syria: Al Kseabiia.
- 6591 [CCFC 006759; DAOM 198499] J Brodeur. Pupa, *Cydia pomonella* [Lepidoptera: Tortricidae]. 1 Jun 1988. Canada: Cantley, Québec.
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- 6792 FJ Posada (CEFC V-0003). Adult, *Coccus viridis* [Hemiptera: Coccidae] on *Coffea arabica* L., coffee. Jul 2000. Colombia: Field, Palestina, Caldas.
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- 7037 RG Hollingsworth (KNF2002-7). [Hemiptera: Cicadellidae]. 26 Jan 2002. USA: Bird Park, Volcano, Hawaii.
- 7224 [SRCAMB B-266] V Likhovidov ← BA Borisov. [Diptera]. 11 Jul 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-307.
- 7248 JM Sung (EFCC 2011). [Coleoptera: Curculionidae]. 20 May 1998. Republic of Korea: Guryungryung, Kangwon-do.
- 7375 D Held. *Ceroplastes* sp. [Hemiptera: Coccidae] on *Ilex* sp., holly. 26 May 2004. USA: Green Forest Nursery, Perkinston, Mississippi.
- 7460 [CEP 054] C López Lastra. *Trialeurodes vaporariorum* [Hemiptera: Aleyrodidae] on *Apium graveolens* L., celery crop. 6 Jun 2003. Argentina: El Peligro, La Plata, Buenos Aires. **RESTRICTED ACCESS:** consult Curator.
- 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.
- 7620 [SRCAMB VL-1124/1] V Likhovidov. Phylum Arthropoda, Class Insecta. 9 Aug 2002. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-169.
- 7621 [SRCAMB VL-770/2] V Likhovidov. Pupa, [Lepidoptera]. Jul 2002. Russian Federation: Kunashir Island, Sakhalin Region. Field Collection Number F-167.
- 7631 [SRCAMB B-409] V Likhovidov ← BA Borisov. *Phragmidium* sp. [Pucciniales: Phragmidiaceae] on *Rubus* sp., blackberry. Oct 1990. Ukraine: Kherson Oblast. Field Collection Number F-222.
- 7633 [SRCAMB VL-43] V Likhovidov. [Hemiptera: Coccoidea]. Sep 2001. Russian Federation: Caucasus region, Sochi District, Krasnodarsky Krai. Field Collection Number F-246.
- 7738 [SRCAMB B-234/3] V Likhovidov ← BA Borisov. Adult, [Lepidoptera] Isolated from synnema of *Akanthomyces* sp.. 12 Jul 2003. Russian Federation: Kedrovaya Pad Nature Reserve, Primorsky Krai. Field Collection Number F-314.
- 7781 [CEP 063] C López Lastra ← A Toledo. Adult, female, *Delphacodes kuscheli* [Hemiptera: Delphacidae] reared on *Hordeum vulgare* L., barley. 28 Aug 2003. Argentina: greenhouse at CEPAVE, La Plata, Buenos Aires. **RESTRICTED ACCESS:** consult Curator.
- 7782 [CEP 182] C López Lastra ← AC Scorsetti. *Myzus persicae* [Hemiptera: Aphididae] Laboratory colony. 29 Dec 2004. Argentina: La Plata, Buenos Aires. **RESTRICTED ACCESS:** consult Curator.
- 7785 [CEP 194] C López Lastra ← AC Scorsetti. *Aphis fabae* [Hemiptera: Aphididae] on *Solanum melongena* L., eggplant. 22 Mar 2005. Argentina: General Mansilla, Partido Magdalena, Buenos Aires. **RESTRICTED ACCESS:** consult Curator.
- 7994 BC King (20). Rec'd 7 Apr 2006. Canada: Pacific Spirit Regional Park, Vancouver, British Columbia. GenBank match - AJ292388 (100%) ITS. **RESTRICTED ACCESS:** consult Curator.
- 8041 [ATCC 26854] E Herrera Navarro (V.I. - UAM). *Parthenolecanium corni* [Hemiptera: Coccidae]. Rec'd 24 May 2006. Czechoslovakia.
- 8048 HH Kope (PFC 5). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Eve River, Vancouver Island, British Columbia. 50°17' N, 126°18' W.
- 8049 HH Kope (PFC 6). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Eve River, Vancouver Island, British Columbia. 50°17' N, 126°18' W.

- 8050 HH Kope (PFC 9). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Pacific Forestry Centre Arboretum, Vancouver Island, British Columbia. 48°28' N, 124°24' W.
- 8051 HH Kope (PFC 10). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Nimpkish, Vancouver Island, British Columbia. 50°19' N, 126°54' W.
- 8052 HH Kope (PFC 11). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Nimpkish, Vancouver Island, British Columbia. 50°19' N, 126°54' W.
- 8053 HH Kope (PFC 12). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Cowichan Lake, Vancouver Island, British Columbia. 48°50' N, 124°06' W.
- 8054 HH Kope (PFC 15). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Pacific Forestry Centre Arboretum, Vancouver Island, British Columbia. 48°28' N, 124°24' W.
- 8114 LS Bauer and H Liu (MF-203). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 14 Dec 2005. USA: Brighton, Michigan.
- 8118 LS Bauer and H Liu (MF-208). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 14 Dec 2005. USA: Brighton, Michigan.
- 8157 LS Bauer and H Liu (MF-248). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 28 Jul 2006. USA: Brighton, Michigan.
- 8163 LS Bauer and H Liu (MF-254). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 28 Jul 2006. USA: Ann Arbor, Michigan.
- 8165 LS Bauer and H Liu (MF-257). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 10 Aug 2006. USA: Ann Arbor, Michigan.
- 8296 YK Caner (24). Rec'd 22 Aug 2006. Turkey: mah 1, Seyhli, Istanbul.
- 8642 YK Caner (2.23). Rec'd 13 Jul 2007. Turkey: Piraziz, Giresun.
- 8714 KL Perry. *Myzus persicae* [Hemiptera: Aphididae] on potato leaves in laboratory incubator colonies. Rec'd 16 Apr 2008. USA: Cornell University, Virology-Nematology Laboratory and Greenhouse, Ithaca, New York.
- 8923 [ERL 281] BL Parker (AVRDC 0588B). *Tenebrio molitor* [Coleoptera: Tenebrionidae] as bait from soil. 1994. Republic of China: Taiwan.
- 9267 Z Demirbag and E Tanyeli (Dm-1). *Dendroctonus micans* [Coleoptera: Scolytidae]. 24 Oct 2008. Turkey: Maçka-Zigana, Trabzon.
- 9268 Z Demirbag and E Tanyeli (Dm-2). *Dendroctonus micans* [Coleoptera: Scolytidae]. 24 Oct 2008. Turkey: Maçka-Zigana, Trabzon.
- 9467 [SRCAMB VL-779] V Likhovidov. [Araneida] Isolated from fungal synnema. 27 Jul 2002. Russian Federation: Kunashir Island, Sakhalin Region. Field Collection Number F-300.
- 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.
- 9470 [SRCAMB VL-1713/2] V Likhovidov. [Diptera]. 23 Aug 2005. Ukraine: Autonomous Republic of Crimea. Field Collection Number F-775.
- 9471 [SRCAMB VL-2004] V Likhovidov. [Pucciniales]. 23 Sep 2005. Russian Federation: Moscow Region. Field Collection Number F-886.
- 9472 [SRCAMB VL-2017] V Likhovidov. [Pucciniales]. 21 Sep 2005. Russian Federation: Moscow Region. Field Collection Number F-889.
- 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.
- 10173 [ERL 1851] S Gouli and V Gouli (Thr.-10-59). [Diptera] fungus gnats. 2010. USA: Sharon Springs, New York.
- 10178 [ERL 1857] S Gouli and V Gouli (Thr.-10-65). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Orford, New Hampshire.
- 11307 DW Roberts (DWR 1616). Isolated from soil sample SS 16413. 10 Aug 2009. USA: Yakima County, Washington. N 46.4043, W 120.77586.
- 11730 I Erper (TR-04). *Palomena prasina* [Hemiptera: Pentatomidae]. Rec'd 6 Feb 2012. Turkey: Ordu Province.
- 11731 I Erper (TR-05). *Palomena prasina* [Hemiptera: Pentatomidae]. Rec'd 6 Feb 2012. Turkey: Samsun Province.
- 11733 I Erper (TR-07). *Palomena prasina* [Hemiptera: Pentatomidae]. Rec'd 6 Feb 2012. Turkey: Ordu Province.
- 11734 I Erper (TR-08). *Palomena prasina* [Hemiptera: Pentatomidae]. Rec'd 6 Feb 2012. Turkey: Düzce Province.
- 11736 I Erper (TR-10). *Parthenolecanium* sp. [Hemiptera: Coccidae]. Rec'd 6 Feb 2012. Turkey: Trabzon Province.
- 11802 [ERL 2060] S Gouli (THR-11-49) and V Gouli. [Lepidoptera]. 2011. USA: Rupert, Vermont.
- 11803 [ERL 2061] S Gouli and V Gouli (THR-11-50). *Ips* sp. [Coleoptera: Scolytidae]. 2011. USA: Orford, New Hampshire.

- 11818 [ERL 2084] S Gouli (HWA-12-4) and V Gouli. *Adelges tsugae* [Hemiptera: Adelgidae]. 2012. USA: Wilton, New Hampshire.
- Lecanicillium muscarium*(?)** (Petch) Zare & Gams [Sordariomycetes: Hypocreales]
Cordycipitaceae. Segregate species in *Lecanicillium lecanii* species complex; formerly classified as *Verticillium lecanii* (Zimmermann) Viégas.
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- 1032 [GCRI 80-82] RA Hall. *Cydia pomonella* [Lepidoptera: Tortricidae]. 1982. Australia.
- 3687 M Brownbridge (F5) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 1992. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 5777 BL Parker (HWA 4). *Adelges tsugae* [Hemiptera: Adelgidae]. Oct 1997. USA: Russell, Massachusetts. Strong hints of *Lecanicillium longisporum*, but some conidia too small. .
- 8162 LS Bauer and H Liu (MF-253). 4th instar larva, *Agrilus planipennis* [Coleoptera: Buprestidae]. 28 Jul 2006. USA: Ann Arbor, Michigan.
- 8265 RJ Pereault (Walton Spray pci#2). *Conotrachelus nenuphar* [Coleoptera: Curculionidae]. Aug 2006. USA: orchard B, Frankfort, Michigan.
- 9462 [SRCAMB VL-2112] V Likhovidov. *Phragmidium* sp. [Pucciniales: Phragmidiaceae] on *Rubus* sp., blackberry. Oct 2006. Ukraine: Odessa Oblast. Field Collection Number F-144.
- 9463 [SRCAMB B-410] V Likhovidov ← BA Borisov. [Hemiptera: spf. Coccoidea]. Oct 1990. Ukraine: Kherson Oblast. Field Collection Number F-224.
- 9464 [SRCAMB B-322] V Likhovidov ← BA Borisov. [Hemiptera: Aleyrodidae]. 8 Jul 2003. Russian Federation: Vladivostok, Primorsky Krai. Field Collection Number F-327.
- 11816 [ERL 2082] S Gouli (HWA-12-2) and V Gouli. *Adelges tsugae* [Hemiptera: Adelgidae]. 2012. USA: East Granby, Connecticut.
- Lecanicillium nr. aranearum*** (Petch) Zare & Gams [Sordariomycetes: Hypocreales]
Cordycipitaceae. Reclassified from *Verticillium* Section Prostrata for phylogenetically required reasons.
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- 9460 [SRCAMB VL-2092] V Likhovidov. [Coleoptera: Lampyridae]. 25 Aug 2006. Russian Federation: Moscow Region. Field Collection Number F-1104.
- 11799 [ERL 2057] S Gouli and V Gouli (THR-11-46). *Ips* sp. [Coleoptera: Scolytidae]. 2011. USA: Debry, Vermont.
- 11811 [ERL 2071] S Gouli and V Gouli (THR-11-60). [Coleoptera: Elateridae]. 2011. USA: Sharon Springs, New York.
- Lecanicillium pissodis*** Kope & I. Leal [Sordariomycetes: Hypocreales]
Cordycipitaceae
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- 8055 [DAVFP 29230] HH Kope (PFC 17). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Pacific Forestry Centre Arboretum, Vancouver Island, British Columbia. 48°28' N, 124°24' W.
- 8056 [DAVFP 29231] HH Kope (PFC 18). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Pacific Forestry Centre Arboretum, Vancouver Island, British Columbia. 48°28' N, 124°24' W.
- 8057 [CBS 118231; DAVFP 29232] HH Kope (PFC 19). Adult, cadaver, *Pissodes strobi* [Coleoptera: Curculionidae]. 2003. Canada: Pacific Forestry Centre Arboretum, Vancouver Island, British Columbia. 48°28' N, 124°24' W. CULTURE EX TYPE.
- Lecanicillium psalliotae*** (Treschow) Zare & W Gams [Sordariomycetes: Hypocreales]
Cordycipitaceae. Major synonym: *Verticillium psalliotae* Treschow
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- 2234 LS Osborne (UK-3(3)). *Rhizoecus* sp. [Hemiptera: Pseudococcidae] in soil. Acc'd 8 Sep 1986. USA: Mid-Florida Research & Education Center, Greenhouse 3, Apopka, Florida.
- 2235 LS Osborne (UK-3(2)). *Rhizoecus* sp. [Hemiptera: Pseudococcidae] in soil. Acc'd 8 Sep 1986. USA: Mid-Florida Research & Education Center, Greenhouse 3, Apopka, Florida.
- 2332 MG Feng (SA8601). *Sitobion avenae* [Hemiptera: Aphididae] on spring wheat. 25 Jul 1986. USA: Apple Valley Rd. & Klahr Rd., Parma, Idaho.
- 3416 K Ostrovska (25) ← MV Herrero. Female, *Lutzomyia sordelli* [Diptera: Psychodidae]. 22 Sep 1991. Costa Rica: Santa Rosa National Park, Guanacaste.
- 4960 N Viaene (11). Egg mass, *Meloidogyne hapla* [Tylenchida: Heteroderidae] Elba muck. 13 Jul 1992. USA: Elba, New York.
- 4965 N Viaene (27). Egg mass, *Meloidogyne hapla* [Tylenchida: Heteroderidae] soil. 25 Sep 1992. USA: Jacobson onion field, Oswego, New York.
- 5249 [ATCC 14495; CBS 154.61] *Olivea colebrookeae* [Uredinales] on *Colebrookea oppositifolia*. Acc'd 19 Aug 1996. India: Khandala. Type culture of *Cephalosporium curtipes* Sacc. var. *uredinicola* Sukap. & Thirum.
- 5582 T Steenberg (BT5). *Bemisia tabaci* [Hemiptera: Aleyrodidae]. Rec'd 17 Nov 1997. Denmark: Greenhouse, Lyngby, Zealand.
- 5666 BL Parker (SPT-005). *Eurygaster* sp. [Hemiptera: Scutelleridae]. 17 Jan 1998. Turkey: Karabyklyk, Narli, Kahraman Maras.

- 5681 BL Parker (SPT-077). *Eurygaster* sp. [Hemiptera: Scutelleridae]. 25 Jan 1998. Syria: Rmilan, Hassakeh, Azaz, Halab.
- 5683 BL Parker (SPT-079). *Eurygaster* sp. [Hemiptera: Scutelleridae]. 25 Jan 1998. Syria: Rmilan, Hassakeh, Azaz, Halab.
- 5685 BL Parker (SPT-087). [Lepidoptera]. 17 Jan 1998. Turkey: Karabyykly, Narli, Kahraman Maras.
- 5763 BL Parker (SPT 051). *Eurygaster* sp. [Hemiptera: Scutelleridae]. 22 Jan 1998. Syria: Rmilan, Hassakeh, Azaz, Halab.
- 5835 BL Parker (SPT 052). *Eurygaster* sp. [Hemiptera: Scutelleridae]. 25 Jan 1998. Syria: Rmilan, Hassakeh, Azaz, Halab.
- 6071 BL Parker (SPT-U-285). Adult, *Eurygaster* sp. [Hemiptera: Scutelleridae]. 24 Jan 1999. Syria: Al Kseabiia.
- 6436 DEN Rangel (JAB 13). Biotype B, *Bemisia tabaci* [Hemiptera: Aleyrodidae] on poinsettia. 3 Sep 1999. Brazil: Glasshouse, FCAV/UNESP, Jaboticabal, São Paulo.
- 6581 G Sewify (3). *Icerya aegyptica* [Hemiptera: Margarodidae]. May 2000. Egypt.
- 6582 G Sewify (4). *Icerya aegyptica* [Hemiptera: Margarodidae]. May 2000. Egypt.
- 8468 WC Luz (eco 28). Isolated from soil sample. Rec'd 7 Jun 2007. **RESTRICTED ACCESS:** consult Curator.
- 8890 G George-Ambrose (SLUMAFFE 1). *Raoiella indica* [Acari: Tenuipalpidae]. Rec'd 12 Jan 2009. Saint Lucia.
- 9473 [SRCAMB VL-1540] V Likhovidov. Larva, Phylum Arthropoda, Class Insecta. 11 Sep 2004. Russian Federation: Caucasus region, Sochi District, Krasnodarsky Krai. Field Collection Number F-467.
- 9474 [SRCAMB VL-2011] V Likhovidov. [Hemiptera: Aphididae]. 5 Sep 2005. Russian Federation: Moscow Region. Field Collection Number F-859.
- 10170 [ERL 1842] S Gouli (Thr.-10-50) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Altona, New York.
- 10175 [ERL 1854] S Gouli (Thr.-10-62) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10176 [ERL 1855] S Gouli and V Gouli (Thr.-10-63). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
- 10177 [ERL 1856] S Gouli (Thr.-10-64) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Langdon, New Hampshire.
- 10179 [ERL 1858] S Gouli (Thr.-10-66) and V Gouli. [Diptera] fungus gnats. 2010. USA: Sharon Springs, New York.
- 10180 [ERL 1859] S Gouli and V Gouli (Thr.-10-67). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Richford, Vermont.
- 10181 [ERL 1860] S Gouli (Thr.-10-68) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
- 10182 [ERL 1861] S Gouli and V Gouli (Thr.-10-69). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
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- Lecanicillium psalliotae*(?) (Treschow) Zare & W Gams
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Synonym: *Verticillium psalliotae* Treschow
-
- 4867 BL Parker (AVRDC-0558B). Soil Allium. 3 Nov 1995. Republic of China: AVRDC Field #92, Taiwan.
- 10183 [ERL 1862] S Gouli (Thr.-10-70) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Randolph, Vermont.
-
- Lecanicillium sp. 2*(?) sensu W. Gams & Zare
[Sordariomycetes: Hypocreales]
Cordycipitaceae
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- 2832 SR Sánchez Peña (2). [Coleoptera]. Jul 1987. Mexico: elev. 2900 m, Pseudotsuga-Abies forest, Pueblo Nuevo, Durango.
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- Lecanicillium wallacei*(?) HC Evans
[Sordariomycetes: Hypocreales]
Cordycipitaceae
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- 10172 [ERL 1849] S Gouli and V Gouli (Thr.-10-57). [Diptera] fungus gnats. 2010. USA: Sharon Springs, New York.
- 10174 [ERL 1852] S Gouli (Thr.-10-60) and V Gouli. [Diptera] fungus gnats. 2010. USA: Rupert, Vermont.
-
- Lecanicillium*(?) sp.
[Sordariomycetes: Hypocreales]
Cordycipitaceae
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- 9369 [ERL 1669] S Gouli and V Gouli (HWA-G-23). *Adelges tsugae* [Hemiptera: Adelgidae]. 2009. USA: Massachusetts.
-
- Mariannaea elegans* (Corda) Samson
[Sordariomycetes: Hypocreales]
Nectriaceae. Anamorph of *Nectria mariannaeae* Samuels & Seifert.
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- 5338 KT Hodge (kth9). From dead wood in moist chamber. Apr 1992. USA: CU Plantations, Mundy Wildflower Garden, Ithaca, New York.
- 5349 [CBS 745.88] GJ Samuels ← CT Rogerson (71-199). on pine. 25 Jul 1971. Venezuela: Parq. Nac. Sierra Nevada, 7 km E of Tabay, above fish hatchery at La Mucuy, La Mucuy, Merida. Culture ex holotype, *Nectria mariannaeae* Samuels & Seifert. Collector Dumont (VE 2980) Samuels & Borjas.

- 5350 [CBS 746.88] G.J. Samuels ← CT Rogerson (71-13). From bark. 11 Jan 1971. Jamaica: Vic. Dick's Pond, W of Hardwar Gap, near Holywell Rec. Area and Wag Water River, St. Andrew Parish. Culture ex paratype, *Nectria mariannaeae* Samuels & Seifert. Collector Korf & al. (CUP-MJ 789) .
- 9455 [SRCAMB VL-1718] V Likhovidov. Larva, [Diptera]. 23 Aug 2005. Ukraine: Autonomous Republic of Crimea. Field Collection Number F-1099.
- 9456 [SRCAMB B-450] V Likhovidov ← BA Borisov. Larva, [Diptera]. 2004. Russian Federation: Moscow Region. Field Collection Number F-939.
- Mariannaea pruinosa* Liang**
[Sordariomycetes: Hypocreales]
Cordycipitaceae; correct generic assignment remaining to be determined.
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- 5413 ZQ Liang (CGAC-2281). *Iragoides fasciata* [Lepidoptera: Limacodidae]. Rec'd Fall 1996. PR China: tea garden, Guiyang City , Guizhou Province.
- Mariannaea sp.***
[Sordariomycetes: Hypocreales]
Cordycipitaceae; correct generic assignment remaining to be determined.
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- 2930 [IMI 331276] M Skinner (PT-11). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae] from soil. Rec'd 10 Jan 1990. USA: sugar maple stand, Randolph, Vermont.
- 3252 M Brownbridge (A). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 1990. USA: Allegheny Forest, Elk County, Pennsylvania.
- 3257 M Brownbridge (F). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 22 Feb 1991. USA: Agway Research Farm, Tully, New York.
- 3258 M Brownbridge (G). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 1990. USA: B. Bascone, Sullivan County, New Hampshire.
- 3261 M Brownbridge (K). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 7 Dec 1990. USA: Williamstown, Massachusetts.
- 3262 M Brownbridge (L). Discolored larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 7 Dec 1990. USA: Williamstown, Massachusetts.
- 3263 M Brownbridge (M). Brown larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 12 Dec 1990. USA: Clark, Massachusetts.
- 3264 M Brownbridge (N). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 1990. USA: Woods Forest, Connecticut.
- 3265 M Brownbridge (O). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 1990. USA: Woods Forest, Connecticut.
- 3267 M Brownbridge (Q). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 1990. USA: Woods Forest, Connecticut.
- 3268 M Brownbridge (R). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 1990. USA: Woods Forest, Connecticut.
- 3269 M Brownbridge (S). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 1990. USA: Woods Forest, Connecticut.
- 3270 M Brownbridge (T). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 1990. USA: Woods Forest, Connecticut.
- 3315 M Brownbridge (DT-122). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 1991. USA: Perry's sugar maple stand, Orange County, Vermont.
- 3316 M Brownbridge (Williams). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 1991. USA: William's sugar maple stand, Orange County, Vermont.
- 3317 M Brownbridge (Perry 2). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 1991. USA: Perry's sugar maple stand, Orange County, Vermont.
- 3549 M Brownbridge (R-11). Yellow mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 1991. USA: Thurber's sugar maple stand, Windham County, Vermont.
- 3554 M Brownbridge (R-20.1). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 1991. USA: Twitchell's sugar maple stand, Bennington County, Vermont.
- 3555 Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 1991. USA: Twitchell's sugar maple stand, Bennington County, Vermont.
- 3557 M Brownbridge (R-23). Pink mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 1991. USA: Ralph's sugar maple stand, Warren, Vermont.
- 3558 M Brownbridge (R-25). Pink mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 1991. USA: Ralph's sugar maple stand, Warren, Vermont.
- 3559 M Brownbridge (R-27). Brown mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 1991. USA: Begin's sugar maple stand, Windsor County, Vermont.
- 3562 M Brownbridge (R-31). Mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 1991. USA: Motyka's sugar maple stand, Orange County, Vermont.
- 3563 M Brownbridge (R-34). Mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 1991. USA: Motyka's sugar maple stand, Orange County, Vermont.
- 9932 [ERL 1776] S Gouli (Thr.-09-8) and V Gouli. [Thysanoptera: Thripidae]. 2010. USA: Vermont.
- 9933 [ERL 1777] S Gouli and V Gouli (Thr.-09-9). [Thysanoptera: Thripidae]. 2010. USA: Vermont.

- 9934 [ERL 1778] S Gouli (Thr.-09-10) and V Gouli. [Thysanoptera: Thripidae]. 2010. USA: Vermont.
- 10150 [ERL 1810] S Gouli (Thr.-10-28) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Altona, New York.
- 10151 [ERL 1811] S Gouli and V Gouli (Thr.-10-29). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Altona, New York.
- 10152 [ERL 1812] S Gouli (Thr.-10-30) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Rupert, Vermont.
- 10153 [ERL 1813] S Gouli and V Gouli (Thr.-10-31). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Rupert, Vermont.
- 10185 [ERL 1864] S Gouli (Thr.-10-72) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Orford, New Hampshire.
- 10194 [ERL 1872] S Gouli and V Gouli (Thr.-10-80). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Bakersfield, Vermont.
- 10204 [ERL 1882] S Gouli and V Gouli (Thr.-10-90). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Langdon, New Hampshire.
- 10205 [ERL 1883] S Gouli (Thr.-10-91) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Langdon, New Hampshire.
- 11812 [ERL 2072] S Gouli (THR-11-61) and V Gouli. [Thysanoptera: Thripidae]. 2011. USA: Debry, Vermont.
- 11813 [ERL 2073] S Gouli and V Gouli (THR-11-62). [Thysanoptera: Thripidae]. 2011. USA: Debry, Vermont.
- 11814 [ERL 2074] S Gouli (THR-11-63) and V Gouli. [Hymenoptera: Vespidae]. 2011. USA: Rupert, Vermont.

Pochonia sp.

[Sordariomycetes: Hypocreales]

- 10261 CG Wilson (mg4). *Habrotricha elusa elusa* [Bdelloida: Habrotrichidae] maintained in culture as bait. 22 Oct 2009. USA: Neimi Road, Cornell Research Ponds facility, Dryden, New York. Isolated from soil.
- 12195 DW Roberts (DWR 2172). Isolated from soil sample SS 23218. 2 Jun 2010. USA: Bennett County, South Dakota. N 43.18584, W 101.27654.

Pochonia bulbillosa (W Gams & Malla) Zare & W

Gams

[Sordariomycetes: Hypocreales]

Clavicipitaceae. Synonym: *Verticillium cephalosporum* W Gams. Reclassified from *Verticillium* Section Prostrata for phylogenetically required reasons.

- 11800 [ERL 2058] S Gouli (THR-11-47) and V Gouli. [Diptera: Muscidae]. 2011. USA: Sharon Springs, New York.

***Pochonia bulbillosa*(?)** (W Gams & Malla) Zare & W

Gams

[Sordariomycetes: Hypocreales]

Clavicipitaceae

- 1365 S Balazy (1615). Rec'd 19 May 1984. Poland.

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

Pochonia chlamydosporia (Goddard) Zare & W

Gams

[Sordariomycetes: Hypocreales]

Clavicipitaceae. Major synonym: *Verticillium chlamydosporium* Goddard

- 3314 M Brownbridge. Larva, [Coleoptera: Scarabaeidae]. Rec'd 19 Mar 1991. USA: Perry's sugar maple stand, Orange County, Vermont.

- 3539 M Brownbridge (B-1). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 29 Nov 1991. USA: oak stand, Leddy Park, Chittenden County, Vermont.

- 7128 LA Castrillo. Isolated from soil sample. Summer 2002. USA: Peacemeal Farm, Dixmont, Maine. Single spore isolate established from a CFU.

- 8478 WC Luz (eco 97). Isolated from soil sample. Rec'd 7 Jun 2007. **RESTRICTED ACCESS:** *consult Curator.*

- 9494 [SRCAMB AS-429] V Likhovidov. Isolated from soil sample. Mar 2002. Russian Federation: Belgorod Region. Field Collection Number F-256.

Pochonia chlamydosporia var. chlamydosporia

[Sordariomycetes: Hypocreales]

Clavicipitaceae. Synonym: *Verticillium chlamydosporium* Goddard

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

- 7852 [SRCAMB AS-429] V Likhovidov (Fu-39) ← BA Borisov (B-429). Isolated from soil sample. Mar 2002. Russian Federation: Belgorod Region. Field Collection Number F-256.

- 11786 [ERL 2010] S Gouli (THR-11-2) and V Gouli. [Diptera]. 2011. USA: Rupert, Vermont.

- 11801 [ERL 2059] S Gouli and V Gouli (THR-11-48). [Phthiraptera: Anoplura]. 2011. USA: Sharon Springs, New York.

- 11810 [ERL 2070] S Gouli (THR-11-59) and V Gouli. [Diptera]. 2011. USA: Sharon Springs, New York.

Pochonia microbactrospora W Gams & Zare in Zare,

W Gams & HC Evans

[Sordariomycetes: Hypocreales]

Clavicipitaceae. Synonym: *Verticillium bactrosporum* (Drechsler) Subramanian

- 5616 SL Glockling (CM2a). Phylum Nemata from cow

manure. 4 Aug 1997. United Kingdom: N.E. England.
5619 SL Glockling (PNS). Rec'd 2 Dec 1997. Japan.

Pochonia suchlasporia (W Gams & Dackman) Zare
& W Gams
[Sordariomycetes: Hypocreales]
Clavicipitaceae

9495 [SRCAMB B-247] V Likhovidov ← BA Borisov.
Larva, Phylum Arthropoda, Class Insecta Isolated
from stroma of *Cordyceps* sp. 14 Jul 2003. Rus-
sian Federation: Kedrovaya Pad Nature Reserve,
Primorsky Krai. Field Collection Number F-308.

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

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

***Rotiferophthora* sp.**
[Sordariomycetes: Hypocreales]

9542 CG Wilson (io3). *Habrotricha elusa elusa* [Bdel-
loida: Habrotrichidae] maintained in culture as bait.
12 May 2009. USA: Cornell Lab of Ornithology,
Ithaca, New York. Isolated from material collected
in a sphagnum bog.

9543 CG Wilson (io10). *Habrotricha elusa elusa* [Bdel-
loida: Habrotrichidae] maintained in culture as bait.
12 May 2009. USA: Warren Road, Cornell Research
Ponds facility, Ithaca, New York. Isolated from soil.

9544 CG Wilson (jp1). *Adineta* sp. [Bdelloida: Adineti-
dae] maintained in culture as bait. 28 May 2009. Japan:
Mount Nikko-Shirane, Gunma Prefecture. Isolated
from moss collected from the understory of a conifer
forest.

9545 CG Wilson (jp8). *Habrotricha* sp. [Bdelloida:
Habrotrichidae] maintained in culture as bait.
26 May 2009. Japan: park near a river, Shiobara,
Tochigi Prefecture. Isolated from moss.

9546 CG Wilson (kara2). *Habrotricha* sp. [Bdelloida:
Habrotrichidae] maintained in culture as bait.
27 May 2009. Japan: Karasawa limestone mine,
Tochigi Prefecture. Isolated from moss.

10263 CG Wilson (mg2). *Habrotricha elusa elusa* [Bdel-
loida: Habrotrichidae] maintained in culture as bait.
22 Oct 2009. USA: Neimi Road, Cornell Research
Ponds facility, Dryden, New York. Isolated from soil.

10264 CG Wilson (mg16). *Habrotricha elusa elusa* [Bdel-
loida: Habrotrichidae] maintained in culture as bait.
22 Oct 2009. USA: Neimi Road, Cornell Research
Ponds facility, Dryden, New York. Isolated from soil.

10265 CG Wilson (mm28). *Habrotricha* sp. [Bdel-
loida: Habrotrichidae] occurring naturally. 7 Oct 2009.
USA: Neimi Road, Cornell Research Ponds facility,
Dryden, New York. Isolated from soil.

10266 CG Wilson (na13). *Adineta* sp. [Bdelloida: Adineti-
dae] occurring naturally. 22 Oct 2009. USA: Neimi
Road, Cornell Research Ponds facility, Dryden, New
York. Isolated from soil.

Rotiferophthora amamiensis Glockling
[Sordariomycetes: Hypocreales]
Clavicipitaceae

5609 SL Glockling (N5). Phylum Rotifera from rabbit
dung. 9 Jul 1996. Japan: Amami Islands.

Rotiferophthora angustispora (GL Barron) GL
Barron
[Sordariomycetes: Hypocreales]
Clavicipitaceae

5610 SL Glockling (WG). Phylum Rotifera from decaying
straw. 10 Aug 1997. United Kingdom: N.E. England.

8991 CG Wilson (ei10). *Habrotricha elusa* [Bdelloida:
Habrotrichidae]. 25 Oct 2008. USA: Stewart Park,
shore of Cayuga Lake, Ithaca, New York.

9385 CG Wilson (io9). 12 May 2009. USA: Cornell
Research Ponds facility, Dryden, New York.

9386 CG Wilson (io19). May 2009. USA: Ithaca, New
York.

9498 [SRCAMB VL-1709/2] V Likhovidov. [Trichoptera].
23 Aug 2005. Ukraine: Autonomous Republic of
Crimea. Field Collection Number F-774.

Rotiferophthora barronii Glockling
[Sordariomycetes: Hypocreales]

10267 CG Wilson (iy23). *Adineta* sp. [Bdelloida: Adineti-
dae]. May 2009. USA: graveyard, Lansing, New York.
Isolated from moss and soil.

Rotiferophthora brevipes GL Barron
[Sordariomycetes: Hypocreales]

8994 CG Wilson (ned1). 25 Oct 2008. USA: Cornell
Research Ponds facility, Neimi Site, Dryden, New
York.

Rotiferophthora cylindrospora GL Barron
[Sordariomycetes: Hypocreales]

8992 CG Wilson (std1b). *Habrotricha elusa elusa* [Bdel-
loida: Habrotrichidae] maintained in culture as bait.
25 Oct 2008. USA: Stewart Park, shore of Cayuga
Lake, Ithaca, New York. Isolated from moss and
waterfowl droppings.

9547 CG Wilson (iy10). *Habrotricha* sp. [Bdelloida:
Habrotrichidae]. May 2009. USA: graveyard, Lans-
ing, New York. Isolated from soil.

- 9548 CG Wilson (iy24). *Habrotrocha* sp. [Bdelloida: Habrotrochidae]. 12 May 2009. USA: Neimi Road, Cornell Research Ponds facility, Dryden, New York. Isolated from mud.
- 10273 CG Wilson (Lt39). *Habrotrocha elusa elusa* [Bdelloida: Habrotrochidae]. 14 Sep 2009. USA: Neimi Road, Cornell Research Ponds facility, Dryden, New York.
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- Rotiferophthora denticulospora*** GL Barron
[Sordariomycetes: Hypocreales]
Clavicipitaceae
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- 5614 SL Glockling (RW2a). Phylum Rotifera from rabbit dung. 1 Jul 1997. United Kingdom: Cheshire, England.
- 9549 CG Wilson (iy21). *Habrotrocha* sp. [Bdelloida: Habrotrochidae]. 12 May 2009. USA: Warren Road, field near Cornell Research Ponds facility, Ithaca, New York. Isolated from soil.
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- Rotiferophthora globospora*** GL Barron
[Sordariomycetes: Hypocreales]
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- 8995 CG Wilson (ei16). 25 Oct 2008. USA: Cornell Plantations, Mundy Wildflower Garden, Ithaca, New York.
- 10268 CG Wilson (mg10). *Adineta* sp. [Bdelloida: Adinetidae] maintained in culture as bait. 22 Oct 2009. USA: Neimi Road, Cornell Research Ponds facility, Dryden, New York. Isolated from soil.
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- Rotiferophthora guttulaspora*** GL Barron
[Sordariomycetes: Hypocreales]
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- 10269 CG Wilson (nr12). *Habrotrocha elusa* [Bdelloida: Habrotrochidae] maintained in culture as bait. 22 Oct 2009. USA: Neimi Road, Cornell Research Ponds facility, Dryden, New York. Isolated from soil.
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- Rotiferophthora intermedia*** (GL Barron) GL Barron
[Sordariomycetes: Hypocreales]
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- 10270 CG Wilson (wet17). *Habrotrocha elusa* [Bdelloida: Habrotrochidae]. 3 Jul 2009. USA: Neimi Road, Cornell Research Ponds facility, Dryden, New York.
-
- Rotiferophthora japonica*** Glockling
[Sordariomycetes: Hypocreales]
Clavicipitaceae
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- 5611 SL Glockling (Nelumbo). Phylum Rotifera from lotus leaves. 24 Oct 1995. Japan: Tokyo, Tokyo Prefecture.
-
- Rotiferophthora lacrima*** Glockling
[Sordariomycetes: Hypocreales]
Clavicipitaceae
-
- 5612 SL Glockling (LD4). Phylum Rotifera from decaying vegetation. 13 Feb 1997. Japan: Ibaraki, Ibaraki Prefecture.
-
- Rotiferophthora minutispora*** Glockling
[Sordariomycetes: Hypocreales]
Clavicipitaceae
-
- 5613 SL Glockling (12). Phylum Rotifera from soil. 14 Mar 1996. Japan: Chiba, Chiba Prefecture.
-
- Rotiferophthora ovispora*** (GL Barron) GL Barron
[Sordariomycetes: Hypocreales]
-
- 10274 CG Wilson (db1). *Habrotrocha elusa elusa* [Bdelloida: Habrotrochidae] maintained in culture as bait. 12 May 2008. USA: Tower Road, Cornell University, Ithaca, New York. Isolated from soil collected beneath a tree.
-
- Rotiferophthora tagenophora*** (Drechsler) GL Barron
[Sordariomycetes: Hypocreales]
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- 9387 CG Wilson (io21). May 2009.
-
- Simplicillium* sp.**
[Sordariomycetes: Hypocreales]
Cordycipitaceae
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- 6584 G Sewify (6). *Bemisia tabaci* [Hemiptera: Aleyrodidae]. Jul 1999. Egypt.
-
- Simplicillium lamellicola*** (FEV Smith) Zare & W Gams
[Sordariomycetes: Hypocreales]
Cordycipitaceae. Major synonym: *Verticillium lamellicola* (F.E.V. Smith) W Gams
-
- 1367 S Balazy (1541) ← Wisniewski. [Acari: Oribatidae]. 29 Apr 1983. Poland: coniferous forest, Zwierzyniec, nr. Grodzisk, Warsaw.
- 6448 [NRRL 52709] Z G/Tsadic (1-02/03). *Aiolopus longicornis* [Orthoptera: Acrididae]. 4 Sep 1999. Ethiopia: Kobo, Welo.
- 9479 [SRCAMB VL-1786] V Likhovidov. *Carabus* sp. [Coleoptera: Carabidae]. 29 Aug 2005. Ukraine: Autonomous Republic of Crimea. Field Collection Number F-738.
- 9480 [SRCAMB VL-1760/1] V Likhovidov. [Diptera: Muscidae]. 27 Aug 2005. Ukraine: Autonomous Republic of Crimea. Field Collection Number F-856.
- 9481 [SRCAMB VL-1695] V Likhovidov. [Hemiptera: Aleyrodidae]. 18 Sep 2004. Russian Federation: Caucasus region, Mostovsky District, Krasnodarsky Krai. Field Collection Number F-504.
- 11727 I Erper (TR-01). *Palomena prasina* [Hemiptera: Pentatomidae]. Rec'd 6 Feb 2012. Turkey: Giresun Province.
- 11728 I Erper (TR-02). *Palomena prasina* [Hemiptera: Pentatomidae]. Rec'd 6 Feb 2012. Turkey: Ordu Province.
- 11729 I Erper (TR-03). *Palomena prasina* [Hemiptera: Pentatomidae]. Rec'd 6 Feb 2012. Turkey: Giresun Province.

- 11732 I Erper (TR-06). *Palomena prasina* [Hemiptera: Pentatomidae]. Rec'd 6 Feb 2012. Turkey: Sakarya Province.
- 11735 I Erper (TR-09). *Palomena prasina* [Hemiptera: Pentatomidae]. Rec'd 6 Feb 2012. Turkey: Samsun Province.
- 11737 I Erper (TR-11). *Palomena prasina* [Hemiptera: Pentatomidae]. Rec'd 6 Feb 2012. Turkey: Sakarya Province.

***Simplicillium lamellicola*(?)** (FEW Smith) Zare & W Gams
[Sordariomycetes: Hypocreales]
Cordycipitaceae

- 7989 Acc'd 26 Apr 2006. **RESTRICTED ACCESS:**
consult Curator.
- 11725 T Wen (09XS-2). Pupa, [Lepidoptera]. 2009. PR China: Xishan, Kunming, Yunnan Province.
- 11738 I Erper (TR-12). *Palomena prasina* [Hemiptera: Pentatomidae]. Rec'd 6 Feb 2012. Turkey: Ordu Province.
- 11740 I Erper (TR-14). Host unknown. Rec'd 6 Feb 2012. Turkey: Samsun Province.

Simplicillium lanosoniveum (F. H. Beyma) Zare & W. Gams
[Sordariomycetes: Hypocreales]
Cordycipitaceae

- 6430 [EMBRAPA/CPAC] DEN Rangel (CPAC H1). *Leptopharsa heveae* [Hemiptera: Tingidae]. Rec'd 14 Feb 2000. French Guiana.
- 6431 [EMBRAPA/CPAC] DEN Rangel (CPAC H3). *Leptopharsa heveae* [Hemiptera: Tingidae]. Rec'd 14 Feb 2000. French Guiana.
- 6432 [EMBRAPA/CPAC] DEN Rangel (CPAC H6). *Leptopharsa heveae* [Hemiptera: Tingidae]. Rec'd 14 Feb 2000. French Guiana.
- 6636 SB Alves (ESALQ 1226). *Leptopharsa heveae* [Hemiptera: Tingidae]. 28 Sep 1998. Brazil: Itiquira, Mato Grosso.
- 6637 SB Alves (ESALQ 1227). *Leptopharsa heveae* [Hemiptera: Tingidae]. 28 Sep 1998. Brazil: Itiquira, Mato Grosso.
- 6642 SB Alves (ESALQ 1237). *Leptopharsa heveae* [Hemiptera: Tingidae]. 11 Nov 1998. Brazil: Brasília, Distrito Federal.
- 7623 [SRCAMB VL-879] V Likhovidov. *Parthenolecanium corni* [Hemiptera: Coccidae]. Aug 2002. Russian Federation: Caucasus region, Mostovsky District, Krasnodarsky Krai. Field Collection Number F-232.
- 8822 WC Luz. [Diptera: Culicidae] Culicine mosquito. Nov 2008. Tanzania: 8°23' S, 36°40' E (Ulanga District), Lupiro, Morogoro.

***Simplicillium lanosoniveum*(?)** (F. H. Beyma) Zare & W Gams
[Sordariomycetes: Hypocreales]
Cordycipitaceae

7988 Rec'd 29 Mar 2006. **RESTRICTED ACCESS:**
consult Curator.

***Tolypocladium* sp.**
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae

6634 SB Alves (ESALQ 1224). *Leptopharsa heveae* [Hemiptera: Tingidae]. 31 Aug 1998. Brazil: São José do Rio Claro, Mato Grosso.

Tolypocladium cylindrosporum W Gams
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae

- 705 GG Soares. *Aedes sierrensis* [Diptera: Culicidae]. Acc'd 17 Nov 1982. USA: California.
- 841 JS Pillai. *Aedes australis* [Diptera: Culicidae]. Acc'd 7 Jun 1983. New Zealand: Quoin Pt., Otago Peninsula, nr. Dunedin, South Island.
- 961 [CBS ?719.70; CCFC DAOM 183952] UAMH (4563) or (?4995) ← J Weiser ← JS Pillai. [Diptera: Culicidae]. Rec'd 9 Sep 1983. Czech Republic.
- 962 [ATCC 42438; CCFC DAOM 167325] UAMH (4592) ← J Bissett (737). Soil sample SV113. 2 Jun 1971. Canada: Bromus site, alpine eutric brunisol, grass slope, elev. 1900 m, Mt. Allen, Kananaskis Valley, Alberta.
- 963 [CCFC DAOM 167176] UAMH (4593) ← S Visser. Soil. Aug 1976. Canada: spruce-fir forest, elev. 5500-6000 ft, nr. Luscar, Alberta.
- 976 [GCRI 131-82] RA Hall ← JS Pillai. [Diptera: Culicidae]. Acc'd 17 Oct 1983. New Zealand: Quoin Pt., Otago Peninsula, nr. Dunedin, South Island.
- 1027 [GCRI 130-82] RA Hall ← JS Pillai. [Diptera: Culicidae]. 1982. New Zealand: Quoin Pt., Otago Peninsula, nr. Dunedin, South Island.
- 1028 [GCRI 132-82] RA Hall ← JS Pillai. [Diptera: Culicidae]. 1982. New Zealand: Quoin Pt., Otago Peninsula, nr. Dunedin, South Island.
- 1580 GG Soares (Tc4c). *Aedes sierrensis* [Diptera: Culicidae]. Acc'd 17 Sep 1984. USA: Novato, California.
- 2777 T Steenberg (186). [Lepidoptera: Noctuidae]. 6 Jun 1989. Denmark.
- 2778 T Steenberg (187). [Lepidoptera: Noctuidae]. 19 Jun 1989. Denmark.
- 2911 CBS (276.82) ← GG Soares. [Diptera: Culicidae]. 1982. New Zealand.
- 2912 CBS (989.73) ← LP Kish. *Plecia nearctica* [Diptera: Bibionidae]. 1973. USA: Florida.
- 2920 CBS (718.70). Peat soil. 1970. United Kingdom: northern Pennines (Moorhouse), England. CULTURE EX TYPE.

- 3392 CCFC (DAOM 180479) ← G Dutzler (21). Soil. Rec'd 1 Oct 1991. Nepal.
- 3393 Soil. Rec'd 1 Oct 1991. Nepal.
- 5525 I Klingen (BAL 3). Larva, *Delia floralis* [Diptera: Anthomyiidae] as bait from soil. 18 Sep 1996. Norway: Balsfjord, Troms. **RESTRICTED ACCESS:** *contact Curator.*
- 5526 I Klingen (TØF 22.2). Larva, *Delia floralis* [Diptera: Anthomyiidae] as bait from soil. 26 Sep 1996. Norway: Steinkjer, Nord Trøndelag. **RESTRICTED ACCESS:** *contact Curator.*
- 5527 I Klingen (VFB 10.1). Larva, *Delia floralis* [Diptera: Anthomyiidae] as bait from soil. 4 Sep 1996. Norway: Grane, Nordland. **RESTRICTED ACCESS:** *contact Curator.*
- 5528 I Klingen (ØNN 2.2). Larva, *Delia floralis* [Diptera: Anthomyiidae] as bait from soil. 26 Sep 1996. Norway: Vestvågøy, Nordland. **RESTRICTED ACCESS:** *contact Curator.*
- 5529 I Klingen (ØNN 2.3). Larva, *Delia floralis* [Diptera: Anthomyiidae] as bait from soil. 26 Sep 1996. Norway: Vestvågøy, Nordland. **RESTRICTED ACCESS:** *contact Curator.*
- 5530 I Klingen (ØNN 3.1). Larva, *Delia floralis* [Diptera: Anthomyiidae] as bait from soil. 26 Sep 1996. Norway: Vestvågøy, Nordland. **RESTRICTED ACCESS:** *contact Curator.*
- 5531 I Klingen (ØNN 4.1). Larva, *Delia floralis* [Diptera: Anthomyiidae] as bait from soil. 26 Sep 1996. Norway: Vestvågøy, Nordland. **RESTRICTED ACCESS:** *contact Curator.*
- 5532 I Klingen (ØNN 4.2). Larva, *Delia floralis* [Diptera: Anthomyiidae] as bait from soil. 26 Sep 1996. Norway: Vestvågøy, Nordland. **RESTRICTED ACCESS:** *contact Curator.*
- 5538 I Rong (PPRI 6396). Larva, *Sirex noctilo* [Hymenoptera: Siridae] inside *Pinus radiata*. 26 Jun 1997. South Africa: Tokai Forest, Western Cape Province.
- 5558 I Klingen (ØNN 2.1). Larva, *Delia floralis* [Diptera: Anthomyiidae] as bait from soil. 26 Sep 1996. Norway: Valberg, Nordland. **RESTRICTED ACCESS:** *contact Curator.*
- 5559 I Klingen (ØNN 3.2). Pupa, *Delia floralis* [Diptera: Anthomyiidae] as bait from soil. 26 Sep 1996. Norway: Valberg, Nordland. **RESTRICTED ACCESS:** *contact Curator.*
- 7129 LA Castrillo. Isolated from soil sample. Summer 2002. USA: Aroostook Farm, Presque Isle, Maine. Single spore isolate established from a CFU.
- 7456 GM Duke and MS Goettel (LRC 172). [Coleoptera: Elateridae]. 12 May 2003. Canada: Agassiz, British Columbia.
- 7539 E Groden (Plate #7). *Myrmica rubra* [Hymenoptera: Formicidae]. 26 Aug 2003. United Kingdom: Rescombe, Dorset, England. 50.35.54 N, 02.03.05 W, 110 m elevation.
- 7812 [SRCAMB VL-389] V Likhovidov. Larva, [Coleoptera: Elateridae] Isolated from stroma. 8 Aug 2001. Russian Federation: Lazovsky Nature Reserve, Primorsky Krai. Field Collection Number F-268.
- 9503 [SRCAMB VL-272] V Likhovidov. [Araneida]. Sep 2001. Russian Federation: Caucasus region, Karachayev-Cherkessiya Republ. Field Collection Number F-751.
- 10146 [ERL 1806] S Gouli (Thr.-10-9) and V Gouli. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2010. USA: Underhill, Vermont.
-
- Tolypocladium extinguens* Samson & Soares
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 2921 CBS (345.77) ← GJ Samuels. *Arachnocampa luminosa* [Diptera: Mycetophilidae]. 1977. New Zealand. CULTURE EX TYPE.
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- Tolypocladium geodes* W Gams
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
-
- 2684 J Weiser (R5) ← J Bissett. Acc'd 14 Feb 1989. Location not specified.
- 3271 CCFC (DAOM 167321) ← J Bissett (384). Soil. Rec'd Apr 1991. Canada: dry sedge meadow, elev. 2100 m, Mt. Allen, Kananaskis Valley, Alberta.
- 3272 CCFC (DAOM 167323) ← J Bissett (570). Soil. Rec'd Apr 1991. Canada: bromus site, grass slope, elev. 1900 m, Mt. Allen, Kananaskis Valley, Alberta.
- 3273 CCFC (DAOM 167326) ← J Bissett (938). Soil sample SX133. Rec'd Apr 1991. Canada: Bromus site, alpine eutric brunisol, grass slope, Mt. Allen, Kananaskis Valley, Alberta.
- 3274 [ATCC 56502] CCFC (DAOM 176470) ← A Carter. Soil. 19 Nov 1976. Canada: predominantly white spruce woods, 29.7 km SSE of Sudbury, Ontario.
- 3275 CCFC (DAOM 191333) ← P Widden. Soil Moorland soil, A1 horizon. Rec'd Apr 1991. United Kingdom: Gisburn Forest, England.
- 3276 CCFC (DAOM 191336) ← P Widden. Festuca grasslands, moorland soil. Rec'd Apr 1991. United Kingdom: elev. 1850 ft, Pennines (Moorhouse), England.
- 9504 [SRCAMB VL-2159] V Likhovidov. Isolated from soil sample. 2006. Russian Federation: Tver Region. Field Collection Number F-143.
- 9505 [SRCAMB AS-635] V Likhovidov. Isolated from soil sample. Aug 2004. Russian Federation: Moscow Region. Field Collection Number F-1013.

Tolypocladium inflatum W Gams

[Sordariomycetes: Hypocreales]

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

- 616 [CCFC 962] ATCC (18981) ← O Fassatiava. Rec'd 27 May 1981. Czech Republic.
- 3277 CCFC (DAOM 64352) ← W Gams. Humus (alpine soil). Rec'd Apr 1991. Austria: Obergurgl-Ötztal, Tirol.
- 3278 CCFC (DAOM 160594) ← V Behan. *Mycobates* sp. [Acari: Oribatidae]. Rec'd Apr 1991. Canada: Frobisher Bay, Baffin Island, Northwest Territories.
- 3279 CCFC (DAOM 167175) ← S Visser. Humified organic material. Rec'd Apr 1991. Canada: undisturbed spruce-fir forest, nr. Luscar, Alberta.
- 3280 CCFC (DAOM 167322) ← J Bissett (530). Soil sample A382. Rec'd Apr 1991. Canada: Dryas site, Warcup soil plate, alpine meadow, elev. 2530 m, Mt. Allen, Kananaskis Valley, Alberta.
- 3281 CCFC (DAOM 198395) ← DD Strongman. Pupa, [Diptera: Tachinidae]. Rec'd Apr 1991. Canada: Acadia Forest Exp. Station, Fredericton, New Brunswick.
- 3320 CCFC (DAOM 63905) ← D Brewer. Slime from pulp & paper mill. Rec'd 30 Apr 1991. Canada: Corner Brook, Newfoundland.
- 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.
- 3394 CCFC (DAOM 183955) ← L Ippolito (38-BI). Root of black spruce, clay soil. Rec'd 1 Oct 1991. Canada: SW Burt Lake, Burt Twp., Timiskaming District, Ontario.
- 3395 [J Bissett 83M-38] CCFC (DAOM 185687) ← D Lahaie. Sediment 21m below surface of acidic lake. Rec'd 1 Oct 1991. Canada: White Pine Lake, NW of Sudbury, Ontario.
- 3396 CCFC (DAOM 191338) ← P Widden (LP-177). *Festuca* grasslands, moorland soil, A1 horizon. Rec'd 1 Oct 1991. United Kingdom: elev. 2750 ft, Pennines (Moorhouse), England.
- 3397 [ARSEF 3321; J Bissett 88M-143] CCFC (DAOM 199924) ← D Perry (1602). *Choristoneura fumiferana* [Lepidoptera: Tortricidae] on spruce. Rec'd 1 Oct 1991. Canada: Acadia Forest Exp. Station, Fredericton, New Brunswick.
- 3398 CCFC (DAOM 210147) ← DS Abrahamson (5). Maple/beech/birch forest floor. Rec'd 1 Oct 1991. USA: Mt. Clinton Rd., White Mountain National Forest, New Hampshire.
- 3432 CCFC (DAOM 167132) ← P Widden (M-105). Soil in *Pinus contorta* stand. Rec'd 29 Oct 1991. Canada: Kananaskis Valley, Alberta.
- 3433 [ATCC 36654] CCFC (DAOM 180481) ← G Dutzler (94). Soil. Rec'd 29 Oct 1991. Nepal.
- 3790 KT Hodge (kth11). 23 Sep 1992. USA: foam below Ithaca Falls, Ithaca, New York.
- 4575 [DAT 472; IMI IMI358246] AC Rath (F472). 40-60 days, *Salmo salar*. Rec'd 1 Sep 1994. Australia: Tasmania.
- 4772 [DAT 471] AC Rath (F471). 40-60 grams, *Salmo salar*. Rec'd 23 Sep 1994. Australia: Tasmania.
- 4877 KT Hodge (kth30A). [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4878 KT Hodge (kth30B). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4879 KT Hodge (kth30C). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4880 KT Hodge (kth30D). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4881 KT Hodge (kth30E). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4882 KT Hodge (kth30F). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4883 KT Hodge (kth30G). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4884 [ATCC 200994; CBS 305.95; CCFC 006988; UAMH 8723] KT Hodge (kth30H). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*.

- Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485 .
- 4885 KT Hodge (kth30I). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4886 KT Hodge (kth30J). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4887 KT Hodge (kth30K). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4888 KT Hodge (kth30L). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4889 KT Hodge (kth30M). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4890 KT Hodge (kth30N). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4891 KT Hodge (kth30O). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4892 KT Hodge (kth30P). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4893 KT Hodge (kth30Q). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4894 KT Hodge (kth30R). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4895 KT Hodge (kth30S). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4896 KT Hodge (kth30T). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4897 KT Hodge (kth30U). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 4898 KT Hodge (kth30V). Larva, [Coleoptera: Scarabaeidae: Aphodiinae]. 28 Sep 1994. USA: Michigan Hollow State Forest, Danby, New York. Single ascospore isolate from *Cordyceps subsessilis*. Specimen deposited at Cornell Plant Pathology Herbarium as CUP 63485.
- 9506 [SRCAMB B-225] V Likhovidov ← BA Borisov. Isolated from soil sample. 2000. Russian Federation: Caucasus region, Teberdinsk State Nature Reserve, Karachayev-Cherkessiya Republ. Field Collection Number F-258.
- 9507 [SRCAMB AS-587] V Likhovidov. Isolated from soil sample. 2004. Russian Federation: Yamalo-Nenetskiy Autonomous District, Tyumen Oblast. Field Collection Number F-993.
- Tolypocladium lignicola*** GL Barron
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 5218 KT Hodge (U0268t). Soil. Aug 1996. Uganda: Ngogo Forest Camp, Kibale National Park.
- 5615 SL Glockling (K5a). Phylum Nemata from rabbit dung. 9 Jul 1996. Japan: Amami Islands.
- Tolypocladium microsporum*** (Jaap) Bissett
[Sordariomycetes: Hypocreales]
Ophiocordycipitaceae
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- 3431 CCFC (DAOM 191103) ← R Summerbell. Roots of *Cornus canadensis*. 6 Jun 1982. Canada: Kirkland Lake, Ontario.

Tolypocladium nubicola Bissett

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

- 3434 CCFC (DAOM 167320) ← J Bissett (164). Soil sample A322. Rec'd 29 Oct 1991. Canada: Dryas site, Warcup soil plate, alpine meadow, Mt. Allen, Kananaskis Valley, Alberta.
- 3435 CCFC (DAOM 167324) ← J Bissett (633). Soil sample V222. Rec'd 29 Oct 1991. Canada: Dryas site, Warcup soil plate, alpine meadow, Mt. Allen, Kananaskis Valley, Alberta.

Tolypocladium parasiticum GL Barron

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

- 3436 CCFC (DAOM 184880) ← GL Barron. Bdelloid rotifers in farm soil. Rec'd 29 Oct 1991. Canada: Guelph, Ontario.

Tolypocladium tundrense Bissett

[Sordariomycetes: Hypocreales]

Ophiocordycipitaceae

- 3399 CCFC (DAOM 167133) ← P Widden (M-106). Raised beech soil. Rec'd 1 Oct 1991. Canada: Devon Island, Northwest Territories.
- 3400 CCFC (DAOM 167134) ← P Widden (M-107). Soil. Rec'd 1 Oct 1991. Canada: sedge meadow, Devon Island, Northwest Territories.
- 3401 CCFC (DAOM 191334) ← P Widden (LP-235). Festuca grasslands, moorland soil, A1 horizon. Rec'd 1 Oct 1991. United Kingdom: elev. 2450 ft, Pennines (Moorhouse), England.

***Trichoderma* sp.**

[Sordariomycetes: Hypocreales]

Hypocreaceae

- 807 RA Daoust (Ek8-4). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. Acc'd 9 Oct 1986. Brazil.
- 1361 S Balazy (1599a). Rec'd 19 May 1984. Poland.
- 2160 BN Muthappa (PNG 12720). *Anoploleptis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 1986. Papua New Guinea.
- 2161 BN Muthappa (PNG 12717). *Anoploleptis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 1986. Papua New Guinea.
- 3084 J Peña ← H Glenn. *Unaspis citri* [Hemiptera: Diaspididae] on *Citrus aurantifolia*. May 1990. USA: Homestead, Florida.
- 5522 I Klingen (TØF 12.3). Larva, *Delia floralis* [Diptera: Anthomyiidae] as bait from soil. 25 Sep 1996. Norway: Steinkjer, Nord Trøndelag.
- 5523 I Klingen (TØF 14.22). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 25 Sep 1996. Norway: Steinkjer, Nord Trøndelag.

- 5524 I Klingen (TØF 14.222). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae] as bait from soil. 25 Sep 1996. Norway: Steinkjer, Nord Trøndelag.
- 5730 TJ Poprawski. *Elasmopalpus lignosellus* [Lepidoptera: Pyralidae] in *Saccharum officinarum*. Apr 1998. USA: Weslaco, Texas.
- 8470 WC Luz (eco 40). Isolated from soil sample. Rec'd 7 Jun 2007. **RESTRICTED ACCESS:** consult *Curator*.
- 8634 CA Fuller. [Isoptera: Termitidae]. Acc'd 29 Oct 2007.
- 9938 [ERL 1785] S Gouli and V Gouli (Thr.-09-17). [Thysanoptera: Thripidae]. 2010. USA: Vermont.

Trichoderma lignorum (Tode) Harz

[Sordariomycetes: Hypocreales]

Hypocreaceae

- 5176 S Gouli (GP-14). *Adelges tsugae* [Hemiptera: Adelgidae] on *Tsuga canadensis*. 14 Feb 1996. USA: Mt. Tom, Holyoke, Massachusetts.

***Trichoderma viride*(?)** Persoon

[Sordariomycetes: Hypocreales]

Hypocreaceae

- 6344 [CIAT 016] Adult, *Aeneolamia varia* [Hemiptera: Cercopidae]. 4 May 1999. Colombia: CIAT Farm, Palmira, Valle.

***Verticillium* sp.**

[Sordariomycetes: Hypocreales]

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

- 3547 M Brownbridge (R-6). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 20 Nov 1991. USA: Laggis' sugar maple stand, Caledonia County, Vermont.
- 3550 M Brownbridge (R-12). White mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 1991. USA: Goodhouse's sugar maple stand, Windsor County, Vermont.
- 3551 M Brownbridge (R-13). Pink mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 1991. USA: Rowe's sugar maple stand, Caledonia County, Vermont.
- 3552 M Brownbridge (R-14). Yellow mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 1991. USA: Preseau's sugar maple stand, Addison County, Vermont.
- 3556 M Brownbridge (R-22). Pink mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 1991. USA: Ralph's sugar maple stand, Washington County, Vermont.
- 3561 M Brownbridge (R-29). Mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 1991. USA: Motyka's sugar maple stand, Orange County, Vermont.

- 4074 C Rosenthal (MP1). *Myzus persicae* [Hemiptera: Aphididae]. Jul 1989. Denmark: Lyngby, Zealand.
- 4194 LA Lacey (94030). [Hemiptera: Aphididae] Tamarillo Tree. 25 Mar 1994. Malaysia: Cameron Highlands.
- 4195 LA Lacey (94031). [Hemiptera: Aphididae] Tamarillo Tree. 25 Mar 1994. Malaysia: Caurcuan Highlands, Cameron Highlands.
- 4203 LA Lacey (94032). [Hemiptera: Aphididae] on orchid. 25 Mar 1994. Malaysia: Brichang.
- 4398 LA Lacey (94095). [Hemiptera: Aphididae] eggplant. 24 Mar 1994. Malaysia: Kuala Terla.
- 4399 LA Lacey (94096). [Hemiptera: Aphididae] eggplant. 24 Mar 1994. Malaysia: Kuala Terla.
- 4402 LA Lacey (94062). *Trialeurodes vaporariorum* [Hemiptera: Aleyrodidae] eggplant. 24 Mar 1994. Malaysia: Kuala Terla.
- 5713 E Zhioua (1S DCE). Acc'd 4 Jul 1998.
- 6250 [RCEF 0221] Phylum Arthropoda, Class Arachnida. 8 Aug 1996. PR China: Guizhou Province.
- 6480 BL Parker (SPT-KR-389/1). Adult, *Eurygaster* sp. [Hemiptera: Scutelleridae] overwintering in soil. 12 Feb 2000. Kyrgyz Republic: GPS Coordinates N 43°39.257' E 073°54.353'. **RESTRICTED ACCESS:.**

contact Curator

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

contact Curator

- 6485 BL Parker (SPT-KZ-413). Adult, *Eurygaster* sp. [Hemiptera: Scutelleridae] overwintering in soil. 3 Feb 2000. Kazakhstan: GPS Coordinates N 43°08.534' E 076°36.541'. **RESTRICTED ACCESS:.**

contact Curator

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

contact Curator

- 6498 BL Parker (SPT-KZ-445). Adult, [Hemiptera: Rhopalidae] overwintering in soil. 5 Feb 2000. Kazakhstan: GPS Coordinates N 44°14.205' E 077°42.544'. **RESTRICTED ACCESS:.**

contact Curator

- 6500 BL Parker (SPT-KZ-457). Adult, *Aelia* sp. [Hemiptera: Pentatomidae] overwintering in soil. 6 Feb 2000. Kazakhstan: GPS Coordinates N 43°09.121' E 076°35.771'. **RESTRICTED ACCESS:.**

contact Curator

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

contact Curator

- 6580 G Sewify (2). *Icerya purchasi* [Hemiptera: Margarodidae]. May 2000. Egypt.

Verticillium cinnamomeum Petch
[Sordariomycetes: Hypocreales]

- 2399 MC Rombach (131286-1). 13 Dec 1986. Indonesia.

Verticillium epiphytum Hansford
[Sordariomycetes: Hypocreales]

- 5250 [ATCC 22593; CBS 384.81; IMI 071 315] *Hemileia vastatrix* [Uredinales]. Acc'd 19 Aug 1996. Thailand.

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

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

Verticillium lecanii (Zimmerman) Viégas
[Sordariomycetes: Hypocreales]

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

- 991 J Aoki (Har. 2) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 1983. Japan: Suginami, Tokyo Prefecture.
- 1333 S Balazy (1453c). Rec'd 19 May 1984. Poland.
- 1357 S Balazy (1595d). Rec'd 19 May 1984. Poland.
- 2859 MG Feng (SA8701). *Sitobion avenae* [Hemiptera: Aphididae] on winter wheat. 12 Jun 1987. USA: Hwy 95 & Klahr Rd., Canyon County, Idaho.
- 2916 CBS (537.81) ← HC Evans. [Hemiptera: Coccidae]. 1981. Ecuador: Galapagos Islands.
- 3741 D Lonsdale (AH2). *Cryptococcus fagisuga* [Hemiptera: Eriococcidae] beech tree (*Fagus sylvatica*). Rec'd 6 Jul 1992. United Kingdom: England.
- 3742 D Lonsdale (AH3). *Cryptococcus fagisuga* [Hemiptera: Eriococcidae] beech tree (*Fagus sylvatica*). Rec'd 6 Jul 1992. United Kingdom: England.
- 3743 D Lonsdale (AH4). *Cryptococcus fagisuga* [Hemiptera: Eriococcidae] beech tree (*Fagus sylvatica*). Rec'd 6 Jul 1992. United Kingdom: England.
- 3770 DW Roberts ← Wang Li Ying. Rec'd 25 Aug 1992. Location not specified.
- 3840 S Meyer ← ATCC (58909). 30 Dec 1992. Laboratory manipulation.
- 3862 [ARSEF 2859] N Underwood (ARSEF2859). *Diuraphis noxia* [Hemiptera: Aphididae]. Rec'd 28 Jan 1993. Laboratory manipulation.
- 3881 [ARSEF 3836] N Underwood (U3836). *Diuraphis noxia* [Hemiptera: Aphididae]. Rec'd 16 Feb 1993. Laboratory manipulation: Reisolated from bioassay.

- 3902 [ARSEF 3838] N Underwood (U3838). *Diuraphis noxia* [Hemiptera: Aphididae]. Rec'd 5 Mar 1993. Laboratory manipulation: Reisolated from bioassay.
- 3903 [ARSEF 3000] N Underwood (U3000). *Diuraphis noxia* [Hemiptera: Aphididae]. Rec'd 5 Mar 1993. Laboratory manipulation: Reisolated from bioassay.
- 3904 [ARSEF 3840] N Underwood (U3840). *Diuraphis noxia* [Hemiptera: Aphididae]. Rec'd 5 Mar 1993. Laboratory manipulation: Reisolated from bioassay.
- 3909 [ARSEF 2858] N Underwood (U2858). *Diuraphis noxia* [Hemiptera: Aphididae]. Rec'd 2 Apr 1993. Laboratory manipulation: Reisolated from bioassay.
- 4022 T Steenberg (216) ← A Kirkeby-Thomse. *Agelastica alni* [Coleoptera: Chrysomelidae] on *Alnus* spp. Aug 1990. Denmark.
- 4025 T Steenberg (227) ← A Kirkeby-Thomse. *Phytokermes hemichryphus* [Hemiptera: Coccidae] Red spruce. Nov 1990. Denmark: Grib Skov, Zealand.
- 4047 T Steenberg (295). *Aphodius fimetarius* [Coleoptera: Scarabaeidae]. Mar 1992. Denmark: Copenhagen, Tåstrup, Zealand.
- 4048 T Steenberg (297). Larva, [Coleoptera: Cantharidae]. Mar 1992. Denmark: Copenhagen, Tåstrup, Zealand.
- 4061 T Steenberg (VT3). *Trialeurodes vaporariorum* [Hemiptera: Aleyrodidae]. Jul 1989. Denmark: Lyngby, Zealand.
- 4064 T Steenberg (BT3). *Bemisia tabaci* [Hemiptera: Aleyrodidae] on tobacco. Jul 1989. Denmark: Greenhouse, Lyngby, Zealand.
- 4065 T Steenberg (BT4). *Bemisia tabaci* [Hemiptera: Aleyrodidae] on tobacco. Jul 1989. Denmark: Greenhouse, Lyngby, Zealand.
- 4067 T Steenberg (BT6). *Bemisia tabaci* [Hemiptera: Aleyrodidae] on tobacco. Jul 1989. Denmark: Greenhouse, Lyngby, Zealand.
- 4069 T Steenberg (BT11). *Bemisia tabaci* [Hemiptera: Aleyrodidae] on tobacco. Jul 1989. Denmark: Greenhouse, Lyngby, Zealand.
- 4070 T Steenberg (BT12). *Bemisia tabaci* [Hemiptera: Aleyrodidae] on tobacco. Jul 1989. Denmark: Greenhouse, Lyngby, Zealand.
- 4071 T Steenberg (BT13). *Bemisia tabaci* [Hemiptera: Aleyrodidae] on tobacco. Jul 1989. Denmark: Greenhouse, Lyngby, Zealand.
- 4072 T Steenberg (BT14). *Bemisia tabaci* [Hemiptera: Aleyrodidae] on tobacco. Jul 1989. Denmark: Greenhouse, Lyngby, Zealand.
- 4073 T Steenberg (VL9) ← C Rosenthal. [Hemiptera: Aphididae]. 1989. Denmark.
- 4075 T Steenberg (MP2). *Myzus persicae* [Hemiptera: Aphididae]. Jul 1989. Denmark: Lyngby, Zealand.
- 4076 T Steenberg (MP3). *Myzus persicae* [Hemiptera: Aphididae]. Jul 1989. Denmark: Lyngby, Zealand.
- 4077 T Steenberg (MP5). *Myzus persicae* [Hemiptera: Aphididae]. Jul 1989. Denmark: Lyngby, Zealand.
- 4079 T Steenberg (MP11). *Myzus persicae* [Hemiptera: Aphididae]. Jul 1989. Denmark: Lyngby, Zealand.
- 4416 LA Lacey (94058). [Hemiptera: Aphididae] Orchid. 25 Mar 1994. Malaysia: Brichaug.
- 4417 LA Lacey (94059). [Hemiptera: Aphididae] Orchid. 25 Mar 1994. Malaysia: Brichaug.
- 4418 LA Lacey (94060). [Hemiptera: Aphididae] Orchid. 25 Mar 1994. Malaysia: Brichaug.
- 4419 LA Lacey (94028). [Hemiptera: Aphididae] Tamarillos. 25 Mar 1994. Malaysia: Cameron Highlands.
- 4420 LA Lacey (94047). [Hemiptera: Aphididae] Tamarillos. 25 Mar 1994. Malaysia: Cameron Highlands.
- 4421 LA Lacey (94048). [Hemiptera: Aphididae] Tamarillos. 25 Mar 1994. Malaysia: Cameron Highlands.
- 4422 LA Lacey (94049). [Hemiptera: Aphididae] Tamarillos. 25 Mar 1994. Malaysia: Cameron Highlands.
- 4423 LA Lacey (94050). [Hemiptera: Aphididae] Tamarillos. 25 Mar 1994. Malaysia: Cameron Highlands.
- 4453 LA Lacey (94151). [Hemiptera: Aphididae]. 25 Mar 1994. Malaysia.
- 4454 LA Lacey (94052). [Hemiptera: Aphididae]. 25 Mar 1994. Malaysia: Cameron Highlands.
- 4455 LA Lacey (94054). [Hemiptera: Aphididae]. 25 Mar 1994. Malaysia: Cameron Highlands.
- 4456 LA Lacey (94055). [Hemiptera: Aphididae]. 25 Mar 1994. Malaysia: Cameron Highlands.
- 4457 LA Lacey (94094). [Hemiptera: Aphididae]. 25 Mar 1994. Malaysia: Cameron Highlands.
- 5127 [Horticulture Research International 16.75] D Chandler (HRI 16.75). barley mildew. 1975. Location not specified.
- 5129 [Horticulture Research International 26.79] D Chandler (HRI 26.79). Host not specified wheat. 1979. Location not specified. Suspected mycoparasite.
- 5130 [Horticulture Research International 336.92] D Chandler (HRI 336.92). *Myzus persicae* [Hemiptera: Aphididae]. 1992. United Kingdom: insect rearing unit, Wellesbourne, England.
- 5131 [Horticulture Research International 339.92] D Chandler (HRI 339.92). Cauliflower, *Brevicoryne brassicae* [Hemiptera: Aphididae]. 1992. United Kingdom: greenhouse, Wellesbourne, England.
- 5132 [Horticulture Research International 343.92] D Chandler (HRI 343.92). Pupa, *Delia radicum* [Diptera: Anthomyiidae] soil. 1992. United Kingdom: Wellesbourne, England.
- 5133 [Horticulture Research International 382.93] D Chandler (HRI 382.93). *Aleyrodes proletella* brassicas, field grown. 1993. United Kingdom: Wellesbourne, England.
- 5153 A Braun (Bogor). *Coccus viridis* [Hemiptera: Coccidae] Coffee. 1996. Indonesia: Kebun Raya Bogor (Bogor Botanical Garden), Bogor, Jawa Barat, Java.

- 5166 S Gouli (GP-49). [Hemiptera: Aphididae]. 31 May 1995. USA: R. Angellilo's sugar maple stand, North Field, Vermont.
- 5167 S Gouli (GA-80). [Araneida: Araneae]. 21 Jun 1995. USA: R. Angellilo's sugar maple stand, North Field, Vermont.
- 5168 S Gouli (GA-104). *Formica* sp. [Hymenoptera: Formicidae]. 1 Jun 1995. USA: R. Angellilo's sugar maple stand, North Field, Vermont.
- 5221 [ATCC 58712] *Puccinia striiformis* [Uredinales: Pucciniaceae]. Germany.
- 5491 M Brownbridge (FR20). Rec'd 16 May 1997. France: Bellegarde, Gard.
- 5709 T Steenberg (TT4). *Thrips tabaci* [Thysanoptera: Thripidae]. Rec'd 22 Apr 1998. Denmark.
- 5710 E Zhioua (1S PCW). Acc'd 20 May 1998.
- 5771 BL Parker (AT 135). *Adelges tsugae* [Hemiptera: Adelgidae]. 19 Oct 1997. USA: Lovingston, Virginia.
- 5781 BL Parker (HWA 24). *Adelges tsugae* [Hemiptera: Adelgidae]. 7 Mar 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5783 BL Parker (HWA 111/6). *Adelges tsugae* [Hemiptera: Adelgidae]. 2 Apr 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5786 [ERL 324] S Gouli (HWA-115/2) and V Gouli. *Adelges tsugae* [Hemiptera: Adelgidae]. 2 Apr 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5789 BL Parker (HWA 143/1). *Adelges tsugae* [Hemiptera: Adelgidae]. 2 Apr 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5793 BL Parker (HWA 236). *Adelges tsugae* [Hemiptera: Adelgidae]. 10 Apr 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5809 B Broadbent (BB002). [Hemiptera: Aphididae] on *Achillea millefolium*. 14 Jul 1996. Canada: Kingsville, Ontario.
- 5820 BL Parker (AT 071). *Adelges tsugae* [Hemiptera: Adelgidae]. 17 Oct 1997. USA: Mt. Tom, Holyoke, Massachusetts.
- 5821 BL Parker (AT 072). *Adelges tsugae* [Hemiptera: Adelgidae]. 3 Jul 1997. USA: Crabtree Falls, Virginia.
- 5824 BL Parker (AT 132). *Adelges tsugae* [Hemiptera: Adelgidae]. 19 Oct 1997. USA: Lovingston, Virginia.
- 5849 T Steenberg (SSL 82). Larva, *Alphitobius diaperinus* [Coleoptera: Tenebrionidae]. Rec'd 26 Aug 1998. Originally isolated from *Myzus persicae* [Homoptera: Aphididae].
- 5852 T Steenberg (446). *Sminthurus viridis* [Collembola: Sminthuridae]. Summer 1994. Denmark: Aagerup, Zealand.
- 5854 T Steenberg (SSL 449). *Dreyfusia normanniana* [Hemiptera: Adelgidae] on *Abies nordmanniana*. Rec'd 26 Aug 1998. Denmark: Zealand.
- 5856 T Steenberg (SSL 607). Adult, *Carcinops pumilio* [Coleoptera: Histeridae]. Feb 1997. Denmark: Broiler house, Kværs, Jutland.
- 5859 T Steenberg (SSL 615). Adult, *Musca domestica* [Diptera: Muscidae]. Mar 1997. Denmark: Stable, Helsingø, Zealand.
- 6025 BL Parker ← V Gouli (SPT-R-215). Overwintering adult, *Eurygaster* sp. [Hemiptera: Scutelleridae]. 22 Sep 1998. Russian Federation: Krasnii Sulin, Rostov.
- 6045 BL Parker (AT-C-198). Aestivating 2nd instar, *Adelges tsugae* [Hemiptera: Adelgidae]. 30 Oct 1999. PR China: Site 4, Tree Number 4, Sichuan Province.
- 6046 BL Parker (AT-C-291). Aestivating 2nd instar, *Adelges tsugae* [Hemiptera: Adelgidae]. 30 Oct 1998. PR China: Site 4, Tree Number 15, Sichuan Province.
- 6047 BL Parker (AT-C-292). Aestivating 2nd instar, *Adelges tsugae* [Hemiptera: Adelgidae]. 30 Oct 1998. PR China: Site 3, Tree Number 10, Sichuan Province.
- 6050 BL Parker (AT-C-295). Aestivating 2nd instar, *Adelges tsugae* [Hemiptera: Adelgidae]. 29 Oct 1998. PR China: Site 1, Sichuan Province.
- 6068 BL Parker (SPT-U-271). Adult, *Eurygaster* sp. [Hemiptera: Scutelleridae]. Fall 1998. Syria: Al Kseabiia.
- 6085 BL Parker (SPT-2-309/1). Adult, *Eurygaster* sp. [Hemiptera: Scutelleridae]. Fall 1998. Syria: Al Kseabiia.
- 6144 TJ Poprawski. *Toxoptera citricida* [Hemiptera: Aphididae]. 27 Jan 1999. Dominican Republic: Sabana Grande.
- 6145 TJ Poprawski. *Toxoptera citricida* [Hemiptera: Aphididae]. 27 Jan 1999. Dominican Republic: Juan Jimenez.
- 6287 S Farrokhi (PPDRI 1). *Pulvinaria aurantii* [Hemiptera: Coccidae]. Sep 1994. Iran: Sari, Mazandaran.
- 6290 S Farrokhi (PPDRI 5). [Hemiptera] Mixed population of Coccidae and Diaspididae species. Oct 1997. Iran: Tonekabon, Mazandaran.
- 6291 S Farrokhi (PPDRI 6). *Pulvinaria aurantii* [Hemiptera: Coccidae]. Sep 1998. Iran: Sari, Mazandaran.
- 6350 [RCEF 0221] Phylum Arthropoda, Class Arachnida. 8 Aug 1996. PR China: Guizhou Province.
- 6479 BL Parker (SPT-KZ-377). Adult, *Eurygaster* sp. [Hemiptera: Scutelleridae] overwintering in soil. 3 Feb 2000. Kazakhstan: GPS Coordinates N 43°08.534' E 076°36.541'. **RESTRICTED ACCESS:**
contact Curator
- 6487 BL Parker (SPT-KZ-417). Adult, [Coleoptera: Tenebrionidae] overwintering in soil. 6 Feb 2000. Kazakhstan: GPS Coordinates N 43°08.530' E 076°36.526'. **RESTRICTED ACCESS:**
contact Curator

- 6540 D Chandler (HRI 2.72). *Brachycaudus helichrysi* [Hemiptera: Aphididae]. Rec'd 13 Jul 2000. United Kingdom.
- 6541 D Chandler (HRI 3.72). *Aphis gossypii* [Hemiptera: Aphididae]. Rec'd 13 Jul 2000. United Kingdom.
- 6542 D Chandler (HRI 5.72). *Macrosiphoniella sanborni* [Hemiptera: Aphididae]. Rec'd 13 Jul 2000. United Kingdom.
- 6543 D Chandler (HRI 6.72). *Myzus persicae* [Hemiptera: Aphididae]. Rec'd 13 Jul 2000. United Kingdom.
- 6544 D Chandler (HRI 18.78). *Trialeurodes vaporariorum* [Hemiptera: Aleyrodidae]. Rec'd 13 Jul 2000. United Kingdom.
- 6545 D Chandler (HRI 33.79). *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Rec'd 13 Jul 2000. United Kingdom.
- 6547 D Chandler (HRI 40.81). *Trialeurodes vaporariorum* [Hemiptera: Aleyrodidae]. Rec'd 13 Jul 2000. United Kingdom.
- 6548 D Chandler (HRI 53.81). [Thysanoptera: Thripidae]. Rec'd 13 Jul 2000. United Kingdom.
- 6554 D Chandler (HRI 349.92). Pupa, *Delia radicum* [Diptera: Anthomyiidae]. Rec'd 13 Jul 2000. United Kingdom.
- 6561 D Chandler (HRI 399.93). Adult, *Scatella stagnalis* [Diptera: Ephydriidae]. Rec'd 13 Jul 2000. United Kingdom.
- 6606 JL Hatting. *Diuraphis noxia* [Hemiptera: Aphididae]. 19 Jun 2000. Hungary: greenhouse, Budapest, Budapest.
- 6651 [EMBRAPA/CPAC] DEN Rangel (CPAC H2). *Leptopharsa heveae* [Hemiptera: Tingidae]. Rec'd 25 Oct 2000. French Guiana.

Verticillium pseudohemipterigenum HC Evans &
Y Jun
[Sordariomycetes: Hypocreales]

- 5687 [IMI 374402] HC Evans (HE96-1013). *Bambusaspis* sp. [Hemiptera: Coccoidea: Asterolecaniidae] on bamboo leaf. Fall 1996. Trinidad and Tobago: Parrylands, Siparia, Trinidad. Culture Ex Paratype.

Acremonium sp.	Culicinomyces clavisporus	12065 12066 12067 12068 12069 12070 12071
[Hemiptera: Adelgidae]	[Diptera: Ceratopogonidae]	<i>Parthenolecanium corni</i> 7622
<i>Adelges tsugae</i> 5773	<i>Dasyhelea</i> 2478	[Hemiptera: Coccoidea]
[Hemiptera: Aleyrodidae]	<i>Forcipomyia marksae</i> 2480 2481	Unknown species 9177
<i>Bemisia tabaci</i> 4058 4059	[Diptera: Culicidae]	[Hemiptera: Ortheziidae]
[Hemiptera: Coccidae]	Unknown species 706 2622	<i>Orthezia urticae</i> 9466
<i>Pulvinaria iceryi</i> 11667	<i>Aedes rupestris</i> 2471 2472 2473 2474 2475 2476 2477	[Hemiptera: Tingidae]
[Thysanoptera: Thripidae]	<i>Anopheles amictus hilli</i> 541 644 645	<i>Leptopharsa heveae</i> 8639
<i>Thrips tabaci</i> 4063	<i>Anopheles quadrimaculatus</i> 360 372 582 583 584 585	[Hymenoptera: Formicidae]
Acremonium alternatum	<i>Culiseta inconspicua</i> 2479	<i>Pogonomyrmex occidentalis</i> 7544
[Coleoptera: Scolytidae]	<i>Culiseta inornata</i> 964 1260 2482	[Hymenoptera: Vespidae]
<i>Hypothenemus hampei</i> 7282		<i>Vespa</i> 7630
Acremonium bactrocephalum	Gliocladium sp.	[Lepidoptera]
[Thysanoptera: Thripidae]	[Hemiptera: Adelgidae]	Unknown species 7624 7625 7626 7627 7628 7629 7632
<i>Taeniothrips inconsequens</i> 10166 10167 10168 10169	<i>Adelges tsugae</i> 5177	[Lepidoptera: Tortricidae]
Acremonium berkeleyanum	[Hemiptera: Cicadellidae]	<i>Tortrix viridana</i> 9458
[Lepidoptera: Lymantriidae]	<i>Empoasca kraemeri</i> 1965	[Orthoptera: Gryllotalpidae]
<i>Lymantria dispar</i> 2067	[Lepidoptera: Sesiidae]	<i>Gryllotalpa gryllotalpa</i> 11696
Acremonium furcatum	Unknown species 6632	[Thysanoptera: Thripidae]
[Coleoptera: Curculionidae]	Gliocladium(?) sp.	Unknown species 9930 9931 9935 9936
<i>Hypera postica</i> 1372	[Acari: Ixodidae]	<i>Taeniothrips inconsequens</i> 3253 3254 3255 3259 3260 10154 10187 10188
Acremonium psamosporum	<i>Ixodes scapularis</i> 6896	10189 10190 10192 10193 10195 10196 10197 10198 10199 10200 10201 10202 10203 10206 10207 10208 10209 10210 10211 10212 10213 10214 10287 10288 10289 10290 10291 10294 10295 10296 10297 10298 10299 10300 10301 10302 10303 10304 10305 10306
[Thysanoptera: Thripidae]	[Hemiptera: Margarodidae]	Lecanicillium aphanocladii
<i>Thrips tabaci</i> 4062	<i>Icerya purchasi</i> 6579 6583	[Acari: Tetranychidae]
Acremonium roseum	Haptocillium balanoides	[Hemiptera: Aphididae]
[Lepidoptera: Noctuidae]	[Aphelenchida: Aphelenchoididae]	<i>Tetranychus urticae</i> 9615
<i>Pseudoplusia ni</i> 1964	<i>Aphelenchoides</i> 3173	<i>Myzus</i> nr. <i>persicae</i> 2324
Acremonium(?) sp.	Harposporium anguillulae	[Hemiptera: Pseudococcidae]
[Hemiptera: Adelgidae]	[Tylenchida: Heteroderidae]	<i>Paracoccus marginatus</i> 9611
<i>Adelges tsugae</i> 9368	<i>Meloidogyne hapla</i> 4954	Lecanicillium aphanocladii(?)
[Hemiptera: Coccidae]	Harposporium botuliforme	[Hemiptera: Tingidae]
Unknown species 7036	[Bdelloida: Adinetidae]	<i>Leptopharsa heveae</i> 7985 7986
[Thysanoptera: Thripidae]	<i>Adineta vaga</i> 10275	Lecanicillium evansii(?)
<i>Frankliniella occidentalis</i> 7031	Harposporium janus	[Coleoptera]
Cordyceps militaris	[Coleoptera: Cerambycidae]	Unknown species 11805
[Lepidoptera]	Unknown species 5601	[Diptera]
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 11703 11704	Harposporium spirosporum	
[Lepidoptera: Geometridae]	[Bdelloida: Habrotrichidae]	Unknown species 11785 11795
Unknown species 2416	<i>Habrotricha elusa</i> 8821 10271	[Diptera: Simuliidae]
Culicinomyces bisporalis	Lecanicillium sp.	Unknown species 11796
[Diptera: Culicidae]	[Acari]	[Hemiptera: Aphididae]
<i>Aedes kochi</i> 1948 1949	Unknown species 7373 10164 10215 10216 10217 10218	Unknown species 11797
	[Coleoptera: Elateridae]	[Hymenoptera]
	Unknown species 7635 7636	Unknown species 11804
	[Coleoptera: Silphidae]	[Hymenoptera: Trichogrammatidae]
	Unknown species 9459	Unknown species 11806
	[Diptera: Bibionidae]	[Protura]
	Unknown species 11798	Unknown species 11807
	[Diptera: Xylophagidae]	[Thysanoptera: Thripidae]
	Unknown species 7634 7849	Unknown species 11789 11791 11792 11793 11794 11809
	[Hemiptera: Adelgidae]	Lecanicillium flavidum
	<i>Adelges tsugae</i> 9175 9176 9924 9925 9926 11648 12089	[Agaricales: Entolomataceae]
	[Hemiptera: Aphididae]	<i>Entoloma</i> 4519
	<i>Toxoptera citricida</i> 2009	
	[Hemiptera: Coccidae]	
	<i>Parthenolecanium</i> 12052 12053 12054 12055 12056 12057 12058 12059 12060 12061 12062 12063 12064	

Lecanicillium fungicola

- [Coleoptera: Elateridae]
Unknown species 9483
- [Hemiptera: Aleyrodidae]
Unknown species 9482

Lecanicillium fusisporum

- [Hemiptera: Aphididae]
Myzus persicae 5583
- [Thysanoptera: Thripidae]
Unknown species 11787 11808

Lecanicillium fusisporum(?)

- [Diptera: Muscidae]
Musca domestica 5578 5579
- [Thysanoptera: Thripidae]
Taeniothrips inconsequens 10184

Lecanicillium lecanii

- [Araneida]
Unknown species 1905
- [Coleoptera: Buprestidae]
Agrilus planipennis 8115
- [Coleoptera: Cerambycidae]
Plectrodera scalator 7181 7182
- [Coleoptera: Chrysomelidae]
Pyrrhalta luteola 1505
- [Hemiptera: Adelgidae]
Adelges tsugae 5759 5785 5787 5794 5829 11817
- [Hemiptera: Aleyrodidae]
Trialeurodes vaporariorum 7207
- [Hemiptera: Aphididae]
Unknown species 6887
Aphis rumicis 7530
Brevicoryne brassicae 1787
Diuraphis noxia 5706
Myzus cerasi 6915
Myzus persicae 3387 7462
Uroleucon ambrosiae 6886
- [Hemiptera: Coccidae]
Unknown species 6888
Ceroplastes 6791
Coccus viridis 2149 2150
- [Hemiptera: Coccoidea]
Unknown species 7408 7550
- [Hemiptera: Lecaniidae]
Lecanium viridis 555
- [Hemiptera: Scutelleridae]
Eurygaster 6010
- [Thysanoptera: Thripidae]
Frankliniella occidentalis 3683 3688

Lecanicillium lecanii(?)

- [Diptera: Muscidae]
Haematobia irritans 5584 5585
- [Hemiptera: Aleyrodidae]
Trialeurodes vaporariorum 4060
- [Hemiptera: Aphididae]
Unknown species 5581
Diuraphis noxia 3882 3883 3884
- [Hemiptera: Coccidae]
Coccus hesperidum 6289
- [Hemiptera: Diaspididae]
Fiorinia externa 11815
- [Lepidoptera: Tortricidae]
Cydia pomonella 1109

- [Thysanoptera: Thripidae]
Frankliniella occidentalis 3689
Thrips tabaci 5580

Lecanicillium longisporum

- [Coleoptera: Staphylinidae]
Tachyporus hypnorum 4050
- [Hemiptera: Aleyrodidae]
Trialeurodes vaporariorum 7206 7461
- [Hemiptera: Aphididae]
Unknown species 974 7457 7458 7459 7783 7784 7923 8042
Macrosiphoniella sanborni 5126
Myzus persicae 1026
Rhopalosiphum nymphaeae 321
Toxoptera citricida 2460
- [Thysanoptera: Thripidae]
Unknown species 3701

Lecanicillium muscarium

- [Araneida]
Unknown species 9467
- [Coleoptera: Buprestidae]
Agrilus planipennis 8114 8118 8157 8163 8165
- [Coleoptera: Curculionidae]
Unknown species 7248
Hypera postica 1328 1401 1402 1403
Pissodes strobi 8048 8049 8050 8051 8052 8053 8054
Sitona lineatus 4033
- [Coleoptera: Melyridae]
Malachius bipustulatus 1335
- [Coleoptera: Scolytidae]
Dendroctonus micans 4036 9267 9268
Ips 11803
- [Coleoptera: Tenebrionidae]
Tenebrio molitor 8923
- [Diptera]
Unknown species 7224 9470 10173
- [Diptera: Culicidae]
Ochlerotatus triseriatus 810
- [Diptera: Psychodidae]
Lutzomyia saulensis 3418
- [Diptera: Tipulidae]
Unknown species 3239
- [Hemiptera: Adelgidae]
Adelges tsugae 5165 5772 5778 5779 5780 5782 5791 5795 5798 5822 5828 6035 11818
- [Hemiptera: Aleyrodidae]
Unknown species 3709
Trialeurodes vaporariorum 972 5128 7460
- [Hemiptera: Aphididae]
Unknown species 2659 7034
Aphis fabae 7785
Diuraphis noxia 2862 2877 2878 3000 3861
Macrosiphum euphorbiae 204 2858
Myzus nr. *persicae* 2323 2325 2326
Myzus cerasi 6914
Myzus persicae 3324 7782 8714
Pemphigus betae 3464
Sitobion avenae 2334
- [Hemiptera: Cicadellidae]
Unknown species 7037

- [Hemiptera: Coccidae]
Ceroplastes 7375
Coccus viridis 1774 6792
Parthenolecanium 11736
Parthenolecanium corni 8041
Pulvinaria floccifera 980
Saissetia oleae 1029
- [Hemiptera: Coccoidea]
Unknown species 7633
- [Hemiptera: Delphacidae]
Delphacodes kuscheli 7781
- [Hemiptera: Eriococcidae]
Cryptococcus fagisuga 3740
- [Hemiptera: Margarodidae]
Icerya purchasi 1033
- [Hemiptera: Pentatomidae]
Palomena prasina 11730 11731 11733 11734
- [Hemiptera: Scutelleridae]
Eurygaster 6118
- [Hymenoptera: Ichneumonidae]
Unknown species 1330
- [Lepidoptera]
Unknown species 7621 7738 9468 9469 9477 11802
- [Lepidoptera: Cossidae]
Cossula cossus 973 1102
- [Lepidoptera: Lymantriidae]
Lymantria dispar 2065 2066 3531 3600 3601
- [Lepidoptera: Pyralidae]
Galleria mellonella 7568
Ostrinia nubilalis 900
- [Lepidoptera: Tortricidae]
Adoxophyes orana 994
Cydia pomonella 6591
- [Pucciniales]
Unknown species 9471 9472
- [Pucciniales: Phragmidiaceae]
Phragmidium 7631
- [Thysanoptera: Thripidae]
Unknown species 2923
Frankliniella occidentalis 3684 3685 3686 3690 3691
Taeniothrips inconsequens 10178
- [Uredinales]
Hemileia vastatrix 6699

Lecanicillium muscarium(?)

- [Coleoptera: Buprestidae]
Agrilus planipennis 8162
- [Coleoptera: Curculionidae]
Conotrachelus nenuphar 8265
- [Hemiptera: Adelgidae]
Adelges tsugae 5777 11816
- [Hemiptera: Aleyrodidae]
Unknown species 9464
- [Hemiptera: spf. Coccoidea]
Unknown species 9463
- [Lepidoptera: Tortricidae]
Cydia pomonella 1032
- [Pucciniales: Phragmidiaceae]
Phragmidium 9462
- [Thysanoptera: Thripidae]
Frankliniella occidentalis 3687

- Lecanicillium nr. aranearum**
[Coleoptera: Elateridae]
Unknown species 11811
[Coleoptera: Lampyridae]
Unknown species 9460
[Coleoptera: Scolytidae]
Ips 11799
- Lecanicillium pissodis**
[Coleoptera: Curculionidae]
Pissodes strobi 8055 8056 8057
- Lecanicillium psalliotae**
[Acari: Tenuipalpidae]
Raoiella indica 8890
[Diptera]
Unknown species 10179
[Diptera: Psychodidae]
Lutzomyia sordelli 3416
[Hemiptera: Aleyrodidae]
Bemisia tabaci 5582 6436
[Hemiptera: Aphididae]
Unknown species 9474
Sitobion avenae 2332
[Hemiptera: Margarodidae]
Icerya aegyptica 6581 6582
[Hemiptera: Pseudococcidae]
Rhizoecus 2234 2235
[Hemiptera: Scutelleridae]
Eurygaster 5666 5681 5683 5763 5835 6071
[Lepidoptera]
Unknown species 5685
[Thysanoptera: Thripidae]
Taeniothrips inconsequens 10170 10175 10176 10177 10180 10181 10182
[Tylenchida: Heteroderidae]
Meloidogyne hapla 4960 4965
[Uredinales]
Olivea colebrookeae 5249
- Lecanicillium psalliotae(?)**
[Thysanoptera: Thripidae]
Taeniothrips inconsequens 10183
- Lecanicillium sp. 2(?)**
[Coleoptera]
Unknown species 2832
- Lecanicillium wallacei(?)**
[Diptera]
Unknown species 10172 10174
- Lecanicillium(?) sp.**
[Hemiptera: Adelgidae]
Adelges tsugae 9369
- Mariannaea elegans**
[Diptera]
Unknown species 9455 9456
- Mariannaea pruinosa**
[Lepidoptera: Limacodidae]
Iragoides fasciata 5413
- Mariannaea sp.**
[Hymenoptera: Vespidae]
Unknown species 11814
[Thysanoptera: Thripidae]
Unknown species 9932 9933 9934 11812 11813
Taeniothrips inconsequens 2930 3252 3257 3258 3261 3262 3263 3264 3265 3267 3268 3269 3270 3315 3316 3317 3549 3554 3555 3557 3558 3559 3562 3563 10150 10151 10152 10153 10185 10194 10204 10205
- Pochonia sp.**
[Bdelloida: Habrotrichidae]
Habrotricha elusa elusa 10261
- Pochonia bulbillosa**
[Diptera: Muscidae]
Unknown species 11800
- Pochonia bulbillosa(?)**
[Coleoptera: Curculionidae]
Anthonomus musculus 3035
- Pochonia chlamydosporia**
[Coleoptera: Scarabaeidae]
Unknown species 3314
- Pochonia chlamydosporia var. chlamydosporia**
[Coleoptera: Lagriidae]
Lagria vilosa 2218
[Diptera]
Unknown species 11786 11810
[Phthiraptera: Anoplura]
Unknown species 11801
- Pochonia suchlasporia var. catenata**
[Lepidoptera: Lymantriidae]
Lymantria dispar 2064
- Rotiferophthora sp.**
[Bdelloida: Adinetidae]
Adineta 9544 10266
[Bdelloida: Habrotrichidae]
Habrotricha 9545 9546 10265
Habrotricha elusa elusa 9542 9543 10263 10264
- Rotiferophthora angustispora**
[Bdelloida: Habrotrichidae]
Habrotricha elusa 8991
[Trichoptera]
Unknown species 9498
- Rotiferophthora barronii**
[Bdelloida: Adinetidae]
Adineta 10267
- Rotiferophthora cylindrospora**
[Bdelloida: Habrotrichidae]
Habrotricha 9547 9548
Habrotricha elusa elusa 8992 10273
- Rotiferophthora denticulospora**
[Bdelloida: Habrotrichidae]
Habrotricha 9549
- Rotiferophthora globospora**
[Bdelloida: Adinetidae]
Adineta 10268
- Rotiferophthora guttulaspora**
[Bdelloida: Habrotrichidae]
Habrotricha elusa 10269
- Rotiferophthora intermedia**
[Bdelloida: Habrotrichidae]
Habrotricha elusa 10270
- Rotiferophthora ovispora**
[Bdelloida: Habrotrichidae]
Habrotricha elusa elusa 10274
- Simplicillium sp.**
[Hemiptera: Aleyrodidae]
Bemisia tabaci 6584
- Simplicillium lamellicola**
[Acari: Oribatidae]
Unknown species 1367
[Coleoptera: Carabidae]
Carabus 9479
[Diptera: Muscidae]
Unknown species 9480
[Hemiptera: Aleyrodidae]
Unknown species 9481
[Hemiptera: Pentatomidae]
Palomena prasina 11727 11728 11729 11732 11735 11737
[Orthoptera: Acrididae]
Aiolopus longicornis 6448
- Simplicillium lamellicola(?)**
[Hemiptera: Pentatomidae]
Palomena prasina 11738
[Lepidoptera]
Unknown species 11725
- Simplicillium lanosoniveum**
[Diptera: Culicidae]
Unknown species 8822
[Hemiptera: Coccidae]
Parthenolecanium corni 7623
[Hemiptera: Tingidae]
Leptopharsa heveae 6430 6431 6432 6636 6637 6642
- Tolypocladium sp.**
[Hemiptera: Tingidae]
Leptopharsa heveae 6634
- Tolypocladium cylindrosporum**
[Araneida]
Unknown species 9503
[Coleoptera: Elateridae]
Unknown species 7456 7812
[Diptera: Anthomyiidae]
Delia floralis 5525 5526 5527 5528 5529 5530 5531 5532 5558 5559
[Diptera: Bibionidae]
Plecia nearctica 2912
[Diptera: Culicidae]
Unknown species 961 976 1027 1028 2911
Aedes australis 841
Aedes sierrensis 705 1580

- [Hymenoptera: Formicidae]
Myrmica rubra 7539
- [Hymenoptera: Siridae]
Sirex noctilo 5538
- [Lepidoptera: Noctuidae]
Unknown species 2777 2778
- [Thysanoptera: Thripidae]
Taeniothrips inconsequens 10146
- Tolypocladium extinguens**
[Diptera: Mycetophilidae]
Arachnocampa luminosa 2921
- Tolypocladium inflatum**
[Acari: Oribatidae]
Mycobates 3278
- [Coleoptera: Scarabaeidae: Aphodiinae]
Unknown species 4877 4878 4879 4880
4881 4882 4883 4884 4885 4886
4887 4888 4889 4890 4891 4892
4893 4894 4895 4896 4897 4898
- [Diptera: Tachinidae]
Unknown species 3281
- [Lepidoptera: Tortricidae]
Choristoneura fumiferana 3321 3397
- Trichoderma sp.**
[Diptera: Anthomyiidae]
Delia floralis 5522
- [Hemiptera: Cicadellidae]
Empoasca kraemeri 807
- [Hemiptera: Diaspididae]
Unaspis citri 3084
- [Hymenoptera: Formicidae]
Anoplolepis longipes 2160 2161
- [Isoptera: Termitidae]
Unknown species 8634
- [Lepidoptera: Pyralidae]
Elasmopalpus lignosellus 5730
Galleria mellonella 5523 5524
- [Thysanoptera: Thripidae]
Unknown species 9938
- Trichoderma lignorum**
[Hemiptera: Adelgidae]
Adelges tsugae 5176
- Trichoderma viride(?)**
[Hemiptera: Cercopidae]
Aeneolamia varia 6344
- Verticillium sp.**
[Coleoptera: Carabidae]
Unknown species 6501
- [Coleoptera: Dermestidae]
Unknown species 6484
- [Coleoptera: Scarabaeidae]
Unknown species 6486
- [Hemiptera: Aleyrodidae]
Trialeurodes vaporariorum 4402
- [Hemiptera: Aphididae]
Unknown species 4194 4195 4203 4398
4399
- Myzus persicae* 4074
- [Hemiptera: Margarodidae]
Icerya purchasi 6580
- [Hemiptera: Pentatomidae]
Aelia 6500
- [Hemiptera: Rhopalidae]
Unknown species 6498
- [Hemiptera: Scutelleridae]
Eurygaster 6480 6485
- [Thysanoptera: Thripidae]
Taeniothrips inconsequens 3547 3550
3551 3552 3556 3561
- Verticillium epiphytum**
[Uredinales]
Hemileia vastatrix 5250
- Verticillium insectorum**
[Coleoptera: Curculionidae]
Otiorhynchus sulcatus 3715
- Verticillium lecanii**
[Araneida: Araneae]
Unknown species 5167
- [Coleoptera: Cantharidae]
Unknown species 4048
- [Coleoptera: Chrysomelidae]
Agelastica alni 4022
- [Coleoptera: Curculionidae]
Otiorhynchus sulcatus 6545
- [Coleoptera: Histeridae]
Carcinops pumilio 5856
- [Coleoptera: Scarabaeidae]
Aphodius fimetarius 4047
- [Coleoptera: Tenebrionidae]
Unknown species 6487
- Alphitobius diaperinus* 5849
- [Collembola: Sminthuridae]
Sminthurus viridis 5852
- [Diptera: Anthomyiidae]
Delia radicum 5132 6554
- [Diptera: Ephydriidae]
Scatella stagnalis 6561
- [Diptera: Muscidae]
Musca domestica 5859
- [Hemiptera]
Unknown species 6290
- [Hemiptera: Adelgidae]
Adelges tsugae 5771 5781 5783 5786
5789 5793 5820 5821 5824 6045
6046 6047 6050
- Dreyfusia normanniana* 5854
- [Hemiptera: Aleyrodidae]
Bemisia tabaci 4064 4065 4067 4069
4070 4071 4072
- Trialeurodes vaporariorum* 4061 6544
6547
- [Hemiptera: Aphididae]
Unknown species 4073 4416 4417 4418
4419 4420 4421 4422 4423 4453
4454 4455 4456 4457 5166 5809
- Aphis gossypii* 6541
- Brachycaudus helichrysi* 6540
- Brevicoryne brassicae* 5131
- Diuraphis noxia* 3862 3881 3902 3903
3904 3909 6606
- Macrosiphoniella sanborni* 6542
- Myzus persicae* 4075 4076 4077 4079
5130 6543
- Sitobion avenae* 2859
- Toxoptera citricida* 6144 6145
- [Hemiptera: Coccidae]
Unknown species 2916
- Coccus viridis* 5153
- Phytokermes hemichryphus* 4025
- Pulvinaria aurantii* 6287 6291
- [Hemiptera: Eriococcidae]
Cryptococcus fagisuga 3741 3742 3743
- [Hemiptera: Scutelleridae]
Eurygaster 6025 6068 6085 6479
- [Hemiptera: Tingidae]
Leptopharsa heveae 6651
- [Hymenoptera: Formicidae]
Formica sp. 5168
- [Lepidoptera: Bombycidae]
Bombyx mori 991
- [Thysanoptera: Thripidae]
Unknown species 6548
- Thrips tabaci* 5709
- [Uredinales: Pucciniaceae]
Puccinia striiformis 5221
- Verticillium pseudohemipterigenum**
[Hemiptera: Coccoidea: Asterolecaniidae]
Bambusasaspis sp. 5687

Animalia

Arthropoda • Arachnida

Acari

- Brazil, São Paulo
Lecanicillium sp. 7373
USA, New York
Lecanicillium sp. 10217 10218
USA, Vermont
Lecanicillium sp. 10164 10215
10216

Acari: Ixodidae

- Ixodes scapularis*
Gliocladium(?) sp. 6896

Acari: Oribatidae

- Poland
Simplicillium lamellicola 1367
Mycobates sp.
Canada, Northwest Territories
Tolypocladium inflatum 3278

Acari: Tenuipalpidae

- Raoiella indica*
Saint Lucia
Lecanicillium psalliotae 8890

Acari: Tetranychidae

- Tetranychus urticae*
India
Lecanicillium aphanocladii 9615

Araneida

- Russian Federation
Lecanicillium muscarium 9467
Tolypocladium cylindrosporum
9503
Solomon Islands
Lecanicillium lecanii 1905

Araneida: Araneae

- USA, Vermont
Verticillium lecanii 5167

Arthropoda • Entognatha

Collembola: Sminthuridae

- Sminthurus viridis*
Denmark
Verticillium lecanii 5852

Protura

- USA, Vermont
Lecanicillium evansii(?) 11807

Arthropoda • Insecta

- Mexico
Lecanicillium sp. 2(?) 2832
USA, Vermont
Lecanicillium evansii(?) 11805

Coleoptera: Buprestidae

- Agilus planipennis*
USA, Michigan
Lecanicillium lecanii 8115
Lecanicillium muscarium 8114 8118
8157 8163 8165
Lecanicillium muscarium(?) 8162

Coleoptera: Cantharidae

- Denmark
Verticillium lecanii 4048

Coleoptera: Carabidae

- Kazakhstan
Verticillium sp. 6501
Carabus sp.
Ukraine
Simplicillium lamellicola 9479

Coleoptera: Cerambycidae

- Japan
Harposporium janus 5601
Plectrodera scalator
USA, Michigan
Lecanicillium lecanii 7181 7182

Coleoptera: Chrysomelidae

- Agelastica alni*
Denmark
Verticillium lecanii 4022
Pyrrethalia luteola
France
Lecanicillium lecanii 1505

Coleoptera: Curculionidae

- Republic of Korea
Lecanicillium muscarium 7248
Anthonomus musculus
USA, Massachusetts
Pochonia bulbilosa(?) 3035
Conotrachelus nenuphar
USA, Michigan
Lecanicillium muscarium(?) 8265
Hypera postica
France
Acremonium furcatum 1372
Lecanicillium muscarium 1328 1401
1402 1403
Otiorrhynchus sulcatus
Location not specified
Verticillium insectorum 3715
United Kingdom
Verticillium lecanii 6545

- Pissodes strobi*
Canada, British Columbia
Lecanicillium muscarium 8048 8049
8050 8051 8052 8053 8054
Lecanicillium pissodis 8055 8056
8057

- Sitona lineatus*
Denmark
Lecanicillium muscarium 4033

Coleoptera: Dermestidae

- Kazakhstan
Verticillium sp. 6484

Coleoptera: Elateridae

- Belarus
Lecanicillium fungicola 9483
Canada, British Columbia
Tolypocladium cylindrosporum
7456
Russian Federation
Lecanicillium sp. 7635 7636
Tolypocladium cylindrosporum
7812
USA, New York
Lecanicillium nr. *aranearum* 11811

Coleoptera: Histeridae

- Carcinops pumilio*
Denmark
Verticillium lecanii 5856

Coleoptera: Lagriidae

- Lagria vilosa*
Brazil, Goiás
Pochonia chlamydosporia var.
chlamydosporia 2218

Coleoptera: Lampyridae

- Russian Federation
Lecanicillium nr. *aranearum* 9460

Coleoptera: Melyridae

- Malachius bipustulatus*
Poland
Lecanicillium muscarium 1335

Coleoptera: Scarabaeidae

- Kyrgyz Republic
Verticillium sp. 6486
USA, Vermont
Pochonia chlamydosporia 3314
Aphodius fimetarius
Denmark
Verticillium lecanii 4047

Coleoptera: Scarabaeidae: Aphodiinae

- USA, New York
Tolypocladium inflatum 4877 4878
4879 4880 4881 4882 4883 4884
4885 4886 4887 4888 4889 4890
4891 4892 4893 4894 4895 4896
4897 4898

Coleoptera: Scolytidae

- Dendroctonus micans*
Denmark
Lecanicillium muscarium 4036
Turkey
Lecanicillium muscarium 9267
9268
Hypothenemus hampei
Colombia
Acremonium alternatum 7282
Ips sp.
USA, New Hampshire
Lecanicillium muscarium 11803
USA, Vermont
Lecanicillium nr. *aranearum* 11799

Coleoptera: Silphidae

Russian Federation
Lecanicillium sp. 9459

Coleoptera: Staphylinidae

Tachyporus hypnorum
Denmark
Lecanicillium longisporum 4050

Coleoptera: Tenebrionidae

Kazakhstan
Verticillium lecanii 6487
Alphitobius diaperinus
Verticillium lecanii 5849
Tenebrio molitor
Republic of China
Lecanicillium muscarium 8923

Diptera

Russian Federation
Lecanicillium muscarium 7224
Mariannaea elegans 9456
Ukraine
Lecanicillium muscarium 9470
Mariannaea elegans 9455
USA, New Hampshire
Lecanicillium evansii(?) 11785
USA, New York
Lecanicillium muscarium 10173
Lecanicillium psalliotae 10179
Lecanicillium wallacei(?) 10172
Pochonia chlamydosporia var.
chlamydosporia 11810
USA, Vermont
Lecanicillium evansii(?) 11795
Lecanicillium wallacei(?) 10174
Pochonia chlamydosporia var.
chlamydosporia 11786

Diptera: Anthomyiidae

Delia floralis
Norway
Tolypocladium cylindrosporum
5525 5526 5527 5528 5529 5530
5531 5532 5558 5559
Trichoderma sp. 5522
Delia radicum
United Kingdom
Verticillium lecanii 5132 6554

Diptera: Bibionidae

USA, New York
Lecanicillium sp. 11798
Plecia nearctica
USA, Florida
Tolypocladium cylindrosporum
2912

Diptera: Ceratopogonidae

Dasyhelea sp.
Australia
Culicinomyces clavisporus 2478
Forcipomyia marksae
Australia
Culicinomyces clavisporus 2480
2481

Diptera: Culicidae

Australia
Culicinomyces clavisporus 2622
Czech Republic
Tolypocladium cylindrosporum 961
New Zealand
Tolypocladium cylindrosporum 976
1027 1028 2911
Tanzania
Simplicillium lanosoniveum 8822
USA, North Carolina
Culicinomyces clavisporus 706
Aedes australis
New Zealand
Tolypocladium cylindrosporum 841
Aedes kochi
Australia
Culicinomyces bisporalis 1948 1949
Aedes rupestris
Australia
Culicinomyces clavisporus 2471
2472 2473 2474 2475 2476 2477
Aedes sierrensis
USA, California
Tolypocladium cylindrosporum 705
1580
Anopheles amictus hilli
Australia
Culicinomyces clavisporus 541 644
645
Anopheles quadrimaculatus
USA, North Carolina
Culicinomyces clavisporus 360 372
582 583 584 585
Culiseta inconspicua
Australia
Culicinomyces clavisporus 2479
Culiseta inornata
Canada, Alberta
Culicinomyces clavisporus 964
Laboratory manipulation
Culicinomyces clavisporus 1260
2482
Ochlerotatus triseriatus
USA, Kentucky
Lecanicillium muscarium 810

Diptera: Ephydriidae

Scatella stagnalis
United Kingdom
Verticillium lecanii 6561

Diptera: Muscidae

Ukraine
Simplicillium lamellicola 9480
USA, New York
Pochonia bulbillosa 11800
Haematobia irritans
Denmark
Lecanicillium lecanii(?) 5584 5585
Musca domestica
Denmark
Lecanicillium fusisporum(?) 5578
5579
Verticillium lecanii 5859

Diptera: Mycetophilidae

Arachnocampa luminosa
New Zealand
Tolypocladium extinguens 2921

Diptera: Psychodidae

Lutzomyia saulensis
Costa Rica
Lecanicillium muscarium 3418
Lutzomyia sordelli
Costa Rica
Lecanicillium psalliotae 3416

Diptera: Simuliidae

USA, New York
Lecanicillium evansii(?) 11796

Diptera: Tachinidae

Canada, New Brunswick
Tolypocladium inflatum 3281

Diptera: Tipulidae

France
Lecanicillium muscarium 2329

Diptera: Xylophagidae

Russian Federation
Lecanicillium sp. 7634 7849

Hemiptera

Iran
Verticillium lecanii 6290

Hemiptera: Adelgidae

Adelges tsugae
PR China
Lecanicillium muscarium 6035
Verticillium lecanii 6045 6046 6047
6050
USA, Connecticut
Lecanicillium lecanii 5759
Lecanicillium muscarium(?) 11816
USA, Massachusetts
Acremonium sp. 5773 5177 9369
Lecanicillium lecanii 5785 5787
5794 5829
Lecanicillium muscarium 5165 5778
5779 5780 5782 5791 5798 5828
Lecanicillium muscarium(?) 5777
Lecanicillium sp. 9175 9176 11648
Trichoderma lignorum 5176
Verticillium lecanii 5781 5783 5786
5789 5793 5820
USA, New Hampshire
Acremonium(?) sp. 9368
Lecanicillium muscarium 11818
Lecanicillium sp. 9924 9925 9926
USA, New Jersey
Lecanicillium muscarium 5795
USA, Vermont
Lecanicillium lecanii 11817
Lecanicillium sp. 12089
USA, Virginia
Lecanicillium muscarium 5772 5822
Verticillium lecanii 5771 5821 5824
Dreyfusia normanniana
Denmark
Verticillium lecanii 5854

Fungus by Host and Location

Hemiptera: Aleyrodidae

Hemiptera: Coccidae

Hemiptera: Aleyrodidae

- Russian Federation
Lecanicillium muscarium(?) 9464
Simplicillium lamellicola 9481
Lecanicillium fungicola 9482
- Spain
Lecanicillium muscarium 3709
- Bemisia tabaci*
Brazil, São Paulo
Lecanicillium psalliotae 6436
- Denmark
Acremonium sp. 4058 4059
Lecanicillium psalliotae 5582
Verticillium lecanii 4064 4065 4067
4069 4070 4071 4072
- Egypt
Simplicillium sp. 6584
- Trialeurodes vaporariorum*
Argentina
Lecanicillium lecanii 7207
Lecanicillium longisporum 7206
7461
Lecanicillium muscarium 7460
- Denmark
Lecanicillium lecanii(?) 4060
Verticillium lecanii 4061
- Malaysia
Verticillium sp. 4402
- Poland
Lecanicillium muscarium 972
- United Kingdom
Lecanicillium muscarium 5128
Verticillium lecanii 6544 6547
- ### Hemiptera: Aphididae
- Argentina
Lecanicillium longisporum 7457
7458 7459 7783 7784
- Canada, Ontario
Verticillium lecanii 5809
- Denmark
Lecanicillium lecanii(?) 5581
Verticillium lecanii 4073
- India
Lecanicillium muscarium 2659
- Malaysia
Verticillium lecanii 4416 4417 4418
4419 4420 4421 4422 4423 4453
4454 4455 4456 4457
Verticillium sp. 4194 4195 4203
4398 4399
- Mexico
Lecanicillium lecanii 6887
Lecanicillium longisporum 8042
- Russian Federation
Lecanicillium psalliotae 9474
- USA, Hawaii
Lecanicillium muscarium 7034
- USA, New York
Lecanicillium longisporum 7923
- USA, Vermont
Lecanicillium evansii(?) 11797
Verticillium lecanii 5166
- Venezuela
Lecanicillium longisporum 974
- Aphis fabae*
Argentina
Lecanicillium muscarium 7785
- Aphis gossypii*
United Kingdom
Verticillium lecanii 6541
- Aphis rumicis*
Switzerland
Lecanicillium lecanii 7530
- Brachycaudus helichrysi*
United Kingdom
Verticillium lecanii 6540
- Brevicoryne brassicae*
United Kingdom
Verticillium lecanii 5131
- Yugoslavia
Lecanicillium lecanii 1787
- Diuraphis noxia*
Canada, Alberta
Lecanicillium muscarium 3000
- Hungary
Verticillium lecanii 6606
- Laboratory manipulation
Lecanicillium lecanii(?) 3882 3883
3884
Lecanicillium muscarium 3861
Verticillium lecanii 3862 3881 3902
3903 3904 3909
- South Africa
Lecanicillium lecanii 5706
- USA, Idaho
Lecanicillium muscarium 2862 2877
2878
- Macrosiphoniella sanborni*
United Kingdom
Lecanicillium longisporum 5126
Verticillium lecanii 6542
- Macrosiphum euphorbiae*
USA, Idaho
Lecanicillium muscarium 2858
- USA, Maine
Lecanicillium muscarium 204
- Myzus nr. persicae*
France
Lecanicillium aphanocladii 2324
Lecanicillium muscarium 2323 2325
2326
- Myzus cerasi*
Norway
Lecanicillium lecanii 6915
Lecanicillium muscarium 6914
- Myzus persicae*
Argentina
Lecanicillium lecanii 7462
Lecanicillium muscarium 7782
- Denmark
Lecanicillium fusisporum 5583
Verticillium lecanii 4075 4076 4077
4079
Verticillium sp. 4074
- India
Lecanicillium longisporum 1026
- United Kingdom
Verticillium lecanii 5130 6543
- USA, California
Lecanicillium muscarium 3324
- USA, New York
Lecanicillium muscarium 8714
- USA, Washington
Lecanicillium lecanii 3387
- Pemphigus betae*
USA, Arizona
Lecanicillium muscarium 3464
- Rhopalosiphum nymphaeae*
USA, Florida
Lecanicillium longisporum 321
- Sitobion avenae*
USA, Idaho
Lecanicillium muscarium 2334
Lecanicillium psalliotae 2332
Verticillium lecanii 2859
- Toxoptera citricida*
Argentina
Lecanicillium longisporum 2460
Lecanicillium sp. 2009
- Dominican Republic
Verticillium lecanii 6144 6145
- Uroleucon ambrosiae*
Mexico
Lecanicillium lecanii 6886
- ### Hemiptera: Cercopidae
- Aeneolamia varia*
Colombia
Trichoderma viride(?) 6344
- ### Hemiptera: Cicadellidae
- USA, Hawaii
Lecanicillium muscarium 7037
- Empoasca kraemeri*
Brazil
Trichoderma sp. 807
- Brazil, Bahia
Gliocladium sp. 1965
- ### Hemiptera: Coccidae
- Ecuador
Verticillium lecanii 2916
- Mexico
Lecanicillium lecanii 6888
- USA, Hawaii
Acremonium(?) sp. 7036
- Ceroplastes* sp.
Colombia
Lecanicillium lecanii 6791
- USA, Mississippi
Lecanicillium muscarium 7375
- Coccus hesperidum*
Iran
Lecanicillium lecanii(?) 6289
- Coccus viridis*
Colombia
Lecanicillium muscarium 6792
- Indonesia, Java
Lecanicillium lecanii 2149 2150
- Indonesia, Jawa Barat, Java
Verticillium lecanii 5153
- Sri Lanka
Lecanicillium muscarium 1774
- Parthenolecanium* sp.
Turkey
Lecanicillium muscarium 11736

USA, Rhode Island
Lecanicillium sp. 12052 12053
 12054 12055 12056 12057 12058
 12059 12060 12061 12062 12063
 12064 12065 12066 12067 12068
 12069 12070 12071
Parthenolecanium corni
 Czechoslovakia
Lecanicillium muscarium 8041
 Russian Federation
Lecanicillium sp. 7622
Simplicillium lanosoniveum 7623
Phytokermes hemichryphus
 Denmark
Verticillium lecanii 4025
Pulvinaria aurantii
 Iran
Verticillium lecanii 6287 6291
Pulvinaria floccifera
 Turkey
Lecanicillium muscarium 980
Pulvinaria iceryi
 Mauritius
Acremonium sp. 11667
Saissetia oleae
 Israel
Lecanicillium muscarium 1029

Hemiptera: Delphacidae
Delphacodes kuscheli
 Argentina
Lecanicillium muscarium 7781

Hemiptera: Diaspididae
Fiorinia externa
 USA, Connecticut
Lecanicillium lecanii(?) 11815
Unaspis citri
 USA, Florida
Trichoderma sp. 3084

Hemiptera: Eriococcidae
Cryptococcus fagisuga
 United Kingdom
Lecanicillium muscarium 3740
Verticillium lecanii 3741 3742 3743

Hemiptera: Lecaniidae
Lecanium viridis
 Sri Lanka
Lecanicillium lecanii 555

Hemiptera: Margarodidae
Icerya aegyptica
 Egypt
Lecanicillium psalliotae 6581 6582
Icerya purchasi
 Egypt
Gliocladium(?) sp. 6579 6583 6580
 Sri Lanka
Lecanicillium muscarium 1033

Hemiptera: Ortheziidae
Orthezia urticae
 Russian Federation
Lecanicillium sp. 9466

Hemiptera: Pentatomidae
Aelia sp.
 Kazakhstan
Verticillium sp. 6500
Palomena prasina
 Turkey
Lecanicillium muscarium 11730
 11731 11733 11734
Simplicillium lamellicola 11727
 11728 11729 11732 11735 11737
Simplicillium lamellicola(?) 11738

Hemiptera: Pseudococcidae
Paracoccus marginatus
 India
Lecanicillium aphanocladii 9611
Rhizococcus sp.
 USA, Florida
Lecanicillium psalliotae 2234 2235

Hemiptera: Rhopalidae
 Kazakhstan
Verticillium sp. 6498

Hemiptera: Scutelleridae
Eurygaster sp.
 Kazakhstan
Verticillium lecanii 6479
Verticillium sp. 6485
 Kyrgyz Republic
Verticillium sp. 6480
 Russian Federation
Lecanicillium lecanii 6010 6025
 Syria
Lecanicillium muscarium 6118
Lecanicillium psalliotae 5681 5683
 5763 5835 6071
Verticillium lecanii 6068 6085
 Turkey
Lecanicillium psalliotae 5666

Hemiptera: spf. Coccoidea
 Ukraine
Lecanicillium muscarium(?) 9463

Hemiptera: Tingidae
Leptopharsa heveae
 Brazil, Amazonas
Lecanicillium aphanocladii(?) 7986
 Brazil, Distrito Federal
Simplicillium lanosoniveum 6642
 Brazil, Mato Grosso
Lecanicillium aphanocladii(?) 7985
Lecanicillium sp. 8639
Simplicillium lanosoniveum 6636
 6637
Tolypocladium sp. 6634
 French Guiana
Simplicillium lanosoniveum 6430
 6431 6432
Verticillium lecanii 6651

Hemiptera: coccoidea: Asterolecaniidae
Bambusaspis sp.
 Trinidad and Tobago
Verticillium pseudoheipterigenum
 5687

Hymenoptera
 USA, Vermont
Lecanicillium evansii(?) 11804

Hymenoptera: Formicidae
Anoplolepis longipes
 Papua New Guinea
Trichoderma sp. 2160 2161
Formica sp.
 USA, Vermont
Verticillium lecanii 5168
Myrmica rubra
 United Kingdom
Tolypocladium cylindrosporum
 7539
Pogonomyrmex occidentalis
 USA, Colorado
Lecanicillium sp. 7544

Hymenoptera: Ichneumonidae
 Poland
Lecanicillium muscarium 1330

Hymenoptera: Siridae
Sirex noctilo
 South Africa
Tolypocladium cylindrosporum
 5538

Hymenoptera: Trichogrammatidae
 USA, Vermont
Lecanicillium evansii(?) 11806

Hymenoptera: Vespidae
 USA, Vermont
Mariannaea sp. 11814
Vespa sp.
 Russian Federation
Lecanicillium sp. 7630

Isoptera: Termitidae
Trichoderma sp. 8634

Lepidoptera
 PR China
Cordyceps militaris 6248 11703
 11704
Simplicillium lamellicola(?) 11725
 Republic of Korea
Cordyceps militaris 4845
 Russian Federation
Cordyceps militaris 7809 7810 9484
Lecanicillium muscarium 7621 7738
 9468 9469 9477
Lecanicillium sp. 7624 7625 7626
 7627 7628 7629 7632
 Turkey
Lecanicillium psalliotae 5685
 USA, New York
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
USA, Pennsylvania
Cordyceps militaris 8012
USA, Vermont
Lecanicillium muscarium 11802
- Lepidoptera: Bombycidae**
Bombyx mori
Japan
Verticillium lecanii 991
- Lepidoptera: Cossidae**
Cossula cossus
Italy
Lecanicillium muscarium 973 1102
- Lepidoptera: Geometridae**
Japan
Cordyceps militaris 2416
- Lepidoptera: Limacodidae**
Iragoides fasciata
PR China
Mariannaea pruinosa 5413
- Lepidoptera: Lymantriidae**
Lymantria dispar
USA, New York
Lecanicillium muscarium 3600 3601
USA, Oregon
Acremonium berkeleyanum 2067
Lecanicillium muscarium 2065 2066
Pochonia suchlasporia var. *catenata*
2064
USA, West Virginia
Lecanicillium muscarium 3531
- Lepidoptera: Noctuidae**
Denmark
Tolypocladium cylindrosporum
2777 2778
Pseudoplusia ni
Brazil
Acremonium roseum 1964
- Lepidoptera: Pyralidae**
Elasmopalpus lignosellus
USA, Texas
Trichoderma sp. 5730
Galleria mellonella
Norway
Lecanicillium muscarium 7568
Trichoderma sp. 5523 5524
Ostrinia nubilalis
USA, New York
Lecanicillium muscarium 900
- Lepidoptera: Sesiidae**
South Africa
Gliocladium sp. 6632
- Lepidoptera: Tortricidae**
Adoxophyes orana
Japan
Lecanicillium muscarium 994
Choristoneura fumiferana
Canada, New Brunswick
Tolypocladium inflatum 3321 3397
- Cydia pomonella*
Australia
Lecanicillium muscarium(?) 1032
Canada, Québec
Lecanicillium muscarium 6591
Italy
Lecanicillium lecanii(?) 1109
Tortrix viridana
Russian Federation
Lecanicillium sp. 9458
- Orthoptera: Acrididae**
Aiolopus longicornis
Ethiopia
Simplicillium lamellicola 6448
- Orthoptera: Gryllotalpidae**
Gryllotalpa gryllotalpa
Turkey
Lecanicillium sp. 11696
- Phthiraptera: Anoplura**
USA, New York
Pochonia chlamydosporia var.
chlamydosporia 11801
- Thysanoptera: Thripidae**
Canada
Lecanicillium muscarium 2923
France
Lecanicillium longisporum 3701
United Kingdom
Verticillium lecanii 6548
USA, New York
Lecanicillium fusisporum 11787
11808
USA, Vermont
Lecanicillium evansii(?) 11789
11791 11792 11793 11794 11809
Lecanicillium sp. 9930 9931 9935
9936
Mariannaea sp. 9932 9933 9934
11812 11813
Trichoderma sp. 9938
Frankliniella occidentalis
France
Lecanicillium lecanii 3683 3688
Lecanicillium lecanii(?) 3689
Lecanicillium muscarium 3684 3685
3686 3690 3691
Lecanicillium muscarium(?) 3687
USA, Hawaii
Acremonium(?) sp. 7031
Taeniothrips inconsequens
USA, Connecticut
Mariannaea sp. 3264 3265 3267
3268 3269 3270
USA, Massachusetts
Lecanicillium sp. 3259 3260
Mariannaea sp. 3261 3262 3263
USA, New Hampshire
Acremonium bactrocephalum 10169
Lecanicillium fusisporum(?) 10184
Lecanicillium muscarium 10178
Lecanicillium psalliotae 10177
Lecanicillium sp. 10206 10207
10302 10303 10304 10305 10306
- Mariannaea* sp. 3258 10185 10204
10205
USA, New York
Lecanicillium psalliotae 10170
Lecanicillium sp. 10154
Mariannaea sp. 3257 10150 10151
USA, Pennsylvania
Lecanicillium sp. 3253 3254 3255
Mariannaea sp. 3252
USA, Vermont
Acremonium bactrocephalum 10166
10167 10168
Lecanicillium psalliotae 10175
10176 10180 10181 10182
Lecanicillium psalliotae(?) 10183
Lecanicillium sp. 10187 10188
10189 10190 10192 10193 10195
10196 10197 10198 10199 10200
10201 10202 10203 10208 10209
10210 10211 10212 10213 10214
10287 10288 10289 10290 10291
10294 10295 10296 10297 10298
10299 10300 10301
Mariannaea sp. 2930 3315 3316
3317 3549 3554 3555 3557 3558
3559 3562 3563 10152 10153 10194
Tolypocladium cylindrosporum
10146
Verticillium sp. 3547 3550 3551
3552 3556 3561
Thrips tabaci
Denmark
Acremonium psamosporum 4062
Acremonium sp. 4063
Lecanicillium lecanii(?) 5580
Verticillium lecanii 5709
- Trichoptera**
Ukraine
Rotiferophthora angustispora 9498
-
- Nemata • Secernentea**
-
- Aphelenchida: Aphelenchoididae**
Aphelenchoides sp.
USA, New York
Haptocillium balanoides 3173
- Tylenchida: Heteroderidae**
Meloidogyne hapla
USA, New York
Harposporium anguillulae 4954
Lecanicillium psalliotae 4960 4965
-
- Rotifera • Bdelloidea**
-
- Bdelloida: Adinetidae**
Adineta sp.
Japan
Rotiferophthora sp. 9544
USA, New York
Rotiferophthora barronii 10267
Rotiferophthora globospora 10268
Rotiferophthora sp. 10266
Adineta vaga
USA, New York
Harposporium botuliforme 10275

Bdelloida: Habrotrichidae

Habrotricha sp.

Japan

Rotiferophthora sp. 9545 9546

USA, New York

Rotiferophthora cylindrospora 9547
9548

Rotiferophthora denticulospora
9549

Rotiferophthora sp. 10265

Habrotricha elusa

USA, New York

Harposporium spirosporum 8821
10271

Rotiferophthora angustispora 8991

Rotiferophthora guttulaspora 10269

Rotiferophthora intermedia 10270

Habrotricha elusa elusa

USA, New York

Pochonia sp. 10261

Rotiferophthora cylindrospora 8992
10273

Rotiferophthora ovispora 10274

Rotiferophthora sp. 9542 9543 10263
10264

Fungi

Basidiomycota • Pucciniomycetes

Pucciniales

Russian Federation

Lecanicillium muscarium 9471 9472

Pucciniales: Phragmidiaceae

Phragmidium sp.

Ukraine

Lecanicillium muscarium 7631

Lecanicillium muscarium(?) 9462

Eumycota • Basidiomycota

Agaricales: Entolomataceae

Entoloma sp.

USA, New York

Lecanicillium flavidum 4519

Eumycota • Basidiomycotina

Uredinales

Hemileia vastatrix

Ethiopia

Lecanicillium muscarium 6699

Thailand

Verticillium epiphytum 5250

Olivea colebrookeae

India

Lecanicillium psalliotae 5249

Uredinales: Pucciniaceae

Puccinia striiformis

Germany

Verticillium lecanii 5221

Hemiptera

Arthropoda • Insecta

Hemiptera: Coccoidea

Brazil, São Paulo

Lecanicillium lecanii 7550

Russian Federation

Lecanicillium muscarium 7633

USA, Puerto Rico

Lecanicillium lecanii 7408

USA, Vermont

Lecanicillium sp. 9177

Geographical Origin

Antarctica

Lecanicillium lecanii(?) 5136 5137
5138

Argentina

Buenos Aires

Lecanicillium lecanii 7207 7462
Lecanicillium longisporum 7206 7457
7458 7459 7461 7783 7784
Lecanicillium muscarium 7460 7781
7782 7785

Tucumán

Lecanicillium longisporum 2460
Lecanicillium sp. 2009

Australia

Culicinomyces clavissporus 2622
Lecanicillium muscarium(?) 1032

New South Wales

Culicinomyces clavissporus 541 644
645 2471 2472 2473 2474 2475 2476
2477 2478

Queensland

Culicinomyces bisporalis 1948 1949
Culicinomyces clavissporus 2480 2481

Tasmania

Tolyposcladium inflatum 4575 4772

Victoria

Culicinomyces clavissporus 2479

Austria

Tirol

Tolyposcladium inflatum 3277

Belarus

Lecanicillium fungicola 9483

Brazil

Acremonium roseum 1964
Trichoderma sp. 807

Amazonas

Lecanicillium aphanocladii(?) 7986

Bahia

Gliocladium sp. 1965

Distrito Federal

Simplicillium lanosoniveum 6642

Goiás

Pochonia chlamydosporia var.
chlamydosporia 2218

Mato Grosso

Lecanicillium aphanocladii 6433
Lecanicillium aphanocladii(?) 7985
Lecanicillium sp. 8639
Simplicillium lanosoniveum 6636
6637
Tolyposcladium sp. 6634

São Paulo

Lecanicillium lecanii 7550
Lecanicillium psalliotae 6436
Lecanicillium sp. 7373

Canada

Harposporium helicoides 5354
Lecanicillium muscarium 2923

Alberta

Culicinomyces clavissporus 964
Lecanicillium muscarium 3000
Tolyposcladium nubicola 3434 3435
Tolyposcladium cylindrosporum 962
963
Tolyposcladium geodes 3271 3272 3273
Tolyposcladium inflatum 3279 3280
3432

British Columbia

Cordyceps militaris 8011
Lecanicillium muscarium 7994 8048
8049 8050 8051 8052 8053 8054
Lecanicillium pissodis 8055 8056 8057
Tolyposcladium cylindrosporum 7456

Manitoba

Haptocillium balanoides 2483

New Brunswick

Tolyposcladium inflatum 3281 3321
3397

Newfoundland

Tolyposcladium inflatum 3320

Northwest Territories

Tolyposcladium inflatum 3278
Tolyposcladium tundrense 3399 3400

Ontario

Tolyposcladium microsporum 3431
Tolyposcladium parasiticum 3436
Tolyposcladium geodes 3274
Tolyposcladium inflatum 3394 3395
Verticillium lecanii 5809

Québec

Lecanicillium muscarium 6591

Colombia

Caldas

Acremonium alternatum 7282
Lecanicillium lecanii 6791
Lecanicillium muscarium 6792

Valle

Trichoderma viride(?) 6344

Costa Rica

Harposporium sp. 5410

Guanacaste

Lecanicillium muscarium 3418
Lecanicillium psalliotae 3416

Czech Republic

Tolyposcladium cylindrosporum 961
Tolyposcladium inflatum 616

Czechoslovakia

Lecanicillium muscarium 8041

Denmark

Lecanicillium lecanii(?) 5580 5581
5584 5585

Lecanicillium muscarium 4036

Tolyposcladium cylindrosporum 2777
2778

Verticillium lecanii 4022 4073 5709

Jutland

Verticillium lecanii 5856

Zealand

Acremonium psammosporum 4062

Acremonium sp. 4058 4059 4063

Lecanicillium fusisporum 5583

Lecanicillium fusisporum(?) 5578
5579

Lecanicillium lecanii(?) 4060

Lecanicillium longisporum 4050

Lecanicillium psalliotae 5582

Verticillium lecanii 4025 4047 4048
4061 4064 4065 4067 4069 4070 4071
4072 4075 4076 4077 4079 5852 5854
5859

Verticillium sp. 4074

Zeeland

Lecanicillium muscarium 4033

Dominican Republic

Verticillium lecanii 6144 6145

Ecuador

Galapagos Islands

Verticillium lecanii 2916

Egypt

Gliocladium(?) sp. 6579 6583

Lecanicillium psalliotae 6581 6582

Simplicillium sp. 6584

Verticillium sp. 6580

Ethiopia

Kefa

Lecanicillium muscarium 6699

Welo

Simplicillium lamellicola 6448

France

Lecanicillium muscarium 1328 1401
1402 1403 5220

Gard

Lecanicillium lecanii 3683 3688

Lecanicillium lecanii(?) 3689

Lecanicillium longisporum 3701

Lecanicillium muscarium 3684 3685
3686 3690 3691

Lecanicillium muscarium(?) 3687

Verticillium lecanii 5491

Haute-Savoie

Acremonium furcatum 1372

Vaucluse

Lecanicillium lecanii 1505

Yvelines

Lecanicillium aphanocladii 2324

Lecanicillium muscarium 2323 2325
2326 2329

French Guiana

Simplicillium lanosoniveum 6430
6431 6432
Verticillium lecanii 6651

Germany

Verticillium lecanii 5221

Hungary

Budapest
Verticillium lecanii 6606

India

Lecanicillium longisporum 1026
Lecanicillium muscarium 2659
Lecanicillium psalliotae 5249
Tamil Nadu
Lecanicillium aphanocladii 9611 9615

Indonesia

Verticillium cinnamomeum 2399
Java
Lecanicillium lecanii 2149 2150
Jawa Barat, Java
Verticillium lecanii 5153

Iran

Lecanicillium lecanii(?) 6289
Mazandaran
Verticillium lecanii 6287 6290 6291

Israel

Lecanicillium muscarium 1029

Italy

Lecanicillium muscarium 973 1102
Emilia-Romagna
Lecanicillium lecanii(?) 1109

Jamaica

St. Andrew Parish
Mariannaea elegans 5350

Japan

Cordyceps militaris 2416
Haptocillium balanoides 5617
Harposporium anguillulae 5595 5659
Harposporium cycloides 5600
Harposporium dicorymbum 5658
Harposporium janus 5601
Harposporium leptospira 5603
Pochonia microbactrospora 5619
Rotiferophthora amamiensis 5609
Tolypocladium lignicola 5615
Chiba Prefecture
Rotiferophthora minutispora 5613
Fukuoka Prefecture
Lecanicillium muscarium 1002
Gunma Prefecture
Rotiferophthora sp. 9544
Ibaraki Prefecture
Haptocillium sinense 5618
Harposporium anguillulae 5593 5594
Harposporium arcuatum 5596 5597
5598
Harposporium cycloides 5599
Harposporium leptospira 5602
Harposporium lilliputanum 5604
Harposporium subuliforme 5605
Rotiferophthora lacrima 5612

Saitama Prefecture

Lecanicillium muscarium 994

Tochigi Prefecture

Rotiferophthora sp. 9545 9546

Tokyo Prefecture

Rotiferophthora japonica 5611
Verticillium lecanii 991

Kazakhstan

Verticillium lecanii 6479 6487
Verticillium sp. 6484 6485 6498 6500
6501

Kyrgyz Republic

Verticillium sp. 6480 6486

Laboratory manipulation

Culicinomyces clavisporus 1260 2482
Lecanicillium lecanii(?) 3882 3883
3884
Lecanicillium muscarium 310 311 312
313 314 811 3836 3837 3838 3839
3861
Verticillium lecanii 3840 3862 3881
3902 3903 3904 3909

Malaysia

Verticillium lecanii 4416 4417 4418
4419 4420 4421 4422 4423 4453 4454
4455 4456 4457
Verticillium sp. 4194 4195 4203 4398
4399 4402

Mauritius

Flacq
Acremonium sp. 11667

Mexico

Colima
Lecanicillium longisporum 8042
Durango
Lecanicillium sp. 2(?) 2832
Tabasco
Lecanicillium lecanii 6886 6887 6888

Nepal

Tolypocladium cylindrosporum 3392
3393
Tolypocladium inflatum 3433

Netherlands

Harposporium cerberi 5123

New Zealand

Tolypocladium extingens 2921
Tolypocladium cylindrosporum 2911
South Island
Tolypocladium cylindrosporum 841
976 1027 1028

Norway

Akershus
Lecanicillium lecanii 6915
Buskerud
Lecanicillium muscarium 6914
Nord Trøndelag
Tolypocladium cylindrosporum 5526
Trichoderma sp. 5522 5523 5524
Nordland
Tolypocladium cylindrosporum 5527
5528 5529 5530 5531 5532 5558
5559
Sogn og Fjordane
Lecanicillium muscarium 7568
Troms
Tolypocladium cylindrosporum 5525

Papua New Guinea

Trichoderma sp. 2160 2161

Poland

Lecanicillium lecanii 1351
Lecanicillium muscarium 972 1330
1332 1334 1335 1352
Pochonia bulbillosa(?) 1365
Trichoderma sp. 1361
Verticillium lecanii 1333 1357
Warsaw
Simplicillium lamellicola 1367

PR China

Anhui
Cordyceps militaris 6248
Guizhou Province
Cordyceps militaris 11703
Mariannaea pruinosa 5413
Verticillium lecanii 6350
Verticillium sp. 6250
Sichuan Province
Lecanicillium muscarium 6035
Verticillium lecanii 6045 6046 6047
6050
Yunnan Province
Cordyceps militaris 11704
Simplicillium lamellicola(?) 11725

Republic of China

Taiwan
Lecanicillium muscarium 8923
Lecanicillium psalliotae(?) 4867

Republic of Korea

Cordyceps militaris 4845 4857
Choong-Chung Nam Do
Cordyceps militaris 4874
Gyeonggi Province
Cordyceps militaris 4847
Kangwon-do
Cordyceps militaris 4869 4873
Lecanicillium muscarium 7248

Russian Federation

- Lecanicillium lecanii* 6010
Belgorod Region
Pochonia chlamydosporia 9494
Pochonia chlamydosporia var.
chlamydosporia 7852
Karachayevo-Cherkessiya Republ
Lecanicillium sp. 9459
Tolyptocladium cylindrosporium 9503
Tolyptocladium inflatum 9506
Krasnodarsky Krai
Lecanicillium muscarium 7633
Lecanicillium psalliotae 9473
Lecanicillium sp. 7622
Simplicillium lamellicola 9481
Simplicillium lanosoniveum 7623
Lecanicillium fungicola 9482
Moscow Region
Cordyceps militaris 9484
Lecanicillium aphanocladii 9461
Lecanicillium nr. *aranearum* 9460
Lecanicillium muscarium 9471 9472
Lecanicillium psalliotae 9474
Lecanicillium sp. 9458 9465 9466
Mariannaea elegans 9456
Tolyptocladium geodes 9505
Primorsky Krai
Cordyceps militaris 7809 7810
Lecanicillium aphanocladii 9440
Lecanicillium muscarium 7224 7620
7738 9468 9469 9477
Lecanicillium muscarium(?) 9464
Lecanicillium sp. 7624 7625 7626 7627
7628 7629 7630 7632 7634 7635 7636
7849
Pochonia suchlasporia 9495
Tolyptocladium cylindrosporium 7812
Rostov
Verticillium lecanii 6025
Sakhalin Region
Lecanicillium muscarium 7621 9467
Tver Region
Lecanicillium sp. 9478
Tolyptocladium geodes 9504
Tyumen Oblast
Tolyptocladium inflatum 9507

Saint Lucia

- Lecanicillium psalliotae* 8890

Solomon Islands

- Guadalcanal
Lecanicillium lecanii 1905

South Africa

- Cape Province
Gliocladium sp. 6632
Western Cape Province
Lecanicillium lecanii 5706
Tolyptocladium cylindrosporium 5538

Spain

- Lecanicillium muscarium* 3709

Sri Lanka

- Lecanicillium lecanii* 555
Lecanicillium muscarium 1033 1774

Switzerland

- Zurich
Lecanicillium lecanii 7530

Syria

- Lecanicillium muscarium* 6118
Lecanicillium psalliotae 6071
Verticillium lecanii 6068 6085

Halab

- Lecanicillium psalliotae* 5681 5683
5763 5835

Tanzania

- Morogoro
Simplicillium lanosoniveum 8822

Thailand

- Verticillium epiphytum* 5250

Trinidad and Tobago

- Trinidad
Verticillium pseudohemipterigenum
5687

Turkey

- Lecanicillium muscarium* 980
Düzce Province
Lecanicillium muscarium 11734
Giresun
Lecanicillium longisporum 8297
Lecanicillium muscarium 8642
Giresun Province
Simplicillium lamellicola 11727 11729
Istanbul
Lecanicillium lecanii 8295
Lecanicillium muscarium 8296
Kahraman Maras
Lecanicillium psalliotae 5666 5685
Ordu
Lecanicillium lecanii(?) 8294
Ordu Province
Lecanicillium muscarium 11730 11733
Simplicillium lamellicola 11728
Simplicillium lamellicola(?) 11738

Sakarya Province

- Simplicillium lamellicola* 11732 11737

Samsun

- Lecanicillium lecanii*(?) 8293

Samsun Province

- Lecanicillium muscarium* 11731
Simplicillium lamellicola 11735
Simplicillium lamellicola(?) 11740

Trabzon

- Lecanicillium muscarium* 9267 9268
Lecanicillium sp. 11696

Trabzon Province

- Lecanicillium muscarium* 11736

Uganda

- Tolyptocladium lignicola* 5218

Ukraine

- Autonomous Republic of Crimea
Lecanicillium muscarium 9470
Mariannaea elegans 9455
Rotiferophthora angustispora 9498
Simplicillium lamellicola 9479 9480
Kherson Oblast
Lecanicillium muscarium 7631
Lecanicillium muscarium(?) 9463
Odessa Oblast
Lecanicillium muscarium(?) 9462

United Kingdom

- Harposporium bysmatosporum* 5656
Harposporium subuliforme 5657
Verticillium lecanii 6540 6541 6542
6543 6544 6545 6547 6548 6554
6561

England

- Lecanicillium longisporum* 5126
Lecanicillium muscarium 3740 5128
Rotiferophthora denticulospora 5614
Tolyptocladium cylindrosporium 2920
7539
Tolyptocladium geodes 3275 3276
Tolyptocladium inflatum 3396
Tolyptocladium tundrense 3401
Verticillium lecanii 3741 3742 3743
5130 5131 5132 5133

N.E. England

- Pochonia microbactrospora* 5616
Rotiferophthora angustispora 5610

USA

- Arizona
Lecanicillium muscarium 3464
California
Haptocillium balanoides 3350
Harposporium lilliputanum 8425
Harposporium microsporium 8424
Harposporium oxycoracum 8426
Lecanicillium muscarium 3324
Lecanicillium sp. 9163 11638 11639
11640 11641 11642 11643 11644
11645 11646 11647 11649
Tolyptocladium cylindrosporium 705
1580
Colorado
Lecanicillium sp. 7544
Connecticut
Lecanicillium lecanii 5759
Lecanicillium lecanii(?) 11815
Lecanicillium muscarium(?) 11816
Mariannaea sp. 3264 3265 3267 3268
3269 3270
Florida
Lecanicillium longisporum 321
Lecanicillium psalliotae 2234 2235
Tolyptocladium cylindrosporium 2912
Trichoderma sp. 3084
Hawaii
Acremonium(?) sp. 7031 7036
Lecanicillium muscarium 7034 7037
Idaho
Lecanicillium muscarium 2334 2858
2862 2877 2878
Lecanicillium psalliotae 2332

<i>Verticillium lecanii</i> 2859	<i>Harposporium botuliforme</i> 10275	Texas
Kentucky	<i>Harposporium cocleatum</i> 9382	<i>Lecanicillium</i> sp. 11748
<i>Lecanicillium muscarium</i> 810	<i>Harposporium spirosporum</i> 8821	<i>Trichoderma</i> sp. 5730
Maine	10271	Vermont
<i>Lecanicillium muscarium</i> 204	<i>Lecanicillium</i> nr. <i>aranearum</i> 11811	<i>Acremonium bactrocephalum</i> 10166
<i>Pochonia chlamydosporia</i> 7128	<i>Lecanicillium evansii</i> (?) 11796	10167 10168
<i>Tolypocladium cylindrosporum</i> 7129	<i>Lecanicillium fusisporum</i> 11787 11808	<i>Lecanicillium</i> nr. <i>aranearum</i> 11799
Massachusetts	<i>Lecanicillium longisporum</i> 7923	<i>Lecanicillium evansii</i> (?) 11789 11791
<i>Acremonium</i> sp. 5773	<i>Lecanicillium muscarium</i> 900 3600	11792 11793 11794 11795 11797
<i>Gliocladium</i> sp. 5177	3601 8714 10173	11804 11805 11806 11807 11809
<i>Lecanicillium</i> (?) sp. 9369	<i>Lecanicillium psalliotae</i> 4960 4965	<i>Lecanicillium lecanii</i> 11817
<i>Lecanicillium lecanii</i> 5785 5787 5794	10170 10179	<i>Lecanicillium muscarium</i> 11802
5829	<i>Lecanicillium</i> sp. 10154 10217 10218	<i>Lecanicillium psalliotae</i> 10175 10176
<i>Lecanicillium muscarium</i> 5165 5778	11798	10180 10181 10182
5779 5780 5782 5791 5798 5828	<i>Lecanicillium wallacei</i> (?) 10172	<i>Lecanicillium psalliotae</i> (?) 10183
<i>Lecanicillium muscarium</i> (?) 5777	<i>Mariannaea elegans</i> 5338	<i>Lecanicillium</i> sp. 9177 9930 9931 9935
<i>Lecanicillium</i> sp. 3259 3260 9175 9176	<i>Mariannaea</i> sp. 3257 10150 10151	9936 10164 10187 10188 10189 10190
11648	<i>Pochonia bulbilosa</i> 11800	10192 10193 10195 10196 10197
<i>Mariannaea</i> sp. 3261 3262 3263	<i>Pochonia chlamydosporia</i> var.	10198 10199 10200 10201 10202
<i>Pochonia bulbilosa</i> (?) 3035	<i>chlamydosporia</i> 11801 11810	10203 10208 10209 10210 10211
<i>Trichoderma lignorum</i> 5176	<i>Pochonia</i> sp. 10261	10212 10213 10214 10215 10216
<i>Verticillium lecanii</i> 5781 5783 5786	<i>Rotiferophthora angustispora</i> 8991	10287 10288 10289 10290 10291
5789 5793 5820	9385 9386	10294 10295 10296 10297 10298
Michigan	<i>Rotiferophthora barronii</i> 10267	10299 10300 10301 12089
<i>Lecanicillium lecanii</i> 7181 7182 8115	<i>Rotiferophthora brevipes</i> 8994	<i>Lecanicillium wallacei</i> (?) 10174
<i>Lecanicillium muscarium</i> 8114 8118	<i>Rotiferophthora cylindrospora</i> 8992	<i>Mariannaea</i> sp. 2930 3315 3316 3317
8157 8163 8165	9547 9548 10273	3549 3554 3555 3557 3558 3559 3562
<i>Lecanicillium muscarium</i> (?) 8162	<i>Rotiferophthora denticulospora</i> 9549	3563 9932 9933 9934 10152 10153
8265	<i>Rotiferophthora globospora</i> 8995	10194 11812 11813 11814
Mississippi	10268	<i>Pochonia chlamydosporia</i> 3314 3539
<i>Lecanicillium muscarium</i> 7375	<i>Rotiferophthora guttulaspora</i> 10269	<i>Pochonia chlamydosporia</i> var.
Nevada	<i>Rotiferophthora intermedia</i> 10270	<i>chlamydosporia</i> 11786
<i>Lecanicillium lecanii</i> (?) 11972	<i>Rotiferophthora ovispora</i> 10274	<i>Tolypocladium cylindrosporum</i> 10146
New Hampshire	<i>Rotiferophthora</i> sp. 9542 9543 10263	<i>Trichoderma</i> sp. 9938
<i>Acremonium bactrocephalum</i> 10169	10264 10265 10266	<i>Verticillium lecanii</i> 5166 5167 5168
<i>Acremonium</i> (?) sp. 9368	<i>Tolypocladium inflatum</i> 3790 4877	<i>Verticillium</i> sp. 3547 3550 3551 3552
<i>Lecanicillium evansii</i> (?) 11785	4878 4879 4880 4881 4882 4883 4884	3556 3561
<i>Lecanicillium fusisporum</i> (?) 10184	4885 4886 4887 4888 4889 4890 4891	Virginia
<i>Lecanicillium muscarium</i> 10178 11803	4892 4893 4894 4895 4896 4897 4898	<i>Lecanicillium muscarium</i> 5772 5822
11818	<i>Lecanicillium flavidum</i> 4519	<i>Verticillium lecanii</i> 5771 5821 5824
<i>Lecanicillium psalliotae</i> 10177	North Carolina	Washington
<i>Lecanicillium</i> sp. 9924 9925 9926	<i>Culicinomyces clavisporus</i> 360 372	<i>Lecanicillium lecanii</i> 3387
10206 10207 10302 10303 10304	582 583 584 585 706	<i>Lecanicillium muscarium</i> 11307
10305 10306	Oregon	West Virginia
<i>Mariannaea</i> sp. 3258 10185 10204	<i>Acremonium berkeleyanum</i> 2067	<i>Lecanicillium muscarium</i> 3531
10205	<i>Lecanicillium muscarium</i> 2065 2066	Wisconsin
<i>Tolypocladium inflatum</i> 3398	<i>Pochonia suchlasporia</i> var. <i>catenata</i>	<i>Lecanicillium muscarium</i> 795
New Jersey	2064	Venezuela
<i>Lecanicillium muscarium</i> 5795	Pennsylvania	<i>Lecanicillium longisporum</i> 974
New York	<i>Cordyceps militaris</i> 8012	Merida
<i>Cordyceps militaris</i> 4081 4082 4083	<i>Lecanicillium</i> sp. 3253 3254 3255	<i>Mariannaea elegans</i> 5349
4084 4085 4086 4087 4088 4089 4838	<i>Mariannaea</i> sp. 3252	Yugoslavia
4839 4840 4841 4842 5002 5003 5004	Puerto Rico	<i>Lecanicillium lecanii</i> 1787
5005 5006 5007 5008 5009 5010 5011	<i>Acremonium</i> sp. 7402	
5012 5013 5014 5015 5016 5017 5018	<i>Cordyceps militaris</i> 5804	
5019 5020 5021 5022 5023 5024 5025	<i>Lecanicillium lecanii</i> 7385 7408	
5026 5027 5028 5029 5030 5031 5032	<i>Lecanicillium</i> sp. 7407	
5033 5034 5035 5036 5037 5038 5039	Rhode Island	
5040 5041 5042 5043 5044 5045 5046	<i>Lecanicillium</i> sp. 12052 12053 12054	
5047 5048 5049 5050 5051 5052 5053	12055 12056 12057 12058 12059	
5054 5055 5056 5057 5058 5059 5060	12060 12061 12062 12063 12064	
5061 5062	12065 12066 12067 12068 12069	
<i>Gliocladium roseum</i> 3001	12070 12071	
<i>Haptocillium balanoides</i> 3173	South Dakota	
<i>Harposporium anquillulae</i> 4954 5407	<i>Pochonia</i> sp. 12195	
5408 5409		

Alternate Collections

Abrahamson, D.S.

5 *Tolypocladium inflatum* 3398

Alves, Sergio Batista

ESALQ 1224 *Tolypocladium* sp. 6634

ESALQ 1226 *Simplicillium lanosoniveum* 6636

ESALQ 1227 *Simplicillium lanosoniveum* 6637

ESALQ 1237 *Simplicillium lanosoniveum* 6642

Aoki, Joji

Har. 1 *Lecanicillium muscarium* 1002

Har. 2 *Verticillium lecanii* 991

Vert. 1 *Lecanicillium muscarium* 994

ARSEF

2858 *Verticillium lecanii* 3909

2859 *Verticillium lecanii* 3862

2862 *Lecanicillium muscarium* 3861

3000 *Verticillium lecanii* 3903

3321 *Tolypocladium inflatum* 3397

3397 (deaccessioned) *Tolypocladium inflatum* 3321

3836 *Verticillium lecanii* 3881

3836 *Lecanicillium lecanii*(?) 3882

3837 *Lecanicillium lecanii*(?) 3883

3838 *Verticillium lecanii* 3902

3839 *Lecanicillium lecanii*(?) 3884

3840 *Verticillium lecanii* 3904

541 (lost) *Culicinomyces clavissporus* 644

644 *Culicinomyces clavissporus* 541

8640 *Lecanicillium aphanocladii*(?) 7985

ATCC

14495 *Lecanicillium psalliotae* 5249

18766 *Harposporium helicoides* 5354

18981 *Tolypocladium inflatum* 616

200994 *Tolypocladium inflatum* 4884

201113 *Harposporium cerberi* 5123

22593 *Verticillium epiphytum* 5250

22610 *Lecanicillium muscarium* 5220

26854 *Lecanicillium muscarium* 8041

36654 *Tolypocladium inflatum* 3433

42438 *Tolypocladium cylindrosporium* 962

46576 *Haptocillium balanoides* 2483

52635 *Culicinomyces clavissporus* 964

56502 *Tolypocladium geodes* 3274

58712 *Verticillium lecanii* 5221

58909 *Lecanicillium muscarium* 795

58909 *Verticillium lecanii* 3840

64259 *Pochonia suchlasporia* var. *catenata* 2064

64865 *Acremonium berkeleyanum* 2067

Balazy, Stanislaw

1428 *Lecanicillium muscarium* 1330

1453c *Verticillium lecanii* 1333

1453k *Lecanicillium muscarium* 1334

1480 *Lecanicillium muscarium* 1332

1539 *Lecanicillium muscarium* 1335

1541 *Simplicillium lamellicola* 1367

1592 *Lecanicillium lecanii* 1351

1592b *Lecanicillium muscarium* 1352

1595d *Verticillium lecanii* 1357

1599a *Trichoderma* sp. 1361

1615 *Pochonia bulbillosa*(?) 1365

Banu, J. Gulsar

1 *Lecanicillium aphanocladii* 9611

Barron, George L.

No. 10773 *Harposporium helicoides* 5354

Bissett, John

164 *Tolypocladium nubicola* 3434

384 *Tolypocladium geodes* 3271

530 *Tolypocladium inflatum* 3280

570 *Tolypocladium geodes* 3272

633 *Tolypocladium nubicola* 3435

737 *Tolypocladium cylindrosporium* 962

83M-38 *Tolypocladium inflatum* 3395

88M-143 *Tolypocladium inflatum* 3321

88M-143 *Tolypocladium inflatum* 3397

938 *Tolypocladium geodes* 3273

Borisov, Boris A.

B-429 *Pochonia chlamydosporia* var. *chlamydosporia* 7852

Braun, Ann

Bogor *Verticillium lecanii* 5153

Broadbent, A. Bruce

BB002 *Verticillium lecanii* 5809

Brownbridge, Michael

A *Mariannaea* sp. 3252

B *Lecanicillium* sp. 3253

B-1 *Pochonia chlamydosporia* 3539

C *Lecanicillium* sp. 3254

D *Lecanicillium* sp. 3255

DT-122 *Mariannaea* sp. 3315

F *Mariannaea* sp. 3257

F1.2 *Lecanicillium lecanii* 3683

F10 *Lecanicillium muscarium* 3691

F2.3 *Lecanicillium muscarium* 3684

F3.1 *Lecanicillium muscarium* 3685

F4 *Lecanicillium muscarium* 3686

F5 *Lecanicillium muscarium*(?) 3687

F6 *Lecanicillium lecanii* 3688

F7 *Lecanicillium lecanii*(?) 3689

F9 *Lecanicillium muscarium* 3690

FR20 *Verticillium lecanii* 5491

G *Mariannaea* sp. 3258

I *Lecanicillium* sp. 3259

J *Lecanicillium* sp. 3260

K *Mariannaea* sp. 3261

L *Mariannaea* sp. 3262

M *Mariannaea* sp. 3263

N *Mariannaea* sp. 3264

O *Mariannaea* sp. 3265

Perry 2 *Mariannaea* sp. 3317

Q *Mariannaea* sp. 3267

R *Mariannaea* sp. 3268

R-11 *Mariannaea* sp. 3549

R-12 *Verticillium* sp. 3550

R-13 *Verticillium* sp. 3551

R-14 *Verticillium* sp. 3552

R-20.1 *Mariannaea* sp. 3554

R-22 *Verticillium* sp. 3556

R-23 *Mariannaea* sp. 3557

R-25 *Mariannaea* sp. 3558

R-27 *Mariannaea* sp. 3559

R-29 *Verticillium* sp. 3561

R-31 *Mariannaea* sp. 3562

R-34 *Mariannaea* sp. 3563

R-6 *Verticillium* sp. 3547

S *Mariannaea* sp. 3269

T *Mariannaea* sp. 3270

Williams *Mariannaea* sp. 3316

Caner, Yasemin Kahveci

14 *Lecanicillium lecanii*(?) 8293

15 *Lecanicillium lecanii*(?) 8294

2.23 *Lecanicillium muscarium* 8642

21 *Lecanicillium lecanii* 8295

24 *Lecanicillium muscarium* 8296

29 *Lecanicillium longisporum* 8297

Carroll, George C.

3(RSRS-0/34) *Acremonium berkeleyanum* 2067

4(HO-O-Hatch VIII) *Lecanicillium muscarium* 2066

6(HO-O-Hatch VIII) *Lecanicillium muscarium* 2065

E *Pochonia suchlasporia* var. *catenata* 2064

CBS

?719.70 *Tolypocladium cylindrosporium* 961

118231 *Lecanicillium pissodis* 8057

154.61 *Lecanicillium psalliotae* 5249

276.82 *Tolypocladium cylindrosporium* 2911

305.95 *Tolypocladium inflatum* 4884

345.77 *Tolypocladium extinguens* 2921

384.32 *Lecanicillium muscarium* 5220

384.81 *Verticillium epiphytum* 5250

537.81 *Verticillium lecanii* 2916

600.92 *Harposporium cerberi* 5123

718.70 *Tolypocladium cylindrosporium* 2920

745.88 *Mariannaea elegans* 5349

746.88 *Mariannaea elegans* 5350

755.83 *Culicinomyces clavissporus* 964

789.85 *Pochonia suchlasporia* var. *catenata* 2064

944.70 *Harposporium helicoides* 5354

989.73 *Tolypocladium cylindrosporium* 2912

CCFC

006759 *Lecanicillium muscarium* 6591

006988 *Tolypocladium inflatum* 4884

962 *Tolypocladium inflatum* 616

DAOM 160594 *Tolypocladium inflatum* 3278

DAOM 167132 *Tolypocladium inflatum* 3432

DAOM 167133 *Tolypocladium tundrense* 3399

DAOM 167134 *Tolypocladium tundrense* 3400

DAOM 167175 *Tolypocladium inflatum* 3279

DAOM 167176 *Tolypocladium cylindrosporium* 963

DAOM 167320 *Tolypocladium nubicola* 3434

DAOM 167321 *Tolypocladium geodes* 3271
 DAOM 167322 *Tolypocladium inflatum* 3280
 DAOM 167323 *Tolypocladium geodes* 3272
 DAOM 167324 *Tolypocladium nubicola* 3435
 DAOM 167325 *Tolypocladium cylindrosporium* 962
 DAOM 167326 *Tolypocladium geodes* 3273
 DAOM 176470 *Tolypocladium geodes* 3274
 DAOM 180479 *Tolypocladium cylindrosporium* 3392
 DAOM 180481 *Tolypocladium inflatum* 3433
 DAOM 183952 *Tolypocladium cylindrosporium* 961
 DAOM 183955 *Tolypocladium inflatum* 3394
 DAOM 184880 *Tolypocladium parasiticum* 3436
 DAOM 185687 *Tolypocladium inflatum* 3395
 DAOM 191103 *Tolypocladium microsporum* 3431
 DAOM 191333 *Tolypocladium geodes* 3275
 DAOM 191334 *Tolypocladium tundrense* 3401
 DAOM 191336 *Tolypocladium geodes* 3276
 DAOM 191338 *Tolypocladium inflatum* 3396
 DAOM 198395 *Tolypocladium inflatum* 3281
 DAOM 199924 *Tolypocladium inflatum* 3321
 DAOM 199924 *Tolypocladium inflatum* 3397
 DAOM 210147 *Tolypocladium inflatum* 3398
 DAOM 63905 *Tolypocladium inflatum* 3320
 DAOM 64352 *Tolypocladium inflatum* 3277

CENARGEN

CG 422 *Lecanicillium aphanocladii*(?) 7985
 CG 826 *Lecanicillium* sp. 8639

CEP

054 *Lecanicillium muscarium* 7460
 056 *Lecanicillium longisporum* 7461
 056 *Lecanicillium longisporum* 7206
 057 *Lecanicillium lecanii* 7207
 063 *Lecanicillium muscarium* 7781
 100 *Lecanicillium longisporum* 7457
 101 *Lecanicillium longisporum* 7458
 106 *Lecanicillium longisporum* 7459
 108 *Lecanicillium lecanii* 7462
 182 *Lecanicillium muscarium* 7782
 188 *Lecanicillium longisporum* 7783
 190 *Lecanicillium longisporum* 7784

194 *Lecanicillium muscarium* 7785

Chandler, David

HRI 1.72 *Lecanicillium longisporum* 5126
 HRI 16.75 *Verticillium lecanii* 5127
 HRI 18.78 *Verticillium lecanii* 6544
 HRI 19.79 *Lecanicillium muscarium* 5128
 HRI 2.72 *Verticillium lecanii* 6540
 HRI 26.79 *Verticillium lecanii* 5129
 HRI 3.72 *Verticillium lecanii* 6541
 HRI 33.79 *Verticillium lecanii* 6545
 HRI 336.92 *Verticillium lecanii* 5130
 HRI 339.92 *Verticillium lecanii* 5131
 HRI 343.92 *Verticillium lecanii* 5132
 HRI 349.92 *Verticillium lecanii* 6554
 HRI 382.93 *Verticillium lecanii* 5133
 HRI 399.93 *Verticillium lecanii* 6561
 HRI 40.81 *Verticillium lecanii* 6547
 HRI 5.72 *Verticillium lecanii* 6542
 HRI 53.81 *Verticillium lecanii* 6548
 HRI 6.72 *Verticillium lecanii* 6543

CIAT

016 *Trichoderma viride*(?) 6344

CNPAF

85-7-25 *Gliocladium* sp. 1965
 85-7-30 *Acremonium roseum* 1964
 86-06-05-6 *Pochonia chlamydosporia* var. *chlamydosporia* 2218

Cole, Blaine J.

C7 *Lecanicillium* sp. 7544

Cortez Madrigal, Hipolito

Ve *Lecanicillium lecanii* 6888
 Vs *Lecanicillium lecanii* 6887
 Vu *Lecanicillium lecanii* 6886

CP

190 *Acremonium roseum* 1964
 191 *Gliocladium* sp. 1965
 214 *Pochonia chlamydosporia* var. *chlamydosporia* 2218

DAOM

185098 *Haptocillium balanoides* 2483
 198499 *Lecanicillium muscarium* 6591

Daoust, Richard A.

Ek8-4 *Trichoderma* sp. 807

DAT

471 *Tolypocladium inflatum* 4772
 472 *Tolypocladium inflatum* 4575

DAVFP

29230 *Lecanicillium pissodis* 8055
 29231 *Lecanicillium pissodis* 8056
 29232 *Lecanicillium pissodis* 8057

Demirbag, Zihni

Gg9 *Lecanicillium* sp. 11696

Deseö, Katlin V.

29 *Lecanicillium lecanii*(?) 1109
 6 *Lecanicillium muscarium* 1102

Dutzler, G.

21 *Tolypocladium cylindrosporium* 3392
 94 *Tolypocladium inflatum* 3433

ERL

1352 *Lecanicillium* sp. 9175
 1353 *Lecanicillium* sp. 9176
 1564 *Lecanicillium* sp. 9177
 1668 *Acremonium*(?) sp. 9368
 1669 *Lecanicillium*(?) sp. 9369
 1768 *Lecanicillium* sp. 9924
 1769 *Lecanicillium* sp. 9925
 1770 *Lecanicillium* sp. 9926
 1774 *Lecanicillium* sp. 9930
 1775 *Lecanicillium* sp. 9931
 1776 *Mariannaea* sp. 9932
 1777 *Mariannaea* sp. 9933
 1778 *Mariannaea* sp. 9934
 1779 *Lecanicillium* sp. 9935
 1780 *Lecanicillium* sp. 9936
 1785 *Trichoderma* sp. 9938
 1806 *Tolypocladium cylindrosporium* 10146
 1810 *Mariannaea* sp. 10150
 1811 *Mariannaea* sp. 10151
 1812 *Mariannaea* sp. 10152
 1813 *Mariannaea* sp. 10153
 1814 *Lecanicillium* sp. 10154
 1824 *Lecanicillium* sp. 10164
 1828 *Acremonium bactrocephalum* 10166
 1829 *Acremonium bactrocephalum* 10167
 1830 *Acremonium bactrocephalum* 10168
 1831 *Acremonium bactrocephalum* 10169
 1842 *Lecanicillium psalliotae* 10170
 1849 *Lecanicillium wallacei*(?) 10172
 1851 *Lecanicillium muscarium* 10173
 1852 *Lecanicillium wallacei*(?) 10174
 1854 *Lecanicillium psalliotae* 10175
 1855 *Lecanicillium psalliotae* 10176
 1856 *Lecanicillium psalliotae* 10177
 1857 *Lecanicillium muscarium* 10178
 1858 *Lecanicillium psalliotae* 10179
 1859 *Lecanicillium psalliotae* 10180
 1860 *Lecanicillium psalliotae* 10181
 1861 *Lecanicillium psalliotae* 10182
 1862 *Lecanicillium psalliotae*(?) 10183
 1863 *Lecanicillium fusisporum*(?) 10184
 1864 *Mariannaea* sp. 10185
 1865 *Lecanicillium* sp. 10187
 1866 *Lecanicillium* sp. 10188
 1867 *Lecanicillium* sp. 10189
 1868 *Lecanicillium* sp. 10190
 1870 *Lecanicillium* sp. 10192
 1871 *Lecanicillium* sp. 10193
 1872 *Mariannaea* sp. 10194
 1873 *Lecanicillium* sp. 10195
 1874 *Lecanicillium* sp. 10196
 1875 *Lecanicillium* sp. 10197
 1876 *Lecanicillium* sp. 10198
 1877 *Lecanicillium* sp. 10199
 1878 *Lecanicillium* sp. 10200
 1879 *Lecanicillium* sp. 10201
 1880 *Lecanicillium* sp. 10202
 1881 *Lecanicillium* sp. 10203
 1882 *Mariannaea* sp. 10204
 1883 *Mariannaea* sp. 10205
 1884 *Lecanicillium* sp. 10206
 1885 *Lecanicillium* sp. 10207
 1886 *Lecanicillium* sp. 10208
 1887 *Lecanicillium* sp. 10209

- 1888 *Lecanicillium* sp. 10210
 1889 *Lecanicillium* sp. 10211
 1890 *Lecanicillium* sp. 10212
 1891 *Lecanicillium* sp. 10213
 1892 *Lecanicillium* sp. 10214
 1893 *Lecanicillium* sp. 10215
 1894 *Lecanicillium* sp. 10216
 1895 *Lecanicillium* sp. 10217
 1896 *Lecanicillium* sp. 10218
 1932 *Lecanicillium* sp. 10287
 1933 *Lecanicillium* sp. 10288
 1934 *Lecanicillium* sp. 10289
 1935 *Lecanicillium* sp. 10290
 1936 *Lecanicillium* sp. 10291
 1939 *Lecanicillium* sp. 10294
 1940 *Lecanicillium* sp. 10295
 1941 *Lecanicillium* sp. 10296
 1942 *Lecanicillium* sp. 10297
 1943 *Lecanicillium* sp. 10298
 1944 *Lecanicillium* sp. 10299
 1945 *Lecanicillium* sp. 10300
 1946 *Lecanicillium* sp. 10301
 1947 *Lecanicillium* sp. 10302
 1948 *Lecanicillium* sp. 10303
 1949 *Lecanicillium* sp. 10304
 1950 *Lecanicillium* sp. 10305
 1951 *Lecanicillium* sp. 10306
 1978 *Lecanicillium* sp. 11748
 2009 *Lecanicillium evansii*(?) 11785
 2010 *Pochonia chlamydosporia* var. *chlamydosporia* 11786
 2011 *Lecanicillium fusisporum* 11787
 2014 *Lecanicillium evansii*(?) 11789
 2049 *Lecanicillium evansii*(?) 11791
 2050 *Lecanicillium evansii*(?) 11792
 2051 *Lecanicillium evansii*(?) 11793
 2052 *Lecanicillium evansii*(?) 11794
 2053 *Lecanicillium evansii*(?) 11795
 2054 *Lecanicillium evansii*(?) 11796
 2055 *Lecanicillium evansii*(?) 11797
 2056 *Lecanicillium* sp. 11798
 2057 *Lecanicillium* nr. *aranearum* 11799
 2058 *Pochonia bulbillosa* 11800
 2059 *Pochonia chlamydosporia* var. *chlamydosporia* 11801
 2060 *Lecanicillium muscarium* 11802
 2061 *Lecanicillium muscarium* 11803
 2062 *Lecanicillium evansii*(?) 11804
 2063 *Lecanicillium evansii*(?) 11805
 2064 *Lecanicillium evansii*(?) 11806
 2065 *Lecanicillium evansii*(?) 11807
 2068 *Lecanicillium fusisporum* 11808
 2069 *Lecanicillium evansii*(?) 11809
 2070 *Pochonia chlamydosporia* var. *chlamydosporia* 11810
 2071 *Lecanicillium* nr. *aranearum* 11811
 2072 *Mariannaea* sp. 11812
 2073 *Mariannaea* sp. 11813
 2074 *Mariannaea* sp. 11814
 2080 *Lecanicillium lecanii*(?) 11815
 2082 *Lecanicillium muscarium*(?) 11816
 2083 *Lecanicillium lecanii* 11817
 2084 *Lecanicillium muscarium* 11818
 2139 *Lecanicillium* sp. 12052
 2140 *Lecanicillium* sp. 12053
 2141 *Lecanicillium* sp. 12054
 2142 *Lecanicillium* sp. 12055
 2143 *Lecanicillium* sp. 12056
 2144 *Lecanicillium* sp. 12057
 2145 *Lecanicillium* sp. 12058
 2146 *Lecanicillium* sp. 12059
 2147 *Lecanicillium* sp. 12060
 2148 *Lecanicillium* sp. 12061
 2149 *Lecanicillium* sp. 12062
 2150 *Lecanicillium* sp. 12063
 2151 *Lecanicillium* sp. 12064
 2152 *Lecanicillium* sp. 12065
 2153 *Lecanicillium* sp. 12066
 2154 *Lecanicillium* sp. 12067
 2155 *Lecanicillium* sp. 12068
 2156 *Lecanicillium* sp. 12069
 2157 *Lecanicillium* sp. 12070
 2158 *Lecanicillium* sp. 12071
 2176 *Lecanicillium* sp. 12089
 281 *Lecanicillium muscarium* 8923
 324 *Verticillium lecanii* 5786
 580 *Lecanicillium* sp. 11639
 583 *Lecanicillium* sp. 11640
 584 *Lecanicillium* sp. 11641
 585 *Lecanicillium* sp. 11642
 586 *Lecanicillium* sp. 11643
 587 *Lecanicillium* sp. 11644
 588 *Lecanicillium* sp. 11645
 589 *Lecanicillium* sp. 11646
 590 *Lecanicillium* sp. 11647
 591 *Lecanicillium* sp. 11648
 620 *Lecanicillium* sp. 11649
 627 *Lecanicillium* sp. 11638
 751 *Lecanicillium* sp. 9163
- Erper, Ismail**
 TR-01 *Simplicillium lamellicola* 11727
 TR-02 *Simplicillium lamellicola* 11728
 TR-03 *Simplicillium lamellicola* 11729
 TR-04 *Lecanicillium muscarium* 11730
 TR-05 *Lecanicillium muscarium* 11731
 TR-06 *Simplicillium lamellicola* 11732
 TR-07 *Lecanicillium muscarium* 11733
 TR-08 *Lecanicillium muscarium* 11734
 TR-09 *Simplicillium lamellicola* 11735
 TR-10 *Lecanicillium muscarium* 11736
 TR-11 *Simplicillium lamellicola* 11737
 TR-12 *Simplicillium lamellicola*(?) 11738
 TR-14 *Simplicillium lamellicola*(?) 11740
- Evans, Harry C.**
 HE96-1013 *Verticillium pseudo-hemipterigenum* 5687
- Farrokhi, Shahram**
 PPDRI 1 *Verticillium lecanii* 6287
 PPDRI 4 *Lecanicillium lecanii*(?) 6289
 PPDRI 5 *Verticillium lecanii* 6290
 PPDRI 6 *Verticillium lecanii* 6291
- Feng, Ming-Guang**
 DN8701 *Lecanicillium muscarium* 2878
 DN8801 *Lecanicillium muscarium* 2862
 DN8802 *Lecanicillium muscarium* 2877
 ME8701 *Lecanicillium muscarium* 2858
 SA8601 *Lecanicillium psalliotae* 2332
 SA8701 *Verticillium lecanii* 2859
 SAVL8602 *Lecanicillium muscarium* 2334
- FPMI**
 708 *Lecanicillium muscarium* 1102
- Frances, Stephen P.**
 MI11 *Culicinomyces clavisporus* 2475
 MI14 *Culicinomyces clavisporus* 2526
 MI16 *Culicinomyces clavisporus* 2527
 MI17 *Culicinomyces clavisporus* 2476
 MI19 *Culicinomyces clavisporus* 2477
 MI2 *Culicinomyces clavisporus* 2471
 MI21 *Culicinomyces clavisporus* 2478
 MI26 *Culicinomyces clavisporus* 2622
 MI4 *Culicinomyces clavisporus* 2472
 MI5 *Culicinomyces clavisporus* 2473
 MI7 *Culicinomyces clavisporus* 2474
 MM1 *Culicinomyces bisporalis* 1948
 MM2 *Culicinomyces bisporalis* 1949
 QI1 *Culicinomyces clavisporus* 2480
 QI2 *Culicinomyces clavisporus* 2481
 VI1 *Culicinomyces clavisporus* 2479
- G/Tsadik, Zaf**
 1-02/03 *Simplicillium lamellicola* 6448
- GCRI**
 12-74 *Lecanicillium muscarium* 980
 13-74 *Lecanicillium longisporum* 1026
 130-82 *Tolypocladium cylindrosporium* 1027
 131-82 *Tolypocladium cylindrosporium* 976
 132-82 *Tolypocladium cylindrosporium* 1028
 20-79 *Lecanicillium muscarium* 1033
 55-81 *Lecanicillium muscarium* 972
 59-81 *Lecanicillium muscarium* 973
 8-73 *Lecanicillium muscarium* 1029
 80-82 *Lecanicillium muscarium*(?) 1032
 93-82a *Lecanicillium longisporum* 974
- George-Ambrose, Germain**
 SLUMAFFE 1 *Lecanicillium psalliotae* 8890
- Glockling, S. L.**
 12 *Rotiferophthora minutispora* 5613
 A2 *Harposporium leptospira* 5603
 AL *Harposporium leptospira* 5602
 CGa *Harposporium anguillulae* 5593
 CM2a *Pochonia microbactrospora* 5616
 DC *Harposporium lilliputanum* 5604
 Drain *Harposporium arcuatum* 5598
 E *Harposporium subuliforme* 5605
 K1 *Haptocillium balanoides* 5617
 K2a *Harposporium cycloides* 5600
 K5a *Tolypocladium lignicola* 5615
 LD4 *Rotiferophthora lacrima* 5612
 MA *Harposporium anguillulae* 5595

- N3 *Harposporium cycloides* 5599
N5 *Rotiferophthora amamiensis* 5609
Nelumbo *Rotiferophthora japonica* 5611
PA *Harposporium arcuatum* 5597
PNS *Pochonia microbactrospora* 5619
RSa *Harposporium anguillulae* 5594
RT *Haptocillium sinense* 5618
RW2a *Rotiferophthora denticulospora* 5614
VEG *Harposporium arcuatum* 5596
WG *Rotiferophthora angustispora* 5610
- Goettel, Mark S.**
25B *Culicinomyces clavisporus* 1260
25B *Culicinomyces clavisporus* 2482
FI-59 *Culicinomyces clavisporus* 964
LRC 172 *Tolypocladium cylindrosporium* 7456
- Gopalakrishnan, C.**
30 *Lecanicillium muscarium* 2659
- Gouli, Svetlana**
CA-682 *Lecanicillium* sp. 11641
CA-698 *Lecanicillium* sp. 11639
CA-706 *Lecanicillium* sp. 11649
CA-707 *Lecanicillium* sp. 11643
CA-736 *Lecanicillium* sp. 11638
CA-761 *Lecanicillium* sp. 11645
CA-792 *Lecanicillium* sp. 11647
EHS-12-3 *Lecanicillium lecanii*(?) 11815
GA-104 *Verticillium lecanii* 5168
GA-80 *Verticillium lecanii* 5167
GP-14 *Trichoderma lignorum* 5176
GP-18 *Gliocladium* sp. 5175
GP-25 *Gliocladium* sp. 5177
GP-49 *Verticillium lecanii* 5166
GP-53 *Lecanicillium muscarium* 5165
HWA-115/2 *Verticillium lecanii* 5786
HWA-12-2 *Lecanicillium muscarium*(?) 11816
HWA-12-4 *Lecanicillium muscarium* 11818
HWA-G-17 *Acremonium*(?) sp. 9368
HWA-G-46 *Lecanicillium* sp. 9924
HWA-G-48 *Lecanicillium* sp. 9926
PS-12/1 *Lecanicillium* sp. 12052
PS-12/11 *Lecanicillium* sp. 12062
PS-12/13 *Lecanicillium* sp. 12064
PS-12/15 *Lecanicillium* sp. 12066
PS-12/17 *Lecanicillium* sp. 12068
PS-12/19 *Lecanicillium* sp. 12070
PS-12/3 *Lecanicillium* sp. 12054
PS-12/5 *Lecanicillium* sp. 12056
PS-12/7 *Lecanicillium* sp. 12058
PS-12/9 *Lecanicillium* sp. 12060
THR-11-2 *Pochonia chlamydosporia* var. *chlamydosporia* 11786
THR-11-39 *Lecanicillium evansii*(?) 11792
THR-11-41 *Lecanicillium evansii*(?) 11794
THR-11-43 *Lecanicillium evansii*(?) 11796
THR-11-45 *Lecanicillium* sp. 11798
THR-11-47 *Pochonia bulbillosa* 11800
- THR-11-49 *Lecanicillium muscarium* 11802
THR-11-51 *Lecanicillium evansii*(?) 11804
THR-11-53 *Lecanicillium evansii*(?) 11806
THR-11-57 *Lecanicillium fuisporum* 11808
THR-11-59 *Pochonia chlamydosporia* var. *chlamydosporia* 11810
THR-11-6 *Lecanicillium evansii*(?) 11789
THR-11-61 *Mariannaea* sp. 11812
THR-11-63 *Mariannaea* sp. 11814
Thr.-09-10 *Mariannaea* sp. 9934
Thr.-09-12 *Lecanicillium* sp. 9936
Thr.-09-6 *Lecanicillium* sp. 9930
Thr.-09-8 *Mariannaea* sp. 9932
Thr.-10-100 *Lecanicillium* sp. 10214
Thr.-10-102 *Lecanicillium* sp. 10216
Thr.-10-104 *Lecanicillium* sp. 10218
Thr.-10-138 *Lecanicillium* sp. 10287
Thr.-10-139 *Lecanicillium* sp. 10288
Thr.-10-141 *Lecanicillium* sp. 10290
Thr.-10-142 *Lecanicillium* sp. 10291
Thr.-10-145 *Lecanicillium* sp. 10294
Thr.-10-147 *Lecanicillium* sp. 10296
Thr.-10-148 *Lecanicillium* sp. 10297
Thr.-10-150 *Lecanicillium* sp. 10299
Thr.-10-151 *Lecanicillium* sp. 10300
Thr.-10-153 *Lecanicillium* sp. 10302
Thr.-10-154 *Lecanicillium* sp. 10303
Thr.-10-156 *Lecanicillium* sp. 10305
Thr.-10-157 *Lecanicillium* sp. 10306
Thr.-10-16 *Lecanicillium* sp. 10154
Thr.-10-26 *Lecanicillium* sp. 10164
Thr.-10-28 *Mariannaea* sp. 10150
Thr.-10-30 *Mariannaea* sp. 10152
Thr.-10-36 *Acremonium bactrocephalum* 10166
Thr.-10-38 *Acremonium bactrocephalum* 10168
Thr.-10-50 *Lecanicillium psalliotae* 10170
Thr.-10-60 *Lecanicillium wallacei*(?) 10174
Thr.-10-62 *Lecanicillium psalliotae* 10175
Thr.-10-64 *Lecanicillium psalliotae* 10177
Thr.-10-66 *Lecanicillium psalliotae* 10179
Thr.-10-68 *Lecanicillium psalliotae* 10181
Thr.-10-70 *Lecanicillium psalliotae*(?) 10183
Thr.-10-72 *Mariannaea* sp. 10185
Thr.-10-73 *Lecanicillium* sp. 10187
Thr.-10-75 *Lecanicillium* sp. 10189
Thr.-10-79 *Lecanicillium* sp. 10193
Thr.-10-81 *Lecanicillium* sp. 10195
Thr.-10-83 *Lecanicillium* sp. 10197
Thr.-10-85 *Lecanicillium* sp. 10199
Thr.-10-87 *Lecanicillium* sp. 10201
Thr.-10-89 *Lecanicillium* sp. 10203
- Thr.-10-9 *Tolypocladium cylindrosporium* 10146
Thr.-10-91 *Mariannaea* sp. 10205
Thr.-10-93 *Lecanicillium* sp. 10207
Thr.-10-94 *Lecanicillium* sp. 10208
Thr.-10-96 *Lecanicillium* sp. 10210
Thr.-10-98 *Lecanicillium* sp. 10212
- Gouli, Vladimir**
CA-681 *Lecanicillium* sp. 11640
CA-683 *Lecanicillium* sp. 11642
CA-737 *Lecanicillium* sp. 11644
CA-791 *Lecanicillium* sp. 11646
HWA-12-3 *Lecanicillium lecanii* 11817
HWA-12/4 *Lecanicillium* sp. 12089
HWA-G-23 *Lecanicillium*(?) sp. 9369
HWA-G-47 *Lecanicillium* sp. 9925
HWA-SP *Lecanicillium* sp. 11648
PS-12/10 *Lecanicillium* sp. 12061
PS-12/12 *Lecanicillium* sp. 12063
PS-12/14 *Lecanicillium* sp. 12065
PS-12/16 *Lecanicillium* sp. 12067
PS-12/18 *Lecanicillium* sp. 12069
PS-12/2 *Lecanicillium* sp. 12053
PS-12/20 *Lecanicillium* sp. 12071
PS-12/4 *Lecanicillium* sp. 12055
PS-12/6 *Lecanicillium* sp. 12057
PS-12/8 *Lecanicillium* sp. 12059
SPT-R-151 *Lecanicillium lecanii* 6010
SPT-R-215 *Verticillium lecanii* 6025
THR-11-1 *Lecanicillium evansii*(?) 11785
THR-11-3 *Lecanicillium fuisporum* 11787
THR-11-38 *Lecanicillium evansii*(?) 11791
THR-11-40 *Lecanicillium evansii*(?) 11793
THR-11-42 *Lecanicillium evansii*(?) 11795
THR-11-44 *Lecanicillium evansii*(?) 11797
THR-11-46 *Lecanicillium* nr. *aranearum* 11799
THR-11-48 *Pochonia chlamydosporia* var. *chlamydosporia* 11801
THR-11-50 *Lecanicillium muscarium* 11803
THR-11-52 *Lecanicillium evansii*(?) 11805
THR-11-54 *Lecanicillium evansii*(?) 11807
THR-11-58 *Lecanicillium evansii*(?) 11809
THR-11-60 *Lecanicillium* nr. *aranearum* 11811
THR-11-62 *Mariannaea* sp. 11813
Thr.-09-11 *Lecanicillium* sp. 9935
Thr.-09-17 *Trichoderma* sp. 9938
Thr.-09-7 *Lecanicillium* sp. 9931
Thr.-09-9 *Mariannaea* sp. 9933
Thr.-10-101 *Lecanicillium* sp. 10215
Thr.-10-103 *Lecanicillium* sp. 10217
Thr.-10-140 *Lecanicillium* sp. 10289
Thr.-10-146 *Lecanicillium* sp. 10295
Thr.-10-149 *Lecanicillium* sp. 10298

Thr.-10-152 *Lecanicillium* sp. 10301
 Thr.-10-155 *Lecanicillium* sp. 10304
 Thr.-10-29 *Mariannaea* sp. 10151
 Thr.-10-31 *Mariannaea* sp. 10153
 Thr.-10-37 *Acremonium bactrocephalum* 10167
 Thr.-10-39 *Acremonium bactrocephalum* 10169
 Thr.-10-57 *Lecanicillium wallacei*(?) 10172
 Thr.-10-59 *Lecanicillium muscarium* 10173
 Thr.-10-63 *Lecanicillium psalliotae* 10176
 Thr.-10-65 *Lecanicillium muscarium* 10178
 Thr.-10-67 *Lecanicillium psalliotae* 10180
 Thr.-10-69 *Lecanicillium psalliotae* 10182
 Thr.-10-71 *Lecanicillium fusisporum*(?) 10184
 Thr.-10-74 *Lecanicillium* sp. 10188
 Thr.-10-76 *Lecanicillium* sp. 10190
 Thr.-10-78 *Lecanicillium* sp. 10192
 Thr.-10-80 *Mariannaea* sp. 10194
 Thr.-10-82 *Lecanicillium* sp. 10196
 Thr.-10-84 *Lecanicillium* sp. 10198
 Thr.-10-86 *Lecanicillium* sp. 10200
 Thr.-10-88 *Lecanicillium* sp. 10202
 Thr.-10-90 *Mariannaea* sp. 10204
 Thr.-10-92 *Lecanicillium* sp. 10206
 Thr.-10-95 *Lecanicillium* sp. 10209
 Thr.-10-97 *Lecanicillium* sp. 10211
 Thr.-10-99 *Lecanicillium* sp. 10213

Gouli, Vladimir & Svetlana

CA-771 *Lecanicillium* sp. 9163
 HWA-06/10 *Lecanicillium* sp. 9175
 HWA-06/11 *Lecanicillium* sp. 9176
 Scale-09/10 *Lecanicillium* sp. 9177

Groden, Eleanor

Plate #7 *Tolyposcladium cylindrosporum* 7539

Hajek, Ann E.

130 *Lecanicillium muscarium* 3600
 363 *Lecanicillium muscarium* 3601
 93a *Lecanicillium muscarium* 3531

Hanula, James

C-1 *Verticillium insectorum* 3715

Hatting, Justin L.

4 *Lecanicillium lecanii* 5706
 MSIRI 58 *Acremonium* sp. 11667

Herrera Navarro, Eliú

V.I. - Colima *Lecanicillium longisporum* 8042
 V.I. - UAM *Lecanicillium muscarium* 8041

Hodge, Kathie T.

1 *Harposporium anguillulae* 5407
 A *Harposporium anguillulae* 5408
 B *Harposporium anguillulae* 5409
 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
 kth11 *Tolyposcladium inflatum* 3790
 kth14 *Lecanicillium flavidum* 4519
 kth28a *Cordyceps militaris* 4838
 kth28b *Cordyceps militaris* 4839
 kth28c *Cordyceps militaris* 4840
 kth28d *Cordyceps militaris* 4841
 kth28e *Cordyceps militaris* 4842
 kth30A *Tolyposcladium inflatum* 4877
 kth30B *Tolyposcladium inflatum* 4878
 kth30C *Tolyposcladium inflatum* 4879
 kth30D *Tolyposcladium inflatum* 4880
 kth30E *Tolyposcladium inflatum* 4881
 kth30F *Tolyposcladium inflatum* 4882
 kth30G *Tolyposcladium inflatum* 4883
 kth30H *Tolyposcladium inflatum* 4884
 kth30I *Tolyposcladium inflatum* 4885
 kth30J *Tolyposcladium inflatum* 4886
 kth30K *Tolyposcladium inflatum* 4887
 kth30L *Tolyposcladium inflatum* 4888
 kth30M *Tolyposcladium inflatum* 4889
 kth30N *Tolyposcladium inflatum* 4890
 kth30O *Tolyposcladium inflatum* 4891
 kth30P *Tolyposcladium inflatum* 4892
 kth30Q *Tolyposcladium inflatum* 4893
 kth30R *Tolyposcladium inflatum* 4894
 kth30S *Tolyposcladium inflatum* 4895
 kth30T *Tolyposcladium inflatum* 4896
 kth30U *Tolyposcladium inflatum* 4897
 kth30V *Tolyposcladium inflatum* 4898
 kth31A-1 *Cordyceps militaris* 5002
 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
 kth31A-7 *Cordyceps militaris* 5008
 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
 kth31D-2 *Cordyceps militaris* 5023
 kth31D-3 *Cordyceps militaris* 5024

kth31D-4 *Cordyceps militaris* 5025
 kth31D-5 *Cordyceps militaris* 5026
 kth31D-6 *Cordyceps militaris* 5027
 kth31D-7 *Cordyceps militaris* 5028
 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
 kth31E-6 *Cordyceps militaris* 5037
 kth31E-7 *Cordyceps militaris* 5038
 kth31E-8 *Cordyceps militaris* 5039
 kth31E-9 *Cordyceps militaris* 5040
 kth31F-1 *Cordyceps militaris* 5043
 kth31F-10 *Cordyceps militaris* 5052
 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
 kth9 *Mariannaea elegans* 5338
 U0268t *Tolyposcladium lignicola* 5218

Holdom, David G.

030386-1 *Lecanicillium lecanii* 2149
 030386-2 *Lecanicillium lecanii* 2150

Hollingsworth, Robert G.

KNF2001-10 *Acremonium*(?) sp. 7031
 KNF2002-4 *Lecanicillium muscarium* 7034
 KNF2002-6 *Acremonium*(?) sp. 7036
 KNF2002-7 *Lecanicillium muscarium* 7037

Horticulture Research International

1.72 *Lecanicillium longisporum* 5126
 16.75 *Verticillium lecanii* 5127
 19.79 *Lecanicillium muscarium* 5128
 26.79 *Verticillium lecanii* 5129
 336.92 *Verticillium lecanii* 5130
 339.92 *Verticillium lecanii* 5131
 343.92 *Verticillium lecanii* 5132
 382.93 *Verticillium lecanii* 5133

- IMI**
071 315 *Verticillium epiphytum* 5250
280342 *Culicinomyces clavissporus* 964
331276 *Mariannaea sp.* 2930
374402 *Verticillium pseudohemipteri-*
genum 5687
IMI358246 *Tolypocladium inflatum* 4575
- Ippolito, L.**
38-BI *Tolypocladium inflatum* 3394
- Jeyarani, S.**
TNAU 1 *Lecanicillium aphanocladii* 9615
- Keller, Siegfried**
950 *Lecanicillium lecanii* 7530
- King, Brian C.**
20 *Lecanicillium muscarium* 7994
CmE *Cordyceps militaris* 8011
CmN *Cordyceps militaris* 8012
- Klingen, Ingeborg**
BAL 3 *Tolypocladium cylindrosporum*
5525
NCRI 03/01/V1 *Lecanicillium lecanii*
6915
NCRI 04/01/V1 *Lecanicillium muscar-*
ium 6914
NCRI 227/02 *Lecanicillium muscarium*
7568
ØNN 2.1 *Tolypocladium cylindrosporum*
5558
ØNN 2.2 *Tolypocladium cylindrosporum*
5528
ØNN 2.3 *Tolypocladium cylindrosporum*
5529
ØNN 3.1 *Tolypocladium cylindrosporum*
5530
ØNN 3.2 *Tolypocladium cylindrosporum*
5559
ØNN 4.1 *Tolypocladium cylindrosporum*
5531
ØNN 4.2 *Tolypocladium cylindrosporum*
5532
TØF 12.3 *Trichoderma sp.* 5522
TØF 14.22 *Trichoderma sp.* 5523
TØF 14.222 *Trichoderma sp.* 5524
TØF 22.2 *Tolypocladium cylindrosporum*
5526
VFB 10.1 *Tolypocladium cylindrosporum*
5527
- Kope, Harry H.**
PFC 10 *Lecanicillium muscarium* 8051
PFC 11 *Lecanicillium muscarium* 8052
PFC 12 *Lecanicillium muscarium* 8053
PFC 15 *Lecanicillium muscarium* 8054
PFC 17 *Lecanicillium pissodis* 8055
PFC 18 *Lecanicillium pissodis* 8056
PFC 19 *Lecanicillium pissodis* 8057
PFC 5 *Lecanicillium muscarium* 8048
PFC 6 *Lecanicillium muscarium* 8049
PFC 9 *Lecanicillium muscarium* 8050
- Krueger, Steve V.**
MF-S *Gliocladium roseum* 3001
- Kuter, Geoffrey A.**
182 *Lecanicillium muscarium* 795
- Lacey, Lawrence A.**
036A *Lecanicillium muscarium* 3709
059 *Lecanicillium longisporum* 3701
94028 *Verticillium lecanii* 4419
94030 *Verticillium sp.* 4194
94031 *Verticillium sp.* 4195
94032 *Verticillium sp.* 4203
94047 *Verticillium lecanii* 4420
94048 *Verticillium lecanii* 4421
94049 *Verticillium lecanii* 4422
94050 *Verticillium lecanii* 4423
94052 *Verticillium lecanii* 4454
94054 *Verticillium lecanii* 4455
94055 *Verticillium lecanii* 4456
94058 *Verticillium lecanii* 4416
94059 *Verticillium lecanii* 4417
94060 *Verticillium lecanii* 4418
94062 *Verticillium sp.* 4402
94094 *Verticillium lecanii* 4457
94095 *Verticillium sp.* 4398
94096 *Verticillium sp.* 4399
94151 *Verticillium lecanii* 4453
- Liang, Zong-Qi**
CGAC-2281 *Mariannaea pruinosa* 5413
- Likhovidov, Vladimir**
Fu-39 *Pochonia chlamydosporia* var.
chlamydosporia 7852
- Liu, Houping**
MF-203 *Lecanicillium muscarium* 8114
MF-204 *Lecanicillium lecanii* 8115
MF-208 *Lecanicillium muscarium* 8118
MF-248 *Lecanicillium muscarium* 8157
MF-253 *Lecanicillium muscarium(?)*
8162
MF-254 *Lecanicillium muscarium* 8163
MF-257 *Lecanicillium muscarium* 8165
MSUFS-701 *Lecanicillium lecanii* 7181
MSUFS-702 *Lecanicillium lecanii* 7182
- Liu, Miao**
ml161 *Lecanicillium sp.* 7407
ml172-2 *Lecanicillium lecanii* 7408
ml178-1 *Lecanicillium lecanii* 7385
ml189 *Acremonium sp.* 7402
- Lonsdale, David**
AH1 *Lecanicillium muscarium* 3740
AH2 *Verticillium lecanii* 3741
AH3 *Verticillium lecanii* 3742
AH4 *Verticillium lecanii* 3743
- Luz, Wolf Christian**
eco 25 *Gliocladium sp.* 8467
eco 28 *Lecanicillium psalliotae* 8468
eco 40 *Trichoderma sp.* 8470
eco 81 *Lecanicillium sp.* 8476
eco 97 *Pochonia chlamydosporia* 8478
- Majchrowicz, Irena**
40 *Lecanicillium lecanii* 3387
70 *Lecanicillium lecanii* 1505
- Mechaber, Wendy**
weevil#2209 *Pochonia bulbilosa(?)* 3035
- Meyer, Susan**
3836 *Lecanicillium lecanii(?)* 3882
3837 *Lecanicillium lecanii(?)* 3883
3839 *Lecanicillium lecanii(?)* 3884
M10S1 *Lecanicillium muscarium* 3837
M1S1 *Lecanicillium muscarium* 3836
M2S1 *Lecanicillium muscarium* 3838
M9S1 *Lecanicillium muscarium* 3839
- Muthappa, B.N.**
PNG 12717 *Trichoderma sp.* 2161
PNG 12720 *Trichoderma sp.* 2160
- Nasca, A.J.**
VL-T9 *Lecanicillium longisporum* 2460
- NRRL**
18725 *Lecanicillium muscarium* 3836
18726 *Lecanicillium muscarium* 3838
18727 *Lecanicillium muscarium* 3839
18728 *Lecanicillium muscarium* 3837
52709 *Simplicillium lamellicola* 6448
52754 *Lecanicillium muscarium* 3464
A-27472 *Pochonia suchlasporia* var.
catenata 2064
- Olive, Lindsey S.**
single spore isolate #1 *Culicinomyces*
clavissporus 582
single spore isolate #2 *Culicinomyces*
clavissporus 583
single spore isolate #3 *Culicinomyces*
clavissporus 584
single spore isolate #4 *Culicinomyces*
clavissporus 585
- Onofri, Silvano**
n^o1 *Lecanicillium lecanii(?)* 5136
n^o2 *Lecanicillium lecanii(?)* 5137
n^o3 *Lecanicillium lecanii(?)* 5138
- Osborne, Lance S.**
UK-3(2) *Lecanicillium psalliotae* 2235
UK-3(3) *Lecanicillium psalliotae* 2234
- Ostrowska, Katherine**
25 *Lecanicillium psalliotae* 3416
27 *Lecanicillium muscarium* 3418
- Parker, Bruce L.**
AT 071 *Verticillium lecanii* 5820
AT 072 *Verticillium lecanii* 5821
AT 076 *Lecanicillium muscarium* 5822
AT 128 *Lecanicillium lecanii* 5759
AT 132 *Verticillium lecanii* 5824
AT 135 *Verticillium lecanii* 5771
AT 136 *Lecanicillium muscarium* 5772
AT 145 *Acremonium sp.* 5773
AT-C-198 *Verticillium lecanii* 6045
AT-C-284 *Lecanicillium muscarium* 6035
AT-C-291 *Verticillium lecanii* 6046
AT-C-292 *Verticillium lecanii* 6047
AT-C-295 *Verticillium lecanii* 6050
AVRDC 0588B *Lecanicillium muscarium*
8923
AVRDC-0558B *Lecanicillium psallio-*
tae(?) 4867

Alternate Collections

- HWA 111/6 *Verticillium lecanii* 5783
HWA 115/1 *Lecanicillium lecanii* 5785
HWA 129 *Lecanicillium lecanii* 5787
HWA 143/1 *Verticillium lecanii* 5789
HWA 143/2 *Lecanicillium lecanii* 5829
HWA 159 *Lecanicillium muscarium* 5791
HWA 236 *Verticillium lecanii* 5793
HWA 24 *Verticillium lecanii* 5781
HWA 242/1 *Lecanicillium lecanii* 5794
HWA 280 *Lecanicillium muscarium* 5795
HWA 304 *Lecanicillium muscarium* 5798
HWA 4 *Lecanicillium muscarium*(?)
5777
HWA 60/1 *Lecanicillium muscarium*
5828
HWA 61/2 *Lecanicillium muscarium*
5782
HWA 8-1 *Lecanicillium muscarium* 5778
HWA 8-2 *Lecanicillium muscarium* 5779
HWA 9 *Lecanicillium muscarium* 5780
SPT 051 *Lecanicillium psalliotae* 5763
SPT 052 *Lecanicillium psalliotae* 5835
SPT-005 *Lecanicillium psalliotae* 5666
SPT-077 *Lecanicillium psalliotae* 5681
SPT-079 *Lecanicillium psalliotae* 5683
SPT-087 *Lecanicillium psalliotae* 5685
SPT-2-309/1 *Verticillium lecanii* 6085
SPT-2-311 *Lecanicillium muscarium*
6118
SPT-KR-389/1 *Verticillium* sp. 6480
SPT-KR-415/2 *Verticillium* sp. 6486
SPT-KZ-377 *Verticillium lecanii* 6479
SPT-KZ-412 *Verticillium* sp. 6484
SPT-KZ-413 *Verticillium* sp. 6485
SPT-KZ-417 *Verticillium lecanii* 6487
SPT-KZ-445 *Verticillium* sp. 6498
SPT-KZ-457 *Verticillium* sp. 6500
SPT-KZ-458 *Verticillium* sp. 6501
SPT-U-271 *Verticillium lecanii* 6068
SPT-U-285 *Lecanicillium psalliotae* 6071
- Pereault, Renee J.**
Walton Spray pci#2 *Lecanicillium mus-*
carium(?) 8265
- Perry, David**
1602 *Tolyposcladium inflatum* 3321
1602 *Tolyposcladium inflatum* 3397
- Poprawski, Tadeusz J.**
083 *Acremonium furcatum* 1372
084 *Lecanicillium muscarium* 1328
089 *Lecanicillium muscarium* 1401
090 *Lecanicillium muscarium* 1402
091 *Lecanicillium muscarium* 1403
8647 *Lecanicillium muscarium* 2323
8648 *Lecanicillium aphanocladii* 2324
8650 *Lecanicillium muscarium* 2326
8654 *Lecanicillium muscarium* 2329
8705 *Lecanicillium longisporum* 2460
- Posada, Francisco J.**
CEFC V-0002 *Lecanicillium lecanii* 6791
CEFC V-0003 *Lecanicillium muscarium*
6792
- Rangel, Drauzio Eduardo Naretto**
CPAC H1 *Simplicillium lanosoniveum*
6430
CPAC H2 *Verticillium lecanii* 6651
CPAC H3 *Simplicillium lanosoniveum*
6431
CPAC H6 *Simplicillium lanosoniveum*
6432
FTRI A1 *Lecanicillium aphanocladii*
6433
JAB 13 *Lecanicillium psalliotae* 6436
- Rath, Andrew C.**
F471 *Tolyposcladium inflatum* 4772
F472 *Tolyposcladium inflatum* 4575
- RCEF**
0095 *Cordyceps militaris* 6248
0221 *Verticillium* sp. 6250
0221 *Verticillium lecanii* 6350
- Roberts, Donald W.**
DWR 1616 *Lecanicillium muscarium*
11307
DWR 2135 *Lecanicillium lecanii*(?)
11972
DWR 2172 *Pochonia* sp. 12195
- Rogerson, Clark T.**
71-13 *Mariannaea elegans* 5350
71-199 *Mariannaea elegans* 5349
- Rombach, Michiel C.**
131286-1 *Verticillium cinnamomeum*
2399
14 *Lecanicillium lecanii* 1905
- Rong, Isabel**
PPRI 6396 *Tolyposcladium cylindrospo-*
rum 5538
- Rosenthal, C.**
MP1 *Verticillium* sp. 4074
- Samuels, G.J.**
GJS 96-242 *Harposporium* sp. 5410
- Sánchez Peña, Sergio René**
2 *Lecanicillium* sp. 2(?) 2832
- Sewify, Gamal**
1 *Gliocladium*(?) sp. 6579
2 *Verticillium* sp. 6580
3 *Lecanicillium psalliotae* 6581
4 *Lecanicillium psalliotae* 6582
5 *Gliocladium*(?) sp. 6583
6 *Simplicillium* sp. 6584
- Shimazu, Mitsuaki**
F-522 *Cordyceps militaris* 2416
- Sivev, Ivan L.**
287 *Lecanicillium lecanii* 1787
- Skinner, Margaret**
PT-11 *Mariannaea* sp. 2930
- Smith, Matthew E.**
Harpo1 *Harposporium microsporum*
8424
Harpo3 *Harposporium lilliputanum* 8425
Harpo4 *Harposporium ozycoracum* 8426
- Soares, George G.**
Tc4c *Tolyposcladium cylindrosporum*
1580
- SRCAMB**
AS-429 *Pochonia chlamydosporia* 9494
AS-429 *Pochonia chlamydosporia* var.
chlamydosporia 7852
AS-587 *Tolyposcladium inflatum* 9507
AS-635 *Tolyposcladium geodes* 9505
B-225 *Tolyposcladium inflatum* 9506
B-230 *Lecanicillium aphanocladii* 9461
B-234/1 *Lecanicillium muscarium* 9477
B-234/3 *Lecanicillium muscarium* 7738
B-238 *Lecanicillium aphanocladii* 9440
B-244 *Lecanicillium muscarium* 9468
B-245/2 *Lecanicillium muscarium* 9469
B-247 *Pochonia suchlasporia* 9495
B-255 *Lecanicillium* sp. 7635
B-259 *Lecanicillium* sp. 7634
B-260 *Lecanicillium* sp. 7636
B-266 *Lecanicillium muscarium* 7224
B-322 *Lecanicillium muscarium*(?) 9464
B-409 *Lecanicillium muscarium* 7631
B-410 *Lecanicillium muscarium*(?) 9463
B-42 *Lecanicillium* sp. 7630
B-450 *Mariannaea elegans* 9456
B-59 *Lecanicillium* sp. 7632
B-60 *Lecanicillium* sp. 7629
B-61 *Lecanicillium* sp. 7626
B-65 *Lecanicillium* sp. 7627
B-79 *Cordyceps militaris* 7809
B-81 *Lecanicillium* sp. 7628
B-88 *Lecanicillium* sp. 7849
B-90 *Cordyceps militaris* 7810
VL-1124/1 *Lecanicillium muscarium*
7620
VL-1169 *Lecanicillium* sp. 9458
VL-1540 *Lecanicillium psalliotae* 9473
VL-1556/1 *Lecanicillium fungicola* 9482
VL-1587/2 *Lecanicillium* sp. 9459
VL-1695 *Simplicillium lamellicola* 9481
VL-1709/2 *Rotiferophthora angustispora*
9498
VL-1713/2 *Lecanicillium muscarium*
9470
VL-1718 *Mariannaea elegans* 9455
VL-1760/1 *Simplicillium lamellicola*
9480
VL-1786 *Simplicillium lamellicola* 9479
VL-1983 *Cordyceps militaris* 9484
VL-2004 *Lecanicillium muscarium* 9471
VL-2005 *Lecanicillium* sp. 9465
VL-2011 *Lecanicillium psalliotae* 9474
VL-2017 *Lecanicillium muscarium* 9472
VL-2063 *Lecanicillium fungicola* 9483
VL-2092 *Lecanicillium* nr. *araneorum*
9460
VL-2099 *Lecanicillium* sp. 9478
VL-2109 *Lecanicillium* sp. 9466

VL-2112 *Lecanicillium muscarium*(?)
9462
VL-2159 *Tolypocladium geodes* 9504
VL-272 *Tolypocladium cylindrosporium*
9503
VL-389 *Tolypocladium cylindrosporium*
7812
VL-406 *Lecanicillium* sp. 7625
VL-408 *Lecanicillium* sp. 7624
VL-43 *Lecanicillium muscarium* 7633
VL-770/2 *Lecanicillium muscarium* 7621
VL-779 *Lecanicillium muscarium* 9467
VL-879 *Simplicillium lanosoniveum* 7623
VL-925 *Lecanicillium* sp. 7622

Steenberg, Tove

186 *Tolypocladium cylindrosporium* 2777
187 *Tolypocladium cylindrosporium* 2778
216 *Verticillium lecanii* 4022
227 *Verticillium lecanii* 4025
239 *Lecanicillium muscarium* 4033
244 *Lecanicillium muscarium* 4036
295 *Verticillium lecanii* 4047
297 *Verticillium lecanii* 4048
299 *Lecanicillium longisporum* 4050
446 *Verticillium lecanii* 5852
625 *Lecanicillium fusisporum*(?) 5578
626 *Lecanicillium fusisporum*(?) 5579
A16 *Lecanicillium lecanii*(?) 5585
A2 *Lecanicillium lecanii*(?) 5584
BP2 *Acremonium* sp. 4058
BP4 *Acremonium* sp. 4059
BT11 *Verticillium lecanii* 4069
BT12 *Verticillium lecanii* 4070
BT13 *Verticillium lecanii* 4071
BT14 *Verticillium lecanii* 4072
BT3 *Verticillium lecanii* 4064
BT4 *Verticillium lecanii* 4065
BT5 *Lecanicillium psalliotae* 5582
BT6 *Verticillium lecanii* 4067
MP11 *Verticillium lecanii* 4079
MP2 *Verticillium lecanii* 4075
MP3 *Verticillium lecanii* 4076
MP5 *Verticillium lecanii* 4077
MP6-9 *Lecanicillium fusisporum* 5583
SSL 449 *Verticillium lecanii* 5854
SSL 607 *Verticillium lecanii* 5856
SSL 615 *Verticillium lecanii* 5859
SSL 82 *Verticillium lecanii* 5849
TT3 *Acremonium psammosporum* 4062
TT4 *Lecanicillium lecanii*(?) 5580
TT4 *Verticillium lecanii* 5709
TT5 *Acremonium* sp. 4063
VL10 *Lecanicillium lecanii*(?) 5581
VL9 *Verticillium lecanii* 4073
VT2 *Lecanicillium lecanii*(?) 4060
VT3 *Verticillium lecanii* 4061

Sung, Jae-Mo

C-171 *Cordyceps militaris* 4845
C-225-1 *Cordyceps militaris* 4869
C-238 *Cordyceps militaris* 4873
C-273 *Cordyceps militaris* 4874
C-275 *Cordyceps militaris* 4847
C-418 *Cordyceps militaris* 4857
EFCC 2011 *Lecanicillium muscarium*
7248

Sweeney, Anthony W.

298A *Culicinomyces clavispurus* 541
298A *Culicinomyces clavispurus* 644
298B *Culicinomyces clavispurus* 645

Tanyeli, Elif

Dm-1 *Lecanicillium muscarium* 9267
Dm-2 *Lecanicillium muscarium* 9268

UAMH

?4995 *Tolypocladium cylindrosporium* 961
4563 *Tolypocladium cylindrosporium* 961
4592 *Tolypocladium cylindrosporium* 962
4593 *Tolypocladium cylindrosporium* 963
4618 *Culicinomyces clavispurus* 964
4848 *Culicinomyces clavispurus* 372
4849 *Culicinomyces clavispurus* 582
4850 *Culicinomyces clavispurus* 584
4851 *Culicinomyces clavispurus* 706
4854 *Culicinomyces clavispurus* 1260
4854 *Culicinomyces clavispurus* 2482
4869 *Culicinomyces clavispurus* 583
5174 *Culicinomyces bisporalis* 1948
5175 *Culicinomyces bisporalis* 1949
5256 *Haptocillium balanoides* 2483
8723 *Tolypocladium inflatum* 4884

Underwood, Nancy

3836 *Lecanicillium lecanii*(?) 3882
3837 *Lecanicillium lecanii*(?) 3883
3839 *Lecanicillium lecanii*(?) 3884
ARSEF2859 *Verticillium lecanii* 3862
ARSEF2862 *Lecanicillium muscarium*
3861
U2858 *Verticillium lecanii* 3909
U3000 *Verticillium lecanii* 3903
U3836 *Verticillium lecanii* 3881
U3838 *Verticillium lecanii* 3902
U3840 *Verticillium lecanii* 3904

Vega, Fernando E.

CBB9-2 *Acremonium alternatum* 7282

Velvis, H.

EP 26 *Harposporium cerberi* 5123

Viaene, Nicole

1 *Harposporium anguillulae* 4954
11 *Lecanicillium psalliotae* 4960
27 *Lecanicillium psalliotae* 4965

Weiser, Jaroslav

R5 *Tolypocladium geodes* 2684

Wen, Ting-chi

09XS-2 *Simplicillium lamellicola*(?)
11725
KM-1 *Cordyceps militaris* 11704
LG-11-15 *Cordyceps militaris* 11703

Widden, Paul

LP-177 *Tolypocladium inflatum* 3396
LP-235 *Tolypocladium tundrense* 3401
M-105 *Tolypocladium inflatum* 3432
M-106 *Tolypocladium tundrense* 3399
M-107 *Tolypocladium tundrense* 3400

Wilson, Christopher G.

db1 *Rotiferophthora ovispora* 10274
db2 *Harposporium spirosporium* 8821
ei10 *Rotiferophthora angustispora* 8991
ei16 *Rotiferophthora globospora* 8995
io10 *Rotiferophthora* sp. 9543
io19 *Rotiferophthora angustispora* 9386
io21 *Rotiferophthora tagenophora* 9387
io3 *Rotiferophthora* sp. 9542
io4 *Harposporium cocleatum* 9382
io9 *Rotiferophthora angustispora* 9385
iy10 *Rotiferophthora cylindrospora* 9547
iy21 *Rotiferophthora denticulospora* 9549
iy23 *Rotiferophthora barronii* 10267
iy24 *Rotiferophthora cylindrospora* 9548
jp1 *Rotiferophthora* sp. 9544
jp8 *Rotiferophthora* sp. 9545
kara2 *Rotiferophthora* sp. 9546
Lt39 *Rotiferophthora cylindrospora*
10273
mg10 *Rotiferophthora globospora* 10268
mg16 *Rotiferophthora* sp. 10264
mg2 *Rotiferophthora* sp. 10263
mg38 *Harposporium spirosporium* 10271
mg4 *Pochonia* sp. 10261
mg40 *Harposporium botuliforme* 10275
mm28 *Rotiferophthora* sp. 10265
na13 *Rotiferophthora* sp. 10266
ned1 *Rotiferophthora brevipes* 8994
nr12 *Rotiferophthora guttulaspora* 10269
std1b *Rotiferophthora cylindrospora* 8992
wet17 *Rotiferophthora intermedia* 10270

Zhioua, Elyes

1S DCE *Verticillium* sp. 5713
1S PCW *Verticillium lecanii* 5710
Tick #2 *Gliocladium*(?) sp. 6896

204	<i>Lecanicillium muscarium</i>	1964	<i>Acremonium roseum</i>	3260	<i>Lecanicillium</i> sp.
310	<i>Lecanicillium muscarium</i>	1965	<i>Gliocladium</i> sp.	3261	<i>Mariannaea</i> sp.
311	<i>Lecanicillium muscarium</i>	2009	<i>Lecanicillium</i> sp.	3262	<i>Mariannaea</i> sp.
312	<i>Lecanicillium muscarium</i>	2064	<i>Pochonia suchlasporia</i> var. <i>catenata</i>	3263	<i>Mariannaea</i> sp.
313	<i>Lecanicillium muscarium</i>	2065	<i>Lecanicillium muscarium</i>	3264	<i>Mariannaea</i> sp.
314	<i>Lecanicillium muscarium</i>	2066	<i>Lecanicillium muscarium</i>	3265	<i>Mariannaea</i> sp.
321	<i>Lecanicillium longisporum</i>	2067	<i>Acremonium berkeleyanum</i>	3267	<i>Mariannaea</i> sp.
360	<i>Culicinomyces clavisporus</i>	2149	<i>Lecanicillium lecanii</i>	3268	<i>Mariannaea</i> sp.
372	<i>Culicinomyces clavisporus</i>	2150	<i>Lecanicillium lecanii</i>	3269	<i>Mariannaea</i> sp.
541	<i>Culicinomyces clavisporus</i>	2160	<i>Trichoderma</i> sp.	3270	<i>Mariannaea</i> sp.
555	<i>Lecanicillium lecanii</i>	2161	<i>Trichoderma</i> sp.	3271	<i>Tolypocladium geodes</i>
582	<i>Culicinomyces clavisporus</i>	2218	<i>Pochonia chlamydosporia</i> var. <i>chlamydosporia</i>	3272	<i>Tolypocladium geodes</i>
583	<i>Culicinomyces clavisporus</i>	2234	<i>Lecanicillium psalliotae</i>	3273	<i>Tolypocladium geodes</i>
584	<i>Culicinomyces clavisporus</i>	2235	<i>Lecanicillium psalliotae</i>	3274	<i>Tolypocladium geodes</i>
585	<i>Culicinomyces clavisporus</i>	2323	<i>Lecanicillium muscarium</i>	3275	<i>Tolypocladium geodes</i>
616	<i>Tolypocladium inflatum</i>	2324	<i>Lecanicillium aphanocladii</i>	3276	<i>Tolypocladium geodes</i>
644	<i>Culicinomyces clavisporus</i>	2325	<i>Lecanicillium muscarium</i>	3277	<i>Tolypocladium inflatum</i>
645	<i>Culicinomyces clavisporus</i>	2326	<i>Lecanicillium muscarium</i>	3278	<i>Tolypocladium inflatum</i>
705	<i>Tolypocladium cylindrosporum</i>	2329	<i>Lecanicillium muscarium</i>	3279	<i>Tolypocladium inflatum</i>
706	<i>Culicinomyces clavisporus</i>	2332	<i>Lecanicillium psalliotae</i>	3280	<i>Tolypocladium inflatum</i>
795	<i>Lecanicillium muscarium</i>	2334	<i>Lecanicillium muscarium</i>	3281	<i>Tolypocladium inflatum</i>
807	<i>Trichoderma</i> sp.	2399	<i>Verticillium cinnamomeum</i>	3314	<i>Pochonia chlamydosporia</i>
810	<i>Lecanicillium muscarium</i>	2416	<i>Cordyceps militaris</i>	3315	<i>Mariannaea</i> sp.
811	<i>Lecanicillium muscarium</i>	2460	<i>Lecanicillium longisporum</i>	3316	<i>Mariannaea</i> sp.
841	<i>Tolypocladium cylindrosporum</i>	2471	<i>Culicinomyces clavisporus</i>	3317	<i>Mariannaea</i> sp.
900	<i>Lecanicillium muscarium</i>	2472	<i>Culicinomyces clavisporus</i>	3320	<i>Tolypocladium inflatum</i>
961	<i>Tolypocladium cylindrosporum</i>	2473	<i>Culicinomyces clavisporus</i>	3321	<i>Tolypocladium inflatum</i>
962	<i>Tolypocladium cylindrosporum</i>	2474	<i>Culicinomyces clavisporus</i>	3324	<i>Lecanicillium muscarium</i>
963	<i>Tolypocladium cylindrosporum</i>	2475	<i>Culicinomyces clavisporus</i>	3350	<i>Haptocillium balanoides</i>
964	<i>Culicinomyces clavisporus</i>	2476	<i>Culicinomyces clavisporus</i>	3387	<i>Lecanicillium lecanii</i>
972	<i>Lecanicillium muscarium</i>	2477	<i>Culicinomyces clavisporus</i>	3392	<i>Tolypocladium cylindrosporum</i>
973	<i>Lecanicillium muscarium</i>	2478	<i>Culicinomyces clavisporus</i>	3393	<i>Tolypocladium cylindrosporum</i>
974	<i>Lecanicillium longisporum</i>	2479	<i>Culicinomyces clavisporus</i>	3394	<i>Tolypocladium inflatum</i>
976	<i>Tolypocladium cylindrosporum</i>	2480	<i>Culicinomyces clavisporus</i>	3395	<i>Tolypocladium inflatum</i>
980	<i>Lecanicillium muscarium</i>	2481	<i>Culicinomyces clavisporus</i>	3396	<i>Tolypocladium inflatum</i>
991	<i>Verticillium lecanii</i>	2482	<i>Culicinomyces clavisporus</i>	3397	<i>Tolypocladium inflatum</i>
994	<i>Lecanicillium muscarium</i>	2483	<i>Haptocillium balanoides</i>	3398	<i>Tolypocladium inflatum</i>
1002	<i>Lecanicillium muscarium</i>	2526	<i>Culicinomyces clavisporus</i>	3399	<i>Tolypocladium tundrense</i>
1026	<i>Lecanicillium longisporum</i>	2527	<i>Culicinomyces clavisporus</i>	3400	<i>Tolypocladium tundrense</i>
1027	<i>Tolypocladium cylindrosporum</i>	2622	<i>Culicinomyces clavisporus</i>	3401	<i>Tolypocladium tundrense</i>
1028	<i>Tolypocladium cylindrosporum</i>	2659	<i>Lecanicillium muscarium</i>	3416	<i>Lecanicillium psalliotae</i>
1029	<i>Lecanicillium muscarium</i>	2684	<i>Tolypocladium geodes</i>	3418	<i>Lecanicillium muscarium</i>
1032	<i>Lecanicillium muscarium</i> (?)	2777	<i>Tolypocladium cylindrosporum</i>	3431	<i>Tolypocladium microsporum</i>
1033	<i>Lecanicillium muscarium</i>	2778	<i>Tolypocladium cylindrosporum</i>	3432	<i>Tolypocladium inflatum</i>
1102	<i>Lecanicillium muscarium</i>	2832	<i>Lecanicillium</i> sp. 2(?)	3433	<i>Tolypocladium inflatum</i>
1109	<i>Lecanicillium lecanii</i> (?)	2858	<i>Lecanicillium muscarium</i>	3434	<i>Tolypocladium nubicola</i>
1260	<i>Culicinomyces clavisporus</i>	2859	<i>Verticillium lecanii</i>	3435	<i>Tolypocladium nubicola</i>
1328	<i>Lecanicillium muscarium</i>	2862	<i>Lecanicillium muscarium</i>	3436	<i>Tolypocladium parasiticum</i>
1330	<i>Lecanicillium muscarium</i>	2877	<i>Lecanicillium muscarium</i>	3464	<i>Lecanicillium muscarium</i>
1332	<i>Lecanicillium muscarium</i>	2878	<i>Lecanicillium muscarium</i>	3531	<i>Lecanicillium muscarium</i>
1333	<i>Verticillium lecanii</i>	2911	<i>Tolypocladium cylindrosporum</i>	3539	<i>Pochonia chlamydosporia</i>
1334	<i>Lecanicillium muscarium</i>	2912	<i>Tolypocladium cylindrosporum</i>	3547	<i>Verticillium</i> sp.
1335	<i>Lecanicillium muscarium</i>	2916	<i>Verticillium lecanii</i>	3549	<i>Mariannaea</i> sp.
1351	<i>Lecanicillium lecanii</i>	2920	<i>Tolypocladium cylindrosporum</i>	3550	<i>Verticillium</i> sp.
1352	<i>Lecanicillium muscarium</i>	2921	<i>Tolypocladium extinguis</i>	3551	<i>Verticillium</i> sp.
1357	<i>Verticillium lecanii</i>	2923	<i>Lecanicillium muscarium</i>	3552	<i>Verticillium</i> sp.
1361	<i>Trichoderma</i> sp.	2930	<i>Mariannaea</i> sp.	3554	<i>Mariannaea</i> sp.
1365	<i>Pochonia bulbillosa</i> (?)	3000	<i>Lecanicillium muscarium</i>	3555	<i>Mariannaea</i> sp.
1367	<i>Simplicillium lamellicola</i>	3001	<i>Gliocladium roseum</i>	3556	<i>Verticillium</i> sp.
1372	<i>Acremonium furcatum</i>	3035	<i>Pochonia bulbillosa</i> (?)	3557	<i>Mariannaea</i> sp.
1401	<i>Lecanicillium muscarium</i>	3084	<i>Trichoderma</i> sp.	3558	<i>Mariannaea</i> sp.
1402	<i>Lecanicillium muscarium</i>	3173	<i>Haptocillium balanoides</i>	3559	<i>Mariannaea</i> sp.
1403	<i>Lecanicillium muscarium</i>	3252	<i>Mariannaea</i> sp.	3561	<i>Verticillium</i> sp.
1505	<i>Lecanicillium lecanii</i>	3253	<i>Lecanicillium</i> sp.	3562	<i>Mariannaea</i> sp.
1580	<i>Tolypocladium cylindrosporum</i>	3254	<i>Lecanicillium</i> sp.	3563	<i>Mariannaea</i> sp.
1774	<i>Lecanicillium muscarium</i>	3255	<i>Lecanicillium</i> sp.	3600	<i>Lecanicillium muscarium</i>
1787	<i>Lecanicillium lecanii</i>	3257	<i>Mariannaea</i> sp.	3601	<i>Lecanicillium muscarium</i>
1905	<i>Lecanicillium lecanii</i>	3258	<i>Mariannaea</i> sp.	3683	<i>Lecanicillium lecanii</i>
1948	<i>Culicinomyces bisporalis</i>	3259	<i>Lecanicillium</i> sp.	3684	<i>Lecanicillium muscarium</i>
1949	<i>Culicinomyces bisporalis</i>			3685	<i>Lecanicillium muscarium</i>

3686	<i>Lecanicillium muscarium</i>	4402	<i>Verticillium</i> sp.	5018	<i>Cordyceps militaris</i>
3687	<i>Lecanicillium muscarium</i> (?)	4416	<i>Verticillium lecanii</i>	5019	<i>Cordyceps militaris</i>
3688	<i>Lecanicillium lecanii</i>	4417	<i>Verticillium lecanii</i>	5020	<i>Cordyceps militaris</i>
3689	<i>Lecanicillium lecanii</i> (?)	4418	<i>Verticillium lecanii</i>	5021	<i>Cordyceps militaris</i>
3690	<i>Lecanicillium muscarium</i>	4419	<i>Verticillium lecanii</i>	5022	<i>Cordyceps militaris</i>
3691	<i>Lecanicillium muscarium</i>	4420	<i>Verticillium lecanii</i>	5023	<i>Cordyceps militaris</i>
3701	<i>Lecanicillium longisporum</i>	4421	<i>Verticillium lecanii</i>	5024	<i>Cordyceps militaris</i>
3709	<i>Lecanicillium muscarium</i>	4422	<i>Verticillium lecanii</i>	5025	<i>Cordyceps militaris</i>
3715	<i>Verticillium insectorum</i>	4423	<i>Verticillium lecanii</i>	5026	<i>Cordyceps militaris</i>
3740	<i>Lecanicillium muscarium</i>	4453	<i>Verticillium lecanii</i>	5027	<i>Cordyceps militaris</i>
3741	<i>Verticillium lecanii</i>	4454	<i>Verticillium lecanii</i>	5028	<i>Cordyceps militaris</i>
3742	<i>Verticillium lecanii</i>	4455	<i>Verticillium lecanii</i>	5029	<i>Cordyceps militaris</i>
3743	<i>Verticillium lecanii</i>	4456	<i>Verticillium lecanii</i>	5030	<i>Cordyceps militaris</i>
3770	<i>Verticillium lecanii</i>	4457	<i>Verticillium lecanii</i>	5031	<i>Cordyceps militaris</i>
3790	<i>Tolypocladium inflatum</i>	4519	<i>Lecanicillium flavidum</i>	5032	<i>Cordyceps militaris</i>
3836	<i>Lecanicillium muscarium</i>	4575	<i>Tolypocladium inflatum</i>	5033	<i>Cordyceps militaris</i>
3837	<i>Lecanicillium muscarium</i>	4772	<i>Tolypocladium inflatum</i>	5034	<i>Cordyceps militaris</i>
3838	<i>Lecanicillium muscarium</i>	4838	<i>Cordyceps militaris</i>	5035	<i>Cordyceps militaris</i>
3839	<i>Lecanicillium muscarium</i>	4839	<i>Cordyceps militaris</i>	5036	<i>Cordyceps militaris</i>
3840	<i>Verticillium lecanii</i>	4840	<i>Cordyceps militaris</i>	5037	<i>Cordyceps militaris</i>
3861	<i>Lecanicillium muscarium</i>	4841	<i>Cordyceps militaris</i>	5038	<i>Cordyceps militaris</i>
3862	<i>Verticillium lecanii</i>	4842	<i>Cordyceps militaris</i>	5039	<i>Cordyceps militaris</i>
3881	<i>Verticillium lecanii</i>	4845	<i>Cordyceps militaris</i>	5040	<i>Cordyceps militaris</i>
3882	<i>Lecanicillium lecanii</i> (?)	4847	<i>Cordyceps militaris</i>	5041	<i>Cordyceps militaris</i>
3883	<i>Lecanicillium lecanii</i> (?)	4857	<i>Cordyceps militaris</i>	5042	<i>Cordyceps militaris</i>
3884	<i>Lecanicillium lecanii</i> (?)	4867	<i>Lecanicillium psalliotae</i> (?)	5043	<i>Cordyceps militaris</i>
3902	<i>Verticillium lecanii</i>	4869	<i>Cordyceps militaris</i>	5044	<i>Cordyceps militaris</i>
3903	<i>Verticillium lecanii</i>	4873	<i>Cordyceps militaris</i>	5045	<i>Cordyceps militaris</i>
3904	<i>Verticillium lecanii</i>	4874	<i>Cordyceps militaris</i>	5046	<i>Cordyceps militaris</i>
3909	<i>Verticillium lecanii</i>	4877	<i>Tolypocladium inflatum</i>	5047	<i>Cordyceps militaris</i>
4022	<i>Verticillium lecanii</i>	4878	<i>Tolypocladium inflatum</i>	5048	<i>Cordyceps militaris</i>
4025	<i>Verticillium lecanii</i>	4879	<i>Tolypocladium inflatum</i>	5049	<i>Cordyceps militaris</i>
4033	<i>Lecanicillium muscarium</i>	4880	<i>Tolypocladium inflatum</i>	5050	<i>Cordyceps militaris</i>
4036	<i>Lecanicillium muscarium</i>	4881	<i>Tolypocladium inflatum</i>	5051	<i>Cordyceps militaris</i>
4047	<i>Verticillium lecanii</i>	4882	<i>Tolypocladium inflatum</i>	5052	<i>Cordyceps militaris</i>
4048	<i>Verticillium lecanii</i>	4883	<i>Tolypocladium inflatum</i>	5053	<i>Cordyceps militaris</i>
4050	<i>Lecanicillium longisporum</i>	4884	<i>Tolypocladium inflatum</i>	5054	<i>Cordyceps militaris</i>
4058	<i>Acremonium</i> sp.	4885	<i>Tolypocladium inflatum</i>	5055	<i>Cordyceps militaris</i>
4059	<i>Acremonium</i> sp.	4886	<i>Tolypocladium inflatum</i>	5056	<i>Cordyceps militaris</i>
4060	<i>Lecanicillium lecanii</i> (?)	4887	<i>Tolypocladium inflatum</i>	5057	<i>Cordyceps militaris</i>
4061	<i>Verticillium lecanii</i>	4888	<i>Tolypocladium inflatum</i>	5058	<i>Cordyceps militaris</i>
4062	<i>Acremonium psamosporum</i>	4889	<i>Tolypocladium inflatum</i>	5059	<i>Cordyceps militaris</i>
4063	<i>Acremonium</i> sp.	4890	<i>Tolypocladium inflatum</i>	5060	<i>Cordyceps militaris</i>
4064	<i>Verticillium lecanii</i>	4891	<i>Tolypocladium inflatum</i>	5061	<i>Cordyceps militaris</i>
4065	<i>Verticillium lecanii</i>	4892	<i>Tolypocladium inflatum</i>	5062	<i>Cordyceps militaris</i>
4067	<i>Verticillium lecanii</i>	4893	<i>Tolypocladium inflatum</i>	5123	<i>Harposporium cerberi</i>
4069	<i>Verticillium lecanii</i>	4894	<i>Tolypocladium inflatum</i>	5126	<i>Lecanicillium longisporum</i>
4070	<i>Verticillium lecanii</i>	4895	<i>Tolypocladium inflatum</i>	5127	<i>Verticillium lecanii</i>
4071	<i>Verticillium lecanii</i>	4896	<i>Tolypocladium inflatum</i>	5128	<i>Lecanicillium muscarium</i>
4072	<i>Verticillium lecanii</i>	4897	<i>Tolypocladium inflatum</i>	5129	<i>Verticillium lecanii</i>
4073	<i>Verticillium lecanii</i>	4898	<i>Tolypocladium inflatum</i>	5130	<i>Verticillium lecanii</i>
4074	<i>Verticillium</i> sp.	4954	<i>Harposporium anguillulae</i>	5131	<i>Verticillium lecanii</i>
4075	<i>Verticillium lecanii</i>	4960	<i>Lecanicillium psalliotae</i>	5132	<i>Verticillium lecanii</i>
4076	<i>Verticillium lecanii</i>	4965	<i>Lecanicillium psalliotae</i>	5133	<i>Verticillium lecanii</i>
4077	<i>Verticillium lecanii</i>	5002	<i>Cordyceps militaris</i>	5136	<i>Lecanicillium lecanii</i> (?)
4079	<i>Verticillium lecanii</i>	5003	<i>Cordyceps militaris</i>	5137	<i>Lecanicillium lecanii</i> (?)
4081	<i>Cordyceps militaris</i>	5004	<i>Cordyceps militaris</i>	5138	<i>Lecanicillium lecanii</i> (?)
4082	<i>Cordyceps militaris</i>	5005	<i>Cordyceps militaris</i>	5153	<i>Verticillium lecanii</i>
4083	<i>Cordyceps militaris</i>	5006	<i>Cordyceps militaris</i>	5165	<i>Lecanicillium muscarium</i>
4084	<i>Cordyceps militaris</i>	5007	<i>Cordyceps militaris</i>	5166	<i>Verticillium lecanii</i>
4085	<i>Cordyceps militaris</i>	5008	<i>Cordyceps militaris</i>	5167	<i>Verticillium lecanii</i>
4086	<i>Cordyceps militaris</i>	5009	<i>Cordyceps militaris</i>	5168	<i>Verticillium lecanii</i>
4087	<i>Cordyceps militaris</i>	5010	<i>Cordyceps militaris</i>	5175	<i>Gliocladium</i> sp.
4088	<i>Cordyceps militaris</i>	5011	<i>Cordyceps militaris</i>	5176	<i>Trichoderma lignorum</i>
4089	<i>Cordyceps militaris</i>	5012	<i>Cordyceps militaris</i>	5177	<i>Gliocladium</i> sp.
4194	<i>Verticillium</i> sp.	5013	<i>Cordyceps militaris</i>	5218	<i>Tolypocladium lignicola</i>
4195	<i>Verticillium</i> sp.	5014	<i>Cordyceps militaris</i>	5220	<i>Lecanicillium muscarium</i>
4203	<i>Verticillium</i> sp.	5015	<i>Cordyceps militaris</i>	5221	<i>Verticillium lecanii</i>
4398	<i>Verticillium</i> sp.	5016	<i>Cordyceps militaris</i>	5249	<i>Lecanicillium psalliotae</i>
4399	<i>Verticillium</i> sp.	5017	<i>Cordyceps militaris</i>	5250	<i>Verticillium epiphytum</i>

5338	<i>Mariannaea elegans</i>	5759	<i>Lecanicillium lecanii</i>	6501	<i>Verticillium</i> sp.
5349	<i>Mariannaea elegans</i>	5763	<i>Lecanicillium psalliotae</i>	6540	<i>Verticillium lecanii</i>
5350	<i>Mariannaea elegans</i>	5771	<i>Verticillium lecanii</i>	6541	<i>Verticillium lecanii</i>
5354	<i>Harposporium helicoides</i>	5772	<i>Lecanicillium muscarium</i>	6542	<i>Verticillium lecanii</i>
5407	<i>Harposporium anguillulae</i>	5773	<i>Acremonium</i> sp.	6543	<i>Verticillium lecanii</i>
5408	<i>Harposporium anguillulae</i>	5777	<i>Lecanicillium muscarium</i> (?)	6544	<i>Verticillium lecanii</i>
5409	<i>Harposporium anguillulae</i>	5778	<i>Lecanicillium muscarium</i>	6545	<i>Verticillium lecanii</i>
5410	<i>Harposporium</i> sp.	5779	<i>Lecanicillium muscarium</i>	6547	<i>Verticillium lecanii</i>
5413	<i>Mariannaea pruinosa</i>	5780	<i>Lecanicillium muscarium</i>	6548	<i>Verticillium lecanii</i>
5491	<i>Verticillium lecanii</i>	5781	<i>Verticillium lecanii</i>	6554	<i>Verticillium lecanii</i>
5522	<i>Trichoderma</i> sp.	5782	<i>Lecanicillium muscarium</i>	6561	<i>Verticillium lecanii</i>
5523	<i>Trichoderma</i> sp.	5783	<i>Verticillium lecanii</i>	6579	<i>Gliocladium</i> (?) sp.
5524	<i>Trichoderma</i> sp.	5785	<i>Lecanicillium lecanii</i>	6580	<i>Verticillium</i> sp.
5525	<i>Tolypocladium cylindrosporum</i>	5786	<i>Verticillium lecanii</i>	6581	<i>Lecanicillium psalliotae</i>
5526	<i>Tolypocladium cylindrosporum</i>	5787	<i>Lecanicillium lecanii</i>	6582	<i>Lecanicillium psalliotae</i>
5527	<i>Tolypocladium cylindrosporum</i>	5789	<i>Verticillium lecanii</i>	6583	<i>Gliocladium</i> (?) sp.
5528	<i>Tolypocladium cylindrosporum</i>	5791	<i>Lecanicillium muscarium</i>	6584	<i>Simplicillium</i> sp.
5529	<i>Tolypocladium cylindrosporum</i>	5793	<i>Verticillium lecanii</i>	6591	<i>Lecanicillium muscarium</i>
5530	<i>Tolypocladium cylindrosporum</i>	5794	<i>Lecanicillium lecanii</i>	6606	<i>Verticillium lecanii</i>
5531	<i>Tolypocladium cylindrosporum</i>	5795	<i>Lecanicillium muscarium</i>	6632	<i>Gliocladium</i> sp.
5532	<i>Tolypocladium cylindrosporum</i>	5798	<i>Lecanicillium muscarium</i>	6634	<i>Tolypocladium</i> sp.
5538	<i>Tolypocladium cylindrosporum</i>	5804	<i>Cordyceps militaris</i>	6636	<i>Simplicillium lanosoniveum</i>
5558	<i>Tolypocladium cylindrosporum</i>	5809	<i>Verticillium lecanii</i>	6637	<i>Simplicillium lanosoniveum</i>
5559	<i>Tolypocladium cylindrosporum</i>	5820	<i>Verticillium lecanii</i>	6642	<i>Simplicillium lanosoniveum</i>
5578	<i>Lecanicillium fusisporum</i> (?)	5821	<i>Verticillium lecanii</i>	6651	<i>Verticillium lecanii</i>
5579	<i>Lecanicillium fusisporum</i> (?)	5822	<i>Lecanicillium muscarium</i>	6699	<i>Lecanicillium muscarium</i>
5580	<i>Lecanicillium lecanii</i> (?)	5824	<i>Verticillium lecanii</i>	6791	<i>Lecanicillium lecanii</i>
5581	<i>Lecanicillium lecanii</i> (?)	5828	<i>Lecanicillium muscarium</i>	6792	<i>Lecanicillium muscarium</i>
5582	<i>Lecanicillium psalliotae</i>	5829	<i>Lecanicillium lecanii</i>	6886	<i>Lecanicillium lecanii</i>
5583	<i>Lecanicillium fusisporum</i>	5835	<i>Lecanicillium psalliotae</i>	6887	<i>Lecanicillium lecanii</i>
5584	<i>Lecanicillium lecanii</i> (?)	5849	<i>Verticillium lecanii</i>	6888	<i>Lecanicillium lecanii</i>
5585	<i>Lecanicillium lecanii</i> (?)	5852	<i>Verticillium lecanii</i>	6896	<i>Gliocladium</i> (?) sp.
5593	<i>Harposporium anguillulae</i>	5854	<i>Verticillium lecanii</i>	6914	<i>Lecanicillium muscarium</i>
5594	<i>Harposporium anguillulae</i>	5856	<i>Verticillium lecanii</i>	6915	<i>Lecanicillium lecanii</i>
5595	<i>Harposporium anguillulae</i>	5859	<i>Verticillium lecanii</i>	7031	<i>Acremonium</i> (?) sp.
5596	<i>Harposporium arcuatum</i>	6010	<i>Lecanicillium lecanii</i>	7034	<i>Lecanicillium muscarium</i>
5597	<i>Harposporium arcuatum</i>	6025	<i>Verticillium lecanii</i>	7036	<i>Acremonium</i> (?) sp.
5598	<i>Harposporium arcuatum</i>	6035	<i>Lecanicillium muscarium</i>	7037	<i>Lecanicillium muscarium</i>
5599	<i>Harposporium cycloides</i>	6045	<i>Verticillium lecanii</i>	7128	<i>Pochonia chlamydosporia</i>
5600	<i>Harposporium cycloides</i>	6046	<i>Verticillium lecanii</i>	7129	<i>Tolypocladium cylindrosporum</i>
5601	<i>Harposporium janus</i>	6047	<i>Verticillium lecanii</i>	7181	<i>Lecanicillium lecanii</i>
5602	<i>Harposporium leptospira</i>	6050	<i>Verticillium lecanii</i>	7182	<i>Lecanicillium lecanii</i>
5603	<i>Harposporium leptospira</i>	6068	<i>Verticillium lecanii</i>	7206	<i>Lecanicillium longisporum</i>
5604	<i>Harposporium lilliputanum</i>	6071	<i>Lecanicillium psalliotae</i>	7207	<i>Lecanicillium lecanii</i>
5605	<i>Harposporium subuliforme</i>	6085	<i>Verticillium lecanii</i>	7224	<i>Lecanicillium muscarium</i>
5609	<i>Rotiferophthora amamiensis</i>	6118	<i>Lecanicillium muscarium</i>	7248	<i>Lecanicillium muscarium</i>
5610	<i>Rotiferophthora angustispora</i>	6144	<i>Verticillium lecanii</i>	7282	<i>Acremonium alternatum</i>
5611	<i>Rotiferophthora japonica</i>	6145	<i>Verticillium lecanii</i>	7373	<i>Lecanicillium</i> sp.
5612	<i>Rotiferophthora lacrima</i>	6248	<i>Cordyceps militaris</i>	7375	<i>Lecanicillium muscarium</i>
5613	<i>Rotiferophthora minutispora</i>	6250	<i>Verticillium</i> sp.	7385	<i>Lecanicillium lecanii</i>
5614	<i>Rotiferophthora denticulospora</i>	6287	<i>Verticillium lecanii</i>	7402	<i>Acremonium</i> sp.
5615	<i>Tolypocladium lignicola</i>	6289	<i>Lecanicillium lecanii</i> (?)	7407	<i>Lecanicillium</i> sp.
5616	<i>Pochonia microbactrospora</i>	6290	<i>Verticillium lecanii</i>	7408	<i>Lecanicillium lecanii</i>
5617	<i>Haptocillium balanoides</i>	6291	<i>Verticillium lecanii</i>	7456	<i>Tolypocladium cylindrosporum</i>
5618	<i>Haptocillium sinense</i>	6344	<i>Trichoderma viride</i> (?)	7457	<i>Lecanicillium longisporum</i>
5619	<i>Pochonia microbactrospora</i>	6350	<i>Verticillium lecanii</i>	7458	<i>Lecanicillium longisporum</i>
5656	<i>Harposporium bysmatosporum</i>	6430	<i>Simplicillium lanosoniveum</i>	7459	<i>Lecanicillium longisporum</i>
5657	<i>Harposporium subuliforme</i>	6431	<i>Simplicillium lanosoniveum</i>	7460	<i>Lecanicillium muscarium</i>
5658	<i>Harposporium dicorymbum</i>	6432	<i>Simplicillium lanosoniveum</i>	7461	<i>Lecanicillium longisporum</i>
5659	<i>Harposporium anguillulae</i>	6433	<i>Lecanicillium aphanocladii</i>	7462	<i>Lecanicillium lecanii</i>
5666	<i>Lecanicillium psalliotae</i>	6436	<i>Lecanicillium psalliotae</i>	7530	<i>Lecanicillium lecanii</i>
5681	<i>Lecanicillium psalliotae</i>	6448	<i>Simplicillium lamellicola</i>	7539	<i>Tolypocladium cylindrosporum</i>
5683	<i>Lecanicillium psalliotae</i>	6479	<i>Verticillium lecanii</i>	7544	<i>Lecanicillium</i> sp.
5685	<i>Lecanicillium psalliotae</i>	6480	<i>Verticillium</i> sp.	7550	<i>Lecanicillium lecanii</i>
5687	<i>Verticillium pseudoheptapterigenum</i>	6484	<i>Verticillium</i> sp.	7568	<i>Lecanicillium muscarium</i>
5706	<i>Lecanicillium lecanii</i>	6485	<i>Verticillium</i> sp.	7620	<i>Lecanicillium muscarium</i>
5709	<i>Verticillium lecanii</i>	6486	<i>Verticillium</i> sp.	7621	<i>Lecanicillium muscarium</i>
5710	<i>Verticillium lecanii</i>	6487	<i>Verticillium lecanii</i>	7622	<i>Lecanicillium</i> sp.
5713	<i>Verticillium</i> sp.	6498	<i>Verticillium</i> sp.	7623	<i>Simplicillium lanosoniveum</i>
5730	<i>Trichoderma</i> sp.	6500	<i>Verticillium</i> sp.	7624	<i>Lecanicillium</i> sp.

7625 Lecanicillium sp.	8821 Harposporium spirosporium	9930 Lecanicillium sp.
7626 Lecanicillium sp.	8822 Simplicillium lanosoniveum	9931 Lecanicillium sp.
7627 Lecanicillium sp.	8890 Lecanicillium psalliotae	9932 Mariannaea sp.
7628 Lecanicillium sp.	8923 Lecanicillium muscarium	9933 Mariannaea sp.
7629 Lecanicillium sp.	8991 Rotiferophthora angustispora	9934 Mariannaea sp.
7630 Lecanicillium sp.	8992 Rotiferophthora cylindrospora	9935 Lecanicillium sp.
7631 Lecanicillium muscarium	8994 Rotiferophthora brevipes	9936 Lecanicillium sp.
7632 Lecanicillium sp.	8995 Rotiferophthora globospora	9938 Trichoderma sp.
7633 Lecanicillium muscarium	9163 Lecanicillium sp.	10146 Tolypocladium cylindrosporium
7634 Lecanicillium sp.	9175 Lecanicillium sp.	10150 Mariannaea sp.
7635 Lecanicillium sp.	9176 Lecanicillium sp.	10151 Mariannaea sp.
7636 Lecanicillium sp.	9177 Lecanicillium sp.	10152 Mariannaea sp.
7738 Lecanicillium muscarium	9267 Lecanicillium muscarium	10153 Mariannaea sp.
7781 Lecanicillium muscarium	9268 Lecanicillium muscarium	10154 Lecanicillium sp.
7782 Lecanicillium muscarium	9368 Acremonium(?) sp.	10164 Lecanicillium sp.
7783 Lecanicillium longisporum	9369 Lecanicillium(?) sp.	10166 Acremonium bactrocephalum
7784 Lecanicillium longisporum	9382 Harposporium cocleatum	10167 Acremonium bactrocephalum
7785 Lecanicillium muscarium	9385 Rotiferophthora angustispora	10168 Acremonium bactrocephalum
7809 Cordyceps militaris	9386 Rotiferophthora angustispora	10169 Acremonium bactrocephalum
7810 Cordyceps militaris	9387 Rotiferophthora tagenophora	10170 Lecanicillium psalliotae
7812 Tolypocladium cylindrosporium	9440 Lecanicillium aphanocladii	10172 Lecanicillium wallacei(?)
7849 Lecanicillium sp.	9455 Mariannaea elegans	10173 Lecanicillium muscarium
7852 Pochonia chlamydosporia var. chlamydosporia	9456 Mariannaea elegans	10174 Lecanicillium wallacei(?)
7923 Lecanicillium longisporum	9458 Lecanicillium sp.	10175 Lecanicillium psalliotae
7985 Lecanicillium aphanocladii(?)	9459 Lecanicillium sp.	10176 Lecanicillium psalliotae
7986 Lecanicillium aphanocladii(?)	9460 Lecanicillium nr. aranearum	10177 Lecanicillium psalliotae
7987 Lecanicillium aphanocladii(?)	9461 Lecanicillium aphanocladii	10178 Lecanicillium muscarium
7988 Simplicillium lanosoniveum(?)	9462 Lecanicillium muscarium(?)	10179 Lecanicillium psalliotae
7989 Simplicillium lamellicola(?)	9463 Lecanicillium muscarium(?)	10180 Lecanicillium psalliotae
7994 Lecanicillium muscarium	9464 Lecanicillium muscarium(?)	10181 Lecanicillium psalliotae
8011 Cordyceps militaris	9465 Lecanicillium sp.	10182 Lecanicillium psalliotae
8012 Cordyceps militaris	9466 Lecanicillium sp.	10183 Lecanicillium psalliotae(?)
8041 Lecanicillium muscarium	9467 Lecanicillium muscarium	10184 Lecanicillium fusisporum(?)
8042 Lecanicillium longisporum	9468 Lecanicillium muscarium	10185 Mariannaea sp.
8048 Lecanicillium muscarium	9469 Lecanicillium muscarium	10187 Lecanicillium sp.
8049 Lecanicillium muscarium	9470 Lecanicillium muscarium	10188 Lecanicillium sp.
8050 Lecanicillium muscarium	9471 Lecanicillium muscarium	10189 Lecanicillium sp.
8051 Lecanicillium muscarium	9472 Lecanicillium muscarium	10190 Lecanicillium sp.
8052 Lecanicillium muscarium	9473 Lecanicillium psalliotae	10192 Lecanicillium sp.
8053 Lecanicillium muscarium	9474 Lecanicillium psalliotae	10193 Lecanicillium sp.
8054 Lecanicillium muscarium	9477 Lecanicillium muscarium	10194 Mariannaea sp.
8055 Lecanicillium pissodis	9478 Lecanicillium sp.	10195 Lecanicillium sp.
8056 Lecanicillium pissodis	9479 Simplicillium lamellicola	10196 Lecanicillium sp.
8057 Lecanicillium pissodis	9480 Simplicillium lamellicola	10197 Lecanicillium sp.
8114 Lecanicillium muscarium	9481 Simplicillium lamellicola	10198 Lecanicillium sp.
8115 Lecanicillium lecanii	9482 Lecanicillium fungicola	10199 Lecanicillium sp.
8118 Lecanicillium muscarium	9483 Lecanicillium fungicola	10200 Lecanicillium sp.
8157 Lecanicillium muscarium	9484 Cordyceps militaris	10201 Lecanicillium sp.
8162 Lecanicillium muscarium(?)	9494 Pochonia chlamydosporia	10202 Lecanicillium sp.
8163 Lecanicillium muscarium	9495 Pochonia suchlasporia	10203 Lecanicillium sp.
8165 Lecanicillium muscarium	9498 Rotiferophthora angustispora	10204 Mariannaea sp.
8265 Lecanicillium muscarium(?)	9503 Tolypocladium cylindrosporium	10205 Mariannaea sp.
8293 Lecanicillium lecanii(?)	9504 Tolypocladium geodes	10206 Lecanicillium sp.
8294 Lecanicillium lecanii(?)	9505 Tolypocladium geodes	10207 Lecanicillium sp.
8295 Lecanicillium lecanii	9506 Tolypocladium inflatum	10208 Lecanicillium sp.
8296 Lecanicillium muscarium	9507 Tolypocladium inflatum	10209 Lecanicillium sp.
8297 Lecanicillium longisporum	9542 Rotiferophthora sp.	10210 Lecanicillium sp.
8424 Harposporium microsporium	9543 Rotiferophthora sp.	10211 Lecanicillium sp.
8425 Harposporium lilliputanum	9544 Rotiferophthora sp.	10212 Lecanicillium sp.
8426 Harposporium oxycoracum	9545 Rotiferophthora sp.	10213 Lecanicillium sp.
8467 Gliocladium sp.	9546 Rotiferophthora sp.	10214 Lecanicillium sp.
8468 Lecanicillium psalliotae	9547 Rotiferophthora cylindrospora	10215 Lecanicillium sp.
8470 Trichoderma sp.	9548 Rotiferophthora cylindrospora	10216 Lecanicillium sp.
8476 Lecanicillium sp.	9549 Rotiferophthora denticulospora	10217 Lecanicillium sp.
8478 Pochonia chlamydosporia	9609 Lecanicillium sp.	10218 Lecanicillium sp.
8634 Trichoderma sp.	9611 Lecanicillium aphanocladii	10261 Pochonia sp.
8639 Lecanicillium sp.	9615 Lecanicillium aphanocladii	10263 Rotiferophthora sp.
8642 Lecanicillium muscarium	9924 Lecanicillium sp.	10264 Rotiferophthora sp.
8714 Lecanicillium muscarium	9925 Lecanicillium sp.	10265 Rotiferophthora sp.
	9926 Lecanicillium sp.	10266 Rotiferophthora sp.

10267	Rotiferophthora barronii	11798	Lecanicillium sp.
10268	Rotiferophthora globospora	11799	Lecanicillium nr. aranearum
10269	Rotiferophthora guttulaspora	11800	Pochonia bulbillosa
10270	Rotiferophthora intermedia	11801	Pochonia chlamydosporia var. chlamydosporia
10271	Harposporium spirosporum	11802	Lecanicillium muscarium
10273	Rotiferophthora cylindrospora	11803	Lecanicillium muscarium
10274	Rotiferophthora ovispora	11804	Lecanicillium evansii(?)
10275	Harposporium botuliforme	11805	Lecanicillium evansii(?)
10287	Lecanicillium sp.	11806	Lecanicillium evansii(?)
10288	Lecanicillium sp.	11807	Lecanicillium evansii(?)
10289	Lecanicillium sp.	11808	Lecanicillium fuisporum
10290	Lecanicillium sp.	11809	Lecanicillium evansii(?)
10291	Lecanicillium sp.	11810	Pochonia chlamydosporia var. chlamydosporia
10294	Lecanicillium sp.	11811	Lecanicillium nr. aranearum
10295	Lecanicillium sp.	11812	Mariannaea sp.
10296	Lecanicillium sp.	11813	Mariannaea sp.
10297	Lecanicillium sp.	11814	Mariannaea sp.
10298	Lecanicillium sp.	11815	Lecanicillium lecanii(?)
10299	Lecanicillium sp.	11816	Lecanicillium muscarium(?)
10300	Lecanicillium sp.	11817	Lecanicillium lecanii
10301	Lecanicillium sp.	11818	Lecanicillium muscarium
10302	Lecanicillium sp.	11972	Lecanicillium lecanii(?)
10303	Lecanicillium sp.	12052	Lecanicillium sp.
10304	Lecanicillium sp.	12053	Lecanicillium sp.
10305	Lecanicillium sp.	12054	Lecanicillium sp.
10306	Lecanicillium sp.	12055	Lecanicillium sp.
11307	Lecanicillium muscarium	12056	Lecanicillium sp.
11638	Lecanicillium sp.	12057	Lecanicillium sp.
11639	Lecanicillium sp.	12058	Lecanicillium sp.
11640	Lecanicillium sp.	12059	Lecanicillium sp.
11641	Lecanicillium sp.	12060	Lecanicillium sp.
11642	Lecanicillium sp.	12061	Lecanicillium sp.
11643	Lecanicillium sp.	12062	Lecanicillium sp.
11644	Lecanicillium sp.	12063	Lecanicillium sp.
11645	Lecanicillium sp.	12064	Lecanicillium sp.
11646	Lecanicillium sp.	12065	Lecanicillium sp.
11647	Lecanicillium sp.	12066	Lecanicillium sp.
11648	Lecanicillium sp.	12067	Lecanicillium sp.
11649	Lecanicillium sp.	12068	Lecanicillium sp.
11667	Acremonium sp.	12069	Lecanicillium sp.
11696	Lecanicillium sp.	12070	Lecanicillium sp.
11703	Cordyceps militaris	12071	Lecanicillium sp.
11704	Cordyceps militaris	12089	Lecanicillium sp.
11725	Simplicillium lamellicola(?)	12195	Pochonia sp.
11727	Simplicillium lamellicola		
11728	Simplicillium lamellicola		
11729	Simplicillium lamellicola		
11730	Lecanicillium muscarium		
11731	Lecanicillium muscarium		
11732	Simplicillium lamellicola		
11733	Lecanicillium muscarium		
11734	Lecanicillium muscarium		
11735	Simplicillium lamellicola		
11736	Lecanicillium muscarium		
11737	Simplicillium lamellicola		
11738	Simplicillium lamellicola(?)		
11740	Simplicillium lamellicola(?)		
11748	Lecanicillium sp.		
11785	Lecanicillium evansii(?)		
11786	Pochonia chlamydosporia var. chlamydosporia		
11787	Lecanicillium fuisporum		
11789	Lecanicillium evansii(?)		
11791	Lecanicillium evansii(?)		
11792	Lecanicillium evansii(?)		
11793	Lecanicillium evansii(?)		
11794	Lecanicillium evansii(?)		
11795	Lecanicillium evansii(?)		
11796	Lecanicillium evansii(?)		
11797	Lecanicillium evansii(?)		