

USDA-ARS Collection
of Entomopathogenic
Fungal Cultures

ARSEF

Entomophthorales



Emerging Pests and Pathogens Research Unit
Robert W. Holley Center for Agriculture & Health
539 Tower Road
Ithaca, NY 14853

L. A. Castrillo (Acting Curator)
June 2020
Fully Indexed
Includes 1901 isolates

ARSEF COLLECTION STAFF

Louela A. Castrillo, Ph.D.

Acting Curator and Insect Pathologist/Mycologist

Louela.Castrillo@usda.gov

(alt. email: lac48@cornell.edu)

phone: [+1] 607 255-7008

Micheal M. Wheeler

Biological Technician

Micheal.Wheeler@usda.gov

(alt. e-mail: mmw5@cornell.edu)

phone: [+1] 607 255-1274

**USDA-ARS Emerging Pests and Pathogens Research Unit
Robert W. Holley Center for Agriculture & Health
538 Tower Road
Ithaca, NY 14853-2901 USA**

Front cover: Rhagionid fly infected with *Pandora blunckii*. Specimen collected by Eleanor Spence in Ithaca, NY, in June 2019. Photograph and fungus identification by LA Castrillo.

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

Richard A. Humber

Insect Mycologist and Curator, ARSEF (*Retired August, 2017*)

February 2014 (*updated June 2020*)*

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

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

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

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

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

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

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

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

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

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

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

GENERAL AND PHYLOGENETIC RECLASSIFICATIONS OF FUNGI

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

Beauveria — **Rehner et al. 2011; Kepler et al. 2017, Khonsanit et al., 2020**

Fusarium — **O'Donnell et al. 2012**

Isaria - **Mongkolsamrit et al., 2018**

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

Metacordyceps — **Kepler et al. 2012**

Polycephalomyces — **Kepler et al. 2013**

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

Family Clavicipitaceae

Humber (2012)

Metarhizium (syn. *Metacordyceps*, *Nomuraea*, *Pochonia*, *Rotiferophthora*, etc.)

Aschersonia (syn. *Hypocrella*)

Other aschersonioid genera;

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

Updated (see Kepler et al. 2014)

Metarhizium (syn. *Chamaeleomyces*, *Metacordyceps*, *Nomuraea*)

Pochonia

Metapochonia

Rotiferophthora

Aschersonia (syn. *Hypocrella*)

Other aschersonioid genera;

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

Family Cordycipitaceae

Humber (2012)

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

Torrubiella (syn. *Akanthomyces*, *Gibellula*, *Granulomanus*, *Pseudogibellula*)

Ascopolyporus

Conoidiocrella

Updated (see Kepler et al. 2017)*

Cordyceps (synonyms *Isaria*, *Microhilum*, *Evlachovaea*)

Beauveria

Gibellula (synonym: *Granulomanus*)

Hevansia

Ascopolyporus

Conoidiocrella

Simplicillium

Family Ophiocordycipitaceae

Humber (2012)

Elaphocordyceps (synonym *Tolypocladium*)

Ophiocordyceps (synonyms *Hirsutella*², *Hymenostilbe*, *Paraisaria*, *Sorospora*, *Syngliocladium*)

Updated (see Quandt et al. 2014)*

Ophiocordyceps (synonyms *Hirsutella*, *Hymenostilbe*, *Paraisaria*, *Sorospora*, *Syngliocladium*)

Purpureocillium

Tolypocladium (synonym *Elaphocordyceps*)

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 Neozygitaceae	<i>Neozygites</i> , <i>Apterivorax</i> , <i>Thaxterosporium</i>
Class Entomophthoromycetes	
Order Entomophthorales	
Family Ancylistaceae	<i>Ancylistes</i> , <i>Conidiobolus</i> ² , <i>Macrobotophthora</i>
Family Completoriaceae	<i>Completozia</i>
Family Entomophthoraceae	
Subfamily Entomophthoroideae	<i>Entomophthora</i> , <i>Entomophaga</i> , <i>Eryniopsis</i> , <i>Massospora</i> ⁴
Subfamily Erynioideae ³	<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>Tabanomyces</i>

¹ Genus with phylogenetic support but still awaiting formal description.

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

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

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

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

FLAGELLATE FUNGI AND FUNGAL ALLIES

The removal of the Oomycetes (biflagellate 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 *Myiophagus*—needed to be removed from the Chytridiomycota; these semi-terrestrial chytrids with golden-brown resistant sporangia and complex life histories were reclassified by **Hibbett et al. (2007)** into the newer kingdom Blastocladiomycota.

ENTOMOPHTHOROMYCOTA: A NEW PHYLUM*

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

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

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

* Updates by LA Castrillo (June 2020)

REFERENCES

- Bischoff JF**, Rehner SA, Humber RA. 2009. A multilocus phylogeny of the *Metarhizium anisopliae* lineage. *Mycologia* 101: 512–530.
- Braun U**. 2012. The impacts of the discontinuation of dual nomenclature of pleomorphic fungi: the trivial facts, problems, and strategies. *IMA Fungus* 3: 81–86.
- Gryganskyi AP**, Humber RA, Smith ME, Hodge K, Huang B, Voigt K, Vilgalys R. 2012a. Phylogenetic lineages in Entomophthoromycota. *Persoonia* 30: 94–105.
- Gryganskyi AP**, Humber RA, Smith ME, Miadlikovska J, Wu S, Voigt K, Walther G, Anishchenko IM, Vilgalys R. 2012b. Molecular phylogeny of the Entomophthoromycota. *Molecular and Phylogenetic Evolution* 65: 682–694.
- Gams W**, Humber RA, Jaklitsch W, Kirschner R, Stadler M. 2012. Minimizing the chaos following the loss of Article 59: Suggestions for a discussion. *Mycotaxon* 119: 495–507.
- Gams W**, Jaklitsch (& 77 signatories). 2011. Fungal nomenclature 3. A critical response to the ‘Amsterdam Declaration’. *Mycotaxon* 116: 501–512.
- Hawksworth DL**. 2011. A new dawn for the naming of fungi: impacts of decisions made in Melbourne in July 2011 on the future publication and regulation of fungal names. *IMA Fungus* 2: 155–162.
- Hawksworth DL**. 2012. Managing and coping with names of pleomorphic fungi in a period of transition. *IMA Fungus* 3: 15–24.
- Hibbett DS**, Binder M, Bischoff JF, Blackwell M, Cannon PF, Eriksson O, Huhndorf S, James T, Kirk PM, Lücking R, Lumbsch T, Lutzoni F, Matheny PB, McLaughlin DJ, Powell MJ, Redhead S, Schoch CL, Spatafora JW, Stalpers JA, Vilgalys R, Aime MC, Aptroot A, Bauer R, Begerow D, Benny GL, Castlebury LA, Crous PW, Dai Y-C, Gams W, Geiser DM, Griffith GW, Gueidan C, Hawksworth DL, Hestmark G, Hosaka K, Humber RA, Hyde K, Køljalb U, Kurtzman CP, Larsson K-H, Lichtwardt R, Longcore J, Miadlikowska J, Miller A, Moncalvo J-M, Mozley-Standridge S, Oberwinkler F, Parmasto R, Reeb V, Rogers JD, Roux C, Ryvarden L, Sampaio JP, Schuessler A, Sugiyama J, Thorn RG, Tibell L, Untereiner WA, Walker C, Wang A, Weir A, Weiss M, White M, Winka K, Yao Y-J, Zhang N. 2007. A higher-level phylogenetic classification of the Fungi. *Mycological Research* 111: 509–547.
- Hibbett DS**, Taylor JW. 2013. Fungal systematics: Is a new age of enlightenment at hand? *Nature Reviews Microbiology* 11: 129–133.
- Hoffmann K**, Voigt K, Kirk PM. 2011. *Mortierellomycotina* subphyl. nov., based on multi-gene genealogies. *Mycotaxon* 115: 353–363.
- Humber RA**. 2012a. *HURRICANE WARNING!* How changed nomenclatural rules affect fungal entomopathogens. International Congress of Invertebrate Pathology and Microbial Control and 45th Annual meeting of the Society for Invertebrate Pathology. Buenos Aires, Argentina (<http://www.sipweb.org/docs/2012%20meeting%20program.pdf>).

- Humber RA.** 2012b. Entomophthoromycota: a new phylum and reclassification for entomophthoroid fungi. *Mycotaxon* 120: 477–492.
- James TY,** Kauff F, Schoch C, Matheny PB, Hofstetter V, Cox CJ, Celio G, Geuidan C, Fraker E, Miadlikowska J, Lumbsch HT, Rauhut A, Reeb V, Arnold AE, Amtoft A, Stajich JE, Hosaka K, Sung G-H, Johnson D, O'Rourke B, Crockett M, Binder M, Curtis JM, Slot JC, Wang Z, Wilson AW, Schüßler A, Longcore JE, O'Donnell K, Mozley-Standridge S, Porter D, Letcher PM, Powell MJ, Taylor JW, White MM, Griffith GW, Davies DR, Humber RA, Morton JB, Sugiyama J, Rossman A, Rogers JD, Pfister DH, Hewitt D, Hansen K, Hambleton S, Shoemaker RA, Kohlmeyer J, Volkmann-Kohlmeyer B, Spotts RA, Serdani M, Crous PW, Hughes KW, Matsuura K, Langer E, Langer G, Untereiner WA, Lücking R, Büdel B, Geiser DM, Aptroot A, Diederich P, Schmitt I, Schultz M, Yahr R, Hibbett DS, Lutzoni F, McLaughlin DJ, Spatafora JW, Vilgalys R. 2006. Reconstructing the early evolution of Fungi using a six-gene phylogeny. *Nature* (London) 443: 818–822.
- Johnson D,** Sung G-H, Hywel-Jones NL, Luangsa-ard JJ, Bischoff FJ, Kepler RM, Spatafora JW. 2009. Systematics and evolution of the genus *Torrubiella* (Hypocreales, Ascomycota). *Mycological Research* 113: 279–289.
- Keller S,** Petrini O. 2005. Keys to the identification of the arthropod genera of the families Entomophthoraceae and Neozygitaceae (Zygomycetes), with descriptions of three new subfamilies and a new genus. *Sydowia* 57: 23–53.
- Kepler R,** Sung G-H, Ban S, Nakagiri A, Chen M-J, Huang B, Li Z, Spatafora JW. 2012. New teleomorph combinations in the entomopathogenic genus *Metacordyceps*. *Mycologia* 104:182–197.
- Kepler R,** Ban S, Nakagiri A, Bischoff J, Hywel-Jones N, Owensby CA, Spatafora JW. 2013. The phylogenetic placement of hypocrealean insect pathogens in the genus *Polycephalomyces*: An application of One Fungus One Name. *Fungal Biology* 117: 611–622.
- Kepler RM,** Rehner SA. 2013. Genome-assisted development of nuclear intergenic sequence markers for entomopathogenic fungi of the *Metarhizium anisopliae* species complex. *Molecular Ecology Resources* 13: 210–217
- Kepler RM,** Humber RA, Bischoff JF, Rehner SA. 2014. Clarification of generic and species boundaries for *Metarhizium* and related fungi through multigene phylogenetics. *Mycologia* 106: 811–829.
- Kepler RM,** Luangsa-ard J, Hywel-Jones N, Quandt CA, Sung G-H, Rehner SA, Aime MC, Henkel TW, Sanjuan T, Zare R, Chen M, Li Z, Rossman AY, Spatfora JW, Shrestha B. 2017. A phylogenetically-based nomenclature for Cordycipitaceae (Hypocreales). *IMA Fungus* 8: 335–353.
- Khonsanit, A,** Luangsa-ard J, Thanakipipattana D, Noisripoom W, Chaitika, T, Kobmoo N. 2020. Cryptic diversity of the genus *Beauveria* with a new species from Thailand. *Mycological Progress* 19:291–315.
- Korf RP.** 2005. Reinventing taxonomy: a curmudgeon's view of 250 years of fungal taxonomy, the crisis in biodiversity, and the pitfalls of the phylogenetic age. *Mycotaxon* 93: 407–415.
- McNeill J,** Barrie FR, Buck WR, Demoulin V, Greuter W, Hawksworth DL, Herendeen PS, Knapp S, Marhold K, Prado J, Prud'homme van Reine WF, Smith GF, Wiersema JH, Turland NJ. 2012. *International Code of Nomenclature for algae, fungi, and plants* (Melbourne Code). Regnum Vegetabile 154. Koeltz Scientific Books: Koenigstein, Germany. [Also online at <http://www.iapt-taxon.org/nomen/main.php>]
- Money NP.** 2013. Against the naming of fungi. *Fungal Biology* 117: 463–465.
- Mongkolsamrit S,** Noisripoom W, Thanakitpipattana, Wutikhun T, Spatafora, JW, Luangsa-ard J. 2018. Disentangling cryptic species with Isaria-like morphs in Cordycipitaceae. *Mycologia* 110: 230–257.
- O'Donnell K,** Humber RA, Geiser DM, Kang S, Park B, Robert VARG, Crous PW, Johnston PR, Aoki T, Rooney AP, Rehner SA. 2012. Phylogenetic diversity of insecticolous fusaria inferred from multilocus DNA sequence data and their molecular identification via FUSARIUM-ID and Fusarium MLST. *Mycologia* 104: 427–445.
- Quandt CA,** Kepler RM, Gams W, Araujo JPM, Ban S, Evans HC, Hughes D, Humber R, Hywel-Jones N, Li Z, Luangsa-ard J, Rehner SA, Sanjuan T, Sato H, Shrestha B, Sung G-H, Yao Y-J, Zare R, Spatafora JW. 2014. Phylogenetically based nomenclatural proposals for Ophiocordycipitaceae (Hypocreales) with new combinations in *Tolypocladium*. *IMA Fungus* 5:121–134.

Rehner SA, Minnis AM, Sung G-H, Luangsa-ard JJ, Devotto L, Humber RA. 2011. Phylogenetic systematics of the anamorphic, entomopathogenic genus *Beauveria* (Hypocreales, Ascomycota). *Mycologia* 103: 1055–1073. (doi: 10.3852/10-302).

Schoch CL, Seifert KA, Huhndorf S, Robert V, Spouge JL, Levesque CA, Chen W, Bolchacova E, Voigt K, Crous PW, Miller AN, Wingfield MJ, Aime MC, An K-D, Bai F-Y, Barreto RW, Begerow D, Bergeron M-J, Blackwell M, Boekhout T, Bogale M, Boonyuen N, Burgaz AR, Buyck B, Cai L, Cai Q, Cardinali G, Chaverri P, Coppins BJ, Crespo A, Cubas P, Cummings C, Damm U, Beer ZW de, Hoog GS de, Del-Prado R, Dentinger B, Diéguez-Uribeondo J, Divakar PK, Douglas B, Dueñas M, Duong TA, Eberhardt U, Edwards JE, Elshahed MS, Fliegerova K, Furtado M, García MA, Ge Z-W, Griffith GW, Griffiths K, Groenewald JZ, Groenewald M, Grube M, Gryzenhout M, Guo L-D, Hagen F, Hambleton S, Hamelin RC, Hansen K, Harrold P, Heller G, Herrera C, Hirayama K, Hirooka Y, Ho H-M, Hoffmann K, Hofstetter V, Högnabba F, Hollingsworth PM, Hong S-B, Hosaka K, Houbraken J, Hughes K, Huhtinen S, Hyde KD, James T, Johnson EM, Johnson JE, Johnston PR, Jones EBG, Kelly LJ, Kirk PM, Knapp DG, Kõljalg U, Kovács GM, Kurtzman CP, Landvik S, Leavitt SD, Liggenstoffer AS, Liimatainen K, Lombard L, Luangsa-ard JJ, Lumbsch HT, Maganti H, Maharachchikumbura SSN, Martin MP, May TW, et al. 2012. Nuclear ribosomal internal transcribed spacer (ITS) region as a universal DNA barcode marker for Fungi. *Proceedings of the National Academy of Sciences (USA)* 109: 6241–6246.

Spatafora JW, Chang Y, Benny GL, Lazarus K, Smith ME, Berbee ML, Bonito G, Corradi N, Grogoriev I, Gryganskyi A, James TY, O'Donnell K, Roberson RW, Taylor TN, Uehling J, Vilgalys R, White MM. 2016. A phylum-based phylogenetic classification of zygomycete fungi based on genome-scale data. *Mycologia* 108: 1028–1046.

ARS Collection of Entomopathogenic Fungal Cultures

History and Purpose of the ARSEF Collection

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

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

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

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

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

Identifying and Acknowledging ARSEF Strains in Publications

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

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

Depositing and Exchanging Cultures

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

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

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

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

Diagnostic Services for Cultures and Specimens

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

Release of ARSEF Cultures from Containment or Quarantine

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

Ordering Information

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

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

Telephone: [+1] 607 255-7008

OR Email: Louela.Castrillo@usda.gov

Academic, Government, and Other Nonprofit Institutions

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

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

contact Curator

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

Commercial and Industrial Institutions

1–12 isolates [per calendar year]

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

Terms of Shipment

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

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

ARSEF reserves the right to refuse to ship isolates

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

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

Interpretation of Strain Accession Data

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

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

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

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

***Conidiobolus 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.

***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 EPPRU Research Unit, Robert W. Holley Center for Agriculture & Health, Tower Rd., Ithaca, New York, 14853-2901, USA
ATCC	American Type Culture Collection, PO Box 1549, Manassas, Virginia 20108, USA
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza, Proyecto UIP, Apdo. Postal 7170, Turrialba, Costa Rica.
CBS	Centraalbureau voor Schimmelcultures, Uppsalalaan 8, 3584 CT Utrecht, The Netherlands
CCF	Culture Collection of Fungi, Department of Botany, Charles University, Prague, Czech Republic
CCFC	Canadian Collection of Fungus Cultures, Centre for Land and Biological Resources Research, Room 1015, K.W. Neatby Bldg., Ottawa, Ontario K1A 0C6, Canada
CDC	Centers for Disease Control and Prevention, Atlanta, Georgia 30333, USA
CENARGEN	Centro Nacional de Pesquisa de Recursos Geéticos e Biotecnologia, S.A.I.N. Parque Rural, C.P. 102372, 70770 Brasília, D.F., Brazil
CIRI	Corn Insects Research Unit, USDA-ARS, R.R. Box 45B, Ankeny, Iowa 50021, USA
CNPAF	National Center for Agricultural Research on Rice and Beans, EMBRAPA, Goiânia, Goiás, Brazil
CNPS	National Center for Agricultural Research on Soybeans, EMBRAPA, Londrina, Paraná, Brazil
CP	Strains isolated during joint US-Brazil program funded by US-AID to study fungal biocontrol of the insect pests of cowpeas
DAOM	National Mycological Herbarium, Centre for Land and Biological Resources Research, Agriculture Canada, Central Experimental Farm, Ottawa, Ontario, K1A 0C6, Canada
DAR	New South Wales Department of Agriculture, 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

List of isolates by order: Entomophthorales

Unidentified Entomophthorales sp.***Basidiobolus* sp.****Fungal Cultures****Unidentified Entomophthorales sp.**

[Entomophthoromycotina: Entomophthorales]

- 7227 AE Hajek (03 NY 8-1-1). [Diptera: Tipulidae]. 13 Aug 2003. USA: Backyard, 205 Salem Drive, Ithaca, New York.
- 7228 AE Hajek (03 NY 8-1-2). [Diptera: Tipulidae]. 13 Aug 2003. USA: Backyard, 205 Salem Drive, Ithaca, New York.
- 7229 AE Hajek (03 NY 8-1-3). [Diptera: Tipulidae]. 13 Aug 2003. USA: Backyard, 205 Salem Drive, Ithaca, New York.
- 7230 AE Hajek (03 NY 8-1-4). [Diptera: Tipulidae]. 13 Aug 2003. USA: Backyard, 205 Salem Drive, Ithaca, New York.
- 13631 [DK Harris SCA1] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. Summer 2018. USA: Blackshank Farm, Plot 936, Tifton, Georgia.
- 13632 [DK Harris SCA11] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. Summer 2018. USA: Blackshank Farm, Plot 856, Tifton, Georgia.
- 13635 [DK Harris SCA15a] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. Summer 2018. USA: Blackshank Farm Plot 856, Tifton, Georgia.
- 13636 [DK Harris SCA16] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. Summer 2018. USA: Blackshank Farm Plot 856, Tifton, Georgia.
- 13638 [DK Harris SCA20] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. Summer 2018. USA: Blackshank Farm Plot 856, Tifton, Georgia.
- 13639 [DK Harris SCA22] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. Summer 2018. USA: Blackshank Farm Plot 856, Tifton, Georgia.
- 13640 [DK Harris SCA23] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. Summer 2018. USA: Blackshank Farm Plot 856, Tifton, Georgia.
- 13641 [DK Harris SCA24] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. Summer 2018. USA: Blackshank Farm Plot 856, Tifton, Georgia.
- 13642 [DK Harris SCA38] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 8 Aug 2018. USA: FVSU, Tifton, Georgia.
- 13647 [DK Harris SCA48A] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13648 [DK Harris SCA48B] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13649 [DK Harris SCA49] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13650 [DK Harris SCA50] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13651 [DK Harris SCA54] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13652 [DK Harris SCA55] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13653 [DK Harris SCA57] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13655 [DK Harris SCA59] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13656 [DK Harris SCA60] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13657 [DK Harris SCA61] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13658 [DK Harris SCA62] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13659 [DK Harris SCA45] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13660 [DK Harris SCA53] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13767 [DK Harris SCA19b] *Melanaphis sacchari* [Hemiptera: Aphididae]. Summer 2018. USA: Blackshank Farm, Plot 856, Tifton, Georgia.
- 13768 [DK Harris SCA19c] *Melanaphis sacchari* [Hemiptera: Aphididae]. Summer 2018. USA: Blackshank Farm, Plot 856, Tifton, Georgia.

***Basidiobolus* sp.**

[Entomophthoromycotina: Entomophthorales]

Basidiobolaceae

- 270 RK Benjamin ← CW Emmons (2501). *Bufo marinus* (toad) dung. Rec'd Nov 1978. USA: NIH lab, Bethesda, Maryland.
- 271 RK Benjamin ← CW Emmons (2502) ← Lie-Kian-Joe. Frog dung. Rec'd Nov 1978. Indonesia.
- 273 RK Benjamin ← CW Emmons (2507) ← Deshpande. *Homo sapiens* [Primates: Hominidae]. Rec'd Nov 1978. Location not specified.
- 2048 D TeStrake (TL-10). Lizard dung. Rec'd 25 Nov 1985. USA: Tampa, Florida.
- 2049 D TeStrake (TL-12). Lizard dung. Rec'd 25 Nov 1985. USA: Tampa, Florida.
- 2050 D TeStrake (TL-13). Lizard dung. Rec'd 25 Nov 1985. USA: Tampa, Florida.
- 2051 D TeStrake (TT-5). Toad dung. Rec'd 25 Nov 1985. USA: Tampa, Florida.
- 2052 D TeStrake (TT-9). Toad dung. Rec'd 25 Nov 1985. USA: Tampa, Florida.

- 3764 R Nelson. Soil. 1990. Barbados.
- 5336 RA Humber. Lizard dung. Rec'd Aug 1996. USA: Sonoran desert, Tuscon, Arizona.
- 9887 DA Henk (dah11DG1). *Dyscophus guineti* [Anura: Microhylidae] from dung of captive frog. Jul 2009. Switzerland.
- 9888 DA Henk (dah6DL1). *Dendrobates leucomelas* [Anura: Dendrobatidae] from dung of captive frog. Jul 2009. Switzerland.
- 9889 DA Henk (dah8TM1). *Triturus marmoratus* [Caudata: Salamandridae] from dung of captive salamander. Jul 2009. Switzerland.
- 9890 DA Henk (dahBR17). *Hylarana erythraea* [Anura: Ranidae] from dung. Jul 2009. Malaysia.
- 9891 DA Henk (dahBR2). *Hylarana labialis* [Anura: Ranidae] from dung. Jul 2009. Malaysia.
- 9892 DA Henk (dahBR4). *Hylarana glandulosa* [Anura: Ranidae] from dung. Jul 2009. Malaysia.
- 9893 DA Henk (dahBR5). *Hylarana labialis* [Anura: Ranidae] from dung. Jul 2009. Malaysia.
- 9894 DA Henk (dahCH1). *Bufo bufo* [Anura: Bufonidae] from intestine. Jul 2009. United Kingdom: Cambridge, England.
- 9895 DA Henk (dahCH10). *Bufo bufo* [Anura: Bufonidae] from intestine. Jul 2009. United Kingdom: Cambridge, England.
- 9896 DA Henk (dahCH4). *Bufo bufo* [Anura: Bufonidae] from intestine. Jul 2009. United Kingdom: Cambridge, England.
- 9897 DA Henk (dahOWT1). *Bufo bufo* [Anura: Bufonidae] from dung. Jul 2009. United Kingdom: London, England.
- 9898 DA Henk (dahOWT2). *Bufo bufo* [Anura: Bufonidae] from dung. Jul 2009. United Kingdom: London, England.
- 9899 DA Henk (dahOWT3). *Bufo bufo* [Anura: Bufonidae] from dung. Jul 2009. United Kingdom: London, England.
- 9900 DA Henk (dahSAR2A). *Discoglossus* sp. [Anura: Discoglossidae] from dung. Jul 2009. Italy: Sardinia.
- 9901 DA Henk (dahSAR3A). *Discoglossus* sp. [Anura: Discoglossidae] from dung. Jul 2009. Italy: Sardinia.
- 9902 DA Henk (dahSAR4A). *Discoglossus* sp. [Anura: Discoglossidae] from dung. Jul 2009. Italy: Sardinia.
- 9903 DA Henk (dahT14). *Alytes* sp. [Anura: Discoglossidae] from dung. Jul 2009. United Kingdom: London, England.
- 9904 DA Henk (dahT53). *Alytes* sp. [Anura: Discoglossidae] from dung. Jul 2009. United Kingdom: London, England.
- 9905 DA Henk (dahT90). *Alytes* sp. [Anura: Discoglossidae] from dung. Jul 2009. United Kingdom: London, England.
- 9906 DA Henk (dahTF3). *Bufo bufo* [Anura: Bufonidae] from intestine. Jul 2009. United Kingdom: Cambridge, England.
- 9907 DA Henk (dahTF6). *Bufo bufo* [Anura: Bufonidae] from intestine. Jul 2009. United Kingdom: Cambridge, England.
- 9908 DA Henk (dahTF8). *Bufo bufo* [Anura: Bufonidae] from intestine. Jul 2009. United Kingdom: Cambridge, England.
- 9909 DA Henk (dahTPOO1). Tadpole, *Alytes* sp. [Anura: Discoglossidae] from dung. Jul 2009. United Kingdom: London, England.
- 9910 DA Henk (dahU22). *Alytes* sp. [Anura: Discoglossidae] from dung. Jul 2009. United Kingdom: London, England.
- 9911 DA Henk (dahU71). *Alytes* sp. [Anura: Discoglossidae] from dung. Jul 2009. United Kingdom: London, England.
- 9912 DA Henk (dahU84). *Alytes* sp. [Anura: Discoglossidae] from dung. Jul 2009. United Kingdom: London, England.
- 11766 AP Gryganskyi (36). Rec'd 29 May 2012.
- 11767 AP Gryganskyi (37). Rec'd 29 May 2012.
- 11768 AP Gryganskyi (38). Rec'd 29 May 2012.
- 11769 AP Gryganskyi (61). Rec'd 29 May 2012.
- 11770 AP Gryganskyi (62). Rec'd 29 May 2012.
- 11771 AP Gryganskyi (64). Rec'd 29 May 2012.
- 11772 AP Gryganskyi (122). Rec'd 29 May 2012.
- 11773 AP Gryganskyi (123). Rec'd 29 May 2012.
- 11774 AP Gryganskyi (134). Rec'd 29 May 2012.
- 11775 AP Gryganskyi (136). Rec'd 29 May 2012.
- 11776 AP Gryganskyi (137). Rec'd 29 May 2012.
- 11777 AP Gryganskyi (138). Rec'd 29 May 2012.
- 11778 AP Gryganskyi (139). Rec'd 29 May 2012.
- 11779 AP Gryganskyi (140). Rec'd 29 May 2012.
- 11780 AP Gryganskyi (142). Rec'd 29 May 2012.
- 11781 AP Gryganskyi (143). Rec'd 29 May 2012.
- 11782 AP Gryganskyi (144). Rec'd 29 May 2012.
- 11783 AP Gryganskyi (146). Rec'd 29 May 2012.

Basidiobolus haptosporus Drechsler

[Entomophthoromycotina: Entomophthorales]

Basidiobolaceae. Synonym: *Basidiobolus meristosporus* Drechsler. *B. haptosporus* is a probable synonym of *B. ranarum*.

Caution: This species can cause human mycoses; most strains can be demonstrated to survive temperatures $\geq 37^\circ\text{C}$. Exercise caution to avoid inhalation of conidia or contact with cuts or abrasions.

- 261 [NRRL 1232; RSA 228] RK Benjamin ← CW Emons. 4-year-old male, *Homo sapiens* [Primates: Hominidae]. Rec'd Nov 1978. Indonesia.

- 262 [RSA 964] RK Benjamin. Oak leaf mold. 10 May 1960. USA: Rancho Santa Ana Botanical Garden, Claremont, California.
- 263 [RSA 1269] RK Benjamin. Lizard dung. 4 Apr 1963. Mexico: La Suerte, Baja California.
- 264 [RSA 2252] RK Benjamin. Soil under Fremontodendron. Sep 1976. USA: Rancho Santa Ana Botanical Garden, Claremont, California.
- 272 RK Benjamin ← CW Emmons (2505) ← Lie-Kian-Joe. *Homo sapiens* [Primates: Hominidae]. Rec'd Nov 1978. Indonesia. Human mycosis.
- 1347 S Balazy (1580b). [Diptera: Brachycera] attached to decayed wood in a brook. 11 Aug 1983. Poland: Wielkopolski National Park.
- 8307 B Huang (L051203L2). 3 Dec 2005. USA: Cornell Plantations, Ithaca, New York.
- 8309 B Huang (L060407A2). 7 Apr 2006. USA: Bebee Lake, Ithaca, New York.

Basidiobolus haptosporus* var. *minor Srinivasan

& Thirumalachar

[Entomophthoromycotina: Entomophthorales]

Basidiobolaceae

- 8331 [ATCC 16579; CBS 310.66; IMI 118287] MJ Thirumalachar. Rec'd 22 Nov 2007.

Basidiobolus heterosporus Srinivasan & Thirumalachar

[Entomophthoromycotina: Entomophthorales]

Basidiobolaceae

- 8332 [ATCC 16580] Acc'd 23 Feb 2007.

Basidiobolus magnus Drechsler

[Entomophthoromycotina: Entomophthorales]

Basidiobolaceae

- 8330 [ATCC 15379; CBS 205.64; NRRL 3734] C Drechsler. Rec'd 22 Nov 2006.

Basidiobolus meristosporus Drechsler

[Entomophthoromycotina: Entomophthorales]

Basidiobolaceae

- 8329 [ATCC 14450; NRRL 3733] C Drechsler. Acc'd 21 Feb 2007.

Basidiobolus microsporus RK Benjamin

[Entomophthoromycotina: Entomophthorales]

Basidiobolaceae

- 265 [RSA 962] RK Benjamin. Lizard dung. 5 Apr 1960. USA: 5 mi NW of Agua Caliente Hot Springs, San Diego County, California.
- 266 [RSA 977] RK Benjamin. Lizard dung. 22 Apr 1960. USA: 1 mi E of Tecopa Pass, Inyo County, California. CULTURE EX TYPE.
- 267 [RSA 982] RK Benjamin. Duff under debris outside packrat nest. 23 May 1960. USA: 10 mi W of Barstow, Iron Mountain, California.

- 268 [RSA 1737] RK Benjamin. Lizard dung. 6 May 1962. USA: 10 mi S of Weldon, el. 3000 ft, Kern County, California.

- 269 [RSA 2088] RK Benjamin. Rodent dung. 29 Jul 1974. USA: nr. Cajon Pass, San Bernardino County, California.

Basidiobolus ranarum Eidam

[Entomophthoromycotina: Entomophthorales]

Basidiobolaceae. Possible synonyms: *Basidiobolus haptosporus* Drechsler, *Basidiobolus meristosporus* Drechsler.

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

- 260 [RSA 334] RK Benjamin. Toad dung. 27 Apr 1954. USA: Rancho Santa Ana Botanical Garden, Claremont, California.
- 1139 M Shimazu (F-57). *Dendrolimus spectabilis* [Lepidoptera: Lasiocampidae]. Acc'd 3 Apr 1984. Japan: Saitama Prefecture.
- 2787 M Blackwell. Lizard dung. Acc'd 16 Aug 1989. USA: Baton Rouge, Louisiana.
- 5889 R Nelson (USF 50). Fecal pellet of frog *Eumeces inexpectatus*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5890 R Nelson (USF 56). Fecal pellet of frog *Cnemidophorus sexlineatus*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5891 R Nelson (USF 57). Fecal pellet of frog *Gastrophryne carolinensis*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5892 R Nelson (USF 70). Fecal pellet of frog *Scincella lateralis*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5893 R Nelson (USF 71). Fecal pellet of frog *Scaphiopus holbrooki*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5894 R Nelson (USF 74). Fecal pellet of frog *Scincella lateralis*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5895 R Nelson (USF 75). Fecal pellet of frog *Gastrophryne carolinensis*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5896 R Nelson (USF 76). Fecal pellet of frog *Gastrophryne carolinensis*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5897 R Nelson (USF 77). Fecal pellet of frog *Gastrophryne carolinensis*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5898 R Nelson (USF 78). Fecal pellet of frog *Gastrophryne carolinensis*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.

- 5899 R Nelson (USF 79). Fecal pellet of frog *Gastrophryne carolinensis*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5900 R Nelson (USF 80). Fecal pellet of frog *Gastrophryne carolinensis*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5901 R Nelson (USF 84). Fecal pellet of frog *Eumeces inexpectatus*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5902 R Nelson (USF 85). Fecal pellet of frog *Gastrophryne carolinensis*. Jul 1993. USA: University of South Florida Ecology Study Area, Tampa, Florida.
- 5903 R Nelson (USF 90). Isolated from soil sample. Aug 1993. USA: Tampa, Florida.
- 5904 R Nelson (USF SDI). Isolated from soil sample. Aug 1993. USA: University of South Florida Sundome, Tampa, Florida.
- 5905 R Nelson (USF SDII). Isolated from soil sample. Aug 1993. USA: University of South Florida Sundome, Tampa, Florida.
- 5906 R Nelson (USF 78MCZ-1). Miconazole resistant single spore isolate from USF 78 [=ARSEF 5898]. Apr 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5907 R Nelson (USF 78MCZ-2). Miconazole resistant single spore isolate from USF 78 [=ARSEF 5898]. Apr 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5908 R Nelson (USF 78MCZ-11). Miconazole resistant single spore isolate from USF 78 [=ARSEF 5898]. Apr 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5909 R Nelson (USF 78MCZ-15). Miconazole resistant single spore isolate from USF 78 [=ARSEF 5898]. Apr 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5910 R Nelson (USF 78MCZ-16). Miconazole resistant single spore isolate from USF 78 [=ARSEF 5898]. Apr 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5911 R Nelson (USF 78MCZ-18). Miconazole resistant single spore isolate from USF 78 [=ARSEF 5898]. Apr 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5912 R Nelson (USF 78MCZ-19). Miconazole resistant single spore isolate from USF 78 [=ARSEF 5898]. Apr 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5913 R Nelson (USF 78MCZ-20). Miconazole resistant single spore isolate from USF 78 [=ARSEF 5898]. Apr 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5914 R Nelson (USF SD1MCZ-1). Miconazole resistant single spore isolate from USF SD1 [=ARSEF 5904]. Apr 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5915 R Nelson (USF 85Z1). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5916 R Nelson (USF 85Z2). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5917 R Nelson (USF 85Z3). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5918 R Nelson (USF 85Z4). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5919 R Nelson (USF 85Z5). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5920 R Nelson (USF 85Z6). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5921 R Nelson (USF 85Z11). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Sep 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5922 R Nelson (USF 85Z12). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5923 R Nelson (USF 85Z13). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5924 R Nelson (USF 85Z14). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5925 R Nelson (USF 85Z15). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5926 R Nelson (USF 85Z16). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5927 R Nelson (USF 85Z17). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5928 R Nelson (USF 85Z18). Single zygospor culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.

- 5929 R Nelson (USF 85Z20). Single zygospore culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5930 R Nelson (USF 85Z21). Single zygospore culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5931 R Nelson (USF 85Z22). Single zygospore culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5932 R Nelson (USF 85Z23). Single zygospore culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5933 R Nelson (USF 85Z1Z1). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5934 R Nelson (USF 85Z1Z2). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5935 R Nelson (USF 85Z1Z3). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5936 R Nelson (USF 85Z1Z4). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5937 R Nelson (USF 85Z1Z5). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5938 R Nelson (USF 85Z1Z7). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5939 R Nelson (USF 85Z1Z8). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5940 R Nelson (USF 85Z1Z9). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5941 R Nelson (USF 85Z1Z10). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5942 R Nelson (USF 85Z1Z11). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5943 R Nelson (USF 85Z1Z12). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5944 R Nelson (USF 85Z1Z13). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5945 R Nelson (USF 85Z1Z14). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5946 R Nelson (USF 85Z1Z15). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5947 R Nelson (USF 85Z1Z16). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5948 R Nelson (USF 85Z1Z17). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5949 R Nelson (USF 85Z1Z19). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5950 R Nelson (USF 85Z19). Single zygospore culture from isolate USF 85 [=ARSEF 5902]. Jul 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 5951 R Nelson (USF 85Z1Z20). Single zygospore culture from isolate USF 85Z1 [=ARSEF 5915]. Nov 1996. USA: Laboratory manipulation, University of South Florida, Tampa, Florida.
- 6380 AA Callaghan (30) or (04 and 103). From the top 3 cm of litter and soil. Rec'd 20 Dec 1999. United Kingdom: Plantation of *Larix kaempferi*, Staffordshire, Keele, England.
- 6382 AA Callaghan (31) or (01 and 072). From the top 3 cm of litter and soil. Rec'd 20 Dec 1999. United Kingdom: Pasture, Staffordshire, Keele, England.
- 8308 B Huang (L060401C1). 1 Apr 2006. USA: near Maplewood Park, Ithaca, New York.
- 8328 [ATCC 14449] C Drechsler. Isolated from decaying plant residues. Acc'd 21 Feb 2007.
- Batkoa* sp.**
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae
-
- 3131 K Hural (GF-3). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. Oct 1990. USA: Game Farm Rd., Ithaca, New York.
- 5810 RA Humber. [Coleoptera: Cantharidae]. 9 Aug 1998. Denmark.

- 6179 BJ Hicks (3). Larva, *Panolis flammea* [Lepidoptera: Noctuidae]. Jul 1998. United Kingdom: Dallas Forest, Moray District, Scotland.
- 6210 Rec'd 2 Jul 1999.
- 7370 AE Hajek (04 NY 9-1-1). Larva, *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 29 May 2004. USA: Saint Lawrence County, New York.

Batkoa apiculata (Thaxter) Humber

[Entomophthoromycotina: Entomophthorales]

Entomophthoraceae. The nuclei of this taxon stain well and have granular contents when mounted in aceto-orcein or other nuclear stains. This fungus has a morphologically similar ancylistaceous fungus, *Conidiobolus pseudapiculatus* (q.v.), whose nuclei do not stain well and do not have granular contents.

- 67 [IPLB 602] G Remaudière. *Myzus ascalonicus* [Hemiptera: Aphididae]. 13 May 1975. France.
- 129 N Wilding (10). *Myzus persicae* [Hemiptera: Aphididae] on potato. 11 Aug 1976. USA: Rogers Farm, Stillwater, Maine.
- 132 RA Humber. [Hemiptera: Cicadellidae]. 4 Sep 1976. USA: Tuckermann's Ravine, Mt. Washington, New Hampshire.
- 174 FR Holbrook. *Macrosiphum euphorbiae* [Hemiptera: Aphididae] on potato. 7 Jul 1977. USA: Rogers Farm, Stillwater, Maine.
- 395 S Keller (35). Larva, [Hymenoptera]. 10 Aug 1976. Switzerland.
- 839 CSIRO (EM629) ← G Lutton. *Acyrtosiphon kondoi* [Hemiptera: Aphididae] on lucerne "condura". 17 Jun 1981. Australia: nr. Cooma, Umerella Station, New South Wales.
- 919 [ARSEF 1661] S Keller (450). [Diptera: Sciaridae]. Nov 1982. Switzerland: Zürich.
- 927 [ARSEF 1660] S Keller (449). [Diptera: Sciaridae]. Nov 1982. Switzerland: Zürich.
- 1146 M Shimazu (F-382). *Brevicoryne brassicae* [Hemiptera: Aphididae]. Acc'd 4 Apr 1984. Japan: Shizuoka Prefecture.
- 1660 [ARSEF 927] S Keller (449). [Diptera: Sciaridae]. Nov 1982. Switzerland: Zürich.
- 1661 [ARSEF 919] S Keller (450). [Diptera: Sciaridae]. Nov 1982. Switzerland: Zürich.
- 2504 J Eilenberg (KVL 29). *Acyrtosiphon pisum* [Hemiptera: Aphididae]. Apr 1987. Denmark: Karlebo, Zealand.
- 3080 SP Wraight. *Rhopalosiphum padi* [Hemiptera: Aphididae]. 22 Jun 1990. USA: irrigated wheat field, Piedmont Organic Produce Farm, Wellington, Colorado.
- 3088 MG Feng (MTRM9001). *Rhopalosiphum maidis* [Hemiptera: Aphididae] on late-sown spring grain crop. 31 Jul 1990. USA: Bozeman, Montana.
- 3091 MG Feng (MTRM9004). *Rhopalosiphum maidis* [Hemiptera: Aphididae] on late-sown spring grain crop. 7 Aug 1990. USA: Bozeman, Montana.
- 3130 K Hural (GF-2). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. Oct 1990. USA: Game Farm Rd., Ithaca, New York. possibly one vial left.
- 3136 K Hural (Hoff-1). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 16 Oct 1990. USA: Hoffman field, Catherine, New York.
- 3140 K Hural (Hoff-5). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 16 Oct 1990. USA: Hoffman field, Catherine, New York.
- 3224 P Folker-Hansen (E and 020590). *Bradysia paupera* [Diptera: Sciaridae]. 2 May 1990. Denmark.
- 3225 P Folker-Hansen (F and 040590). *Bradysia paupera* [Diptera: Sciaridae]. 4 May 1990. Denmark.
- 3226 P Folker-Hansen (I and 080990). *Bradysia paupera* [Diptera: Sciaridae]. 8 Sep 1990. Denmark.
- 5552 KT Hodge. Adult, [Hemiptera: Cicadellidae]. 17 Sep 1997. McLean: Eames' Bog.
- 5994 C Nielsen (KVL 98-17). Alate, *Rhopalosiphum padi* [Hemiptera: Aphididae] on *Prunus padus*. 25 Sep 1998. Denmark: Copenhagen, Zealand.

Batkoa gigantea (S Keller) Humber

[Entomophthoromycotina: Entomophthorales]

Entomophthoraceae

- 214 S Keller (74). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd Spring 1978. Switzerland.
- 215 S Keller (75). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd Spring 1978. Switzerland.
- 403 [FPMI 768] S Keller (36). *Tipula paludosa* [Diptera: Tipulidae]. 8 Sep 1976. Switzerland.

Batkoa major (Thaxter) Humber

[Entomophthoromycotina: Entomophthorales]

Entomophthoraceae

- 6 RS Soper. *Macrosiphum euphorbiae* [Hemiptera: Aphididae]. 26 Jul 1972. USA: Aroostook State Farm, Presque Isle, Maine.
- 1427 RS Soper (84528-1). [Hemiptera: Aphididae]. 28 May 1984. Yugoslavia: plum orchard, Zemun, Belgrade.
- 2936 H Firstencel. *Empoasca fabae* [Hemiptera: Cicadellidae]. 5 Jan 1990. USA: laboratory colony, Ithaca, New York.
- 3102 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 13 Sep 1990. USA: Hoffman field # 6G, Catherine, New York.
- 3103 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 4 Sep 1990. USA: laboratory colony, Ithaca, New York.
- 12251 K Adesso. Adult, *Drosophila suzukii* [Diptera: Drosophilidae] on fruit of *Cornus kousa* Hance, kousa dogwood. 16 Aug 2013. USA: Tennessee State University, Otis L. Floyd Nursery Research Center, McMinnville, Tennessee.

13769 [E Clifton ; AE Hajek SLF 213-7] *Lycorma delicatula* [Hemiptera: Fulgoridae]. 9 Oct 2018. USA: Altietam Lake Park & Orchard, Reading, Berks County, Pennsylvania. 40.358487, -75.883432.

Batkoa papillata(?) (Thaxter) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

7068 MM White (NF-7-W3a). [Diptera: Simuliidae]. Rec'd 16 Oct 2002. Canada: Newfoundland.

Batkoa pseudapiculatus S Keller
[Entomophthoromycotina: Entomophthorales]

Ancylistaceae. This species is morphologically similar to *Batkoa apiculata* (q.v.) in the size and shape of its primary conidia and production of stout rhizoids with a discoid holdfast.

- 196 CBS (207.66) ← M Gustafsson. Acc'd 25 Jan 1978. Location not specified.
- 1662 [IPLB 698] S Keller (478) ← JP Latgé. Rec'd 16 Oct 1984. Location not specified.
- 1663 [IPLB 706] S Keller (479) ← JP Latgé. Rec'd 16 Oct 1984. Location not specified.
- 1664 [IPLB 877] S Keller (480) ← JP Latgé. Rec'd 16 Oct 1984. Location not specified.
- 1665 [IPLB 1027] S Keller (482) ← JP Latgé. Rec'd 16 Oct 1984. Location not specified.
- 2493 J Eilenberg (KVL 6). *Psila rosae* [Diptera: Psilidae]. 25 May 1986. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2496 J Eilenberg (KVL 11). *Psila rosae* [Diptera: Psilidae]. 2 Jun 1986. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2497 J Eilenberg (KVL 21). *Psila rosae* [Diptera: Psilidae]. 11 Aug 1986. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2502 J Eilenberg (KVL 24). *Psila rosae* [Diptera: Psilidae]. Aug 1986. Denmark: Strandholm, Fårevejle, Vestsjælland.

Conidiobolus sp.

[Entomophthoromycotina: Entomophthorales]

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

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

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

- 81 RG Kenneth (3082) or (C.o. 10) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Mar 1976. Israel: Sedé Eliyahu.
- 89 JD Vandenberg. [Diptera: Tipulidae] on spruce. 29 Jun 1976. USA: campground on pond, McNally, Maine.
- 92 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 1976. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.
- 93 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 1976. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.
- 94 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 1976. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.
- 147 JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 26 Jun 1977. USA: Carroll, Maine.
- 148 JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 20 Jun 1977. USA: forest, Maine.
- 211 DW Roberts. *Nilaparvata lugens* [Hemiptera: Delphacidae]. 27 Mar 1978. India: insectary, Hyderabad, Andhra Pradesh.
- 391 S Keller (21). [Hemiptera: Cercopidae]. Rec'd 18 Oct 1979. Switzerland.
- 516 DW Roberts (82380-10). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 23 Aug 1980. Malaysia: Bumbong Lima, Icepala Batas, Wellesley Province.
- 517 DW Roberts (82380-19). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 23 Aug 1980. Malaysia: Bumbong Lima, Icepala Batas, Wellesley Province.
- 521 DW Roberts (82180-4b). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 21 Aug 1980. Malaysia.
- 522 DW Roberts (82180-7b). *Nilaparvata lugens* [Hemiptera: Delphacidae] on leaves. 21 Aug 1980. Malaysia.
- 564 RS Soper (8133-1/BPH-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 3 Mar 1981. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
- 595 RS Soper (81227-2). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 27 Feb 1981. Indonesia: Bantul District, Yogyakarta, Java.
- 596 RS Soper (81226-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 26 Feb 1981. Indonesia: Bantul District, Yogyakarta, Java.
- 604 RS Soper (8133-2). *Sogatella furcifera* [Hemiptera: Delphacidae]. 3 Mar 1981. Indonesia: Pangkep Kaba, Sulawesi Selatan, Celebes.
- 605 RS Soper (8133-1). *Nephotettix bipunctata cincticeps* [Hemiptera: Cicadellidae]. 3 Mar 1981. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.

- 606 RS Soper (8133-1). *Nephotettix bipunctata cincticeps* [Hemiptera: Cicadellidae]. 3 Mar 1981. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
- 999 J Aoki (Ent. 45) ← T Kobayashi. [Hemiptera: Aphididae]. Jun 1981. Japan: Fuchu, Tokyo Prefecture.
- 1426 RS Soper (8465-1). [Hemiptera: Aphididae] on rose. 6 May 1984. Yugoslavia: Plant Protection Institute, Belgrade.
- 1444 M Smith (L05 and 001). Soil/plant detritus. 1984. United Kingdom: marshy area by pool, U. of Keele, Staffordshire, England.
- 1445 M Smith (K13 and 004). Soil/plant detritus. 1984. United Kingdom: turf behind Keele Hall, U. of Keele, Staffordshire, England.
- 1477 [CNPAF 84-04-25-2; CP 167] SM dos Santos. [Orthoptera: Tettigoniidae]. 25 Apr 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1485 M Smith (N01 and 141). Soil/plant detritus. 1984. United Kingdom: grazed pasture behind Keele Hall, U. of Keele, Staffordshire, England.
- 1486 M Smith (O08 and 017). Soil/plant detritus. 1984. United Kingdom: wheat field, U. of Keele, Staffordshire, England.
- 1487 M Smith (Q01 and 119). Soil/plant detritus. 1984. United Kingdom: grazed pasture behind Keele Hall, U. of Keele, Staffordshire, England.
- 1488 M Smith (I01 and 020). Soil/plant detritus. 1984. United Kingdom: grazed pasture behind Keele Hall, U. of Keele, Staffordshire, England.
- 1672 GO Poinar ← GM Thomas. *Porcellio* sp. [Isopoda: Oniscoidea]. 5 Jun 1984. USA: California.
- 1967 T Burger. *Schizaphis graminum* [Hemiptera: Aphididae]. Aug 1985. USA: laboratory colony, APHIS-PPQ, Niles, Michigan.
- 2130 IL Sivcev (160/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 2 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2147 MA Naves. *Deois* sp. [Hemiptera: Cercopidae]. 4 Mar 1986. Brazil: Mato Grosso.
- 2148 MA Naves. *Deois flavopicta* [Hemiptera: Cercopidae]. 21 Mar 1986. Brazil: Mato Grosso.
- 2193 [CNPAF 86-5-19; CP 203] SM dos Santos. [Hymenoptera]. 19 May 1986. Brazil: CNPAF, Goiânia, Goiás.
- 2494 J Eilenberg (KVL 15). [Diptera: Anthomyiidae]. 25 Jul 1986. Denmark: Svanholm, Malmöhus.
- 2498 J Eilenberg (KVL 25). *Ptychoptera contaminata* [Diptera: Ptychopteridae]. 25 Aug 1986. Denmark: Kattinge Vig, Roskilde.
- 2508 [CP 235] SM dos Santos. *Musca branca* [Diptera: Muscidae]. 28 Feb 1987. Brazil: house, Goiânia, Goiás.
- 2672 J Eilenberg (KVL 49). *Delia radicum* [Diptera: Anthomyiidae]. 2 Aug 1988. Denmark: Roskilde, Zealand.
- 2771 GW Riethmacher (C3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 11 Apr 1989. Philippines: La Trinidad, Benguet.
- 2772 GW Riethmacher (C4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 14 Apr 1989. Philippines: La Trinidad, Benguet.
- 2815 GW Riethmacher (C5). *Plutella xylostella* [Lepidoptera: Plutellidae]. 14 Apr 1989. Philippines: La Trinidad, Benguet.
- 2816 GW Riethmacher (C6). *Plutella xylostella* [Lepidoptera: Plutellidae]. 9 Jun 1989. Philippines: La Trinidad, Benguet.
- 2819 SR Sánchez Peña (4-2). Adult:queen, *Solenopsis invicta* [Hymenoptera: Formicidae] soil. 5 Aug 1989. USA: College Station, Texas.
- 2924 CDC (B-4742). Nasal granulomata of sheep. Rec'd 13 Dec 1989. Australia.
- 2925 CDC (B-4741). Nasal granulomata of sheep. Rec'd 13 Dec 1989. Australia.
- 2926 CDC (B-4743). Nasal granulomata of sheep. Rec'd 13 Dec 1989. Australia.
- 2927 CDC (B-4744). Nasal granulomata of sheep. Rec'd 13 Dec 1989. Australia.
- 2928 [UTMB 3109] L Pasarell. *Homo sapiens* [Primates: Hominidae]. Rec'd 18 Sep 1989. USA: Port Arthur, Texas.
- 3208 GW Riethmacher (C4.1a). *Plutella xylostella* [Lepidoptera: Plutellidae]. 16 Oct 1990. Philippines: La Trinidad, Benguet.
- 3383 I Majchrowicz (18). *Aphis fabae* [Hemiptera: Aphididae] on bean. 27 Jun 1991. USA: Grandpa's garden, Granger, Washington.
- 3384 I Majchrowicz (25-b). *Myzus persicae* [Hemiptera: Aphididae] on potato. 11 Jul 1991. USA: Orchard Farm, Yakima, Washington.
- 3402 MS Goettel (17) ← G Pohl and D Yu. 30 Sep 1991. Canada: Agriculture Canada Research Station, Lethbridge, Alberta.
- 3406 BJ Cochrane ← K Chernov (V). Soil. Rec'd 7 Oct 1991. USA: mowed USF grounds by UPD, Tampa, Florida.
- 3407 BJ Cochrane ← K Chernov (VI). Soil. Rec'd 7 Oct 1991. USA: mowed USF grounds by UPD, Tampa, Florida.
- 3409 BJ Cochrane ← K Chernov (Ruby Mine). Soil. Rec'd 7 Oct 1991. USA: exposed mountainside, Franklin, North Carolina.
- 3763 R Nelson. Jun 1992. Costa Rica.
- 5404 BL Parker (GA-113). *Gargara* sp. [Hemiptera: Membracidae] on wild cereal. Jun 1996. USA: Burlington, Vermont.

- 5405 BL Parker (GA-169). *Gargara* sp. [Hemiptera: Membracidae] on wild cereal. 17 Aug 1996. Canada: Philipsburg, Québec.
- 5406 BL Parker (GA-169A). *Gargara* sp. [Hemiptera: Membracidae] on wild cereal. 17 Aug 1996. Canada: Philipsburg, Québec.
- 5712 RA Humber. From forest litter. 2 May 1998. Republic of Korea: Kangwon National University Forest Plantation, Chuncheon, Kangwon-do.
- 6424 MK Er. 3rd instar larva, *Tipula paludosa* [Diptera: Tipulidae]. 18 Dec 1999. United Kingdom: Grassland for recreation, Northumberland, England.
- 6505 S Gouli and V Gouli (GA-348). From soil. May 1999. USA: Guilford, Vermont.
- 6659 JL Hatting. *Eriosoma lanigerum* [Hemiptera: Aphididae] feeding underground on apple tree roots. 24 Jul 2000. South Africa: Oak Valley, Western Cape, Cape Province.
- 7216 [SRCAMB B-157] V Likhovidov ← BA Borisov. Rec'd 29 Sep 2003.
- 7786 [CEP 184] C López Lastra ← A Toledo. Adult, male, *Oliarus dimidiatus* [Hemiptera: Cixiidae] on *Oryza sativa* L., rice crop. 28 Mar 2005. Argentina: Estación experimental Julio Hirschhorn, Los Hornos, Buenos Aires.
- 7942 B Huang (B1). Leaf litter. Nov 2005. USA: Cornell Plantations, Mundy Wildflower Garden, Ithaca, New York.
- 8313 B Huang (GSM3-L-1C1). 7 Oct 2006. USA: Great Smoky Mountains National Park, Tennessee.
- 8314 B Huang (GSM3-L-1C2). Acc'd 26 Jan 2007. USA: Great Smoky Mountains National Park, Tennessee.
- 8429 B Huang (M051114A3). 14 Nov 2005. USA: Cornell Plantations, Ithaca, New York.
- 11650 [ERL 1788/1c] S Gouli and V Gouli (HWA-G-50/c). *Adelges tsugae* [Hemiptera: Adelgidae]. 2009. USA: New Hampshire.
- 11763 [ERL 2078] S Gouli (THR-11-67) and V Gouli. [Protura]. 2011. USA: Sharon Springs, New York.
- 11765 AP Gryganskyi (102). Rec'd 29 May 2012.
- 11867 JL Hatting (SGI-915). [Collembola]. Oct 2012. South Africa: Bergville, KwaZulu-Natal.
- 12338 KL O'Donnell (con-2) ← UM Tendolkar. *Homo sapiens* [Primates: Hominidae]. Rec'd 27 Aug 2013. India. Isolated from conidiobolomycosis of the rhinofacial area.
- 12543 UM Tendolkar. *Homo sapiens* [Primates: Hominidae]. Rec'd 19 May 2014. India. Isolated from conidiobolomycosis of the rhinofacial area.
- Conidiobolus adiaeretus*** Drechsler
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae
-
- 451 [CBS 136.57; DS King C-23] ATCC (12589) ← C Drechsler. Plant detritus. Acc'd 28 Apr 1980. USA: Maryland. CULTURE EX TYPE.
- 6377 AA Callaghan (62) or (04 and 041). From the top 3 cm of litter and soil. Rec'd 20 Dec 1999. United Kingdom: Plantation of *Larix kaempferi*, Staffordshire, Keele, England.
- 8320 B Huang (3-litter-1 A). 7 Oct 2006. USA: Great Smoky Mountains National Park, Tennessee.
- 8427 B Huang (M051114A1). Moss. 14 Nov 2005. USA: Cornell Plantations, Ithaca, New York.
- Conidiobolus antarcticus*** Tosi, Caretta & Humber
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae. Mycotaxon 90: 343-347 (2004)
-
- 6913 G Caretta and S Tosi. 2 Feb 1999. Antarctica: Kohler Head, Victoria Land. CULTURE EX TYPE.
- Conidiobolus bangalorensis*** Srinivasan & Thirumalachar
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae
-
- 449 [HACC 190; IMI 118284; NRRL 3682] ATCC (16576) ← MC Srinivasan and MJ Thirumalachar. Plant detritus. 1966. India: Bangalore, Karnataka. CULTURE EX TYPE.
- Conidiobolus brefeldianus*** Couch
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae
-
- 452 ATCC (28847) ← DS King (C-31) ← CBS (141.39) ← JN Couch. Acc'd 28 Apr 1980. USA: North Carolina. CULTURE EX TYPE.
- Conidiobolus coronatus*** (Costantin) Batko
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae. Major synonyms: *Entomophthora coronata* (Costantin) Kevorkian, *Conidiobolus villosus* Martin.
- Caution:** This species is known to cause human mycoses that are primarily tropical in occurrence and confined to the nasal passages and adjacent superficial areas. Avoid inhalation of conidia and do not handle cultures without gloves if unhealed cuts or abrasions are present. This species has low pathogenicity for mammals and should be relatively safe if handled with good microbiological technique.
-
- 56 RS Soper. *Myzus persicae* [Hemiptera: Aphididae]. 29 Aug 1975. USA: Presque Isle, Maine.
- 61 *Myzus persicae* [Hemiptera: Aphididae]. Jun 1975. Commonwealth of Independent States.
- 66 21 Jul 1975. Commonwealth of Independent States.
- 96 [ARSEF 1738] N Wilding (32) ← C Dedryver. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 3 Sep 1975. United Kingdom: laboratory colony, Rothamsted Experimental Station, Hertfordshire, England.
- 205 ATCC (28691) ← DS King (75). Plant detritus. Rec'd 9 Mar 1978. USA.

- 206 [IPLB 951.72] ATCC (32867) ← F Mariat. *Homo sapiens* [Primates: Hominidae]. Rec'd 9 Mar 1978. Nigeria.
- 274 BE Tucker (171). Soil from roots under *Helosis* sp. [Balanophoraceae]. Acc'd 27 Mar 1979. Costa Rica: 9.783°N lat, 83.999°W long, elev. 1950 ft, Casa Mata.
- 329 RS Soper. *Nilaparvata lugens* [Hemiptera: Delphacidae]. 13 Feb 1979. Australia: Arriga, Queensland.
- 330 RS Soper. *Nilaparvata lugens* [Hemiptera: Delphacidae]. 13 Feb 1979. Australia: Arriga, Queensland.
- 349 RS Soper. *Nilaparvata lugens* [Hemiptera: Delphacidae]. 16 Feb 1979. Australia: Cairns, Queensland.
- 405 DW Roberts. *Nilaparvata lugens* [Hemiptera: Delphacidae]. Nov 1979. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.
- 406 DW Roberts. *Nilaparvata lugens* [Hemiptera: Delphacidae]. Nov 1979. Philippines: IRRI greenhouse, Parian, Calamba, Laguna.
- 418 DW Roberts (A). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Nov 1979. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.
- 419 DW Roberts (B). [Hemiptera: Cicadellidae]. Nov 1979. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.
- 420 DW Roberts (C). [Hemiptera: Cicadellidae]. Nov 1979. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.
- 421 DW Roberts (E). [Hemiptera: Cicadellidae]. Nov 1979. Philippines: IRRI greenhouse, Parian, Calamba, Laguna.
- 422 DW Roberts (F). [Hemiptera: Cicadellidae]. Nov 1979. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.
- 462 RS Soper (1B). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Philippines: IRRI, Los Baños, Manila.
- 463 RS Soper (2C). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Philippines: IRRI, Los Baños, Manila.
- 464 RS Soper (2A). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Philippines: IRRI, Los Baños, Manila.
- 465 RS Soper (2D). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Philippines: IRRI, Los Baños, Manila.
- 471 [DAR 30604] J Walker. Casing soil of *Agaricus brunnescens* [Hymenomycetes: Agaricales]. Apr 1978. Australia: R.D. 67, nr. Rydalmere, McGrath's Hill, New South Wales.
- 511 DW Roberts (81380-4). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 13 Aug 1980. Philippines: IRRI, Los Baños, Manila.
- 512 DW Roberts (82180-4a). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 21 Aug 1980. Malaysia.
- 514 DW Roberts (82180-7c). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 21 Aug 1980. Malaysia.
- 515 DW Roberts (82380-18). *Nephotettix bipunctata cincticeps* [Hemiptera: Cicadellidae]. 23 Aug 1980. Malaysia: Bumbong Lima, Icepala Batas, Wellesley Province.
- 519 DW Roberts (82980-4). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 29 Aug 1980. Thailand: NBRC cages.
- 520 DW Roberts (82380-20). *Nephotettix bipunctata cincticeps* [Hemiptera: Cicadellidae]. 23 Aug 1980. Malaysia: cages, Bumbong Lima, Icepala Batas, Wellesley Province.
- 523 DW Roberts (82380-22). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 23 Aug 1980. Malaysia: cages, Bumbong Lima, Icepala Batas, Wellesley Province.
- 524 DW Roberts (82180-4c). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 21 Aug 1980. Malaysia.
- 525 DW Roberts (82880-11). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 28 Aug 1980. Thailand: rearing cage, Chainat Rice Exp. Sta., N of Bangkok, Khlung Luang.
- 526 DW Roberts (82380-23). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 23 Aug 1980. Malaysia: cages, Bumbong Lima, Icepala Batas, Wellesley Province.
- 528 DW Roberts (82980-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 28 Aug 1980. Thailand: NBRC cages.
- 553 P Kanagaratnam. *Nilaparvata lugens* [Hemiptera: Delphacidae] on caged paddy seedlings. Feb 1981. Sri Lanka: Peradeniya.
- 563 RS Soper (8133-1/BPH-2). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 3 Mar 1981. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
- 565 RS Soper (8133-1/BPH-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 3 Mar 1981. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
- 567 RS Soper (81224-2). [Araneida]. 24 Feb 1981. Indonesia: Diski Village, Medan District, Sumatera Utara.
- 597 RS Soper (8133-1). *Nephotettix bipunctata cincticeps* [Hemiptera: Cicadellidae]. 3 Mar 1981. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
- 655 DW Roberts (102381-6). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 23 Oct 1981. PR China: Guanzhou, Kwon Tung.
- 997 J Aoki (Ent. 11) ← M Shimazu. *Nilaparvata lugens* [Hemiptera: Delphacidae]. Jul 1976. Japan: Chikugo, Fukuoka Prefecture.
- 1147 LI Rivera-Vargas. *Volvariella volvacea* [Agaricales]. 1984. USA: Mayaguez, Puerto Rico.
- 1572 S Keller (490). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 1984. Switzerland.

- 1573 S Keller (491). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 1984. Switzerland.
- 1574 S Keller (493). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 1984. Switzerland.
- 1575 S Keller (494). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 1984. Switzerland.
- 1673 M Shimazu (F-28). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Japan: Fukuoka Prefecture.
- 1736 N Wilding (4). *Myzus persicae* [Homoptera: Aphididae] isolate (Wilding # 3) passed through *Galleria mellonella* [Lepidoptera: Pyralidae] larva. Feb 1969. Laboratory manipulation.
- 1737 N Wilding (5). *Myzus persicae* [Homoptera: Aphididae] isolate (Wilding # 3) passed through *Galleria mellonella* [Lepidoptera: Pyralidae] larva. Feb 1969. Laboratory manipulation.
- 1738 [ARSEF 96 (lost)] N Wilding (32) ← C Dedryver. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 3 Sep 1984. United Kingdom: laboratory colony, Rothamsted Experimental Station, Hertfordshire, England.
- 1876 DG Holdom (2). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 8 Mar 1985. Indonesia: Cikampek, Jawa Barat, Java.
- 1884 [CP 173] DW Roberts ← J Brunes. *Mocis latipes* [Lepidoptera: Noctuidae]. 31 Jan 1985. Brazil: CNPAF, Goiânia, Goiás.
- 2715 J Newton ← M Masri. Male, *Equus ferus caballus* [Perissodactyla: Equidae]. Mar 1989. USA: Baton Rouge, Louisiana.
- 2730 GW Riethmacher (C1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 6 Apr 1989. Philippines: La Trinidad, Benguet.
- 2812 MG Feng (MD8904). *Metopolophium dirhodum* [Hemiptera: Aphididae] on spring wheat. 21 Jul 1989. USA: Parma, Idaho.
- 2813 MG Feng (MD8905). *Metopolophium dirhodum* [Hemiptera: Aphididae] on spring wheat. 21 Jul 1989. USA: Parma, Idaho.
- 2814 MG Feng (MD8906). *Metopolophium dirhodum* [Hemiptera: Aphididae] on spring wheat. 21 Jul 1989. USA: Parma, Idaho.
- 3087 M Wheeler ← RP Korf. [Dacrymycetales]. 12 Sep 1990. USA: Lloyd/Cornell-Ringwood Nat. Pres., Ithaca, New York.
- 3099 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 20 Sep 1990. USA: Hoffman field # 4B, Catherine, New York.
- 3109 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 25 Sep 1990. USA: Hoffman field # 4E, Catherine, New York.
- 3222 LS Osborne. *Frankliniella occidentalis* [Thysanoptera: Thripidae]. Rec'd 14 Mar 1991. USA: greenhouse, IFAS, Univ. of Florida, Apopka, Florida.
- 3379 K Ostrovska (4) ← PG Lawlor. *Lutzomyia* sp. [Diptera: Psychodidae]. Jul 1991. Guatemala: Tical, Petén.
- 3414 K Ostrovska (21) ← MV Herrero. Female, *Lutzomyia sordelli* [Diptera: Psychodidae]. 22 Sep 1991. Costa Rica: Santa Rosa National Park, Guanacaste.
- 3415 K Ostrovska (22) ← MV Herrero. Female, *Lutzomyia sordelli* [Diptera: Psychodidae]. 22 Sep 1991. Costa Rica: Santa Rosa National Park, Guanacaste.
- 4797 [INIA 2193] J Eilenberg (KVL 614). *Epinotia aporema* [Lepidoptera: Tortricidae]. 4 May 1994. Uruguay.
- 5162 S Gouli (GP-69). Larva, Phylum Arthropoda, Class Insecta. 24 May 1995. USA: R. Angellilo's sugar maple stand, North Field, Vermont.
- 6379 AA Callaghan (45) or (04 and 012). From the top 3 cm of litter and soil. Rec'd 20 Dec 1999. United Kingdom: Plantation of *Larix kaempferi*, Staffordshire, Keele, England.
- 6512 S Gouli and V Gouli (GA-361). [Thysanoptera: Thripidae] on *Tagetes erecta* L., marigold. 3 Oct 1999. USA: Burlington, Vermont.
- 7010 M Greif (EIAW 369). [Araneida]. 24 Aug 2001. Canada: Amisk Lake trail, Elk Island National Park, Alberta.
- 7011 M Greif (EIAW 389). [Hymenoptera: Formicidae]. 31 Aug 2001. Canada: Amisk Lake trail, Elk Island National Park, Alberta.
- 7012 M Greif (EIAW 400). [Opiliones:Palpatores]. 31 Aug 2001. Canada: Amisk Lake trail, Elk Island National Park, Alberta.
- 7013 M Greif (EIAW 410). [Opiliones:Palpatores]. 11 Sep 2001. Canada: Amisk Lake trail, Elk Island National Park, Alberta.
- 7203 [CEP 062] C López Lastra. *Delphacodes haywardii* [Hemiptera: Delphacidae] reared on *Hordeum vulgare* L., barley. 19 Aug 2003. Argentina: greenhouse at CEPAVE, La Plata, Buenos Aires.
- 7922 KT Hodge. Isolated from unidentified mushroom growing on horse dung. 26 Sep 2005. USA: Barn, Pine Tree Road, Ithaca, New York.
- 8023 EC Bernard (CRSM). [Collembola] isolated from live soil arthropod extraction baited with yeast pellets. 3 Apr 2006. USA: Great Smoky Mountains National Park, Enloe Cemetery, Swain County, North Carolina.
- 8455 RB Rosengaus. Reproductives, *Nasutitermes corniger* [Isoptera: Termitidae] from multiple founding association. Rec'd 24 May 2007.
- 8715 [AFTOL 137; ATCC 28845; CBS 20966; NRRL 28638] Rec'd 23 Jun 2008. Sweden.
- 9295 [ERL 1600] VS Gouli (Thr-08-E1). Isolated from soil sample. 2008. USA: Vermont.
- 9296 [ERL 1601] VS Gouli (Thr-08-E2). Isolated from soil sample. 2008. USA: Vermont.
- 9913 [ERL 1746] S Gouli (Thr.-09-1) and V Gouli. 2010. USA: Vermont.

Fungal Cultures

- 9914 [ERL 1747] S Gouli and V Gouli (Thr.-09-2). [Thysanoptera: Thripidae]. 2010. USA: Vermont.
- 9940 C Pérez Martínez (Lyco 1). *Lycoriella ingenua* [Diptera: Sciaridae]. Feb 2005. Mexico: Hongos Rioxal, S.A., Veracruz.
- 9941 C Pérez Martínez (Lyco 4). *Lycoriella ingenua* [Diptera: Sciaridae]. Feb 2005. Mexico: Hongos Rioxal, S.A., Veracruz.
- 9942 C Pérez Martínez (Lyco 5). *Lycoriella ingenua* [Diptera: Sciaridae]. Feb 2005. Mexico: Hongos Rioxal, S.A., Veracruz.
- 11651 [ERL 582] S Gouli (CA-700) and V Gouli. Isolated from soil sample. 2002. USA: California.

Conidiobolus firmipilleus Drechsler
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 2731 GW Riethmacher (C2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Apr 1989. Philippines: La Trinidad, Benguet.
- 6384 AA Callaghan (53) or (08 and 026). From the top 3 cm of litter and soil. Rec'd 20 Dec 1999. United Kingdom: Arable field, Staffordshire, Keele, England.

Conidiobolus heterosporus Drechsler
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 6386 AA Callaghan (04 and 036). From the top 3 cm of litter and soil. Rec'd 20 Dec 1999. United Kingdom: Plantation of *Larix kaempferi*, Staffordshire, Keele, England.

Conidiobolus iuxtagenitus Waters & Callaghan
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 6378 [ATCC 76115] AA Callaghan (55) or (04 and 023). From the top 3 cm of litter and soil. Rec'd 20 Dec 1999. United Kingdom: Plantation of *Larix kaempferi*, Staffordshire, Keele, England. CULTURE EX TYPE.
- 7944 B Huang (L051115B8). Leaf litter. Nov 2005. USA: Cornell Plantations, Mundy Wildflower Garden, Ithaca, New York.

Conidiobolus lamprauges Drechsler
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 2338 CC Brown. 15 yr. old Arabian m, *Equus ferus caballus* [Perissodactyla: Equidae]. Dec 1986. USA: Baton Rouge, Louisiana.
- 6361 G St-Germain (LSPQ 0467). Rec'd 24 Nov 1999. West Indies: Trinidad and Tobago.
- 6385 AA Callaghan (08 and 229). From the top 3 cm of litter and soil. Rec'd 20 Dec 1999. United Kingdom: Arable field, Staffordshire, Keele, England.

Conidiobolus macrosporus Srinivasan & Thirumalachar
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 12830 [IP 396] Adult, [Diptera]. 6 Dec 2014. Brazil: Aruanã, Goiás. S 14° 48' 50.97", W 51° 04' 39.49". **RESTRICTED ACCESS:** *contact Curator.*

Conidiobolus megalotocus Drechsler
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 8428 B Huang (S051114A2). Isolated from soil sample. 14 Nov 2005. USA: Cornell Plantations, Ithaca, New York.

Conidiobolus **nr.** *coronatus* (Costantin) Batko
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae. These strains produce secondary microconidia; their morphologies match the description of *C. coronatus* in every way except that no villose conidia have been observed. Positive identification as *C. coronatus* requires observation of villose conidia.

Caution: All precautions about handling *C. coronatus* should be observed with these strains.

- 598 RS Soper (8135). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 5 Mar 1981. Indonesia: greenhouse, Bogor, Jawa Barat, Java.
- 599 RS Soper (81227-4). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 27 Feb 1981. Indonesia: Ngaglik Village, Sleman District, Yogyakarta, Java.
- 600 RS Soper (81227-3). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 27 Feb 1981. Indonesia: Pendo Wo Har Djo, Sleman District, Yogyakarta, Java.
- 602 RS Soper (8133-2). *Sogatella furcifera* [Hemiptera: Delphacidae]. 3 Mar 1981. Indonesia: Pangkep Kaba, Sulawesi Selatan, Celebes.
- 1742 DW Roberts (26102a) and MC Rombach. *Nilaparvata lugens* [Hemiptera: Delphacidae]. 26 Oct 1984. India: greenhouse, All India Coop. Rice Inv. Project, Hyderabad, Andhra Pradesh.
- 1743 DW Roberts (26104) and MC Rombach. *Nilaparvata lugens* [Hemiptera: Delphacidae]. 26 Oct 1984. India: greenhouse, All India Coop. Rice Inv. Project, Hyderabad, Andhra Pradesh.

Conidiobolus obscurus (Hall & Dunn) Remaudière & S Keller
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae. Major synonym: *Entomophthora thaxteriana*

- 24 RS Soper ← N Wilding. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 9 Nov 1973. United Kingdom: Rothamsted Experimental Station, Hertfordshire, England.

- 25 [IPLB 180] RS Soper ← G Remaudière. *Uroleucon cichorii* [Hemiptera: Aphididae]. France: Bourg D'Oisans, Isère.
- 28 RS Soper ← R Krejzova. Czech Republic.
- 69 [IPLB 455] G Remaudière. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 9 Jan 1974. France: Lusignan, Vienne.
- 74 RG Kenneth (3043) ← ATCC (24418) and CBS (182.60) ← I Hall. *Therioaphis maculata* [Hemiptera: Aphididae] on *Medicago sativa*. Dec 1954. USA: Lakeview, California. Culture presumably EX TYPE.
- 97 [CSIRO EM529] N Wilding (6) ← C Dedryver. *Metopolophium dirhodum* [Hemiptera: Aphididae]. Acc'd 20 Nov 1978. France: nr. Rennes, Le Rheu, Ille-et-Vilaine.
- 98 N Wilding ← C Dedryver. *Sitobion avenae* [Hemiptera: Aphididae] on barley. 18 Apr 1975. France: nr. Bordeaux, Gironde.
- 119 [IPLB 18] JP Latgé and G Remaudière. *Uroleucon* sp. [Hemiptera: Aphididae] on *Solidago* sp. [Asteraceae]. 25 Aug 1976. Canada: Chute aux Galets, Québec.
- 121 [IPLB 20] JP Latgé and G Remaudière. *Uroleucon* sp. [Hemiptera: Aphididae] on *Solidago* sp. [Asteraceae]. 25 Aug 1976. Canada: Chute aux Galets, Québec.
- 122 [IPLB 21] JP Latgé and G Remaudière. *Uroleucon* sp. [Hemiptera: Aphididae] on *Solidago* sp. [Asteraceae]. 25 Aug 1976. Canada: Chute aux Galets, Québec.
- 123 [IPLB 22] JP Latgé and G Remaudière. *Uroleucon* sp. [Hemiptera: Aphididae] on *Solidago* sp. [Asteraceae]. 25 Aug 1976. Canada: Chute aux Galets, Québec.
- 124 [IPLB 54] JP Latgé and G Remaudière. *Aphis* sp. [Hemiptera: Aphididae] on *Cornus* sp. [Cornaceae]. 26 Aug 1976. Canada: Saint-Gédéon, Québec.
- 125 [IPLB 66] JP Latgé and G Remaudière. *Rhopalosiphum padi* [Hemiptera: Aphididae] on *Prunus pennsylvanicus* [Rosaceae]. 28 Aug 1976. Canada: Mt. Tremblant Provincial Park, Québec.
- 130 N Wilding (11). *Macrosiphum euphorbiae* [Hemiptera: Aphididae]. 11 Aug 1976. USA: Rogers Farm, Stillwater, Maine.
- 133 [ARSEF 355; CSIRO EM543; IPLB 542] G Remaudière ← JP Latgé. *Aphis armata* [Hemiptera: Aphididae] on *Digitalis purpurea*. 26 Jul 1974. France: Le Roskopf, Moselle.
- 173 FR Holbrook. *Macrosiphum euphorbiae* [Hemiptera: Aphididae] on potato. 7 Jul 1977. USA: Rogers Farm, Stillwater, Maine.
- 175 [CSIRO EM558] FR Holbrook. *Macrosiphum euphorbiae* [Hemiptera: Aphididae] on potato. 7 Jul 1977. USA: Rogers Farm, Stillwater, Maine.
- 176 FR Holbrook. *Macrosiphum euphorbiae* [Hemiptera: Aphididae] on potato. 7 Jul 1977. USA: Rogers Farm, Stillwater, Maine.
- 182 FR Holbrook. *Macrosiphum euphorbiae* [Hemiptera: Aphididae]. 10 Aug 1977. USA: Maine.
- 236 P Dodge. *Myzus persicae* [Hemiptera: Aphididae]. 8 Aug 1978. USA: Lansing, New York.
- 243 I Majchrowicz. [Hemiptera: ?Aphididae]. Rec'd 6 Sep 1978. Poland: Szczecin.
- 354 [ARSEF 824; CSIRO EM535] RJ Milner. *Acyrtosiphon kondoi* [Hemiptera: Aphididae]. May 1978. Australia: Glen Innes, New South Wales.
- 355 [ARSEF 133; IPLB 542] CSIRO (EM543) ← JP Latgé. *Aphis armata* [Hemiptera: Aphididae] on *Digitalis purpurea*. 26 Jul 1974. France: Le Roskopf, Moselle.
- 434 [FPMI 667] JP Latgé ← IPLB (542 (=ARSEFs 133 & 355)) or (722). [Hemiptera: Aphididae]. Rec'd 7 Mar 1980. France.
- 824 [ARSEF 354; CSIRO EM535] RJ Milner. *Acyrtosiphon kondoi* [Hemiptera: Aphididae]. May 1978. Australia: Glen Innes, New South Wales.
- 832 CSIRO (EM566) ← PJ Cameron. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 25 May 1979. Laboratory manipulation.
- 834 CSIRO (EM591) ← D Crawford. *Acyrtosiphon pisum* [Hemiptera: Aphididae] on lucerne. 25 Jun 1980. Australia: Riverina Agricultural College, Wagga Wagga, New South Wales.
- 995 [ARSEF 1131] J Aoki (Ent. 9) ← M Shimazu (F-25). *Rhopalosiphum padi* [Hemiptera: Aphididae]. Apr 1976. Japan: Chikugo, Fukuoka Prefecture.
- 1131 [J Aoki Ent. 9; ARSEF 995 (deaccessioned)] M Shimazu (F-25). *Rhopalosiphum padi* [Hemiptera: Aphididae]. Apr 1976. Japan: Chikugo, Fukuoka Prefecture.
- 1741 N Wilding (90). *Acyrtosiphon pisum* [Hemiptera: Aphididae]. Jan 1979. Laboratory manipulation.
- 2335 MG Feng (MD8602). *Metopolophium dirhodum* [Hemiptera: Aphididae] on spring wheat. Jul 1986. USA: Allendale Rd. & Fern Rd., Parma, Idaho.
- 3089 MG Feng (MTRM9002). *Rhopalosiphum maidis* [Hemiptera: Aphididae] on late-sown spring grain crop. 31 Jul 1990. USA: Bozeman, Montana.
- 3090 MG Feng (MTRM9003). *Rhopalosiphum maidis* [Hemiptera: Aphididae] on late-sown spring grain crop. 31 Jul 1990. USA: Bozeman, Montana.
- 3092 MG Feng (MTMD9002). *Metopolophium dirhodum* [Hemiptera: Aphididae] on late-sown spring grain crop. 17 Aug 1990. USA: Bozeman, Montana.
- 3132 K Hural (GF-4). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. Oct 1990. USA: Game Farm Rd., Ithaca, New York.
- 3133 K Hural (GF-5). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. Oct 1990. USA: Game Farm Rd., Ithaca, New York.
- 3134 K Hural (GF-6). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. Oct 1990. USA: Game Farm Rd., Ithaca, New York.

- 3135 K Hural (GF-7). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. Oct 1990. USA: Game Farm Rd., Ithaca, New York.
- 3137 K Hural (Hoff-2). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 16 Oct 1990. USA: Hoffman field, Catherine, New York.
- 3138 K Hural (Hoff-3). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 16 Oct 1990. USA: Hoffman field, Catherine, New York.
- 3139 K Hural (Hoff-4). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 16 Oct 1990. USA: Hoffman field, Catherine, New York.
- 3141 K Hural (Hoff-6). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 16 Oct 1990. USA: Hoffman field, Catherine, New York.
- 5992 C Nielsen (KVL 98-13). Alate, *Rhopalosiphum padi* [Hemiptera: Aphididae] on *Prunus padus*. 25 Sep 1998. Denmark: Copenhagen, Zealand.
- 7217 [SRCAMB G-161] V Likhovidov. Rec'd 29 Sep 2003.
- 9536 [SRCAMB VL-1704; VIZR 47] V Likhovidov. Rec'd 14 Aug 2008. Field Collection Number F-154.

Conidiobolus osmodes Drechsler
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 27 RS Soper ← G Remaudière. [Hemiptera: Aphididae]. Location not specified.
- 79 [FPMI 695] RG Kenneth (3080) or (3) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Mar 1976. Israel: Sedé Eliyahu.
- 193 [ARSEF 447; ATCC 12590; CBS 155.56; RG Kenneth 3123; DS King M-7] C Drechsler. Decaying vegetable detritus. 20 Dec 1950. USA: Laplace, Louisiana. CULTURE EX TYPE.
- 447 [ARSEF 193 (lost); CBS 155.56; RG Kenneth 3123; DS King M-7] ATCC (12590) ← C Drechsler. Decaying vegetable detritus. 20 Dec 1950. USA: Laplace, Louisiana. CULTURE EX TYPE.

Conidiobolus osmodes(?) Drechsler
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 5993 C Nielsen (KVL 98-15). Alate, *Rhopalosiphum padi* [Hemiptera: Aphididae] on *Prunus padus*. 25 Sep 1998. Denmark: Copenhagen, Zealand.

Conidiobolus paulus Drechsler
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 450 [CBS 140.57] ATCC (12942) ← C Drechsler. Plant detritus. 18 Nov 1954. USA: Park Falls, Wisconsin. CULTURE EX TYPE.

Conidiobolus pumilus Drechsler
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 453 [CBS 152.56; DS King C-32] ATCC (12584) ← C Drechsler. Plant detritus. 28 Feb 1952. USA: Arlington, Virginia. CULTURE EX TYPE.
- 6383 AA Callaghan (35) or (01 and 020). From the top 3 cm of litter and soil. Rec'd 20 Dec 1999. United Kingdom: Pasture, Staffordshire, Keele, England.

Conidiobolus rhyosporus Drechsler
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 448 [CBS 157.56] ATCC (12588) ← C Drechsler. Decaying vegetable detritus. Acc'd 28 Apr 1980. USA: Laplace, Louisiana. CULTURE EX TYPE.

Conidiobolus stromoideus Srinivasan & Thirumalachar
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 8430 B Huang (L051115B3). Nov 2005. USA: Ithaca, New York.

Conidiobolus thromboides Drechsler
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae. Major synonyms: *Entomophthora virulenta* Hall & Dunn, *Entomophthora pyriformis* Thoizon, *Entomophthora destruens* Weiser & Batko.

- 2 [ARSEF 3364; CSIRO EM570] FR Holbrook. *Myzus persicae* [Hemiptera: Aphididae]. May 1972. USA: greenhouse, Aroostook State Farm, Presque Isle, Maine.
- 5 RS Soper. Adult, [Diptera: Heliomyzidae]. 31 Jul 1972. USA: Aroostook State Farm, Presque Isle, Maine.
- 15 [ARSEF 115, 208, 3360, 3361; CBS 183.60; CSIRO EM510, EM571; RG Kenneth 3022, 3035; NRRL 2780] ATCC (14270) ← I Hall. *Therioaphis maculata* [Hemiptera: Aphididae] on *Medicago sativa*. Rec'd 2 Oct 1972. USA: California. CULTURE EX TYPE of *Entomophthora virulenta*.
- 22 RS Soper ← JE Henry. [Orthoptera: Acrididae]. 1973. USA: Bozeman, Montana.
- 29 RS Soper ← I Hall. *Therioaphis maculata* [Hemiptera: Aphididae]. Acc'd 19 Apr 1982. USA: California.
- 39 RS Soper. *Myzus persicae* [Hemiptera: Aphididae]. 12 Mar 1973. USA: State of Maine Potato Field, Homestead, Florida.
- 40 [ARSEF 3362; RG Kenneth 3024] *Macrosiphum euphorbiae* [Hemiptera: Aphididae]. 1973. USA: Aroostook State Farm, Presque Isle, Maine.
- 41 [ARSEF 3359; RG Kenneth 3023] *Myzus persicae* [Hemiptera: Aphididae]. Aug 1974. USA: Aroostook State Farm, Presque Isle, Maine.

- 42 [ARSEF 117 (lost); RG Kenneth 3025] N Wilding (3). *Aphis fabae* [Hemiptera: Aphididae]. Jul 1973. United Kingdom: field collection, Bedfordshire, England.
- 57 RS Soper. *Myzus persicae* [Hemiptera: Aphididae]. 29 Aug 1975. USA: Rogers Farm, Stillwater, Maine.
- 58 [Hemiptera: Aphididae]. 18 May 1975. Commonwealth of Independent States.
- 59 [Hemiptera: Aphididae]. 25 Jul 1975. Commonwealth of Independent States.
- 63 [CSIRO EM557] *Myzus persicae* [Hemiptera: Aphididae]. 27 Jul 1975. Commonwealth of Independent States.
- 64 27 Jul 1975. Commonwealth of Independent States.
- 70 [ARSEF 3363; IPLB 4] G Remaudière ← R Krejzova. *Culex pipiens pipiens* [Diptera: Culicidae]. Acc'd Feb 1978. Czech Republic.
- 73 [CSIRO EM534; FPMI 28] RG Kenneth (3040) ← ATCC (24419) ← DM MacLeod ← G Thoizon. *Rhopalosiphum insertum* [Hemiptera: Aphididae]. Rec'd 18 Jan 1976. France: Val-de-Marne, La Varenne.
- 83 [CSIRO EM551, EM572] RG Kenneth (3086) or (E.a. 38) ← A Uziel. *Aphis gossypii* [Hemiptera: Aphididae] on pomegranate. 1976. Israel: Sedé Eliyahu.
- 84 [ARSEF 85] I Majchrowicz (14 10.6). Reisolate of ARSEF 22. Rec'd 6 Jul 1976. Laboratory manipulation.
- 85 [ARSEF 84] I Majchrowicz (14 10.6). Reisolate of ARSEF 22. Rec'd 6 Jul 1976. Laboratory manipulation.
- 86 [ARSEF 87] I Majchrowicz (17 16.6). [Diptera]. Sep 1974. Poland: Wielkopolski National Park.
- 87 [ARSEF 86] I Majchrowicz (17 16.6). [Diptera]. Sep 1974. Poland: Wielkopolski National Park.
- 99 N Wilding (8) ← EG Voronina. *Myzus persicae* [Hemiptera: Aphididae]. 1963. Commonwealth of Independent States: St. Petersburg, Russia.
- 100 [CSIRO EM552, EM573] N Wilding (9) ← EG Voronina. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 1963. Commonwealth of Independent States.
- 101 [ARSEF 1733] N Wilding (1). *Cavariella theobaldi* [Hemiptera: Aphididae]. 20 Sep 1968. United Kingdom: laboratory colony, Rothamsted Experimental Station, Hertfordshire, England.
- 102 [ARSEF 1734, 363; CSIRO EM503] N Wilding (2). *Cavariella theobaldi* [Hemiptera: Aphididae]. 20 Sep 1968. United Kingdom: laboratory colony, Rothamsted Experimental Station, Hertfordshire, England.
- 115 [ARSEF 15, 208, 3360, 3361; CBS 183.60; CSIRO EM510, EM571; RG Kenneth 3022, 3035; NRRL 2780] ATCC (14270) ← I Hall. *Therioaphis maculata* [Hemiptera: Aphididae] on *Medicago sativa*. Acc'd 18 Dec 1987. USA: California. CULTURE EX TYPE of *Entomophthora virulenta*.
- 117 [ARSEF 42; RG Kenneth 3025] N Wilding (3). *Aphis fabae* [Hemiptera: Aphididae]. Jul 1973. United Kingdom: Bedfordshire, England.
- 120 [IPLB 19] JP Latgé and G Remaudière. *Uroleucon* sp. [Hemiptera: Aphididae] on *Solidago* sp. [Asteraceae]. 25 Aug 1976. Canada: Chute aux Galets, Québec.
- 136 [UMO 2(2)] RS Soper. *Myzus persicae* [Hemiptera: Aphididae]. 12 Mar 1973. USA: State of Maine Potato Field, Homestead, Florida.
- 194 I Ben-Ze'ev (38). *Aphis gossypii* [Hemiptera: Aphididae] on pomegranate tree. Apr 1976. Israel: Sedé Eliyahu.
- 208 [ARSEF 115, 15, 3360, 3361; ATCC 14270; CBS 183.60; CSIRO EM510, EM571; RG Kenneth 3022, 3035; NRRL 2780] G Hartmann ← I Hall. *Therioaphis maculata* [Hemiptera: Aphididae] on *Medicago sativa*. Rec'd Mar 1978. USA: California. CULTURE EX TYPE of *Entomophthora virulenta*.
- 242 I Majchrowicz. *Aphis fabae* [Hemiptera: Aphididae] on sugar beet. Rec'd 6 Sep 1978. Poland: Szczecin.
- 244 I Majchrowicz. *Aphis fabae* [Hemiptera: Aphididae] on sugar beet. Rec'd 6 Sep 1978. Poland: Szczecin.
- 245 I Majchrowicz. *Aphis fabae* [Hemiptera: Aphididae] on sugar beet. Rec'd 6 Sep 1978. Poland: Szczecin.
- 246 I Majchrowicz. *Aphis fabae* [Hemiptera: Aphididae] on sugar beet. Rec'd 6 Sep 1978. Poland: Szczecin.
- 247 I Majchrowicz. *Aphis fabae* [Hemiptera: Aphididae] on sugar beet. Rec'd 6 Sep 1978. Poland: Szczecin.
- 248 I Majchrowicz ← EG Voronina. [Hemiptera: Aphididae]. 25 Jul 1978. Commonwealth of Independent States.
- 249 I Majchrowicz ← EG Voronina. [Hemiptera: Aphididae]. 25 Jul 1978. Commonwealth of Independent States.
- 250 I Majchrowicz ← EG Voronina. [Hemiptera: Aphididae]. 25 Jul 1978. Commonwealth of Independent States.
- 363 [ARSEF 102, 1734] CSIRO (EM503) ← N Wilding (2). *Cavariella theobaldi* [Hemiptera: Aphididae]. Acc'd 27 Jul 1979. United Kingdom: laboratory colony, Rothamsted Experimental Station, Hertfordshire, England.
- 630 I Majchrowicz (106). *Aphis fabae* [Hemiptera: Aphididae]. 16 Jul 1981. Poland: Gumience, Szczecin.
- 631 I Majchrowicz (107). *Aphis fabae* [Hemiptera: Aphididae]. 16 Jul 1981. Poland: Szczecin.
- 632 I Majchrowicz (110). *Aphis fabae* [Hemiptera: Aphididae]. 25 Jul 1981. Poland: Gryfino, Szczecin.
- 633 I Majchrowicz (109). *Aphis fabae* [Hemiptera: Aphididae]. 23 Jul 1981. Poland: Stanpanel.
- 634 I Majchrowicz (111). *Aphis fabae* [Hemiptera: Aphididae]. 27 Jul 1981. Poland: Szczecin.
- 635 I Majchrowicz (108). *Aphis fabae* [Hemiptera: Aphididae]. 18 Jul 1981. Poland: Szczecin.

- 649 JS Ferguson. *Myzus persicae* [Hemiptera: Aphididae] on potato (*Solanum tuberosum*). 7 Aug 1981. USA: Arlington Experimental Farm, Columbia County, Wisconsin.
- 1006 J Aoki (Ent. 15) ← H Tomiyama. [Hemiptera: Aphididae]. Nov 1976. Japan: Fuchu, Tokyo Prefecture.
- 1012 J Aoki (Ent. 29) ← A Ohkawa. *Myzus persicae* [Hemiptera: Aphididae]. Sep 1977. Japan: Fuchu, Tokyo Prefecture.
- 1733 [ARSEF 101] N Wilding (1). *Cavariella theobaldi* [Hemiptera: Aphididae]. 20 Sep 1968. United Kingdom: laboratory colony, Rothamsted Experimental Station, Hertfordshire, England.
- 1734 [ARSEF 102, 363; CSIRO EM503] N Wilding (2). *Cavariella theobaldi* [Hemiptera: Aphididae]. 20 Sep 1968. United Kingdom: laboratory colony, Rothamsted Experimental Station, Hertfordshire, England.
- 1735 N Wilding (8). *Aphis fabae* [Hemiptera: Aphididae]. Jul 1973. United Kingdom: Woburn Farm, Bedfordshire, England.
- 2828 MG Feng (MD8903). *Metopolophium dirhodum* [Hemiptera: Aphididae] on spring wheat. 21 Jul 1989. USA: Parma, Idaho.
- 2829 MG Feng (MD8907). *Metopolophium dirhodum* [Hemiptera: Aphididae] on spring wheat. 21 Jul 1989. USA: Parma, Idaho.
- 2830 MG Feng (SA8901). *Sitobion avenae* [Hemiptera: Aphididae] on spring wheat. 25 Jul 1989. USA: Parma, Idaho.
- 2849 MG Feng (MD8902). *Metopolophium dirhodum* [Hemiptera: Aphididae] on spring wheat. 21 Jul 1989. USA: Parma, Idaho.
- 2850 MG Feng (MD8908). *Metopolophium dirhodum* [Hemiptera: Aphididae] on spring wheat. 21 Jul 1989. USA: Parma, Idaho.
- 2914 LL Hotz. *Diuraphis tritici* [Hemiptera: Aphididae]. Rec'd 17 Nov 1989. USA: mixed field collection from Bozeman and Mocassin, Montana.
- 2955 MS Goettel. *Schizaphis graminum* [Hemiptera: Aphididae]. 25 Sep 1989. Canada: Writing-on-Stone Prov. Park, Warner County, Alberta.
- 3129 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 28 Sep 1990. USA: Hoffman field # 6B, Catherine, New York.
- 3359 [ARSEF 41] Acc'd 31 Jul 1991. Location not specified. ARSEF 41 resting spores stored at 4°C on 14 May 1977 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3359.
- 3360 [ARSEF 115] Acc'd 31 Jul 1991. Location not specified. ARSEF 115 resting spores stored at 4°C on 23 March 1977 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3360.
- 3361 [ARSEF 15] Acc'd 31 Jul 1991. Location not specified. ARSEF 15 resting spores stored at 4°C on 9 July 1975 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3361.
- 3362 [ARSEF 40] Acc'd 31 Jul 1991. Location not specified. ARSEF 40 resting spores stored at 4°C on 31 January 1977 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3362.
- 3363 [ARSEF 70] Acc'd 31 Jul 1991. Location not specified. ARSEF 70 resting spores stored at 4°C from 25 March – 27 April 1976 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3363.
- 3364 [ARSEF 2] Acc'd 31 Jul 1991. Location not specified. ARSEF 2 resting spores stored at 4°C from 16 December – 13 January 1974 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3364.
- 4968 J Hatting (A). *Diuraphis noxia* [Hemiptera: Aphididae]. Aug 1995. South Africa: Bethlehem, Free State.
- 4996 J Hatting (2). *Leucopis niniae* [Diptera: Chamaemyiidae]. 1995. South Africa: Insect rearing colony, Bethlehem, Free State.
- 6000 Rec'd 3 Dec 1998.
- 6001 Rec'd 3 Dec 1998.
- 6381 AA Callaghan (42) or (04 and 037). From the top 3 cm of litter and soil. Rec'd 20 Dec 1999. United Kingdom: Plantation of *Larix kaempferi*, Staffordshire, Keele, England.
- 6662 M Shternshis. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 1981. Russian Federation: Novosibirsk Region.
- 7209 AE Hajek (03 NY 7-3-1). *Aphis glycines* [Hemiptera: Aphididae]. 7 Aug 2003. USA: Field number 3, North Rose, New York.
- 7210 AE Hajek (03 NY 7-3-2). *Aphis glycines* [Hemiptera: Aphididae]. 7 Aug 2003. USA: Field number 3, North Rose, New York.
- 7211 AE Hajek (03 NY 7-3-3). *Aphis glycines* [Hemiptera: Aphididae]. 7 Aug 2003. USA: Field number 3, North Rose, New York.
- 7215 [SRCAMB B-156] V Likhovidov ← BA Borisov. Rec'd 29 Sep 2003.
- 11664 KA Koch. *Aphis glycines* [Hemiptera: Aphididae]. Jul 2005. USA: University of Minnesota Outreach, Research, and Education Park, Rosemount, Minnesota. GPS Coordinates: N 44.7080722, W 93.0993032.
- 13630 [DK Harris SCA-A] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. Summer 2018. USA: Blackshank Farm, Plot 936, Tifton, Georgia.
- 13633 [DK Harris SCA13] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. Summer 2018. USA: Blackshank Farm, Plot 856, Tifton, Georgia.
- 13634 [DK Harris SCA14] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. Summer 2018. USA: Blackshank Farm, Plot 856, Tifton, Georgia.

- 13637 [DK Harris SCA19a] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. Summer 2018. USA: Blackshank Farm Plot 856, Tifton, Georgia.
- 13643 [DK Harris SCA43] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 2, Tifton, Georgia.
- 13644 [DK Harris SCA44] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 2, Tifton, Georgia.
- 13645 [DK Harris SCA46] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13646 [DK Harris SCA47] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.
- 13654 [DK Harris SCA58] *Melanaphis sacchari* [Hemiptera: Aphididae] Sorghum. 9 Aug 2018. USA: Lang Plot 1, Tifton, Georgia.

***Entomophaga* sp.**

[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 393 [FPMI 770] S Keller (114). Larva, [Lepidoptera]. Rec'd 27 May 1980. Switzerland.
- 1126 DW Roberts (020184-2A). *Nephotettix bipunctata cincticeps* [Hemiptera: Cicadellidae]. 2 Jan 1984. Philippines: IRRI, Los Baños, Manila.
- 1230 [CNPAF 84-04-09-1B; CP 130] DW Roberts. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 9 Apr 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1881 DW Roberts (110485-2) and MC Rombach. *Nilaparvata lugens* [Hemiptera: Delphacidae] on cacao. 11 Apr 1985. Solomon Islands: nr. Honiara, Guadalcanal.
- 2083 DG Holdom. *Aiolopus thalassinus tamulus* [Orthoptera: Acrididae: Oedipodinae]. 30 Dec 1985. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java. Provided as vegetative protoplasts in a liquid tissue culture medium.
- 2189 [CNPAF 86-2-21; CP 199] SM dos Santos. *Hortensia* sp. [Hemiptera: Cicadellidae]. 21 Feb 1986. Brazil: Fazenda Palmital, Brasabrantas, Goiás.

***Entomophaga asiatica* Humber, Soper & Shimazu in Humber (sp. nov., unpublished)**

[Entomophthoromycotina: Entomophthorales]

Entomophthoraceae. Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

- 1393 RS Soper (84627-6). [Orthoptera: Acrididae]. 27 Jun 1984. Japan: nr. Tsuruga, Fukui Prefecture.
- 1659 M Shimazu (F-457) and RS Soper. *Parapodisma* sp. [Orthoptera: Acrididae]. Jun 1984. Japan: Fukui Prefecture.

***Entomophaga aulicae* (Reichardt in Bail) Humber**
[Entomophthoromycotina: Entomophthorales]

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

- 51 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 1975. USA: 12.4 mi from Rt. 11/159 in Patten, Shin Pond, Maine.
- 53 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 23 Jun 1975. USA: 0.4 mi N of Oxbow Rd. on Rt. 11, Oxbow-Masardis, Maine.
- 95 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 1976. USA: nr. RR tracks, Perham township, Hanford, Maine.
- 118 N Wilding (1). Larva, [Lepidoptera: Sphingidae]. 26 Aug 1976. USA: Orono, Maine.
- 164 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1977. USA: forest-lower, nr. Carroll, Maine.
- 165 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. Jul 1977. USA: Sherman, Maine.
- 166 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 14 Jul 1977. USA: forest-lower, nr. Carroll, Maine.
- 167 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 14 Jul 1977. USA: forest-upper, nr. Carroll, Maine.
- 168 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 14 Jul 1977. USA: forest-upper, nr. Carroll, Maine.
- 169 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. Jul 1977. USA: forest-upper, Prentiss, Maine.
- 170 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. Jul 1977. USA: forest-upper, Prentiss, Maine.
- 171 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. Jul 1977. USA: forest-lower, Waite, Maine.
- 172 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. Jul 1977. USA: forest-lower, Shin Pond, Maine.
- 198 [ARSEF ?998; FPMI 707] RG Kenneth (3136) ← J Aoki. *Aedia leucomelas* [Lepidoptera: Noctuidae] on *Ipomea batatas* (sweet potato). 29 Oct 1976. Japan: Fuchu, Tokyo Prefecture.
- 251 JG Hamm. ?*Heliothis* sp. [Lepidoptera: Noctuidae] on sorghum. Rec'd Sep 1978. USA: GA Coastal Plain Experiment Station, Tifton, Georgia.
- 998 [ARSEF ?198] J Aoki (Ent. 14) ← A Ohkawa. *Aedia leucomelas* [Lepidoptera: Noctuidae]. Oct 1976. Japan: Fuchu, Tokyo Prefecture.

- 1049 J Aoki (Ent. 12) ← H Tomiyama. *Aedia leucomelas* [Lepidoptera: Noctuidae]. Dec 1976. Japan: Fuchu, Tokyo Prefecture.
- 1140 [ARSEF 1656] M Shimazu (F-339). [Lepidoptera]. 8 Apr 1982. Japan: Ibaraki Prefecture.
- 1141 M Shimazu (F-340). [Lepidoptera: Arctiidae]. Rec'd Oct 1984. Japan: Ibaraki Prefecture.
- 1142 [ARSEF 1655; CSIRO EM693] M Shimazu (F-343). *Dendrolimus spectabilis* [Lepidoptera: Lasiocampidae]. Japan: Ibaraki Prefecture.
- 1655 [ARSEF 1142 (lost); CSIRO EM693] M Shimazu (F-343). *Dendrolimus spectabilis* [Lepidoptera: Lasiocampidae]. Rec'd Oct 1984. Japan: Ibaraki Prefecture.
- 1656 [ARSEF 1140] M Shimazu (F-339). [Lepidoptera]. Rec'd Oct 1984. Japan: Ibaraki Prefecture.
- 1657 [CSIRO EM690] M Shimazu (F-327). *Mamestra brassicae* [Lepidoptera: Noctuidae]. Acc'd 19 Oct 1984. Japan: Ibaraki Prefecture.
- 1751 J Mitsuhashi (Emb-1). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 29 Oct 1984. Japan: Ibaraki Prefecture.
- 1990 FPMI (491). *Lambdina fiscellaria lugubrosa* [Lepidoptera: Geometridae]. 16 Aug 1972. Canada: Coquitlam, British Columbia.
- 1991 FPMI (458). *Lambdina fiscellaria fiscellaria* [Lepidoptera: Geometridae]. 8 Sep 1970. Canada: Boots Brook, Newfoundland.
- 1992 FPMI (889). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 5 Jul 1985. Canada: Black Sturgeon, Ontario.
- 1993 FPMI (771). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 25 Jun 1984. Canada: Black Sturgeon, Ontario.
- 1994 FPMI (776). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 22 Jun 1984. Canada: Black Sturgeon, Ontario.
- 1995 FPMI (777). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 22 Jun 1984. Canada: Black Sturgeon, Ontario.
- 1996 FPMI (558). *Hyphantria cunea* [Lepidoptera: Arctiidae]. 1974. Canada: Ontario.
- 1997 FPMI (894). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 29 Jul 1985. Canada: Black Sturgeon, Ontario.
- 1998 FPMI (877). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 11 Sep 1979. Canada: Thessalon, Ontario.
- 1999 FPMI (576). *Pseudaletia* sp. [Lepidoptera: Noctuidae]. 18 Jul 1976. Canada: Sault Ste. Marie, Ontario.
- 2000 FPMI (513). *Enypia griseata* [Lepidoptera: Geometridae]. 1975. Canada: British Columbia.
- 2362 M Shimazu (F-554-4). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2363 M Shimazu (F-553-3). *Autographa gamma* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2364 M Shimazu (F-553-2). *Autographa gamma* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2365 M Shimazu (F-553-1). *Autographa gamma* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2366 M Shimazu (F-555). *Colias erate poliographus* [Lepidoptera: Pieridae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2367 M Shimazu (F-554-3). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2368 M Shimazu (F-554-2). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2369 M Shimazu (F-554-1). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 1986. Japan: Hokkaido Prefecture.
- 2372 M Shimazu (F-531). *Spilosoma niveum* [Lepidoptera: Arctiidae]. 14 May 1986. Japan: Chiyoda-mura, Ibaraki Prefecture.
- 2373 M Shimazu (F-530-2). *Spilosoma niveum* [Lepidoptera: Arctiidae]. 6 May 1986. Japan: Sakura-mura, Chiba Prefecture.
- 2374 M Shimazu (F-530-1). *Spilosoma niveum* [Lepidoptera: Arctiidae]. 6 May 1986. Japan: Sakura-mura, Chiba Prefecture.
- 2843 JC Silver ← A Sands. *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. Aug 1989. USA: Wilmington, Vermont.
- 2896 FPMI (521). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 13 Jul 1973. Canada: Newfoundland.
- 2897 FPMI (626). *Dryocampa rubicunda* [Lepidoptera: Saturniidae]. 1973. Canada: Ontario.
- 2898 FPMI (646). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 27 Jul 1978. Canada: Newfoundland.
- 2899 FPMI (717). *Rheumaptera hastata* [Lepidoptera: Geometridae]. 16 Aug 1982. Canada: Gargantua, Ontario.
- 2900 FPMI (893). *Lambdina fiscellaria fiscellaria* [Lepidoptera: Geometridae]. 29 Jul 1983. Canada: Gander, Newfoundland.
- 2901 FPMI (934). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 2 Jul 1986. Canada: Black Sturgeon, Ontario.
- 2902 FPMI (597). *Heterocampa* sp. [Lepidoptera: Notodontidae]. 2 Aug 1976. Canada: St. Joseph's Island, Ontario.

- 2903 FPMI (598). *Ellida caniplaga* [Lepidoptera: Notodontidae]. 10 Aug 1976. Canada: St. Joseph's Island, Ontario.
- 2904 FPMI (600). *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. 22 Jul 1976. Canada: Hilton Beach, Ontario.
- 2905 FPMI (602). *Heterocampa biundata* [Lepidoptera: Notodontidae]. 14 Aug 1976. Canada: St. Joseph's Island, Ontario.
- 3016 MH Griggs. Larva, [Lepidoptera: Noctuidae]. 9 Jul 1990. USA: Game Farm Rd., Ithaca, New York.
- 3039 AE Hajek. *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. 3 Aug 1990. USA: Stamford, New York.
- 3212 AE Hajek. *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. 3 Aug 1990. USA: Stamford, New York. Resting spores from ARSEF 3039.
- 3602 AE Hajek. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 10 Jun 1991. USA: McGowan Woods, Ithaca, New York. Resting spores.
- 4004 [AE Hajek A-OV] Larva, *Orgyia vetusta* [Lepidoptera: Lymantriidae] *Lupinus arboreus*. Rec'd 12 Aug 1993. USA: Bodega Bay, California.
- 4005 [AE Hajek] Larva, *Orgyia vetusta* [Lepidoptera: Lymantriidae] *Lupinus arboreus*. Rec'd 12 Aug 1993. USA: Bodega Bay, California.
- 4006 [AE Hajek] Larva, *Orgyia vetusta* [Lepidoptera: Lymantriidae] *Lupinus arboreus*. Rec'd 12 Aug 1993. USA: Bodega Bay, California.
- 4007 AE Hajek. Larva, *Orgyia vetusta* [Lepidoptera: Lymantriidae] *Lupinus arboreus*. Rec'd 12 Aug 1993. USA: Bodega Bay, California.
- 4008 AE Hajek (D-OV). Larva, *Orgyia vetusta* [Lepidoptera: Lymantriidae] on *Lupinus arboreus* Sims, yellow bush lupine. Rec'd 17 Aug 1993. USA: Bodega Bay, California.
- 4796 DG Boucias (5866). 4th instar larva, *Eumorpha fasciata* [Lepidoptera: Sphingidae]. Sep 1994. USA: Alachua County, Florida.
- 7140 AE Hajek (03 ME 1-1-1). *Euproctis chrysorrhoea* [Lepidoptera: Lymantriidae]. 16 Jun 2003. USA: Coastal Studies Center, Orrs Island, Maine.
- 7141 AE Hajek (03 ME 2-1-1). *Euproctis chrysorrhoea* [Lepidoptera: Lymantriidae]. 16 Jun 2003. USA: 601 Merriman Point, Harpswell Neck, Maine.
- 7142 AE Hajek (03 ME 3-1-2). *Euproctis chrysorrhoea* [Lepidoptera: Lymantriidae]. 16 Jun 2003. USA: Yarmouth, Maine.
- 7143 AE Hajek (03 ME 4-1-1). *Euproctis chrysorrhoea* [Lepidoptera: Lymantriidae]. 16 Jun 2003. USA: Old Ledge School, Yarmouth, Maine.
- 7144 AE Hajek (03 ME 5-1-1). *Euproctis chrysorrhoea* [Lepidoptera: Lymantriidae]. 16 Jun 2003. USA: Windy Hill, Bailey Island, Maine.
- 7145 AE Hajek (03 ME 6-1-1). *Euproctis chrysorrhoea* [Lepidoptera: Lymantriidae]. 16 Jun 2003. USA: CCI CV, Bailey Island, Maine.
- Entomophaga australiensis*** Humber (sp. nov., unpublished)
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae
-
- 328 [FPMI 767] RS Soper (P-38). *Cicadella* sp. [Hemiptera: Cicadellidae] on rice. Feb 1979. Australia: Arriga, Queensland.
- 331 [ARSEF 332 (lost)] RS Soper ← K Chandler. *Cicadetta puer* [Hemiptera: Cicadidae] on sugar cane. 14 Feb 1979. Australia: Cairns, Queensland.
- 332 [ARSEF 331] RS Soper ← K Chandler. *Cicadetta puer* [Hemiptera: Cicadidae] on sugar cane. 14 Feb 1979. Australia: Cairns, Queensland.
- 365 RS Soper. *Cicadetta puer* [Hemiptera: Cicadidae]. 13 Feb 1979. Australia: Cairns, Queensland.
- 581 RS Soper (81223-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 23 Feb 1981. Indonesia: Bangun Village, Kecamatan Tanjung, Deliserdang District, Sumatera Utara, Sumatra.
- 607 RS Soper. *Nilaparvata lugens* [Hemiptera: Delphacidae]. 23 Feb 1981. Indonesia: Deliserdang District, Sumatera Utara, Sumatra.
- 743 [CNPAF 82-3-10-04; CP 33] RS Soper. [Hemiptera: Cicadellidae]. 10 Mar 1982. Brazil: CNPAF, Goiânia, Goiás.
- 791 [CNPAF 82-5-7-3D-1; CP 44] RA Daoust and DW Roberts. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 7 May 1982. Brazil: 4 km from Goianinha, Rio Grande do Norte.
- 1888 RS Soper. Reisolate of ARSEF 743. 10 May 1982. Brazil: CNPAF, Goiânia, Goiás.
- 1920 P Taylor. Reisolate of ARSEF 331 passed through *Sogatodes oryzicola* [Homoptera: Delphacidae]. Jul 1985. Laboratory manipulation.
- Entomophaga calopteni*** (Bessey) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae. Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.
-
- 383 RA Humber ← DM MacLeod. *Melanoplus flavidus* [Orthoptera: Acrididae]. 3 Aug 1979. USA: Sheridan, Wyoming.
- 390 RA Humber ← RS Soper. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 3 Aug 1979. USA: Sheridan, Wyoming.
- 408 RA Humber. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 2 Aug 1979. USA: Broadus, Montana.
- 497 RA Humber and BJ Martinell. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 27 Jun 1979. USA: Salt Water Canyon, Eagar, Arizona.

- 498 RA Humber and BJ Martinell. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 5 Jul 1980. USA: White River, South Dakota.
- 500 RA Humber and BJ Martinell. *Melanoplus bivittatus* [Orthoptera: Acrididae] resting spore isolate passed through *Locusta migratoria* [Orthoptera: Acrididae]. Summer 1980. Laboratory manipulation.
- 623 BJ Martinell (004B(M. cun haem)). *Melanoplus cuneatus* [Orthoptera: Acrididae]. 18 Jun 1981. USA: Southwater Canyon, Arizona.
- 625 BJ Martinell (014B). *Melanoplus packardii* [Orthoptera: Acrididae]. 1 Jul 1981. USA: alfalfa field, Eagar, Arizona.
- 626 BJ Martinell (004A(M. cun femur)). *Melanoplus cuneatus* [Orthoptera: Acrididae]. 18 Jun 1981. USA: Southwater Canyon, Arizona.
- 646 BJ Martinell. *Melanoplus cuneatus* [Orthoptera: Acrididae]. 1 Jul 1981. USA: Eagar, Arizona.
- 766 BJ Martinell (36) and RS Soper. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 27 Jul 1982. USA: Eagar, Arizona.
- 2168 WA Ramoska. *Melanoplus differentialis* [Orthoptera: Acrididae]. 1985. USA: Manhattan, Kansas.
- 2522 DG Holdom ← WA Ramoska. *Melanoplus differentialis* [Orthoptera: Acrididae]. Acc'd 8 Dec 1987. USA: Kansas.
- Entomophaga conglomerata*** (Sorokin) S Keller
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae
-
- 1847 N Wilding (106). Adult, [Diptera: Culicidae]. 20 Jul 1982. United Kingdom: water tank, Rothamsted Experimental Station, Hertfordshire, England.
- 2272 EL Cuebas-Incle (I). Adult, [Diptera: Chironomidae]. 26 Jul 1985. USA: Michigan Hollow, Danby, New York.
- 2273 EL Cuebas-Incle (II). Adult, [Diptera: Chironomidae]. 25 Sep 1986. USA: Michigan Hollow, Danby, New York.
- Entomophaga grylli*** (Fresenius) Batko
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae
-
- 615 BJ Martinell. *Camnula pellucida* [Orthoptera: Acrididae] conidial isolate passed through *Locusta migratoria* [Orthoptera: Acrididae]. Laboratory manipulation.
- 622 BJ Martinell (015(Eagar)). *Melanoplus bivittatus* [Orthoptera: Acrididae]. 1 Jul 1981. USA: Eagar, Arizona.
- 745 Location not specified.
- 747 Location not specified.
- Entomophaga macleodii*** Humber (sp. nov., unpublished)
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae. Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.
-
- 375 [FPMI 647] DM MacLeod. *Dissosteira carolina* [Orthoptera: Acrididae]. 20 Apr 1989. Canada: nr. river bank, Iron Bridge, Ontario.
- 376 [FPMI 625] DM MacLeod. *Dissosteira carolina* [Orthoptera: Acrididae]. 21 Jul 1977. Canada: nr. river bank, Iron Bridge, Ontario.
- 382 RS Soper. *Dissosteira carolina* [Orthoptera: Acrididae]. Aug 1979. USA: 12 Redwood Lane, Ithaca, New York.
- 496 RA Humber and BJ Martinell. *Camnula pellucida* [Orthoptera: Acrididae]. 28 Jun 1980. USA: Rodeo fairground, Alpine, Arizona.
- 499 RA Humber, BJ Martinell and RS Soper. *Dissosteira carolina* [Orthoptera: Acrididae]. 17 Jul 1980. USA: Ithaca, New York.
- 618 BJ Martinell (003(Rodeo)). *Camnula pellucida* [Orthoptera: Acrididae]. 16 Jun 1981. USA: Rodeo fairground, Alpine, Arizona.
- 619 BJ Martinell (001(FSA)). *Camnula pellucida* [Orthoptera: Acrididae]. 16 Jun 1981. USA: Forest Service plot A, Alpine, Arizona.
- 620 BJ Martinell (006(Judd B proto)). *Camnula pellucida* [Orthoptera: Acrididae]. 27 Jun 1981. USA: Judd Dam plot B, nr. Alpine, Arizona.
- 621 BJ Martinell (010(AlpineA)). *Camnula pellucida* [Orthoptera: Acrididae]. 29 Jun 1981. USA: Alpine plot A, Alpine, Arizona.
- 624 BJ Martinell (011(JuddA)). *Camnula pellucida* [Orthoptera: Acrididae]. 29 Jun 1981. USA: Judd Dam plot A, nr. Alpine, Arizona.
- 628 BJ Martinell (008). *Camnula pellucida* [Orthoptera: Acrididae]. 27 Jun 1981. USA: Alpine plot B, Alpine, Arizona.
- 629 BJ Martinell (002). *Camnula pellucida* [Orthoptera: Acrididae]. 23 Jun 1981. USA: Forest Service plot B, Alpine, Arizona.
- 765 BJ Martinell (41). *Camnula pellucida* [Orthoptera: Acrididae]. 28 Jul 1982. USA: Judd Dam, nr. Alpine, Arizona.
- 767 BJ Martinell (1). *Camnula pellucida* [Orthoptera: Acrididae]. 18 Jul 1982. USA: Jepson's Ranch, Alpine, Arizona.
- 768 BJ Martinell (3). *Camnula pellucida* [Orthoptera: Acrididae]. 18 Jul 1982. USA: Rodeo fairground, Alpine, Arizona.
- 769 BJ Martinell (13). *Camnula pellucida* [Orthoptera: Acrididae]. 23 Jul 1982. USA: ELC Flat, nr. Alpine, Arizona.

- 770 BJ Martinell (20). *Camnula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. 23 Jul 1982. Laboratory manipulation.
- 771 BJ Martinell (21). *Camnula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. 23 Jul 1982. Laboratory manipulation.
- 772 BJ Martinell (12). *Camnula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus packardii* [Orthoptera: Acrididae]. 18 Jul 1982. Laboratory manipulation.
- 773 BJ Martinell (10). *Camnula pellucida* [Orthoptera: Acrididae]. 18 Jul 1982. USA: Rodeo fairground, Alpine, Arizona.
- 774 BJ Martinell (25). *Camnula pellucida* [Orthoptera: Acrididae]. 23 Jul 1982. USA: ELC Flat, nr. Alpine, Arizona.
- 775 BJ Martinell (11) and RS Soper. *Camnula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus packardii* [Orthoptera: Acrididae]. 18 Jul 1982. Laboratory manipulation.
- 776 BJ Martinell (8) and RS Soper. *Camnula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. 18 Jul 1982. Laboratory manipulation.
- 777 BJ Martinell (28). *Camnula pellucida* [Orthoptera: Acrididae]. 23 Jul 1982. USA: Judd Dam, nr. Alpine, Arizona.
- 778 BJ Martinell (23). *Camnula pellucida* [Orthoptera: Acrididae]. 23 Jul 1982. USA: ELC Flat, nr. Alpine, Arizona.
- 779 BJ Martinell (22). *Camnula pellucida* [Orthoptera: Acrididae]. 23 Jul 1982. USA: ELC flats, nr. Alpine, Arizona.
- 3025 ME Ramos. *Camnula pellucida* [Orthoptera: Acrididae]. 16 Jul 1990. USA: Watford City, North Dakota.
- 3077 L Postie (Reisolate 1). Reisolate of ARSEF 768 passed through *Camnula pellucida* [Orthoptera: Acrididae]. Apr 1990. Laboratory manipulation.
- 3078 L Postie (Reisolate 2). Reisolate of ARSEF 768 passed through *Camnula pellucida* [Orthoptera: Acrididae]. Apr 1990. Laboratory manipulation.
- 3079 L Postie (Reisolate 3). Reisolate of ARSEF 3078 passed through *Camnula pellucida* [Orthoptera: Acrididae]. 6 Aug 1990. Laboratory manipulation.
- 4948 JA Correa (I) ← S Sanchez-Peña. *Camnula pellucida* [Orthoptera: Acrididae]. 26 Jun 1995. USA: Klamath National Wildlife Refuge, Klamath County, Oregon. 1) Reisolate of ARSEF 770.
- 4949 JA Correa (II) ← S Sanchez-Peña. *Camnula pellucida* [Orthoptera: Acrididae]. 26 Jun 1995. USA: Klamath National Wildlife Refuge, Klamath County, Oregon. 1) Reisolate of ARSEF 770.
- 4950 JA Correa (III) ← S Sanchez-Peña. *Camnula pellucida* [Orthoptera: Acrididae]. 26 Jun 1995. USA: Klamath National Wildlife Refuge, Klamath County, Oregon. 1) Reisolate of ARSEF 770.
- 4951 JA Correa (IV) ← S Sanchez-Peña. *Camnula pellucida* [Orthoptera: Acrididae]. Rec'd 9 Aug 1995. USA: Klamath National Wildlife Refuge, Klamath County, Oregon.
- 4952 JA Correa (V) ← S Sanchez-Peña. *Camnula pellucida* [Orthoptera: Acrididae]. 26 Jun 1995. USA: Klamath National Wildlife Refuge, Klamath County, Oregon. 1) Reisolate of ARSEF 770.
- 4953 JA Correa (VI) ← S Sanchez-Peña. *Camnula pellucida* [Orthoptera: Acrididae]. 26 Jun 1995. USA: Klamath National Wildlife Refuge, Klamath County, Oregon. 1) Reisolate of ARSEF 770.
- Entomophaga maimaiga*** Humber, Shimazu & Soper in Soper, Shimazu, Humber, Ramos & Hajek [Entomophthoromycotina: Entomophthorales]
Entomophthoraceae. Strains will grow as wall-less protoplasts in liquid tissue culture media or as walled hyphae on solid culture media.
- 1390 RS Soper (84626-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 1984. Japan: Torigoe, Ishikawa Prefecture.
- 1391 [FPMI 963] RS Soper (84626-7-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 1984. Japan: Torigoe, Ishikawa Prefecture.
- 1392 [FPMI 964] RS Soper (84626-7-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 1984. Japan: Torigoe, Ishikawa Prefecture.
- 1400 [FPMI 952] RS Soper (84626-7). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 1984. Japan: Torigoe, Ishikawa Prefecture.
- 1658 M Shimazu (F-446). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 1984. Japan: Ishikawa Prefecture.
- 1746 M Shimazu. Reisolate of ARSEF 1400 passed through *Lymantria dispar* [Lepidoptera: Lymantriidae]. 28 Nov 1984. Laboratory manipulation.
- 2370 M Shimazu (F-541-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jul 1986. Japan: Sakuramura, Chiba Prefecture.
- 2371 M Shimazu (F-541-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jul 1986. Japan: Sakuramura, Chiba Prefecture.
- 2661 AE Hajek. Reisolate of ARSEF 1400 passed through *Lymantria dispar* [Lepidoptera: Lymantriidae]. 23 Oct 1988. Laboratory manipulation.
- 2774 AE Hajek (CTIV-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 21 Jun 1989. USA: Wilton, Connecticut.
- 2775 AE Hajek (CTIV-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 21 Jun 1989. USA: Wilton, Connecticut.

- 2779 AE Hajek. *Lymantria dispar* [Lepidoptera: Lymantriidae]. 25 Jun 1989. USA: Northampton, Massachusetts.
- 2780 AE Hajek. *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jul 1989. USA: North Conway, New Hampshire.
- 3052 AE Hajek (L1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 1990. USA: Ward Pound Ridge Reservation, Westchester County, New York.
- 3053 AE Hajek (L3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 1990. USA: Ward Pound Ridge Reservation, Westchester County, New York.
- 3110 AE Hajek. Reisolate of ARSEF 1400 passed through *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Feb 1989. Laboratory manipulation.
- 3762 AE Hajek ← JC Silver. Rec'd 10 Jul 1992. Location not specified.
- 3828 AE Hajek (001-TA). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3829 AE Hajek (001-TB). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3830 AE Hajek (001-TC). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3831 AE Hajek (001-TD). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3832 AE Hajek (001-TE). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3833 AE Hajek (001-TF). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3834 AE Hajek (001-TG). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3835 AE Hajek (001-TH). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] *Quercus rubra*. 26 Jun 1992. USA: Tower Rd., Ithaca, New York.
- 3880 S Walsh (3762T23) ← ARSEF (3762). Rec'd 19 Feb 1993. Laboratory manipulation. Culture maintained for genetic variance studies.
- 3887 S Walsh (Hr 56). Rec'd 19 Feb 1993. Culture maintained for genetic variability.
- 3911 M Welton (FPMI 992). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 8 Jun 1992. Canada: Adolphostown Twp, Ontario.
- 3912 M Welton (FPMI 992). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 8 Jun 1992. Canada: Kingston, Ontario region, Adolphostown Twp, Ontario.
- 3913 M Welton (FPMI 992). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 8 Jun 1992. Canada: Kingston, Ontario region, Adolphostown Twp, Ontario.
- 4504 AE Hajek (Ci-1) ← S Talley. Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 18 May 1994. USA: George Washington National Park, Rockbridge County, Virginia. Fungus collected from *Catocala ilia*. *L. dispar* died 5 days after conidial shower, then produced conidia. Fungus isolated from *L. dispar*.
- 4505 AE Hajek (C.i.-2) ← S Talley. Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 18 May 1994. USA: George Washington National Park, Rockbridge County, Virginia. Fungus collected from *Catocala ilia*. *L. dispar* died 5 days after conidial shower, then produced conidia. Fungus isolated from *L. dispar*.
- 4506 AE Hajek (C.i.-3) ← S Talley. Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 18 May 1994. USA: George Washington National Forest, Rockbridge County, Virginia. Fungus collected from *Catocala ilia*. *L. dispar* died 5 days after conidial shower, then produced conidia. Fungus isolated from *L. dispar*.
- 4507 AE Hajek (C.i.-4) ← S Talley. Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 18 May 1994. USA: George Washington National Forest, Rockbridge County, Virginia. Fungus collected from *Catocala ilia*. *L. dispar* died 5 days after conidial shower, then produced conidia. Fungus isolated from *L. dispar*.
- 4508 AE Hajek (I.S.-1). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 1994. USA: Irish Settlement Road; Yellow Barn Forest, Ithaca, New York.
- 4509 AE Hajek (I.S.-2). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 1994. USA: Irish Settlement Road; Yellow Barn Forest, Ithaca, New York.
- 4510 AE Hajek (I.A.-3). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 1994. USA: Irish Settlement Road; Yellow Barn Forest, Ithaca, New York.
- 4544 AE Hajek (B-20MD#1). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 30 May 1994. Isolated through *Lymantria dispar* larvae.
- 4545 AE Hajek (B-20MD#2). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 30 May 1994. Isolated through *Lymantria dispar* larvae.
- 4546 AE Hajek (GC1). *Lymantria dispar* [Lepidoptera: Lymantriidae] soil with resting spores. 30 May 1994.
- 4547 AE Hajek (GC2). *Lymantria dispar* [Lepidoptera: Lymantriidae] soil with resting spores. 30 May 1994.
- 4549 AE Hajek (I.S. 4) or (94 NY1-4A). *Lymantria dispar* [Lepidoptera: Lymantriidae] Soil with resting spores. Rec'd 22 Aug 1994. USA: Irish Settlement Rd; Yellow Barn State Forest, Dryden, New York.
- 4550 AE Hajek (I.S. 5). *Lymantria dispar* [Lepidoptera: Lymantriidae] Soil with resting spores. Rec'd 22 Aug 1994. USA: Irish Settlement Rd; Yellow Barn State Forest, Dryden, New York.

- 4551 AE Hajek (I.S. 6). *Lymantria dispar* [Lepidoptera: Lymantriidae] Soil sith resting spores. Rec'd 22 Aug 1994. USA: Irish Settlement Rd; Yellow Barn State Forest, Dryden, New York.
- 4552 AE Hajek (VA - A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 22 Aug 1994. USA: Union Springs, Rockingham County, Virginia.
- 4553 AE Hajek (VA - C). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 22 Aug 1994. USA: Little River, Rockingham County, Virginia.
- 4554 AE Hajek (VA - E). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 22 Aug 1994. USA: Big Mary's, Rockingham County, Virginia.
- 4555 AE Hajek (VA - F). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 22 Aug 1994. USA: Wiggins Springs, Rockingham County, Virginia.
- 5377 AE Hajek (96 MD A2-1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5378 AE Hajek (96 MD A2-2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5379 AE Hajek (96 MD B2-1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5380 AE Hajek (96 MD B2-2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5381 AE Hajek (96 MD B2-3). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5382 AE Hajek (96 MD B2-4). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5383 AE Hajek (96 MD B2-5). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5384 AE Hajek (96 MD B2-6). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5385 AE Hajek (96 MD C2-1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5386 AE Hajek (96 MD D2-1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5387 AE Hajek (96 MD D2-2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5388 AE Hajek (96 MD E2-1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5389 AE Hajek (96 MD E2-2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5390 AE Hajek (96 MD F2-1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Sudlersville, Maryland.
- 5391 AE Hajek (96 NY B2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5392 AE Hajek (96 NY C2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5393 AE Hajek (96 NY C3). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5394 AE Hajek (96 NY D1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5395 AE Hajek (96 NY D2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5396 AE Hajek (96 NY D3). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5397 AE Hajek (96 NY E1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5398 AE Hajek (96 NY E2). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5399 AE Hajek (96 NY E3). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5400 AE Hajek (96 NY F1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5401 AE Hajek (96 NY F3). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 10 Dec 1996. USA: Yellow Barn State Forest, Dryden, New York.
- 5563 AE Hajek (96MA1-1A). Rec'd 3 Nov 1997.
- 5564 AE Hajek (96MA1-1B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 9 May 1996. USA: Quabbin Reservoir, Franklin County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 5565 AE Hajek (92NJ1-1A). Rec'd 3 Nov 1997.
- 5566 AE Hajek (94VA2-2A). Rec'd 3 Nov 1997.

- 5567 AE Hajek (94VA2-2B). Rec'd 3 Nov 1997.
- 5568 AE Hajek (97VA10-1A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 1997. USA: Elliot Spring Run, Butler field plot 1, George Washington National Forest, Virginia. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 5569 AE Hajek (96VA9-1A). Rec'd 10 Nov 1997.
- 5570 AE Hajek (96VA9-1B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Dec 1996. USA: Archer Run, Deerfield Ranger District, Butler field plot 2, George Washington National Forest, Virginia. Host infected in laboratory upon exposure to germinating resting spores in field collected soil.
- 5571 AE Hajek (97VA10-1B). Rec'd 10 Nov 1997.
- 5572 AE Hajek (92NJ1-1B). Rec'd 13 Nov 1997.
- 5711 AE Hajek (96MA1-1C). Rec'd 13 May 1998.
- 6004 AE Hajek (98 MA2-8A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1998. USA: The Notch, Hampshire County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6005 AE Hajek (98 MA2-14A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1998. USA: The Notch, Hampshire County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6006 AE Hajek (98MI1-2A). Rec'd 21 Jan 1999.
- 6007 AE Hajek (98MI1-2B). Rec'd 21 Jan 1999.
- 6051 AE Hajek (98MA2-4A). Rec'd 19 Feb 1999.
- 6052 AE Hajek (98MA2-4B). Rec'd 19 Feb 1999.
- 6053 AE Hajek (98MI1-1A). Rec'd 19 Feb 1999.
- 6054 AE Hajek (98MI1-1B). Rec'd 19 Feb 1999.
- 6105 AE Hajek (98MA2-6B). Rec'd 31 Mar 1999.
- 6106 AE Hajek (98MA2-8B). Rec'd 31 Mar 1999.
- 6107 AE Hajek (98MA2-12A). Rec'd 31 Mar 1999.
- 6108 AE Hajek (98MA2-12B). Rec'd 31 Mar 1999.
- 6161 AE Hajek (96 MD B2-4). Rec'd 12 May 1999.
- 6162 AE Hajek (98 JP2-9A). Rec'd 12 May 1999.
- 6163 AE Hajek (98 JP2-5B). Rec'd 12 May 1999.
- 6168 AE Hajek (94 WV1-1A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 1994. USA: Hawes Run, Pendleton County, West Virginia. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6169 AE Hajek (94 VA8-1A) or (VA-IVY). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 1994. USA: IVY Branch, Amherst County, Virginia. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6170 AE Hajek (99 WV2-2C). *Malacosoma americanum* [Lepidoptera: Lasiocampidae]. May 1999. Isolated from *Malacosoma disstria* exposed to sporulating cadaver.
- 6171 AE Hajek (98 JP3-5A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2 Sep 1998. Japan: Namiki, Tsukuba, Ibaraki Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6172 AE Hajek (98 JP3-5B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2 Sep 1998. Japan: Namiki, Tsukuba, Ibaraki Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6173 AE Hajek (99 WV2-2A). *Malacosoma americanum* [Lepidoptera: Lasiocampidae]. May 1999. Isolated from *Lymantria dispar* after passage through *Malacosoma disstria* exposed to sporulating cadaver of *M. americanum*.
- 6174 AE Hajek (99 WV2-2B). *Malacosoma americanum* [Lepidoptera: Lasiocampidae]. May 1999. Isolated from *Lymantria dispar* after passage through *Malacosoma disstria* exposed to sporulating cadaver of *M. americanum*.
- 6212 AE Hajek (98 JP2-5A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6218 AE Hajek (94 VA4-3A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 1994. USA: Mines Run, George Washington National Forest, Rockingham County, Virginia. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6223 AE Hajek (98 JP2-22B). Rec'd 25 Aug 1999.
- 6224 AE Hajek (98 JP2-10B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6253 AE Hajek (98 JP2-4A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6254 AE Hajek (98 JP2-10A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6255 AE Hajek (98 JP2-14A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6256 AE Hajek (98 JP2-14B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in labora-

- tory upon exposure to germinating resting spores in field-collected soil.
- 6257 AE Hajek (98 JP2-22A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6258 AE Hajek (98 JP3-8A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2 Sep 1998. Japan: Namiki, Tsukuba, Ibaraki Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6264 AE Hajek (98 JP2-22B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6265 AE Hajek (98 JP3-8B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2 Sep 1998. Japan: Namiki, Tsukuba, Ibaraki Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6266 AE Hajek (98 JP3-9A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2 Sep 1998. Japan: Namiki, Tsukuba, Ibaraki Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6267 AE Hajek (98 JP2-21A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1 Sep 1998. Japan: Yamauchi, Chonan, Chiba Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6268 AE Hajek (98 JP3-9B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2 Sep 1998. Japan: Namiki, Tsukuba, Ibaraki Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6269 AE Hajek (98 MA2-2A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1998. USA: The Notch, Hampshire County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6270 AE Hajek (98 MA2-2B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1998. USA: The Notch, Hampshire County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6271 AE Hajek (98 MA2-6A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1998. USA: The Notch, Hampshire County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6272 AE Hajek (98 MA2-14B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1998. USA: The Notch, Hampshire County, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6523 AE Hajek (99 MI9-1A). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1999. USA: Site #9, Oceana County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6524 AE Hajek (99 MI9-2A). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 1999. USA: Site #9, Oceana County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6625 AE Hajek (00 NY 1-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 2000. USA: Yellow Barn State Forest, Dryden, New York. Host infected in laboratory upon exposure to field-collected sporulating cadaver of *L. dispar*.
- 6626 AE Hajek (00 MI 3-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 3, Manistee County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6627 AE Hajek (00 MI 17-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 17, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6628 AE Hajek (00 MI 19-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 19, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6629 AE Hajek (00 MI 24-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 24, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6630 AE Hajek (00 MI 27-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 27, Kalkaska County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6652 AE Hajek (00 MI 2-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 2000. USA: Stand 2, Grand Traverse County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6653 AE Hajek (00 MI 4-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 14 Jun 2000. USA: Stand 4, Manistee County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6654 AE Hajek (00 MI 18-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Jun 2000. USA: Stand 18, Newaygo County, Michigan. Host infected in

- laboratory upon exposure to germinating resting spores in field-collected soil.
- 6655 AE Hajek (00 MI 28-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 28, Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6656 AE Hajek (00 MI 29-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 29, Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6657 AE Hajek (00 MI 33-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 2000. USA: Stand 33, Clare County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6663 AE Hajek (00 MI 2-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 2000. USA: Stand 2, Grand Traverse County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6664 AE Hajek (00 MI 3-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 14 Jun 2000. USA: Stand 3, Manistee County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6665 AE Hajek (00 MI 3-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 14 Jun 2000. USA: Stand 3, Manistee County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6666 AE Hajek (00 MI 12-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 2000. USA: Stand 12, Lake County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6667 AE Hajek (00 MI 12-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 2000. USA: Stand 12, Lake County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6668 AE Hajek (00 MI 12-2-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 2000. USA: Stand 12, Lake County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6724 AE Hajek (00 MI 3-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 14 Jun 2000. USA: Stand 3, Manistee County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6725 AE Hajek (00 MI 19-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Jun 2001. USA: Stand 19, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6726 AE Hajek (00 MI 24-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 2003. USA: Stand 24, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6727 AE Hajek (00 MI 27-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 2000. USA: Stand 27, Kalkaska County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6728 AE Hajek (00 MI 17-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Jun 2000. USA: Stand 17, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 6729 AE Hajek (00 MI 17-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Jun 2000. USA: Stand 17, Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7101 AE Hajek (99 MI 5-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1999. USA: Mason County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7102 AE Hajek (99 MI 27). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1999. USA: Kalkaska County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7103 AE Hajek (00 MI 29-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 29, Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7104 AE Hajek (01 JP 4-11-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2001. Japan: Tmayama Village, Morioka City, Iwate Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7105 AE Hajek (01 JP 4-12-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2001. Japan: Tmayama Village, Morioka City, Iwate Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7106 AE Hajek (99 MI 28-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1999. USA: Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7107 AE Hajek (00 MI 28-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 28, Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.

- 7108 AE Hajek (00 MI 28-1-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 28, Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7109 AE Hajek (00 MI 29-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 2000. USA: Stand 29, Roscommon County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7110 AE Hajek (00 MI 33-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 2000. USA: Stand 33, Clare County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7111 AE Hajek (00 MI 33-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 2000. USA: Stand 33, Clare County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7112 AE Hajek (01 JP 4-11-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2001. Japan: Tmayama Village, Morioka City, Iwate Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7113 AE Hajek (01 JP 4-11-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2001. Japan: Tmayama Village, Morioka City, Iwate Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7114 AE Hajek (01 JP 4-12-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2001. Japan: Tmayama Village, Morioka City, Iwate Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7115 AE Hajek (99 MI 21). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1999. USA: Newaygo County, Michigan. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7116 AE Hajek (01 JP 4-12-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 2001. Japan: Tmayama Village, Morioka City, Iwate Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7120 AE Hajek (03 PA 1-1-1A). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Metzger Trail, Lycoming County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7121 AE Hajek (03 PA 1-1-1B). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Metzger Trail, Lycoming County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7122 AE Hajek (03 PA 1-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Metzger Trail, Lycoming County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7123 AE Hajek (03 MA 3-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 2003. USA: Myles Standish State Forest, South Carver, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7124 AE Hajek (03 MA 3-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 2003. USA: Myles Standish State Forest, South Carver, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7125 AE Hajek (03 MA 3-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 2003. USA: Myles Standish State Forest, South Carver, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7126 AE Hajek (03 MA 3-2-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 2003. USA: Myles Standish State Forest, South Carver, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7127 AE Hajek (03 RU 1-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 8 Jul 1999. Russian Federation: oak stand, Khabarovsk. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7131 AE Hajek (03 PA 2-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Route 54, north of Danville, Montour County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7132 AE Hajek (03 PA 3-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Klein Road, Montour County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7133 AE Hajek (03 PA 4-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Comfort Road, Montour County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7134 AE Hajek (03 PA 5-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Cold Run Road, Northumberland County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7135 AE Hajek (03 PA 6-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Route 890, north of Trevorton, Northumberland County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.

- 7136 AE Hajek (03 PA 7-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Southampton Twp near town of Chaneyville, Bedford County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7137 AE Hajek (03 MA 3-2-4). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 2003. USA: Myles Standish State Forest, South Carver, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7138 AE Hajek (03 MA 3-2-5). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Apr 2003. USA: Myles Standish State Forest, South Carver, Massachusetts. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7139 AE Hajek (02 CN 1-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jul 2002. PR China: Soil sample number MS5, Maoershan, Heilongjiang. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7183 AE Hajek (02 CN 1-2-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jul 2002. PR China: Soil sample number MS3, Maoershan, Heilongjiang. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7184 AE Hajek (02 CN 1-2-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jul 2002. PR China: Soil sample number MS3, Maoershan, Heilongjiang. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7185 AE Hajek (03 JP 5-1-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 May 2003. Japan: Soil sample beneath tree number 1, Takehara, Hiroshima Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7186 AE Hajek (03 JP 5-1-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 May 2003. Japan: Soil sample beneath tree number 1, Takehara, Hiroshima Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7187 AE Hajek (03 JP 5-1-4). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 May 2003. Japan: Soil sample beneath tree number 1, Takehara, Hiroshima Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7188 AE Hajek (03 JP 5-1-6). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 May 2003. Japan: Soil sample beneath tree number 1, Takehara, Hiroshima Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7189 AE Hajek (03 JP 5-1-5). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 May 2003. Japan: Soil sample beneath tree number 1, Takehara, Hiroshima Prefecture. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7190 AE Hajek (03 PA 1-1-5). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Metzger Trail, Lycoming County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7352 AE Hajek (03 PA 5-1-5). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Cold Run Road, Northumberland County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.
- 7353 AE Hajek (03 PA 6-1-4). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 16 Apr 2003. USA: Route 890, north of Trevorton, Northumberland County, Pennsylvania. Host infected in laboratory upon exposure to germinating resting spores in field-collected soil.

Entomophaga praxibuli Humber, Milner, & Soper (sp. nov., unpublished)
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae. Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

- 840 RS Soper. *Praxibulus* sp. [Orthoptera: Acrididae]. 1983. Australia: Wanwibinda, New South Wales.
- 2084 ME Ramos. Reisolate of ARSEF 840 passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 6 Feb 1986. Laboratory manipulation.
- 2721 ME Ramos. Reisolate of ARSEF 840 passed through *Camnula pellucida* [Orthoptera: Acrididae]. Spring 1989. Laboratory manipulation.
- 2963 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 7 Mar 1990. Laboratory manipulation.
- 2964 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 7 Mar 1990. Laboratory manipulation.
- 2965 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 7 Mar 1990. Laboratory manipulation.
- 2966 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 7 Mar 1990. Laboratory manipulation.
- 2967 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. 14 Mar 1990. Laboratory manipulation.
- 2968 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. 14 Mar 1990. Laboratory manipulation.

- 2969 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. 14 Mar 1990. Laboratory manipulation.
- 2970 ME Ramos. *Praxibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. 14 Mar 1990. Laboratory manipulation.
- 3058 ME Ramos. *Empoasca vitis* [Hemiptera: Cicadellidae]. 10 Aug 1990. Laboratory manipulation. Reisolate of ARSEF 2964.
- 3059 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 10 Aug 1990. Laboratory manipulation.
- 3060 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus infantilis* [Orthoptera: Acrididae]. 10 Aug 1990. Laboratory manipulation.
- 3061 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus infantilis* [Orthoptera: Acrididae]. 10 Aug 1990. Laboratory manipulation.
- 3067 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 10 Aug 1990. Laboratory manipulation.
- 3068 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus infantilis* [Orthoptera: Acrididae]. 10 Aug 1990. Laboratory manipulation.
- 3069 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. 10 Aug 1990. Laboratory manipulation.
- 3356 ME Ramos (Cape). Reisolate of ARSEF 3059 passed through *Camnula pellucida* [Orthoptera: Acrididae]. Rec'd 10 Jul 1991. Laboratory manipulation.
- 3357 ME Ramos (Mesa). Reisolate of ARSEF 3059 passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. Rec'd 10 Jul 1991. Laboratory manipulation.
- 3358 ME Ramos (Mebi). Reisolate of ARSEF 3059 passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. Rec'd 10 Jul 1991. Laboratory manipulation.

Entomophaga tabanivora (Anderson & Magnarelli)
Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 627 [FPMI 769] BA Mullens. Female adult, *Atylotus thoracis* [Diptera: Tabanidae]. 16 Jul 1981. USA: Landers Corners Bog, Cortland County, New York.

Entomophaga tenthredinis (Fresenius) Batko
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 423 S Keller (20). Larva, Leaf wasp. Rec'd 27 May 1980. Switzerland.

***Entomophthora* sp.**

[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 4 A Potvin. Adult, *Macrosiphum euphorbiae* [Hemiptera: Aphididae]. USA: Aroostook County, Maine.
- 216 G Zimmermann (1). 27 Mar 1978. Germany: Darmstadt, Hesse.

Entomophthora chromaphidis Burger & Swain
[Entomophthoromycotina: Entomophthorales]

Entomophthoraceae. This taxon has been segregated from *Entomophthora planchoniana* Cornu (see Humber & Feng, 1991, Mycotaxon 51:497-504). Strains should be incubated at temperatures $\leq 20^{\circ}\text{C}$.

- 1860 DG Holdom (UQE-2-2). *Acyrtosiphon kondoi* [Hemiptera: Aphididae]. Jun 1981. Australia: Lockyer Valley, Queensland.
- 1861 DG Holdom (UQE-1). *Acyrtosiphon kondoi* [Hemiptera: Aphididae]. May 1979. Australia: Lockyer Valley, Queensland.
- 1862 DG Holdom (UQE-15). *Acyrtosiphon kondoi* [Hemiptera: Aphididae]. Jan 1983. Australia: Lockyer Valley, Queensland.
- 1863 DG Holdom (UQE-21). *Acyrtosiphon kondoi* [Hemiptera: Aphididae]. Jan 1983. Australia: Lockyer Valley, Queensland.
- 1927 DG Holdom. *Myzus persicae* [Hemiptera: Aphididae]. Summer 1984. Australia: Brisbane, Queensland.

Entomophthora culicis (Braun) Fresenius
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 387 S Keller (55). [Diptera: Nematocera]. Rec'd 3 Oct 1979. Switzerland: Zürich.
- 780 JP Kramer. *Chironomus decorus* [Diptera: Chironomidae]. Jul 1981. USA: U.S. Dept. of Interior fish hatchery pond # 3, Ithaca, New York.
- 5811 J Eilenberg (KVL 98-4). [Diptera: Chironomidae]. Aug 1997. Denmark: KVL garden, Copenhagen, Frederiksberg, Zealand.

Entomophthora ferdinandii S Keller ex S Keller
[Entomophthoromycetes : Entomophthorales]

- 6918 A Bruun Jensen (KVL 99-92). *Coenosia tigrina* [Diptera: Muscidae]. 29 Jul 1999. Denmark: Ørslev, Zealand.

Entomophthora muscae (Cohn) Fresenius
[Entomophthoromycotina: Entomophthorales]

Entomophthoraceae. This taxon is a partially resolved species complex (see Keller, 1984, Mitt. Schweiz. Entomol. Ges. 57: 131-132). Most strains are provided only as vegetative protoplasts in liquid tissue culture medium.

- 16 [NRRL 3743] ATCC (15431) ← MJ Thirumalacher. *Musca domestica* [Diptera: Muscidae]. Rec'd 2 Oct 1972. India.

- 392 [ARSEF 466 (lost)] S Keller (39). [Diptera]. Rec'd 18 Oct 1979. Switzerland.
- 454 RA Humber ← JP Kramer. *Musca domestica* [Diptera: Muscidae]. Mar 1980. USA: laboratory colony, Ithaca, New York.
- 466 [ARSEF 392] S Keller (39). [Diptera]. Rec'd 27 May 1980. Switzerland.
- 556 RA Humber. *Musca domestica* [Diptera: Muscidae]. 11 Mar 1981. USA: JP Kramer's laboratory colony, Cornell University, Ithaca, New York.
- 557 BJ Martinell. *Musca domestica* [Diptera: Muscidae]. 10 Mar 1981. USA: Boyce Thompson Institute, Ithaca, New York.
- 651 BJ Martinell ← DE McCabe. *Pollenia rudis* [Diptera: Calliphoridae]. 5 Nov 1981. USA: Keuka Park, New York.
- 707 RA Humber. *Delia platura* [Diptera: Anthomyiidae]. 20 Feb 1982. United Kingdom: N Wilding's greenhouse colony, Rothamsted Experimental Station, Hertfordshire, England.
- 803 JD Vandenberg. *Musca domestica* [Diptera: Muscidae]. Acc'd 7 Mar 1988. USA: 119 Middaugh Rd., Brooktondale, New York.
- 826 DC Steinkraus. [Diptera: Syrphidae]. 1982. USA: Ithaca, New York.
- 969 BA Mullens. *Musca domestica* [Diptera: Muscidae]. Sep 1983. USA: Riverside, California.
- 2014 RA Humber. *Musca domestica* [Diptera: Muscidae]. 10 Mar 1981. USA: JP Kramer's laboratory colony, Cornell University, Ithaca, New York.
- 2087 TJ Poprawski (0195). Adult, [Diptera: Anthomyiidae] in rapeseed field. Acc'd 19 Feb 1986. France: Béhoust, Yvelines.
- 2088 TJ Poprawski (0196). Adult, [Diptera: Anthomyiidae] in rapeseed field. Acc'd 19 Feb 1986. France: Béhoust, Yvelines.
- 2089 TJ Poprawski (0197). Adult, *Delia* sp. [Diptera: Anthomyiidae] in sunflower field. Acc'd 19 Feb 1986. France: Béhoust, Yvelines.
- 2090 TJ Poprawski (0198). Adult, *Delia* sp. [Diptera: Anthomyiidae] in sunflower field. Acc'd 19 Feb 1986. France: Béhoust, Yvelines.
- 2172 BA Mullens. *Musca domestica* [Diptera: Muscidae]. Acc'd 30 May 1986. USA: Riverside, California.
- 2263 TJ Poprawski (8617). Adult, *Delia* sp. [Diptera: Anthomyiidae] on rapeseed. 16 Jun 1986. France: Béhoust, Yvelines.
- 2264 TJ Poprawski (8619). Adult, *Delia* sp. [Diptera: Anthomyiidae] on rapeseed. 16 Jun 1986. France: Béhoust, Yvelines.
- 2265 TJ Poprawski (8622). Adult, *Delia* sp. [Diptera: Anthomyiidae] on rapeseed. 19 Jun 1986. France: Béhoust, Yvelines.
- 2266 TJ Poprawski (8624). Adult, *Delia* sp. [Diptera: Anthomyiidae] on rapeseed. 19 Jun 1986. France: Béhoust, Yvelines.
- 2317 TJ Poprawski (8640). Adult, *Delia* sp. [Diptera: Anthomyiidae] on sugar beet. 14 Oct 1986. France: Béhoust, Yvelines.
- 2542 J Eilenberg (KVL 3) ← U Olesen. *Musca domestica* [Diptera: Muscidae]. Sep 1986. Denmark: Ribe, Filskov, Jutland.
- 2543 J Eilenberg (KVL 8) ← U Olesen. *Musca domestica* [Diptera: Muscidae]. Sep 1986. Denmark: Storkedal, Zealand.
- 2665 J Eilenberg (KVL 46). *Delia radicum* [Diptera: Anthomyiidae]. 14 Jun 1988. Denmark: Roskilde, Zealand.
- 2668 J Eilenberg (KVL 16). *Delia radicum* [Diptera: Anthomyiidae]. 25 Jul 1986. Denmark: Svanholm, Malmöhus.
- 2670 J Eilenberg (KVL 45). *Delia radicum* [Diptera: Anthomyiidae]. 14 Jun 1988. Denmark: Roskilde, Zealand.
- 2673 J Eilenberg (KVL 50). [Diptera: Syrphidae]. 2 Aug 1988. Denmark: Roskilde, Zealand.
- 2674 J Eilenberg (KVL 51). *Delia radicum* [Diptera: Anthomyiidae]. 28 Jul 1988. Denmark: Roskilde, Zealand.
- 2675 J Eilenberg (KVL 44). *Delia radicum* [Diptera: Anthomyiidae]. 14 Jun 1988. Denmark: Roskilde, Zealand.
- 2678 J Eilenberg (KVL 17). [Diptera: Anthomyiidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zealand.
- 3074 RI Carruthers and SB Krasnoff. Adult, *Delia antiqua* [Diptera: Anthomyiidae]. 9 Oct 1990. USA: Prattsburg, New York.
- 4786 J Eilenberg (KVL 96). *Delia radicum* [Diptera: Anthomyiidae]. Jul 1993. Denmark: Hegnstrup, Slangerup, Zealand.
- 4787 J Eilenberg (KVL 94). *Delia radicum* [Diptera: Anthomyiidae]. Rec'd 30 Sep 1994. Denmark: Hegnstrup, Slangerup, Zealand.
- 4788 J Eilenberg (KVL 95). *Delia radicum* [Diptera: Anthomyiidae]. Jul 1993. Denmark: Hegnstrup, Slangerup, Zealand.
- 4789 J Eilenberg (KVL 92). *Delia radicum* [Diptera: Anthomyiidae]. Jul 1993. Denmark: Hegnstrup, Slangerup, Zealand.
- 4790 J Eilenberg (KVL 93). *Delia radicum* [Diptera: Anthomyiidae]. Jul 1993. Denmark: Hegnstrup, Slangerup, Zealand.
- 5952 A Bruun Jensen (KVL 98-10). Adult, *Musca domestica* [Diptera: Muscidae]. 1 Sep 1998. Denmark: Dyssekilde, Hundested, Zealand.
- 5953 A Bruun Jensen (KVL 98-12). Adult, *Musca domestica* [Diptera: Muscidae]. 1 Sep 1998. Denmark: Dyssekilde, Hundested, Zealand.

- 5954 A Bruun Jensen (KVL 98-18). Adult, [Diptera: Muscidae]. 16 Aug 1998. Denmark: Amager, Zealand.
- 6121 A Bruun Jensen (KVL 99-1). Adult, *Musca domestica* [Diptera: Muscidae]. 7 Oct 1998. Denmark: Nordtoftedal, Farum, Zealand.
- 6122 A Bruun Jensen (KVL 99-2). Adult, *Musca domestica* [Diptera: Muscidae]. 7 Oct 1998. Denmark: Nordtoftedal, Farum, Zealand.
- 6123 A Bruun Jensen (KVL 99-3). Adult, *Musca domestica* [Diptera: Muscidae]. 7 Oct 1998. Denmark: Nordtoftedal, Farum, Zealand.
- 6124 A Bruun Jensen (KVL 99-5). Adult, *Musca domestica* [Diptera: Muscidae]. 7 Oct 1998. Denmark: Nordtoftedal, Farum, Zealand.
- 6125 A Bruun Jensen (KVL 99-6). Adult, *Musca domestica* [Diptera: Muscidae]. 7 Oct 1998. Denmark: Sigerslevøster, Zealand.
- 6126 A Bruun Jensen (KVL 99-7). Adult, *Musca domestica* [Diptera: Muscidae]. 7 Oct 1998. Denmark: Sigerslevøster, Zealand.
- 6127 A Bruun Jensen (KVL 99-8). Adult, *Musca domestica* [Diptera: Muscidae]. 7 Oct 1998. Denmark: Sigerslevøster, Zealand.
- 6128 A Bruun Jensen (KVL 99-9). Adult, *Musca domestica* [Diptera: Muscidae]. 7 Oct 1998. Denmark: Sigerslevøster, Zealand.
- 6129 A Bruun Jensen (KVL 99-10). Adult, *Musca domestica* [Diptera: Muscidae]. 7 Oct 1998. Denmark: Sigerslevøster, Zealand.
- 6130 A Bruun Jensen (KVL 99-11). Adult, *Musca domestica* [Diptera: Muscidae]. 7 Oct 1998. Denmark: Sigerslevøster, Zealand.
- 6131 A Bruun Jensen (KVL 99-12). Adult, *Musca domestica* [Diptera: Muscidae]. 7 Oct 1998. Denmark: Sigerslevøster, Zealand.
- 6132 A Bruun Jensen (KVL 99-13). Adult, *Musca domestica* [Diptera: Muscidae]. Sep 1998. Denmark: Kirke Såby, Zealand.
- 6133 A Bruun Jensen (KVL 99-14). Adult, *Musca domestica* [Diptera: Muscidae]. Sep 1998. Denmark: Kirke Såby, Zealand.
- 6134 A Bruun Jensen (KVL 99-15). Adult, *Musca domestica* [Diptera: Muscidae]. Sep 1998. Denmark: Kirke Såby, Zealand.
- 6135 A Bruun Jensen (KVL 99-16). Adult, *Musca domestica* [Diptera: Muscidae]. Sep 1998. Denmark: Kirke Såby, Zealand.
- 6136 A Bruun Jensen (KVL 99-17). Adult, *Musca domestica* [Diptera: Muscidae]. Sep 1998. Denmark: Kirke Såby, Zealand.
- 6140 A Bruun Jensen (KVL 99-22). Adult, *Musca domestica* [Diptera: Muscidae]. 20 Aug 1996. Denmark: Skævinge, Zealand.
- 6141 A Bruun Jensen (KVL 99-23). Adult, *Musca domestica* [Diptera: Muscidae]. 20 Aug 1996. Denmark: Skævinge, Zealand.
- 6164 A Bruun Jensen (KVL 99-4). Adult, *Musca domestica* [Diptera: Muscidae]. 7 Oct 1998. Denmark: Nordtoftedal, Farum, Zealand.
- 6165 A Bruun Jensen (KVL 99-21). Adult, *Musca domestica* [Diptera: Muscidae]. 20 Aug 1996. Denmark: Skævinge, Zealand.
- 6274 A Bruun Jensen ← I Klingen (NCRI 1-99). Female, *Delia radicum* [Diptera: Anthomyiidae]. Aug 1999. Norway: Ski, Akershus.
- 6701 A Bruun Jensen (KVL 00-92). [Diptera]. 29 Jun 2000. Denmark: Hundested, Zealand.
- 6706 A Bruun Jensen (KVL 99-75). *Delia radicum* [Diptera: Anthomyiidae]. 13 Jul 1999. Denmark: Hundested, Zealand.
- 6707 A Bruun Jensen (KVL 99-93). *Delia radicum* [Diptera: Anthomyiidae]. 13 Jul 1999. Denmark: Hegnstrup, Slangerup, Zealand.
- 6708 A Bruun Jensen (KVL 99-138). *Delia radicum* [Diptera: Anthomyiidae]. 13 Jul 1999. Denmark: Hegnstrup, Slangerup, Zealand.
- 6709 A Bruun Jensen (KVL 99-139). *Delia radicum* [Diptera: Anthomyiidae]. 13 Jul 1999. Denmark: Sengeløse, Zealand.
- 6710 A Bruun Jensen (KVL 01-21). *Delia radicum* [Diptera: Anthomyiidae]. 29 Jun 2000. Denmark: Hundested, Zealand.
- 6711 A Bruun Jensen (KVL 01-24). *Delia radicum* [Diptera: Anthomyiidae]. 23 Jul 2000. Denmark: Ørslev, Zealand.
- 6712 A Bruun Jensen (KVL 01-37). *Botanophila fugax* [Diptera: Anthomyiidae]. 30 Aug 2000. Denmark: Hegnstrup, Slangerup, Zealand.
- 6713 A Bruun Jensen (KVL 99-80). *Musca domestica* [Diptera: Muscidae]. 11 Jul 1999. Denmark: Sverkilde, Zealand.
- 6714 A Bruun Jensen (KVL 99-72). *Musca domestica* [Diptera: Muscidae]. 11 Jul 1999. Denmark: Sverkilde, Zealand.
- 6715 A Bruun Jensen (KVL 99-74). *Musca domestica* [Diptera: Muscidae]. 11 Jul 1999. Denmark: Sverkilde, Zealand.
- 6716 A Bruun Jensen (KVL 99-95). *Musca domestica* [Diptera: Muscidae]. 11 Jul 1999. Denmark: Sverkilde, Zealand.
- 6717 A Bruun Jensen (KVL 99-84). *Delia radicum* [Diptera: Anthomyiidae]. 13 Jul 1999. Denmark: Hegnstrup, Slangerup, Zealand.
- 6811 A Bruun Jensen (KVL 99-85). *Delia radicum* [Diptera: Anthomyiidae]. 13 Jul 1999. Denmark: Hegnstrup, Slangerup, Zealand.
- 6812 A Bruun Jensen (KVL 99-74). *Musca domestica* [Diptera: Muscidae]. 11 Jul 1999. Denmark: Sverkilde, Zealand.
- 6813 A Bruun Jensen (KVL 99-110). *Musca domestica* [Diptera: Muscidae]. 7 Oct 1999. Denmark: Knardrup, Zealand.

- 6814 A Bruun Jensen (KVL 99-109). *Delia radicum* [Diptera: Anthomyiidae]. 13 Jul 1999. Denmark: Hegnstrup, Slangerup, Zealand.
- 6815 A Bruun Jensen (KVL 99-102). *Delia radicum* [Diptera: Anthomyiidae]. 13 Jul 1999. Denmark: Sengeløse, Zealand.
- 6818 A Bruun Jensen (KVL 01-39). *Delia radicum* [Diptera: Anthomyiidae]. 18 Jul 2000. Denmark: Sengeløse, Zealand.
- 6821 A Bruun Jensen (KVL 01-22). *Delia radicum* [Diptera: Anthomyiidae]. 18 Jul 2000. Denmark: Sengeløse, Zealand.
- 7371 AE Hajek (04 NY 1-1-1). [Diptera]. 2 Jun 2004. USA: Yellow Barn State Forest, Dryden, New York.
- 12524 HH de Fine Licht (200913-01). Rec'd 20 Feb 2014.
- 13376 [HH de Fine Licht HHDFFL 130914-01, KVL 14-115] *Musca domestica* [Diptera: Muscidae]. Rec'd 16 Nov 2017. Denmark: Birkedal farm cow stable, Slangerup, Zealand. 55.835571, 12.154350 genome sequenced.
- 13514 *Drosophila hydei* [Diptera: Drosophilidae]. 29 Jul 2015. USA: Berkeley, Alameda County, California.

Entomophthora planchoniana Cornu
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 6251 F Freimoser (ETH 16b). *Ovatus crataegarius* [Hemiptera: Aphididae] on *Mentha* sp. (Lamiaceae). Rec'd 17 Aug 1999. Denmark: in garden, Hundested, Zealand.
- 6252 F Freimoser (ETH 16c). *Ovatus crataegarius* [Hemiptera: Aphididae] on *Mentha* sp. (Lamiaceae). Rec'd 17 Aug 1999. Denmark: in garden, Hundested, Zealand.

Entomophthora scatophagae Giard
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 6704 A Bruun Jensen (KVL 00-60). *Scatophaga stercoraria* [Diptera: Scatophagidae]. 3 May 2000. Denmark: Tuse Næs, Zealand.
- 6705 A Bruun Jensen (KVL 00-61). *Scatophaga stercoraria* [Diptera: Scatophagidae]. 3 May 2000. Denmark: Tuse Næs, Zealand.

Entomophthora schizophorae S Keller & Wilding in S Keller
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 2540 J Eilenberg (KVL 1). *Psila rosae* [Diptera: Psilidae]. Aug 1984. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2541 J Eilenberg (KVL 2). *Psila rosae* [Diptera: Psilidae]. Sep 1985. Denmark: Strandholm, Fårevejle, Vestsjælland.

- 2667 J Eilenberg (KVL 13). *Psila rosae* [Diptera: Psilidae]. 23 Jun 1986. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 4791 BA Mullens. *Pollenia rudis* [Diptera: Calliphoridae]. Rec'd 13 Sep 1994. USA: Riverside, California.
- 5348 DW Watson. *Musca domestica* [Diptera: Muscidae]. Aug 1987. USA: Seward, Nebraska.
- 6137 A Bruun Jensen (KVL 99-18). Adult, *Musca domestica* [Diptera: Muscidae]. 14 Aug 1996. Denmark: Roskilde, Zealand.
- 6138 A Bruun Jensen (KVL 99-19). Adult, *Musca domestica* [Diptera: Muscidae]. 14 Aug 1996. Denmark: Roskilde, Zealand.
- 6139 A Bruun Jensen (KVL 99-20). Adult, *Musca domestica* [Diptera: Muscidae]. 14 Aug 1996. Denmark: Roskilde, Zealand.
- 6142 A Bruun Jensen (KVL 99-24). Adult, *Musca domestica* [Diptera: Muscidae]. 10 Oct 1998. Denmark: Annisse, Zealand.
- 6143 A Bruun Jensen (KVL 99-25). Adult, *Musca domestica* [Diptera: Muscidae]. 10 Oct 1998. Denmark: Annisse, Zealand.
- 6703 A Bruun Jensen (KVL 01-38). *Pollenia* sp. [Diptera: Calliphoridae]. 2 Oct 2000. Denmark: Hundested, Zealand.
- 6816 A Bruun Jensen (KVL 00-94). *Pollenia* sp. [Diptera: Calliphoridae]. 2 Oct 2000. Denmark: Hundested, Zealand.
- 6817 A Bruun Jensen (KVL 00-93). *Pollenia* sp. [Diptera: Calliphoridae]. 4 Oct 2000. Denmark: Hundested, Zealand.
- 12523 HH de Fine Licht (260813-01). Rec'd 20 Feb 2014.

Entomophthora syrphi Giard
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 5955 A Bruun Jensen (KVL 98-19). Adult, *Triglyphus primus* [Diptera: Syrphidae]. 21 Aug 1998. Denmark: Zealand.
- 6702 A Bruun Jensen (KVL 01-36). *Platycheirus clypeatus* [Diptera: Syrphidae]. 9 Aug 2000. Denmark: Hegnstrup, Slangerup, Zealand.
- 6819 A Bruun Jensen (KVL 01-35). *Melanostoma scalare* [Diptera: Syrphidae]. Summer 2000. Denmark: Kalø, Jutland.
- 6820 A Bruun Jensen (KVL 01-34). *Melanostoma scalare* [Diptera: Syrphidae]. Summer 2000. Denmark: Kalø, Jutland.

Entomophthora thripidum Samson, Ramakers & Oswald
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 5868 A Grundschober (ETH 601). *Thrips tabaci* [Thysanoptera: Thripidae]. 21 Apr 1998. Germany:

- laboratory colony, BBA, Institut für Pflanzenschutz im Gartenbau, Braunschweig, Braunschweig.
- 6517 F Freimoser (ETH 602). *Thrips tabaci* [Thysanoptera: Thripidae]. 21 Apr 1998. Germany: Laboratory colony, BBA, Institut für Pflanzenschutz im Gartenbau, Braunschweig, Braunschweig.
- 6518 F Freimoser (ETH 603). *Thrips tabaci* [Thysanoptera: Thripidae]. 21 Apr 1998. Germany: Laboratory colony, BBA, Institut für Pflanzenschutz im Gartenbau, Braunschweig, Braunschweig.
- 6519 F Freimoser (ETH 604). *Thrips tabaci* [Thysanoptera: Thripidae]. 21 Apr 1998. Germany: Laboratory colony, BBA, Institut für Pflanzenschutz im Gartenbau, Braunschweig, Braunschweig.
- 6520 F Freimoser (ETH 605). *Thrips tabaci* [Thysanoptera: Thripidae]. 21 Apr 1998. Germany: Laboratory colony, BBA, Institut für Pflanzenschutz im Gartenbau, Braunschweig, Braunschweig.
- 6521 F Freimoser (ETH 607). *Thrips tabaci* [Thysanoptera: Thripidae]. 21 Apr 1998. Germany: Laboratory colony, BBA, Institut für Pflanzenschutz im Gartenbau, Braunschweig, Braunschweig. Re-isolate of ETH 603 [=ARSEF 6518] after passage through *Thrips tabaci*.
- 6522 F Freimoser (ETH 608). *Thrips tabaci* [Thysanoptera: Thripidae]. 21 Apr 1998. Germany: Laboratory colony, BBA, Institut für Pflanzenschutz im Gartenbau, Braunschweig, Braunschweig. Re-isolate of ETH 603 [=ARSEF 6518] after passage through *Thrips tabaci*.
- 6525 F Freimoser (ETH 606). *Thrips tabaci* [Thysanoptera: Thripidae]. 21 Apr 1998. Germany: Laboratory colony, BBA, Institut für Pflanzenschutz im Gartenbau, Braunschweig, Braunschweig.
- Erynia sp.**
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae. Strains included here were not sufficiently identifiable to the species and have not been reidentified since publication of the entomophthoralean taxonomy used here (see Humber, 1989, Mycotaxon 34:441-460). In this classification these strains would be reassigned to *Pandora* Humber, *Furia* (Batko) Humber, *Erynia* (Nowakowski ex Batko) Remaudière & Hennebert, or *Zoophthora* Batko.
- 658 DW Roberts (101481-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 14 Oct 1981. PR China: Zhijiang.
- 876 [CNPAF 83-04-15-2B; CP 106] DW Roberts. [Diptera]. Apr 1983. Brazil: Barbalha, Ceará.
- 880 [CNPAF 83-04-15-2A; CP 110] BP Magalhães and DW Roberts. Adult, [Diptera]. Apr 1983. Brazil: Barbalha, Ceará.
- 884 [CNPAF 83-04-15-2C; CP 114] BP Magalhães and DW Roberts. Adult, [Diptera]. Apr 1983. Brazil: Barbalha, Ceará.
- 983 J Aoki (Ent. 18) ← H Tomiyama. *Plutella xylostella* [Lepidoptera: Plutellidae]. Nov 1976. Japan: Fuchu, Tokyo Prefecture.
- 1052 J Aoki (Ent. 42) ← M Shimazu. Rec'd 7 Nov 1983. Japan: Chikugo, Fukuoka Prefecture.
- 1143 [CSIRO EM694] M Shimazu (F-344). *Eana argentana* [Lepidoptera: Tortricidae]. Acc'd 4 Apr 1984. Japan: Hokkaido Prefecture.
- 1241 [CNPAF 84-04-13-1C; CP 141] DW Roberts. Larva, [Lepidoptera]. 13 Apr 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1266 J Aoki (Ent. 34) ← M Shimazu. Acc'd 3 May 1984. Japan: Chikugo, Fukuoka Prefecture.
- 1267 J Aoki (Ent. 37) ← M Shimazu. Acc'd 3 May 1984. Japan: Chikugo, Fukuoka Prefecture.
- 1338 S Balazy (1559). [Diptera: Brachycera] attached to the leaves of arboraceous plants. 22 May 1983. Poland: Bialowieza National Park.
- 1666 JV Maddox, MR McGuire and MJ Morris. *Theorioaphis maculata* [Hemiptera: Aphididae] in clover field. May 1984. USA: Illinois.
- 2027 JA Harper. 4th instar larva, *Pseudoplusia includens* [Lepidoptera: Noctuidae]. Acc'd 28 Oct 1985. USA: Auburn, Alabama.
- 2097 DG Holdom (130286). ?*Hydrellia* sp. [Diptera: Ephydridae]. 13 Feb 1986. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2279 IL Sivcev (20/86). [Hemiptera: Aphididae] on *Cichorium intybus*. 10 Jun 1986. Yugoslavia: Zemun, Belgrade.
- 2292 IL Sivcev (42/86). *Macrosiphum euphorbiae* [Hemiptera: Aphididae] on cabbage. 23 Jun 1986. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2294 IL Sivcev (55/86). *Brevicoryne brassicae* [Hemiptera: Aphididae]. 23 Jun 1986. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2296 IL Sivcev (21/86). [Hemiptera: Aphididae] on *Cichorium intybus*. 10 Jun 1986. Yugoslavia: Zemun, Belgrade.
- 2433 CBO Keil. *Lycoriella mali* [Diptera: Sciaridae]. Rec'd 13 Aug 1987. Location not specified.
- 2434 CBO Keil. *Lycoriella mali* [Diptera: Sciaridae]. Rec'd 13 Aug 1987. Location not specified.
- 2495 J Eilenberg (KVL 14) ← T Møhl. [Diptera]. 30 Jun 1986. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2507 J Eilenberg (KVL 39) and N Wilding. [Diptera: Chironomidae]. 31 Aug 1987. United Kingdom: Rothamsted Experimental Station, Hertfordshire, England.
- 2525 J Eilenberg (KVL 34). *Rhagonycha fulva* [Coleoptera: Cantharidae]. Aug 1987. Denmark: Holmegaards Mose, Zealand.
- 2536 J Eilenberg (KVL 18). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zealand.

- 2537 J Eilenberg (KVL 23). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zeeland.
- 2538 J Eilenberg (KVL 20). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zeeland.
- 2539 J Eilenberg (KVL 22). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zeeland.
- 2553 [ARSEF 2662 (deaccessioned)] J Eilenberg (KVL 19) and J Martin. *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zeeland.
- 2662 [ARSEF 2553] J Eilenberg (KVL 19) and J Martin. *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 1986. Denmark: Holmegaards Mose, Zeeland.
- 2663 J Eilenberg (KVL 33) ← J Martin. *Rhagonycha fulva* [Coleoptera: Cantharidae]. Aug 1987. Denmark: Holmegaards Mose, Zeeland.
- 2664 J Eilenberg (KVL 40). [Coleoptera: Cantharidae]. Jun 1987. Denmark: Brogaard, Lammfjorden.
- 5352 KT Hodge. Adult, [Coleoptera: Cantharidae] Willow. 18 Jun 1996. USA: German Cross Road, Dryden, New York.
- 9537 [SRCAMB VL-1659] V Likhovidov. [Trichoptera]. 18 Sep 2004. Russian Federation: Mostovsky District, Krasnodarsky Krai. Field Collection Number F-768.
- Erynia aquatica*** (Anderson & Ringo in Anderson & Anagnostakis) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae. Vegetative growth of this species is very sparse and slow. Strains should be in liquid tissue culture media incubated at 0-4°C.
-
- 364 RS Soper. [Diptera: Culicidae]. May 1979. USA: Cambridge, New York.
- 750 RA Humber and RG Lawlor. Adult, *Aedes* sp. [Diptera: Culicidae]. Acc'd 10 Dec 1987. USA: Cambridge, New York.
- 764 RA Humber and RG Lawlor. Pupa, [Diptera: Culicidae]. Jun 1982. USA: Memorial Rock, Sapsucker Woods, Ithaca, New York.
- 885 RA Humber. *Aedes* sp. [Diptera: Culicidae]. May 1983. USA: Sapsucker Woods, Ithaca, New York.
- Erynia conica*** (Nowakowski) Remaudière & Hennebert
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae
-
- 401 S Keller (149). [Diptera]. 21 Aug 1978. Switzerland.
- 1439 N Hywel-Jones (H84178-2). *Simulium* sp. [Diptera: Simuliidae]. Jun 1984. United Kingdom: Fingle Bridge (River Teign), Devon, England.
- 1740 N Wilding (86). Adult, [Diptera: Culicidae]. 8 Sep 1978. United Kingdom: Rothamsted Experimental Station, Hertfordshire, England.
- 1752 S Keller (527). [Diptera: Simuliidae]. 24 Oct 1984. Switzerland.
- 1753 S Keller (528). [Diptera: Simuliidae]. 24 Oct 1984. Switzerland.
- 1755 S Keller (530). [Diptera: Simuliidae]. 24 Oct 1984. Switzerland.
- 2274 EL Cuebas-Incle (III). Adult, [Diptera: Chironomidae]. 2 Oct 1985. USA: Six Mile Creek, Brooktondale, New York.
- 2275 EL Cuebas-Incle (IV). Gravid female, [Diptera: Simuliidae]. 2 Oct 1985. USA: Six Mile Creek, Brooktondale, New York.
- 2277 EL Cuebas-Incle (VI). Adult, [Diptera: Chironomidae]. 20 Jun 1985. USA: Six Mile Creek, Ithaca, New York.
- 2278 EL Cuebas-Incle (VII). Adult, [Diptera: Chironomidae]. 24 Aug 1985. USA: outlet, Dryden Lake, Dryden, New York.
- 2405 RI Samuels. Adult, [Diptera: Chironomidae]. Sep 1986. United Kingdom: Avon, England.
- Erynia curvispora*** (Nowakowski) Remaudière & Hennebert
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae
-
- 36 I MacDaniel. *Ochlerotatus triseriatus* [Diptera: Culicidae]. Aug 1974. USA: Maine.
- 402 S Keller (150). [Diptera: Chironomidae]. 21 Aug 1978. Switzerland.
- 802 EL Cuebas-Incle. Adult, *Simulium* sp. [Diptera: Simuliidae]. 24 Jul 1982. USA: outlet, Dryden Lake, Dryden, New York.
- 1754 S Keller (529). [Diptera: Simuliidae]. 24 Oct 1984. Switzerland.
- 3229 M Nadeau (222). Adult, [Diptera: Simuliidae]. 19 Jun 1990. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3244 M Nadeau (241). Adult, [Trichoptera]. 20 Jun 1990. Canada: Réserve Faunique du Saint, Maurice, Québec.
- Erynia ovispora*** (Nowakowski) Remaudière & Hennebert
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae
-
- 398 S Keller (97). [Diptera: Psychodidae]. Jun 1978. Switzerland.
- 399 S Keller (100). [Diptera: Psychodidae]. 12 Jun 1978. Switzerland.
- 400 S Keller (102). [Diptera: Psychodidae]. 12 Jun 1978. Switzerland.

Erynia rhizospora (Thaxter) Remaudière & Hennebert
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 219 LS Bauer. Adult, [Trichoptera]. Jun 1978. USA: Dover-Foxcroft, Maine.
- 492 EL Cuebas-Incle. [Trichoptera]. Jun 1980. USA: New York.
- 493 EL Cuebas-Incle. [Trichoptera]. Summer 1979. USA: New York.
- 801 EL Cuebas-Incle. Adult, [Trichoptera]. 24 Jul 1982. USA: outlet, Dryden Lake, Dryden, New York.
- 1440 RA Humber. Adult, [Trichoptera]. 2 Jul 1984. United Kingdom: Castle Drago (River Teign), Devon, England.
- 1441 RA Humber. Adult, [Trichoptera]. 2 Jul 1984. United Kingdom: Castle Drago (River Teign), Devon, England.
- 1442 E Descals (C-1756-4) and RA Humber. Adult, [Trichoptera]. 27 Jun 1984. Wales: polluted stream, Llanfair Caereinion, Powys.
- 1443 RA Humber. Adult, [Trichoptera]. 21 Jun 1984. United Kingdom: Steps Bridge, Devon, England.
- 2276 EL Cuebas-Incle (V). Adult, [Trichoptera]. 26 Jul 1985. USA: Michigan Hollow, Danby, New York.
- 2407 RI Samuels ← TB Clark and TC Reeves. Adult, [Trichoptera: Hydropsychidae]. Aug 1986. United Kingdom: Fingle Bridge (River Teign), Devon, England.

Erynia sciarae (Olive) Ben-Ze'ev & RG Kenneth
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 1870 N Wilding (80) ← G Remaudière. Adult, [Diptera: Mycetophilidae] on soil. 30 Sep 1976. Location not specified.

Erynia sepulchralis (Thaxt.) Remaud. & Hennebert
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 12250 AE Hajek. Adult, [Diptera: Tipulidae]. 3 Jul 2013. USA: Yellow Barn State Forest, Dryden, New York.

Eryniopsis caroliniana (Thaxter) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 212 [ARSEF 642] S Keller (65). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd Spring 1978. Switzerland.
- 213 [ARSEF 640] S Keller (69). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd Spring 1978. Switzerland.
- 424 [ARSEF 641] S Keller (41). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd 27 May 1980. Switzerland.
- 640 [ARSEF 213 (deaccessioned)] S Keller (69). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd 10 Aug 1981. Switzerland.

- 641 [ARSEF 424 (lost)] S Keller (41). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd 10 Aug 1981. Switzerland.
- 642 [ARSEF 212 (deaccessioned)] S Keller (65). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd 10 Aug 1981. Switzerland.

Eryniopsis ptychopterae S Keller & Eilenberg
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 2535 J Eilenberg (KVL 5). *Ptychoptera contaminata* [Diptera: Ptychopteridae]. 25 Aug 1986. Denmark: Kattinge Vig, Roskilde.
- 2671 J Eilenberg (KVL 48). *Ptychoptera contaminata* [Diptera: Ptychopteridae]. 9 Aug 1988. Denmark: Kattinge Vig, Roskilde.

Furia sp.
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 6211 Acc'd 17 Feb 2000.

Furia americana (Thaxter) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 742 [CNPAF 82-3-10-01; CP 32] RS Soper. [Diptera]. 10 Mar 1982. Brazil: CNPAF, Goiânia, Goiás.
- 1240 [CNPAF 84-03-30-4B; CP 140] DW Roberts. [Diptera]. 30 Mar 1984. Brazil: Francisco Beltrão, Paraná.
- 1242 [CNPAF 84-03-30-1A; CP 142] RA Daoust, BP Magalhães and DW Roberts. [Diptera]. 30 Mar 1984. Brazil: Francisco Beltrão, Paraná.
- 2192 [CNPAF 86-4-24; CP 202] SM dos Santos. [Diptera]. 24 Apr 1986. Brazil: CNPAF, Goiânia, Goiás.
- 2194 [CNPAF 86-5-21-A; CP 204] SM dos Santos. [Diptera]. 21 May 1986. Brazil: CNPAF, Goiânia, Goiás.

Furia gastropachae (Raciborski) Filotas, Hajek & Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae. Synonym: *Furia crustosa* (MacLeod & Tyrrell) Humber

- 2906 FPMI. [Lepidoptera]. Acc'd 3 Apr 1990. Canada.
- 5541 M Filotas (NY I1). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. Apr 1997. USA: Tug Hill Plateau, Richland, New York. Host infected in laboratory upon exposure to germinating resting spores in field collected soil.
- 5542 M Filotas (NY I2). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. Apr 1997. USA: Tug Hill Plateau, Richland, New York. Host infected in laboratory upon exposure to germinating resting spores in field collected soil.

- 5543 M Filotas (NY V). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. Apr 1997. USA: Tug Hill Plateau, Richland, New York. Host infected in laboratory upon exposure to germinating resting spores in field collected soil.
- 5544 M Filotas (NY Z). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. Apr 1997. USA: Tug Hill Plateau, Richland, New York. Host infected in laboratory upon exposure to germinating resting spores in field collected soil.
- 5545 M Filotas (MD97 S1-1). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 6 Jun 1997. USA: Snow Hill, Maryland.
- 5546 M Filotas (MD97 S1-2). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 6 Jun 1997. USA: Snow Hill, Maryland.
- 5547 M Filotas (CTLD A). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 19 Jun 1997. USA: State University of New York campus, Cortland, New York.
- 5869 [Forest Pest Management Institute FPMI 713] M Filotas. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 9 Jun 1982. Canada: Webbwood, Ontario.
- 5870 [Forest Pest Management Institute FPMI 922-1a] M Filotas. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 20 Jun 1986. Canada: New Liskeard, Ontario.
- 5871 [Forest Pest Management Institute FPMI 922-2a] M Filotas. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 20 Jun 1986. Canada: New Liskeard, Ontario.
- 5872 [Forest Pest Management Institute FPMI 922-3a] M Filotas. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 20 Jun 1986. Canada: New Liskeard, Ontario.
- 8926 [ERL 1539b] VS Gouli (FTC). *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 2007. USA: Vermont.

Furia ithacensis (Kramer) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 663 JP Kramer. *Symphoromyia hirta* [Diptera: Rha-gionidae]. 1 Jul 1980. USA: Michigan Hollow, West Danby, New York. CULTURE EX TYPE.
- 1339 S Balazy (1561). [Diptera: Empididae] attached to the leaves of arboraceous plants. 22 May 1983. Poland: Bialowieza National Park.
- 1340 S Balazy (1561a). [Diptera: Empididae] attached to the leaves of arboraceous plants. 22 May 1983. Poland: Bialowieza National Park.
- 8606 KT Hodge. Rec'd 14 Jun 2007.
- 12182 13 Jun 2013.

Furia neopyralidarum (Ben-Ze'ev) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 1145 M Shimazu (F-356). [Lepidoptera]. Acc'd 4 Apr 1984. Japan: Ibaraki Prefecture.

Furia pieris (Li & Humber) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 781 BF Usher. *Pieris rapae* [Lepidoptera: Pieridae]. 27 Aug 1982. USA: Ellis Hollow Rd, Community Gardens, Ithaca, New York.

Furia virescens (Thaxter) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 394 S Keller (24). *Notostira elongata* [Hemiptera: Miridae]. 9 Oct 1975. Switzerland.
- 427 S Keller (250). Larva, [Lepidoptera]. Rec'd 6 Feb 1980. Switzerland.
- 428 S Keller (250?). Rec'd 6 Feb 1980. Switzerland.
- 470 S Keller (251). [Lepidoptera: Noctuidae]. Rec'd 27 May 1980. Switzerland.
- 1127 S Keller (292). [Lepidoptera: Noctuidae]. 8 Sep 1980. Switzerland.
- 1128 S Keller (293). [Lepidoptera: Noctuidae]. 8 Sep 1980. Switzerland.
- 1129 S Keller (416). [Lepidoptera: Noctuidae]. 18 Aug 1982. Switzerland.

Macrobotophthora vermicola (McCulloch) Tucker
[Entomophthoromycotina: Entomophthorales]
Ancylistaceae

- 650 EC Bernard. *Cruznama lambdiense* [Rhabditida: Rhabditidae]. 1977. USA: Tennessee.

Massospora cicadina Peck
[Entomophthoromycotina: Entomophthorales]

Entomophthoraceae. Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

- 374 RS Soper. *Magicicada septendecim* [Hemiptera: Cicadidae]. 16 Jun 1979. USA: Mohawk Lake Preserve, New Paltz, New York.

Massospora levispora Soper
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 2001 FPMI (631). *Okanagana rimosa* [Hemiptera: Cicadidae]. 17 Jun 1971. Canada: Searchmont, Ontario.
- 3910 MA Welton (FPMI 465). *Magicicada* sp. [Hemiptera: Cicadidae]. Rec'd 26 Apr 1993. Canada: Searchmont, Ontario.

Neozygites floridana(?) (Weiser & Muma) Remaudière & S Keller
[Entomophthoromycotina: Entomophthorales]
Neozygitaceae

- 662 RA Humber ← DR Smitley. *Tetranychus urticae* [Acari: Tetranychidae]. 19 Oct 1981. USA: Raleigh, North Carolina.
- 5201 DW Roberts (1). *Tetranychus urticae* [Acari: Tetranychidae]. Rec'd 6 Jul 1996. USA: Laboratory culture, Ithaca, New York.
- 5202 DW Roberts (2). *Tetranychus urticae* [Acari: Tetranychidae]. Rec'd 6 Jul 1996. USA: Laboratory culture, Ithaca, New York.
- 5376 DW Roberts (0). *Tetranychus urticae* [Acari: Tetranychidae]. Rec'd 3 Dec 1996. USA: Laboratory culture, Ithaca, New York.
- 6219 I Delalibera Junior (AB 10,11). Adult, female, *Mononychellus tanajoa* [Acari: Tetranychidae]. 30 Aug 1997. Brazil: Cruz das Almas, Bahia.
- 6220 I Delalibera Junior (AC 16). Adult, female, *Mononychellus tanajoa* [Acari: Tetranychidae]. 30 Aug 1997. Brazil: Cruz das Almas, Bahia.
- 6221 I Delalibera Junior (L 13). Adult, female, *Mononychellus tanajoa* [Acari: Tetranychidae]. 30 Aug 1997. Brazil: Cruz das Almas, Bahia.

Neozygites parvispora (DM MacLeod & KP Carl) Remaudière & S Keller
[Entomophthoromycotina: Entomophthorales]
Neozygitaceae

- 5620 A Grundschober (301). *Thrips tabaci* [Thysanoptera: Thripidae] on *Allium porrum*. 17 Oct 1996. Switzerland: organic vegetable farm in Winkel, Bülach, Zurich.
- 5621 A Grundschober (302). *Thrips tabaci* [Thysanoptera: Thripidae] on *Allium porrum*. 17 Oct 1996. Switzerland: organic vegetable farm in Winkel, Bülach, Zurich.
- 6276 Acc'd 7 Jun 2000.
- 6277 Acc'd 7 Jun 2000.
- 6278 Acc'd 7 Jun 2000.
- 6279 Acc'd 7 Jun 2000.
- 6280 Acc'd 7 Jun 2000.

Neozygites tetranychii Weiser
[Entomophthoromycotina: Entomophthorales]

Neozygitaceae. This culture is provided as hyphal bodies in a liquid tissue culture medium. Spores may be induced by plating hyphal bodies on solid media. Identification of this species is provisional because of correspondence with the source of the strain and the original description of the species. This species was published without a Latin diagnosis and must still be validated nomenclaturally.

- 2677 J Weiser. *Tetranychus althaeae* [Acari: Tetranychidae]. 8 Nov 1988. Czech Republic: Dvory n. Zítavou.

Neozygites turbinata (RG Kenneth) Remaudière & S Keller
[Entomophthoromycotina: Entomophthorales]
Neozygitaceae

- 54 RG Kenneth. *Pterochloroides persicae* [Hemiptera: Aphididae]. Spring 1975. Israel: Rehovot, Central District.

Pandora sp.
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 3201 GW Riethmacher (EB6). *Plutella xylostella* [Lepidoptera: Plutellidae]. 13 May 1989. Philippines: La Trinidad, Benguet.
- 5812 [Diptera]. 10 Aug 1998. Denmark.
- 11764 [ERL 1970] S Gouli (SVG-11-1) and V Gouli. *Lophocampa caryae* [Lepidoptera: Arctiidae]. 2011. USA: Richmond, Vermont.
- 13371 [J Eilenberg KVL 16-43] *Cacopsylla* sp. [Hemiptera: Psyllidae]. 1 Sep 2016. Denmark: Pear Orchard, Frydenlunds Alle 7, 2950, Vedbæk, Zealand. Lat. 55.839913 Long. 12.561876 .
- 13372 [J Eilenberg KVL 16-44] *Cacopsylla* sp. [Hemiptera: Psyllidae]. 8 Sep 2016. Denmark: Pear Orchard, Frydenlunds Alle 7, 2950, Vedbæk, Zealand. Lat. 55.839913 Long. 12.561876 .
- 13373 [J Eilenberg KVL16-45] *Cacopsylla* sp. [Hemiptera: Psyllidae]. 8 Sep 2016. Denmark: Pear Orchard, Frydenlunds Alle 7, 2950, Vedbæk, Zealand. Lat. 55.839913 Long. 12.561876 .
- 13374 [J Eilenberg KVL 16-46] *Cacopsylla* sp. [Hemiptera: Psyllidae]. 8 Sep 2016. Denmark: Pear Orchard, Frydenlunds Alle 7, 2950, Vedbæk, Zealand. Lat. 55.839913 Long. 12.561876 .
- 13512 [AP Gryganskyi Sciarid fungus 2] [Diptera: Sciaridae]. Rec'd 2 Apr 2018. USA: mushroom farm, Kennett Square, Chester County, Pennsylvania.

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

- 217 [ATCC 34698; CBS 194.77; IMI 211910] G Zimmermann (2). Larva, *Plutella maculipennis* [Lepidoptera: Plutellidae]. 27 Mar 1978. Germany: Gross-Bieberau, Darmstadt, Hesse. CULTURE EX NEOTYPE.
- 915 S Keller (426). *Athalia rosae* [Coleoptera: Elateridae]. 1 Sep 1982. Switzerland.
- 917 S Keller (425). *Athalia rosae* [Coleoptera: Elateridae]. 1 Sep 1982. Switzerland: Zürich.
- 920 S Keller (430). *Athalia rosae* [Coleoptera: Elateridae]. 1 Sep 1982. Switzerland: Zürich.
- 1000 J Aoki (Ent. 30) ← H Tomiyama. *Plutella xylostella* [Lepidoptera: Plutellidae]. Nov 1977. Japan: Fuchu, Tokyo Prefecture.

- 1004 [FPMI 752] J Aoki (Ent. 35) ← M Shimazu. Rec'd 7 Nov 1983. Japan: Chikugo, Fukuoka Prefecture.
- 1135 [CSIRO EM685] M Shimazu (F-41). *Plutella xylostella* [Lepidoptera: Plutellidae]. Acc'd 3 Apr 1984. Japan: Tokyo Prefecture.
- 1715 S Keller (514). *Athalia rosae* [Coleoptera: Elateridae]. 3 Oct 1984. Switzerland: Reckenholz, Zurich.
- 1716 S Keller (515). *Athalia rosae* [Coleoptera: Elateridae]. 3 Oct 1984. Switzerland: Reckenholz, Zurich.
- 1717 S Keller (516). *Athalia rosae* [Coleoptera: Elateridae]. 3 Oct 1984. Switzerland: Reckenholz, Zurich.
- 1718 S Keller (517). *Athalia rosae* [Coleoptera: Elateridae]. 3 Oct 1984. Switzerland: Reckenholz, Zurich.
- 2824 GW Riethmacher (EB4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Apr 1989. Philippines: La Trinidad, Benguet. ARSEF 2776, *Fusarium* sp., also isolated from Riethmacher # EB4.
- 3075 DG Holdom. *Plutella* sp. [Lepidoptera: Plutellidae]. 27 Apr 1990. Australia: Lockyer Valley, Queensland.
- 3200 GW Riethmacher (EB3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Apr 1989. Philippines: La Trinidad, Benguet.
- 3202 GW Riethmacher (EB7). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Jun 1989. Philippines: La Trinidad, Benguet.
- 6293 R Alatorre Rosas (Jav.1). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6294 R Alatorre Rosas (Jav.3). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6295 R Alatorre Rosas (Jav.4). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6296 R Alatorre Rosas (Jav.6). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6297 R Alatorre Rosas (Jav.7). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6298 R Alatorre Rosas (Jav.8). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6299 R Alatorre Rosas (Jav.9). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6300 R Alatorre Rosas (Jav.10). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6301 R Alatorre Rosas (Jav.11). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6302 R Alatorre Rosas (Jav.12). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6304 R Alatorre Rosas (Andres.2). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6305 R Alatorre Rosas (Andres.3). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6306 R Alatorre Rosas (Andres.5). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6307 R Alatorre Rosas (Andres.6). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6308 R Alatorre Rosas (Andres.7). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6309 R Alatorre Rosas (Bujanos.1). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6310 R Alatorre Rosas (Bujanos.3). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6311 R Alatorre Rosas (Bujanos.4). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6312 R Alatorre Rosas (Bujanos.5). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6316 R Alatorre Rosas (Mina.19). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- Pandora bullata*** (Thaxter & DM MacLeod in Humber)
Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae
-
- 9 [ARSEF 116; ATCC 24298] RS Soper. Adult, *Phaenicia sericata* [Diptera: Calliphoridae]. 2 Aug 1972. USA: Eastham, Massachusetts.
- 116 [ARSEF 9 (lost); ATCC 24298] RS Soper. Adult, *Phaenicia sericata* [Diptera: Calliphoridae]. 2 Aug 1972. USA: Eastham, Massachusetts.
- Pandora delphacis*** (Hori) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae
-
- 134 M Shimazu. *Nilaparvata lugens* [Hemiptera: Delphacidae]. 1975. Japan: Fukuoka, Fukuoka Prefecture.
- 458 RS Soper. *Nephotettix cincticeps* [Hemiptera: Cicadellidae]. 5 May 1980. Philippines: IRRI, Los Baños, Manila.
- 459 RS Soper. *Nephotettix cincticeps* [Hemiptera: Cicadellidae]. 5 May 1980. Philippines: IRRI, Los Baños, Manila.

- 460 RS Soper. *Nephotettix cincticeps* [Hemiptera: Cicadellidae]. 5 May 1980. Philippines: IRRI, Los Baños, Manila.
- 461 RS Soper. *Nephotettix cincticeps* [Hemiptera: Cicadellidae]. 5 May 1980. Philippines: IRRI, Los Baños, Manila.
- 478 RS Soper (B). *Nephotettix cincticeps* [Hemiptera: Cicadellidae]. 5 May 1980. Philippines: IRRI, Los Baños, Manila.
- 479 RS Soper (C). *Nephotettix cincticeps* [Hemiptera: Cicadellidae]. 5 May 1980. Philippines: IRRI, Los Baños, Manila.
- 575 RS Soper (8132-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 2 Mar 1981. Indonesia: Desa Dasan Tereng Village, Kecamatan Narmada District, Lombok Island.
- 578 RS Soper (81227-3). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 27 Feb 1981. Indonesia: Sleman District, Yogyakarta, Java.
- 579 RS Soper (8132-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 2 Mar 1981. Indonesia: Desa Dasan Tereng Village, Kecamatan Narmada District, Lombok Island.
- 580 RS Soper (81223-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 23 Feb 1981. Indonesia: Bangun Village, Kecamatan Tanjung, Deliserdang District, Sumatera Utara, Sumatera.
- 593 [CSIRO EM654] RS Soper (8133-2). *Sogatella furcifera* [Hemiptera: Delphacidae]. 3 Mar 1981. Indonesia: Pangkep Kaba, Sulawesi Selatan, Celebes.
- 603 RS Soper (8133-2). *Sogatella furcifera* [Hemiptera: Delphacidae]. 3 Mar 1981. Indonesia: Pangkep Kaba, Sulawesi Selatan, Celebes.
- 657 DW Roberts (101081-4). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 10 Oct 1981. PR China: Jansui, Jiangsu.
- 659 DW Roberts (101081-6-2). *Recilia dorsalis* [Hemiptera: Cicadellidae]. 10 Oct 1981. PR China: Jansui, Jiangsu.
- 660 DW Roberts (101081-6-2). *Recilia dorsalis* [Hemiptera: Cicadellidae]. 10 Oct 1981. PR China: Jiangsu.
- 661 DW Roberts (101081-7). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 10 Oct 1981. PR China: Jansui, Jiangsu.
- 664 DW Roberts (100881-4-3). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 8 Oct 1981. PR China: Chansha, Hunan.
- 665 DW Roberts (102181-9). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 21 Oct 1981. PR China: Wuhan, Hupei.
- 666 DW Roberts (102181-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 21 Oct 1981. PR China: Wuhan, Hupei.
- 667 DW Roberts (102181-6). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 21 Oct 1981. PR China: Wuhan, Hupei.
- 668 DW Roberts (101081-3). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 10 Oct 1981. PR China: Nanjing, Jiangsu.
- 669 DW Roberts (102181-2). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 21 Oct 1981. PR China: Wuhan, Hupei.
- 670 DW Roberts (101381-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 13 Oct 1981. PR China: Hangzhou, Zhijiang.
- 671 DW Roberts (102381-3). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 23 Oct 1981. PR China: Guanzhou, Kwon Tung.
- 672 DW Roberts (101081-5-3). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 10 Oct 1981. PR China: Nanjing, Jiangsu.
- 673 DW Roberts (100981-3). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 9 Oct 1981. PR China: Nanjing, Jiangsu.
- 674 DW Roberts (100981-4). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 9 Oct 1981. PR China: Nanjing, Jiangsu.
- 675 DW Roberts (102381-2). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 23 Oct 1981. PR China: Guanzhou, Kwon Tung.
- 676 DW Roberts (102181-5). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 21 Oct 1981. PR China: Wuhan, Hupei.
- 677 DW Roberts (102181-5). *Nilaparvata lugens* [Hemiptera: Delphacidae]. PR China: Wuhan, Hupei.
- 682 DW Roberts (101081-2-3). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 10 Oct 1981. PR China: Nanjing, Jiangsu.
- 686 DW Roberts (101081-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 10 Oct 1981. PR China: Jiangsu.
- 698 *Nilaparvata lugens* [Hemiptera: Delphacidae]. 11 Apr 1981. PR China: Wuhan, Hupei.
- 701 DW Roberts (102181-4). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 21 Oct 1981. PR China: Wuhan, Hupei.
- 713 DW Roberts (102181-4). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 21 Oct 1981. PR China: Wuhan, Hupei.
- 716 DW Roberts (100981-1). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 9 Oct 1981. PR China: Nanjing, Jiangsu.
- 1101 J Aoki (Ent. 36) ← M Shimazu. Acc'd 14 Mar 1984. Japan: Chikugo, Fukuoka Prefecture.
- 1124 M Shimazu (F-16). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Acc'd 29 Mar 1984. Japan: Fukuoka Prefecture.
- 1132 M Shimazu (F-32). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Acc'd 3 Apr 1984. Japan: Fukuoka Prefecture.

- 1133 M Shimazu (F-33). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Acc'd 3 Apr 1984. Japan: Fukuoka Prefecture.
- 1238 [CNPFAF 84-04-13-1B; CP 138] DW Roberts. [Hemiptera: Cicadellidae]. 13 Apr 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1264 J Aoki (Ent. 6) ← M Shimazu. *Nilaparvata lugens* [Hemiptera: Delphacidae]. Rec'd 7 Nov 1983. Japan: Chikugo, Fukuoka Prefecture.
- 1265 J Aoki (Ent. 7) ← H Tomiyama. *Mamestra brassicae* [Lepidoptera: Noctuidae]. Nov 1975. Japan: Fuchu, Tokyo Prefecture.
- 1268 M Shimazu (F-56). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Acc'd 3 May 1984. Japan: Chikugo, Fukuoka Prefecture.
- 1730 DW Roberts (26108) and MC Rombach. *Nilaparvata lugens* [Hemiptera: Delphacidae]. 26 Oct 1984. India: greenhouse, All India Coop. Rice Inv. Project, Hyderabad, Andhra Pradesh.
- 1731 DW Roberts (26105) and MC Rombach. *Nilaparvata lugens* [Hemiptera: Delphacidae]. 26 Oct 1984. India: greenhouse, All India Coop. Rice Inv. Project, Hyderabad, Andhra Pradesh.
- 1936 SG Wraight and SP Wraight (Q1). [Hemiptera: Cicadellidae]. 31 May 1985. Brazil: CNPAF, Goiânia, Goiás.
- 2028 JA Harper. *Spissistilus festinus* [Hemiptera: Membracidae]. Acc'd 28 Oct 1985. USA: Auburn, Alabama.
- 2046 P Taylor. Reisolate of ARSEF 579 passed through *Sogatodes oryzicola* [Homoptera: Delphacidae]. Acc'd 26 Nov 1985. Laboratory manipulation.
- 2047 P Taylor. Reisolate of ARSEF 579 passed through *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 26 Nov 1985. Laboratory manipulation.
- 2091 DG Holdom (200186-2). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 20 Jan 1986. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2092 DG Holdom (260186-1). *Sogatella furcifera* [Hemiptera: Delphacidae]. 26 Jan 1986. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2093 DG Holdom (260186-2). *Sogatella furcifera* [Hemiptera: Delphacidae]. 26 Jan 1986. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2094 DG Holdom (270186). *Sogatodes pusanus* [Hemiptera: Delphacidae]. 27 Jan 1986. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2095 DG Holdom (020286). *Sogatella furcifera* [Hemiptera: Delphacidae]. 2 Feb 1986. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2096 DG Holdom (060286). *Sogatella furcifera* [Hemiptera: Delphacidae]. 6 Feb 1986. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2408 DG Holdom (310187-3). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 31 Jan 1987. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2409 DG Holdom (310187-1). *Sogatella furcifera* [Hemiptera: Delphacidae]. 31 Jan 1987. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 3062 M Wheeler. [Hemiptera: Miridae]. 13 Aug 1990. USA: Snapp field # 2D, Newark Valley, New York.
- 3072 M Wheeler ← H Firstencel. *Empoasca fabae* [Hemiptera: Cicadellidae]. 7 Aug 1990. USA: Snapp field # 8A, Newark Valley, New York.
- 3093 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 11 Sep 1990. USA: Snapp field # 5G, Newark Valley, New York.
- 3094 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 11 Sep 1990. USA: Snapp field # 4G, Newark Valley, New York.
- 3095 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 10 Sep 1990. USA: Hoffman field # 2B, Catherine, New York.
- 3096 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 10 Sep 1990. USA: Hoffman field # 1G, Catherine, New York.
- 3106 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 20 Sep 1990. USA: Hoffman field # 4C, Catherine, New York.
- 3107 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 28 Sep 1990. USA: Hoffman field # 1B, Catherine, New York.
- 3484 G Lorenz. *Spissistilus festinus* [Hemiptera: Membracidae] on soybeans (*Glycine max*). 18 Oct 1991. USA: Lonoke County, Arkansas.
- 6538 MG Feng (F95125). *Sogatella furcifera* [Hemiptera: Delphacidae] on late-season rice. Fall 1995. PR China: Fuyang, Zhejiang Province.
- 6539 MG Feng (F95129). *Sogatella furcifera* [Hemiptera: Delphacidae] on late-season rice. 6 Nov 1995. PR China: Fuyang, Zhejiang Province.
- 11872 [ARSEF 674] X Zhou. Rec'd 18 Jan 2013. Single spore reisolation of ARSEF 674 following passage through *Nilaparvata lugens* (Stål).
- 11873 [ARSEF 674] X Zhou. Rec'd 18 Jan 2013. Reisolated following *in vivo* passage of ARSEF 674 through *Nilaparvata lugens* (Stål).

Pandora dipterigena (Thaxter) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 131 N Wilding (1). [Diptera]. 24 Aug 1976. USA: Rogers Farm, Stillwater, Maine.
- 397 [ARSEF ?1066] S Keller (92). [Diptera: Nematocera]. 5 Jun 1978. Switzerland.

- 1144 [CSIRO EM696] M Shimazu (F-354). [Diptera: Calliphoridae]. Acc'd 8 Oct 1984. Japan: Tochigi Prefecture.
- 1422 S Balazy (1496c). [Diptera: Brachycera] attached to the underside of lime tree leaf in deciduous forest undergrowth. 4 Jun 1982. Poland: Bialowieza National Park.
- 1720 S Keller (521). [Diptera]. 18 Oct 1984. Switzerland: Trasadingen, Schaffhausen.
- 1887 M Shimazu. [Diptera: ?Sciaridae]. 1 Jun 1985. USA: Allegany State Park, Salamanca, New York.
- 1921 M Shimazu (FE3). [Diptera]. 20 Jun 1985. USA: Allegany State Park, Salamanca, New York.
- 1923 M Shimazu (FE1). [Diptera]. Summer 1985. USA: Allegany State Park, Salamanca, New York.
- 2406 RI Samuels. Adult, [Trichoptera]. Aug 1986. United Kingdom: Avon, England.

Pandora gloeospora (Vuillemin) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 13406 [AP Gryganskyi Sciarid fungus 1] Adult, *Lycoriella* sp. [Diptera: Sciaridae]. Rec'd 18 Jan 2018. USA: mushroom house, Chester County, Pennsylvania.

Pandora heteropterae (Balazy) S Keller
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 9266 JJ Hannam. *Lygus lineolaris* [Hemiptera: Miridae] collected from weeds on the edge of cornfield. 1 Sep 2008. USA: Johnson County, Arkansas. 35°23'34" N, 93°42'03" W.

Pandora kondoiensis (Milner, Mahon, & Brown)
Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 369 [ARSEF 825] CSIRO (EM507) ← R Teakle. *Acyrtosiphon kondoi* [Hemiptera: Aphididae]. 5 Oct 1977. Australia: Brisbane, Queensland.
- 825 [ARSEF 369] CSIRO (EM507) ← R Teakle. *Acyrtosiphon kondoi* [Hemiptera: Aphididae]. 5 Oct 1977. Australia: Brisbane, Queensland.
- 828 CSIRO (EM598) ← RD Hughes. *Acyrtosiphon kondoi* [Hemiptera: Aphididae] on lucerne. 31 Jul 1980. Australia: Dubbo, New South Wales.
- 836 CSIRO (EM635) ← G Lutton. *Acyrtosiphon kondoi* [Hemiptera: Aphididae] on lucerne. 29 Sep 1981. Australia: 2 km SW of Gundagai, New South Wales.
- 837 CSIRO (EM600) ← RD Hughes. *Acyrtosiphon kondoi* [Hemiptera: Aphididae] on lucerne. 31 Jul 1980. Australia: Dubbo, New South Wales.

Pandora neoaphidis (Remaudière & Hennebert) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 11 RS Soper ← A Kimball. *Macrosiphum euphorbiae* [Hemiptera: Aphididae] on potato. 18 Aug 1972. USA: Aroostook State Farm, Presque Isle, Maine.
- 19 RS Soper ← FR Holbrook. *Macrosiphum euphorbiae* [Hemiptera: Aphididae] on potato. USA: State of Maine Potato Field, Homestead, Florida.
- 26 RS Soper ← G Remaudière. [Hemiptera: Aphididae]. Location not specified.
- 60 21 Jun 1975. Commonwealth of Independent States.
- 65 8 Sep 1975. Commonwealth of Independent States.
- 77 RG Kenneth (3071) or (E.a. 4) ← A Uziel. *Aphis ?fabae* [Hemiptera: Aphididae] on *Solanum hirsutum*. Jan 1976. Israel: potato field, Achuzam.
- 78 RG Kenneth (3072) or (E.a. 11) ← A Uziel. [Hemiptera: Aphididae] on *Solanum hirsutum*. Mar 1976. Israel: potato field, Achuzam.
- 128 [IPLB 52] JP Latgé and G Remaudière. *Aphis* sp. [Hemiptera: Aphididae] on *Cornus* sp. [Cornaceae]. 26 Aug 1976. Canada: Saint-Gédéon, Québec.
- 181 FR Holbrook. *Macrosiphum euphorbiae* [Hemiptera: Aphididae]. 9 Aug 1977. USA: Maine.
- 200 RT Mietkiewski. [Hemiptera: Aphididae] on potato. 13 Sep 1977. USA: Rogers Farm, Stillwater, Maine.
- 381 RS Soper. [Hemiptera: Aphididae]. 26 Feb 1979. Australia.
- 608 I Majchrowicz (80). *Aphis fabae* [Hemiptera: Aphididae]. Jul 1980. Poland: Szczecin.
- 609 I Majchrowicz (81). *Aphis fabae* [Hemiptera: Aphididae]. Jul 1980. Poland: Szczecin.
- 610 I Majchrowicz (82). *Aphis fabae* [Hemiptera: Aphididae]. Jul 1980. Poland: Szczecin.
- 611 I Majchrowicz (87). *Aphis fabae* [Hemiptera: Aphididae]. Aug 1980. Poland: Szczecin.
- 612 I Majchrowicz (88). *Aphis fabae* [Hemiptera: Aphididae]. Aug 1980. Poland: Szczecin.
- 613 I Majchrowicz (90). *Aphis fabae* [Hemiptera: Aphididae]. Aug 1980. Poland: Szczecin.
- 614 I Majchrowicz (91). *Aphis fabae* [Hemiptera: Aphididae]. Aug 1980. Poland: Szczecin.
- 636 I Majchrowicz (102). *Aphis fabae* [Hemiptera: Aphididae]. 3 Jul 1981. Poland: Szczecin.
- 637 I Majchrowicz (103). *Aphis fabae* [Hemiptera: Aphididae]. 6 Jul 1981. Poland: Stanpanel.
- 638 [CSIRO EM653] I Majchrowicz (104). *Aphis fabae* [Hemiptera: Aphididae]. 16 Jul 1981. Poland: Gumiencin, Szczecin.
- 639 I Majchrowicz (105). *Aphis fabae* [Hemiptera: Aphididae]. 18 Jul 1981. Poland: Gryfino, Szczecin.

- 827 CSIRO (EM717) ← RJ Huppertz. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 11 Jan 1982. Australia: 30 km from Deniliquin, Echuca, New South Wales.
- 829 CSIRO (EM736) ← LT Woolcock. *Hyperomyzus lactucae* [Hemiptera: Aphididae]. 29 Nov 1982. Australia: Murwillumbah, New South Wales.
- 830 CSIRO (EM723) ← RJ Huppertz. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. Fall 1982. Australia: Hamilton, Victoria.
- 831 CSIRO (EM623) ← LT Woolcock. *Acyrtosiphon pisum* [Hemiptera: Aphididae] on lucerne. 21 Apr 1981. Australia: Bega, New South Wales.
- 833 [CSIRO EM739] RJ Milner. *Hyperomyzus lactucae* [Hemiptera: Aphididae]. 8 Nov 1982. Chile: airport, Easter Island.
- 835 CSIRO (EM633) ← L Shu-Sheng. *Hyperomyzus lactucae* [Hemiptera: Aphididae] on *Sonchus* sp. 18 Jun 1981. Australia: Black Mountain, Canberra, Australian Capital Territory.
- 838 CSIRO (EM670) ← G Lutton. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 13 Apr 1982. Australia: Murrumbateman, New South Wales.
- 993 J Aoki (Ent. 25) ← K Nakamura. *Uroleucon formosanus* [Hemiptera: Aphididae]. Jul 1977. Japan: Hino, Tokyo Prefecture.
- 1134 M Shimazu (F-36). *Macrosiphum akebiae* [Hemiptera: Aphididae]. Acc'd 3 Apr 1984. Japan: Fukuoka Prefecture.
- 1137 M Shimazu (F-54). *Dactynotus formosanus* [Hemiptera: Aphididae]. Acc'd 3 Apr 1984. Japan: Tokyo Prefecture.
- 1570 DW Roberts ← F Messina. *Lygus* sp. [Hemiptera: Miridae] on cowpea. 31 Aug 1984. USA: Ithaca, New York.
- 1571 DW Roberts. [Hemiptera: Aphididae]. 24 Aug 1984. USA: Tully, New York.
- 1596 I Majchrowicz (34). Pterygotes, *Hyalopterus pruni* [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France.
- 1597 I Majchrowicz (37). Apterygotes, *Sitobion* sp. [Hemiptera: Aphididae]. Acc'd 19 Sep 1984.
- 1598 I Majchrowicz (50). Pterygotes, *Acyrtosiphon pisum* [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: Bezreus, Avignon.
- 1599 I Majchrowicz (161). Pterygotes, *Acyrtosiphon pisum* [Hemiptera: Aphididae]. Portugal: nr. Pastoria.
- 1600 I Majchrowicz (164). Pterygotes, *Myzus persicae* [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. Portugal: nr. Trofa.
- 1601 I Majchrowicz (170). Apterygotes, *Myzus* sp. [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. Spain: nr. St. Amalia.
- 1602 I Majchrowicz (172). Apterygotes, *Myzus* sp. [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. Spain: nr. St. Amalia.
- 1603 I Majchrowicz (178). Apterygotes, *Acyrtosiphon pisum* [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. Spain: nr. St. Amalia.
- 1604 I Majchrowicz (201). Apterygotes, *Sitobion* sp. [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: La Minière.
- 1605 I Majchrowicz (211). Pterygotes, *Acyrtosiphon pisum* [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: La Minière.
- 1606 I Majchrowicz (216). Apterygotes, *Aphis fabae* [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: La Minière.
- 1607 I Majchrowicz (224). Apterygotes, *Macrosiphum* sp. [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: La Minière.
- 1608 I Majchrowicz (229). Apterygotes, *Aphis fabae* [Hemiptera: Aphididae]. France: La Minière.
- 1609 I Majchrowicz (230). Apterygotes, *Acyrtosiphon pisum* [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: La Minière.
- 1610 I Majchrowicz (236). Apterygotes, *Aphidula* sp. [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: La Minière.
- 1611 I Majchrowicz (246). Apterygotes, *Aphis fabae* [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: La Minière.
- 1612 I Majchrowicz (251). Apterygotes, *Macrosiphum* sp. [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: La Minière.
- 1613 I Majchrowicz (257). Pterygotes, *Brevicoryne brassicae* [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: La Minière.
- 1614 I Majchrowicz (258). Apterygotes, *Brevicoryne brassicae* [Hemiptera: Aphididae]. France: La Minière.
- 1615 I Majchrowicz (263). Apterygotes, *Aphidula* sp. [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: La Minière.
- 1616 I Majchrowicz (269). Apterygotes, *Brevicoryne brassicae* [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: La Minière.
- 1617 I Majchrowicz (275). Apterygotes, *Brevicoryne brassicae* [Hemiptera: Aphididae]. Acc'd 19 Sep 1984. France: La Minière.
- 1618 I Majchrowicz (260 4.08). Acc'd 19 Sep 1984. Location not specified.
- 1695 IL Sivcev (217). Alate, [Hemiptera: Aphididae] on cabbage. 10 Jul 1984. Yugoslavia: PKB Commune, E. Belgrade.
- 1696 IL Sivcev (R-1). Alate, [Hemiptera: Aphididae] on roses. 7 Jun 1984. Yugoslavia: laboratory, Zemun, Belgrade.
- 1784 IL Sivcev (281). Alate, *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 8 Oct 1984. Yugoslavia: PKB Commune, E. Belgrade.

- 1785 IL Sivcev (278). Alate, *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 8 Oct 1984. Yugoslavia: PKB Commune, E. Belgrade.
- 1786 IL Sivcev (271). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 8 Oct 1984. Yugoslavia: PKB Commune, E. Belgrade.
- 1824 IL Sivcev (V-11). 4th instar larva, *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 11 Oct 1984. Yugoslavia: Veternik.
- 1825 IL Sivcev (F-19). 4th instar larva, *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 11 Oct 1984. Yugoslavia: Futog.
- 1826 IL Sivcev (F-34). 3rd instar larva, *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 11 Oct 1984. Yugoslavia: Futog.
- 1827 IL Sivcev (F-30). 3rd instar larva, *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 11 Oct 1984. Yugoslavia: Futog.
- 1981 TJ Poprawski (0184). Nymph, *Aphis fabae* [Hemiptera: Aphididae]. Acc'd 25 Sep 1985. France: La Minière.
- 1983 TJ Poprawski (0186). Nymph, *Aphis fabae* [Hemiptera: Aphididae]. France: La Minière.
- 1985 TJ Poprawski (0188). Nymph, *Aphis fabae* [Hemiptera: Aphididae]. Acc'd 25 Sep 1985. France: La Minière.
- 1986 TJ Poprawski (0189). Nymph, *Macrosiphum rosae* [Hemiptera: Aphididae]. Acc'd 25 Sep 1985. France: La Minière.
- 1987 TJ Poprawski (0190). Nymph, *Macrosiphum rosae* [Hemiptera: Aphididae]. Acc'd 25 Sep 1985. France: La Minière.
- 2016 IL Sivcev (21/85). [Hemiptera: Aphididae] on *Cychorium intibus*. 3 Jul 1985. Yugoslavia: Zemun, Belgrade.
- 2017 IL Sivcev (74/85). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on pea. 5 Jul 1985. Yugoslavia: Micunovo, Vovodina.
- 2018 IL Sivcev (76/85). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on pea. 5 Jul 1985. Yugoslavia: Micunovo, Vovodina.
- 2019 IL Sivcev (63/85). *Aphis fabae* [Hemiptera: Aphididae] on poppy. 5 Jul 1985. Yugoslavia: Micunovo, Vovodina.
- 2020 IL Sivcev (65/85). *Aphis fabae* [Hemiptera: Aphididae] on poppy. 5 Jul 1985. Yugoslavia: Micunovo, Vovodina.
- 2021 IL Sivcev (85/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 8 Jul 1985. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2085 TJ Poprawski (0191). Nymph, *Myzus persicae* [Hemiptera: Aphididae] in alfalfa field. Acc'd 18 Feb 1986. Spain: Ciudad Real.
- 2086 TJ Poprawski (0193). Nymph, *Myzus persicae* [Hemiptera: Aphididae] in alfalfa field. Acc'd 18 Feb 1986. Spain: Ciudad Real.
- 2108 IL Sivcev (174/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 14 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2109 IL Sivcev (184/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 14 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2110 IL Sivcev (185/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 14 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2111 IL Sivcev (228/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 21 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2112 IL Sivcev (229/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 21 Oct 1986. Yugoslavia: Zemun, Belgrade.
- 2113 IL Sivcev (237/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 21 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2114 IL Sivcev (271/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 30 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2115 IL Sivcev (280/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 30 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2116 IL Sivcev (282/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 30 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2117 IL Sivcev (284/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 30 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2118 IL Sivcev (291/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 30 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2119 IL Sivcev (294/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 30 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2120 IL Sivcev (297/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 30 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2121 IL Sivcev (301/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 30 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2122 IL Sivcev (304/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 30 Oct 1985. Yugoslavia: Zemun, Belgrade.
- 2123 IL Sivcev (198/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 17 Oct 1985. Yugoslavia: Bijeljina, Bosnia and Hercegovina.
- 2124 IL Sivcev (249/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 25 Oct 1985. Yugoslavia: Futog.
- 2125 IL Sivcev (250/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 25 Oct 1985. Yugoslavia: Futog.

- 2126 IL Sivcev (251/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 25 Oct 1985. Yugoslavia: Futog.
- 2127 IL Sivcev (253/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 25 Oct 1985. Yugoslavia: Futog.
- 2128 IL Sivcev (261/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 25 Oct 1985. Yugoslavia: Futog.
- 2129 IL Sivcev (264/85). *Brevicoryne brassicae* [Hemiptera: Aphididae] on cabbage. 25 Oct 1985. Yugoslavia: Futog.
- 2280 IL Sivcev (46/86). *Brevicoryne brassicae* [Hemiptera: Aphididae]. 23 Jun 1986. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2291 IL Sivcev (43/86). *Macrosiphum euphorbiae* [Hemiptera: Aphididae] on cabbage. 23 Jun 1986. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2293 IL Sivcev (53/86). *Brevicoryne brassicae* [Hemiptera: Aphididae]. 23 Jun 1986. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2298 IL Sivcev. [Hemiptera: Aphididae]. Acc'd 18 Nov 1986. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2582 K Hural (HG7201). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2583 K Hural (HG7202). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2584 K Hural (HG7203). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2585 K Hural (HG7204). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2586 K Hural (HG7206). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2587 K Hural (HG7207). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2588 K Hural (HG7208). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2589 K Hural (HG7209). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2590 K Hural (HG72010). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2591 K Hural (HG72011). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2592 K Hural (HG72012). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2593 K Hural (HG72013). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2594 K Hural (HG72014). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 20 Jul 1988. USA: Lansing, New York.
- 2754 K Hural (Au-7). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 24 May 1989. USA: Aurora, New York.
- 2755 K Hural (FR-14). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 26 May 1989. USA: Ithaca, New York.
- 2756 K Hural (Ma-1). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 11 Jul 1989. USA: Malone, New York.
- 2757 K Hural (Au-15). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 7 Jun 1989. USA: Aurora, New York.
- 2758 K Hural (FR-7). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 26 May 1989. USA: Ithaca, New York.
- 2759 K Hural (Au-18). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 7 Jun 1989. USA: Aurora, New York.
- 2760 K Hural (Au-8). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 24 May 1989. USA: Aurora, New York.
- 2761 K Hural (Au-6). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 24 May 1989. USA: Aurora, New York.
- 2762 K Hural (Au-1). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 24 May 1989. USA: Aurora, New York.
- 2763 K Hural (FR-12). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 26 May 1989. USA: Ithaca, New York.
- 2766 K Hural (Au-10). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 7 Jun 1989. USA: Aurora, New York.
- 2767 K Hural (Au-14). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 7 Jun 1989. USA: Aurora, New York.
- 2768 K Hural (Au-11). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 7 Jun 1989. USA: Aurora, New York.
- 2769 K Hural (Au-21). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 7 Jun 1989. USA: Aurora, New York.
- 2770 K Hural (Au-19). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 7 Jun 1989. USA: Aurora, New York.
- 2773 K Hural (FR-4). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 26 May 1989. USA: Ithaca, New York.

- 2781 K Hural (Au-20). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 7 Jun 1989. USA: Aurora, New York.
- 2782 K Hural (Fe-2). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 11 Jul 1989. USA: Malone, New York.
- 2783 K Hural (Ma-2). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 11 Jul 1989. USA: Malone, New York.
- 2784 K Hural (Au-17). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 7 Jun 1989. USA: Aurora, New York.
- 2825 K Hural. *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. USA: Ithaca, New York.
- 2837 K Hural (Au-28). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Aurora, New York.
- 2838 K Hural (Au-26). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Aurora, New York.
- 2839 K Hural (Au-27). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Aurora, New York.
- 2840 K Hural (FR-16). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Ithaca, New York.
- 2842 K Hural (FR-18). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Ithaca, New York.
- 2844 K Hural (FR-19). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Ithaca, New York.
- 2845 K Hural (FR-20). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Ithaca, New York.
- 2846 K Hural (FR-21). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Ithaca, New York.
- 2847 K Hural (Au-29). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Aurora, New York.
- 2848 K Hural (Au-24). *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 7 Jun 1989. USA: Aurora, New York.
- 2851 K Hural (FR-10). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 26 May 1989. USA: Ithaca, New York.
- 2852 K Hural (FR-1). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 26 May 1989. USA: Ithaca, New York.
- 2853 K Hural (FR-22). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Ithaca, New York.
- 2854 K Hural (Au-4). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 24 May 1989. USA: Aurora, New York.
- 2855 K Hural (Au-30). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Aurora, New York.
- 2856 K Hural (MP-2). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 16 Jun 1989. USA: Ithaca, New York.
- 2865 K Hural (FR-23). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Ithaca, New York.
- 2866 K Hural (FR-24). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Ithaca, New York.
- 2867 K Hural (FR-25). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Ithaca, New York.
- 2868 K Hural (EW-5). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 30 May 1989. USA: Trumansburg, New York.
- 2870 K Hural (FR-8). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 26 May 1989. USA: Ithaca, New York.
- 2872 K Hural (FR-26). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Ithaca, New York.
- 2873 K Hural (MP-5). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 16 Jun 1989. USA: Ithaca, New York.
- 2874 MG Feng (MD8930). *Metopolophium dirhodum* [Hemiptera: Aphididae]. Jul 1989. USA: Parma, Idaho.
- 2875 MG Feng (MD8931). *Metopolophium dirhodum* [Hemiptera: Aphididae]. Jul 1989. USA: Parma, Idaho.
- 2876 MG Feng (MD8932). *Metopolophium dirhodum* [Hemiptera: Aphididae]. Jul 1989. USA: Parma, Idaho.
- 2884 K Hural (FR-5). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 26 May 1989. USA: Ithaca, New York.
- 2885 K Hural (Au-12). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 7 Jun 1989. USA: Aurora, New York.
- 3081 SP Wraight. *Diuraphis noxia* [Hemiptera: Aphididae]. 18 Jul 1990. USA: irrigated barley field, Piedmont Organic Produce Farm, Wellington, Colorado.
- 3082 SP Wraight. *Diuraphis noxia* [Hemiptera: Aphididae]. 28 Jun 1990. USA: non-irrigated barley field, George Varra farm, Fort Collins, Colorado.
- 3126 G Mercadier and TJ Poprawski (9014). *Diuraphis noxia* [Hemiptera: Aphididae] on *Hordeum murinum*. 10 May 1990. France: Montpellier, Hérault.
- 3174 G Mercadier and TJ Poprawski (9015). *Diuraphis noxia* [Hemiptera: Aphididae] on wheat. 11 May 1990. France: Montpellier, Hérault.

- 3175 G Mercadier and TJ Poprawski (9016). *Diuraphis noxia* [Hemiptera: Aphididae] on *Agropyron repens*. 11 May 1990. France: Montpellier, Hérault.
- 3234 I Majchrowicz (28). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on pea. Jul 1991. USA: Morgan Farm, Mt. Vernon, Washington.
- 3237 I Majchrowicz (32). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on pea. Jul 1991. USA: Dave Boon, Mt. Vernon, Washington.
- 3238 I Majchrowicz (37). *Aphis fabae* [Hemiptera: Aphididae] on pineapple weed. Jul 1991. USA: Morgan Farm, Mt. Vernon, Washington.
- 3240 I Majchrowicz (58). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on bean. 31 Jul 1991. USA: garden nr. University of Idaho, Moscow, Idaho.
- 3241 I Majchrowicz (83). *Aphis fabae* [Hemiptera: Aphididae] on *Chenopodium album*. 10 Aug 1991. USA: nr. cages, Yakima, Washington.
- 3248 DC Steinkraus (1). *Myzus persicae* [Hemiptera: Aphididae] on turnip greens. 28 Nov 1990. USA: Washington County, Arkansas.
- 3249 DC Steinkraus (2). *Myzus persicae* [Hemiptera: Aphididae] on turnip greens. 28 Nov 1990. USA: Washington County, Arkansas.
- 3250 DC Steinkraus (5). *Myzus persicae* [Hemiptera: Aphididae] on turnip greens. 28 Nov 1990. USA: Washington County, Arkansas.
- 3251 DC Steinkraus (6). *Myzus persicae* [Hemiptera: Aphididae] on turnip greens. 28 Nov 1990. USA: Washington County, Arkansas.
- 3365 N Underwood ← SP Wraight. *Metopolophium dirhodum* [Hemiptera: Aphididae] on late-sown spring wheat. 9 Jul 1991. USA: SW Idaho R/E Center, Parma, Idaho.
- 3366 N Underwood ← SP Wraight. *Schizaphis graminum* [Hemiptera: Aphididae] on late-sown spring wheat. 5 Jul 1991. USA: SW Idaho R/E Center, Parma, Idaho.
- 3367 N Underwood ← SP Wraight. *Metopolophium dirhodum* [Hemiptera: Aphididae] on late-sown spring wheat. 5 Jul 1991. USA: SW Idaho R/E Center, Parma, Idaho.
- 3410 I Majchrowicz (71). *Aphis* sp. [Hemiptera: Aphididae] on *Tanacetum vulgare* L. 8 Aug 1991. USA: Bellingham, Washington.
- 3411 I Majchrowicz (8) ← GL Nordin. *Myzus nicotinae* [Hemiptera: Aphididae]. Rec'd 20 Sep 1991. USA: Kentucky.
- 3412 I Majchrowicz ← GL Nordin. *Myzus nicotinae* [Hemiptera: Aphididae]. Rec'd 20 Sep 1991. USA: Kentucky.
- 3459 I Majchrowicz (10) ← GL Nordin. *Myzus nicotinae* [Hemiptera: Aphididae]. Rec'd 20 Sep 1991. USA: Kentucky.
- 4934 [IACR-Rothamsted NW 231] JK Pell (NW 231). *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 24 Mar 1995. Laboratory manipulation: Reisolation.
- 5371 C Nielsen (KVL 1996-1). *Brevicoryne brassicae* [Hemiptera: Aphididae]. 22 Sep 1996. Denmark: Hegnstrup, Slangerup, Zealand.
- 5372 C Nielsen (KVL 1996-2). *Brevicoryne brassicae* [Hemiptera: Aphididae]. 20 Sep 1996. Denmark: Hegnstrup, Slangerup, Zealand.
- 5373 C Nielsen (KVL 1996-3). *Brevicoryne brassicae* [Hemiptera: Aphididae]. 20 Sep 1996. Denmark: Hegnstrup, Slangerup, Zealand.
- 5374 C Nielsen (KVL 1996-4). *Brevicoryne brassicae* [Hemiptera: Aphididae]. 11 Oct 1996. Denmark: Hegnstrup, Slangerup, Zealand.
- 5403 C Nielsen. *Sitobion avenae* [Hemiptera: Aphididae] on *Hordeum murinum* L. Aug 1995. Denmark: Valbyparken, Copenhagen, Zealand.
- 5707 JL Hatting (5). *Metopolophium dirhodum* [Hemiptera: Aphididae] on *Triticum aestivum* L. 4 Sep 1997. South Africa: Riviersonderend, Western Cape Province.
- 5708 JL Hatting (6). *Metopolophium dirhodum* [Hemiptera: Aphididae] on *Triticum aestivum*. 4 Sep 1998. South Africa: Riviersonderend, Western Cape Province.
- 5995 C Nielsen (KVL 98-21). Alate, *Aphis fabae* [Hemiptera: Aphididae] on *Euonymus europaea*. 9 Oct 1998. Denmark: Copenhagen, Zealand.
- 6166 K Dromph (KVL 633). *Sitobion avenae* [Hemiptera: Aphididae] on *Hordeum murinum*. 13 Aug 1995. Denmark: Valbyparken, Copenhagen, Zealand.
- 6631 PS Duetting (G1). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on *Pisum sativum* cv. Columbia, garden peas. 25 Jun 2000. USA: University of Idaho Kambitsch Research Farm, Latah County, Idaho.
- 6902 MR McGuire. [Hemiptera: Aphididae] from roadside patch of *Malva* sp., mallow. 7 Feb 2001. USA: Intersection of Road 14 and Avenue 22, Madera County, California. Live aphids collected were a mixture of *Myzus persicae* Sulzer and *Aphis gossypii* Glover.
- 7212 AE Hajek (03 NY 7-3-4). *Aphis glycines* [Hemiptera: Aphididae]. 7 Aug 2003. USA: Field number 4, North Rose, New York.
- 7213 AE Hajek (03 NY 7-4-1). *Aphis glycines* [Hemiptera: Aphididae]. 7 Aug 2003. USA: Field number 4, North Rose, New York.
- 7214 AE Hajek (03 NY 7-4-2). *Aphis glycines* [Hemiptera: Aphididae]. 26 Aug 2003. USA: Field number 4, North Rose, New York.
- 7226 AE Hajek (03 NY 7-4-3). *Aphis glycines* [Hemiptera: Aphididae]. 27 Aug 2003. USA: Field number 4, North Rose, New York.

- 7937 J Enkerli (ETHZ 110). *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 16 Jul 1998. Switzerland: Zurich.
- 7938 *Microlophium carnosum* [Hemiptera: Aphididae]. 2 Jul 1996. Switzerland: Schaffhausen.
- 7939 J Enkerli (ETHZ 115). *Microlophium carnosum* [Hemiptera: Aphididae]. 16 Jul 1998. Switzerland: Zurich.
- 8607 AE Hajek (03 NY 7-3-4). *Aphis glycines* [Hemiptera: Aphididae]. 7 Aug 2003. USA: Field number 4, North Rose, New York.
- 11662 X Zhou (ZAFU1004). *Myzus persicae* [Hemiptera: Aphididae]. 4 Oct 2010. PR China: Lin'an, Hangzhou, Zhejiang Province.
- 11663 KA Koch. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. Jun 2008. USA: University of Minnesota Outreach, Research and Education Park, Rosemount, Minnesota. GPS Coordinates: N 44.7080722, W 93.0993032 Initially isolated from *Acyrtosiphon pisum* Harris, pea aphid.
- 11862 C López Lastra and R Manfrino. *Nasonovia ribisnigri* [Hemiptera: Aphididae] on *Lactuca sativa* L., lettuce. 18 Jun 2012. Argentina: Pereyra, Buenos Aires.
- 11863 C López Lastra and R Manfrino. *Nasonovia ribisnigri* [Hemiptera: Aphididae] on *Lactuca sativa* L., lettuce. 3 Jul 2012. Argentina: Abasto, Buenos Aires.
- 13165 SR Sánchez Peña (533). *Melanaphis sacchari* [Hemiptera: Aphididae]. 5 Nov 2015. Mexico: Saltillo, Coahuilla, Mexico, Saltillo, Coahuilla.

Pandora nouryi (Remaudière & Hennebert) Humber
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 14 [CBS 180.60; CSIRO EM509; NRRL 3742] ATCC (14269) ← I Hall. *Therioaphis maculata* [Hemiptera: Aphididae] on *Medicago sativa*. Rec'd 5 Nov 1973. Location not specified. CULTURE EX TYPE.
- 199 [CSIRO EM652] RT Mietkiewski. [Hemiptera: Aphididae] on potato. 1 Sep 1977. USA: Rogers Farm, Stillwater, Maine.
- 362 CSIRO (EM538) ← R Teakle. *Acyrtosiphon kondoi* [Hemiptera: Aphididae]. Rec'd 1979. Australia: Gatton, Queensland.
- 366 [IPLB 1066] CSIRO (EM542) ← JP Latgé. *Therioaphis maculata* [Hemiptera: Aphididae]. Rec'd 22 Jan 1979. USA.
- 8930 MG Feng (ZJU0603) and ZH Huang. Air-trapped alate, *Lipaphis erysimi* [Hemiptera: Aphididae]. 23 Mar 2006. PR China: Menghai County, Yunnan Province.
- 8931 MG Feng (ZJU0604) and ZH Huang. Air-trapped alate, *Lipaphis erysimi* [Hemiptera: Aphididae]. Jun 2006. PR China: Menghai County, Yunnan Province.

***Schizangiella* sp.**

[Entomophthoromycotina: Entomophthorales]
Basidiobolaceae

- 2237 R Blaschke-Hellmessen (1). *Elaphe* sp. [Squamata: Colubridae] from granuloma in gut. Rec'd 30 Sep 1986. Germany: Dresden.
- 2238 R Blaschke-Hellmessen (7). *Elaphe* sp. [Squamata: Colubridae] from granuloma in gut. Germany: Dresden.
- 2239 R Blaschke-Hellmessen (14). *Elaphe* sp. [Squamata: Colubridae] from granuloma in gut. Acc'd 30 Sep 1986. Germany: Dresden.

Schizangiella serpentis Humber (sp. nov., unpubl.)

[Entomophthoromycotina: Entomophthorales]
Basidiobolaceae

- 203 AA Padhye (CDC 76-075022). Female adult, *Crotalus horridus* [Squamata: Viperidae]. May 1974. USA: Baltimore Zoological Park, Baltimore, Maryland.
- 8000 B Burwell ← R Legge. *Elaphe obsoleta* [Squamata: Colubridae]. 23 Feb 2006. USA: Powhatan School, Boyce, Virginia.
- 8047 B Burwell ← R Legge. *Elaphe obsoleta* [Squamata: Colubridae]. 14 Jun 2006. USA: Powhatan School, Boyce, Virginia. Isolated during necropsy of snake from which ARSEF 8000 was previously obtained.

Strongwellsea castrans Batko & Wiser

[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae. Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

- 3282 J Eilenberg (KVL 62). *Delia radicum* [Diptera: Anthomyiidae]. 8 Sep 1988. Denmark: Roskilde, Zealand.
- 3485 J Eilenberg (KVL 84). *Delia radicum* [Diptera: Anthomyiidae]. Aug 1991. Denmark: Slangerup, Frederiksberg.

***Zoophthora* sp.**

[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae.

- 2623 FX Susilo (HM15). *Hypera postica* [Coleoptera: Curculionidae]. May 1988. USA: Spindletop Farm, Henry County, Kentucky.
- 3486 J Eilenberg (KVL 79). *Forficula auricularia* [Dermaptera: Forficulidae]. Sep 1991. Denmark: Ølstykke, Frederiksberg.
- 3487 J Eilenberg (KVL 80). *Forficula auricularia* [Dermaptera: Forficulidae]. Sep 1991. Denmark: Ølstykke, Frederiksberg.
- 3488 J Eilenberg (KVL 81). *Forficula auricularia* [Dermaptera: Forficulidae]. Sep 1991. Denmark: Ølstykke, Frederiksberg.

7454 [CEP 127] C López Lastra. [Hemiptera: Aphididae] on *Brassica oleracea* L., cabbage crop. 20 Apr 2004. Argentina: Parque Pereyra, Berazategui, Buenos Aires. **RESTRICTED ACCESS:** consult *Curator*.

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

- 396 [ARSEF ?1377] S Keller (48). *Agriotes sputator* [Coleoptera: Elateridae]. 4 May 1977. Switzerland.
- 916 S Keller (411). *Notostira elongata* [Hemiptera: Miridae]. 25 Aug 1982. Switzerland.
- 918 S Keller (470). *Agriotes sputator* [Coleoptera: Elateridae]. 6 May 1983. Switzerland.
- 926 S Keller (412). *Notostira elongata* [Hemiptera: Miridae]. 25 Aug 1982. Switzerland.
- 1739 N Wilding (85). *Trechus quadristriatus* [Coleoptera: Carabidae]. 5 Sep 1978. United Kingdom: Rothamsted Experimental Station, Hertfordshire, England.
- 2505 J Eilenberg (KVL 12). *Agriotes sputator* [Coleoptera: Elateridae]. 2 Jun 1986. Denmark: Brogaard, Fårevejle, Vestsjælland.

Zoophthora aphidis (Hoffman in Fresenius) Humber & Ben-Ze'ev
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 425 [ARSEF 467 (lost), 643 (lost); CSIRO EM740] S Keller (84). *Anoecia corni* [Hemiptera: Aphididae]. Rec'd 6 Feb 1980. Switzerland.
- 467 [ARSEF 425, 643 (lost)] S Keller (84). *Anoecia corni* [Hemiptera: Aphididae]. Rec'd 27 May 1980. Switzerland.
- 643 [ARSEF 425, 467 (lost)] S Keller (84). *Anoecia corni* [Hemiptera: Aphididae]. Rec'd 10 Aug 1981. Switzerland.

Zoophthora lanceolata (S Keller) Humber & Ben-Ze'ev
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 426 [ARSEF ?468] S Keller (95). [Diptera: Nematocera]. Rec'd 6 Feb 1980. Switzerland: Rickenbach.
- 468 [ARSEF ?426] S Keller (95) ← G Remaudière. [Diptera: Brachycera]. Oct 1977. France.
- 469 S Keller (115). [Diptera: Nematocera]. Rec'd 27 May 1980. Switzerland: Rickenbach.

Zoophthora occidentalis (Thaxter) Humber & Ben-Ze'ev
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae

- 12 RS Soper ← A Kimball. *Macrosiphum euphorbiae* [Hemiptera: Aphididae] on potato. 20 Aug 1972. USA: Aroostook State Farm, Presque Isle, Maine.

- 207 [CSIRO EM680] RT Mietkiewski. *Macrosiphum euphorbiae* [Hemiptera: Aphididae] on potato. 20 Sep 1977. USA: Rogers Farm, Stillwater, Maine.
- 2841 K Hural (FR-17). *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 5 Sep 1989. USA: Ithaca, New York.
- 3027 H Firstencel. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 26 Jun 1990. USA: Freese Rd., Ithaca, New York.
- 3028 H Firstencel. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 11 Jul 1990. USA: Stevenson Rd., Ithaca, New York.
- 3029 H Firstencel. *Acyrtosiphon pisum* [Hemiptera: Aphididae]. 25 Jun 1990. USA: P-field, Aurora, New York.
- 3071 K Hural. *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 18 Sep 1990. USA: Hoffman field # 6G, Catherine, New York.
- 3073 K Hural. *Acyrtosiphon pisum* [Hemiptera: Aphididae] on alfalfa. 18 Sep 1990. USA: Hoffman field # 7E, Catherine, New York.

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

- 190 [IPLB 423] G Remaudière. *Capitophorus* sp. [Hemiptera: Aphididae] on *Carduus* sp. 24 Oct 1973. France.
- 351 [IPLB 1116] CSIRO (EM541) ← JP Latgé. *Theerioaphis maculata* [Hemiptera: Aphididae]. 9 Nov 1978. Mexico.
- 352 [ARSEF 1869 (lost)] CSIRO (EM548) or (EM681) ← N Wilding (27). *Myzus rannaculinum* [Hemiptera: Aphididae]. 12 May 1978. France: Rennes, Ille-et-Vilaine.
- 1869 [ARSEF 352; CSIRO EM548] N Wilding (27). *Myzus rannaculinum* [Hemiptera: Aphididae]. 12 May 1978. France: Rennes, Ille-et-Vilaine.
- 2281 IL Sivcev (52/86). *Brevicoryne brassicae* [Hemiptera: Aphididae]. 23 Jun 1986. Yugoslavia: PKB commune, Zemun, Belgrade.
- 11861 C López Lastra and R Manfrino. *Brevicoryne brassicae* [Hemiptera: Aphididae] on *Brassica oleracea* L., broccoli. 27 May 2012. Argentina: Monte Vera, Santa Fe.

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

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

- 113 [ARSEF 82 (lost); ATCC 34292; FPMI 951] RG Kenneth (3085) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae] on alfalfa. Apr 1976. Israel: Sedé Eliyahu.
- 191 RG Kenneth (3095) or (E.p. 2) ← I Ben-Ze'ev. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Apr 1976. Israel: Sedé Eliyahu.
- 192 RG Kenneth (3133) ← I Ben-Ze'ev. Larva, *Hypera variabilis* [Coleoptera: Curculionidae] on alfalfa. 2 Mar 1977. Israel: Sedé Eliyahu.
- 202 [RG Kenneth 3178] AA Muka ← JP Kramer. *Hypera punctata* [Coleoptera: Curculionidae]. Jul 1977. USA: Ithaca, New York.
- 544 PD Van Buskirk. *Hypera postica* [Coleoptera: Curculionidae]. 25 Jun 1979. USA: Preston County, West Virginia.
- 545 GL Nordin. *Hypera postica* [Coleoptera: Curculionidae]. Location not specified.
- 546 GL Nordin. *Hypera punctata* [Coleoptera: Curculionidae]. Location not specified.
- 2188 RJ Dysart. Larva, *Hypera punctata* [Coleoptera: Curculionidae]. 29 Apr 1986. USA: Farmington, Delaware.
- 3342 S Roberts. *Hypera postica* [Coleoptera: Curculionidae]. Spring 1991. USA: Eddyville, Illinois.
- 3343 S Roberts. *Hypera postica* [Coleoptera: Curculionidae]. Spring 1991. USA: LaSalle County, Illinois.
- 3344 S Roberts. *Hypera postica* [Coleoptera: Curculionidae]. Spring 1991. USA: Albion, Illinois.
- Zoophthora radicans*** (Brefeld) Batko
[Entomophthoromycotina: Entomophthorales]
Entomophthoraceae. Major synonyms: *Entomophthora sphaerosperma* Fresenius, *Entomophthora radicans* Brefeld, *Erynia radicans* (Brefeld) Humber, Ben-Ze'ev & Kenneth in Humber & Ben-Ze'ev.
- 10 RS Soper ← A Kimball. *Macrosiphum euphorbiae* [Hemiptera: Aphididae]. 19 Aug 1972. USA: Aroostook State Farm, Presque Isle, Maine.
- 13 [FPMI 696] RS Soper ← CC Thompson. *Neodiprion tsugae* [Hymenoptera: Diprionidae]. Aug 1971. USA: Prince of Wales Island, Alaska.
- 18 RS Soper ← FR Holbrook. [Diptera: Drosophilidae]. USA: State of Maine Potato Field, Homestead, Florida.
- 21 RS Soper ← DE Leonard (BBIV-20). Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 1973. USA: Maine.
- 35 *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 1974. Location not specified.
- 43 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 1975. USA: Oxbow-Masardis, Maine.
- 44 [FPMI 697; RG Kenneth 3045] JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 1975. USA: Oxbow-Masardis, Maine.
- 45 JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 1975. USA: Oxbow-Masardis, Maine.
- 46 DE Leonard. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 23 Jun 1975. USA: Maine.
- 47 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 1975. USA: 12.8 mi from Rt. 11/159 in Patten, Shin Pond, Maine.
- 48 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 1975. USA: 0.1 mi N of Oxbow Rd. on Rt. 11, Oxbow-Masardis, Maine.
- 49 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 19 Jun 1975. USA: 6.4 mi from Haynesville toward Bancroft, Bancroft Township, Maine.
- 50 [FPMI 698] JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 1975. USA: 0.1 mi N of Oxbow Rd. on Rt. 11, Oxbow-Masardis, Maine.
- 52 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 19 Jun 1975. USA: 1.5 mi E of bridge at S. Bancroft, Bancroft Township, Maine.
- 62 [ATCC 32245; FPMI 699] RG Kenneth (3029). *Empoasca* sp. [Hemiptera: Cicadellidae] on citrus leaf. 9 Aug 1975. Israel: Girat, Brenner.
- 68 [FPMI 688; IPLB 624] G Remaudière. *Tortrix viridana* [Lepidoptera: Tortricidae]. 22 May 1975. France: Forêt de Dourdan, Essonne.
- 72 [CSIRO EM532; FPMI 487] RG Kenneth (3046) ← ATCC (24493) ← DM MacLeod. *Lambdina fiscellaria fiscellaria* [Lepidoptera: Geometridae]. Rec'd 18 Jan 1976. Canada: Ming's Bight, Newfoundland.
- 75 [FPMI 700] RG Kenneth (3060) or (E.s. 28). *Brachycaudus amygdalinus* [Hemiptera: Aphididae] on *Polygonum equisetiforme* [Polygonaceae]. 23 Jan 1976. Israel: Rehovot, Central District.
- 76 RG Kenneth (3061) or (E.s. 15). *Brachycaudus amygdalinus* [Hemiptera: Aphididae] on *Polygonum equisetiforme* [Polygonaceae]. 3 Feb 1976. Israel: Rehovot, Central District.
- 88 [CSIRO EM569] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 1976. USA: nr. Selden Road, Haynesville Woods, Maine.
- 90 JD Vandenberg. *Acleris variana* [Lepidoptera: Tortricidae]. 7 Jul 1976. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.
- 91 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 1976. USA: 2 mi E of McNally Pond Campground, McNally, Maine.

- 103 [CSIRO EM518, EM578, EM724; FPMI 701] RG Kenneth (3100) or (E.s. 31) ← A Uziel. *Therioaphis maculata* [Hemiptera: Aphididae]. 11 Jul 1976. Israel: Sedé Eliyahu.
- 104 [CSIRO EM553, EM725] RG Kenneth (3101) or (E.s. 32) ← A Uziel. *Therioaphis maculata* [Hemiptera: Aphididae]. 11 Jul 1976. Israel: Sedé Eliyahu.
- 105 [CSIRO EM726] RG Kenneth (3102) or (E.s. 33) ← A Uziel. *Therioaphis maculata* [Hemiptera: Aphididae]. 25 Jul 1976. Israel: Bet Dagan, Hamerkaz.
- 106 [CSIRO EM727] RG Kenneth (3103) or (E.s. 34) ← A Uziel. *Therioaphis maculata* [Hemiptera: Aphididae]. 25 Jul 1976. Israel: Bet Dagan, Hamerkaz.
- 107 [CSIRO EM554] RG Kenneth (3104) or (E.s. 35) ← A Uziel. *Therioaphis maculata* [Hemiptera: Aphididae]. 25 Jul 1976. Israel: Bet Dagan, Hamerkaz.
- 108 [CSIRO EM728] RG Kenneth (3105) or (E.s. 36) ← A Uziel. *Therioaphis maculata* [Hemiptera: Aphididae]. 25 Jul 1976. Israel: Bet Dagan, Hamerkaz.
- 109 [CSIRO EM729] RG Kenneth (3106) or (E.s. 37) ← A Uziel. *Therioaphis maculata* [Hemiptera: Aphididae]. 25 Jul 1976. Israel: Bet Dagan, Hamerkaz.
- 110 [CSIRO EM555] RG Kenneth (3107) or (E.s. 38) ← A Uziel. *Therioaphis maculata* [Hemiptera: Aphididae]. 25 Jul 1976. Israel: Bet Dagan, Hamerkaz.
- 111 [CSIRO EM556, EM730] RG Kenneth (3109) or (E.s. 40) ← A Uziel. *Therioaphis maculata* [Hemiptera: Aphididae]. 25 Jul 1976. Israel: Bet Dagan, Hamerkaz.
- 112 [CSIRO EM561] RG Kenneth (3110) or (E.s. 41) ← A Uziel. *Therioaphis maculata* [Hemiptera: Aphididae]. 25 Jul 1976. Israel: Bet Dagan, Hamerkaz.
- 114 [CSIRO EM517] RG Kenneth (3096) or (E.s. 29) ← A Uziel. *Therioaphis maculata* [Hemiptera: Aphididae]. 11 Jul 1976. Israel: Sedé Eliyahu.
- 126 [FPMI 702; IPLB 27] JP Latgé and G Remaudière (625). *Psyllida etrioza* [Hemiptera: Psyllidae] on *Prunus pennsylvanicus* [Rosaceae]. 25 Aug 1976. Canada: Chute aux Galets, Québec.
- 127 [IPLB 40] JP Latgé and G Remaudière. [Hymenoptera] on *Alnus* sp. 23 Aug 1976. USA: Tumbledown, Maine.
- 139 [CSIRO EM731] RG Kenneth (3097) or (E.s. 30) ← A Uziel. *Therioaphis maculata* [Hemiptera: Aphididae]. Acc'd 20 Nov 1978. Israel: Sedé Eliyahu.
- 141 [FPMI 687] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 1977. USA: Map reference: T4R10, Maine.
- 142 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 20 Jun 1977. USA: Perham, Maine.
- 143 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 1977. USA: Perham, Maine.
- 144 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 1977. USA: Perham, Maine.
- 145 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 23 Jun 1977. USA: Carroll, Maine.
- 146 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 1977. USA: Map reference: T6R7, Shin Pond, Maine.
- 161 JD Vandenberg. Single spore reisolate of ARSEF 88. Jul 1977. Laboratory manipulation.
- 162 JD Vandenberg. Single spore reisolate of ARSEF 88. Jul 1977. Laboratory manipulation.
- 163 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 1 Jul 1977. USA: forest-upper, Perham, Maine.
- 183 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 1977. Laboratory manipulation.
- 184 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 1977. Laboratory manipulation.
- 185 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 1977. Laboratory manipulation.
- 186 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 1977. Laboratory manipulation.
- 187 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 1977. Laboratory manipulation.
- 188 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 1977. Laboratory manipulation.
- 189 [ATCC 32797; FPMI 703] RG Kenneth (2884) or (3044) ← CBS (216.66) ← M Gustafsson. Phylum Arthropoda, Class Insecta. Rec'd 1977. Sweden.
- 195 RG Kenneth (3134) ← I Ben-Ze'ev. [Hemiptera: Aphididae] on *Sonchus* sp. [Asteraceae]. 1977. Israel: citrus grove, Beir Yakov.
- 197 RG Kenneth (3139) ← I Ben-Ze'ev. *Hyperomyzus lactucae* [Hemiptera: Aphididae] on *Sonchus* sp. [Asteraceae]. 1977. Israel: Beir Yakov.
- 221 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Presque Isle, Maine.
- 222 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Presque Isle, Maine.
- 223 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 1978. USA: Springfield, Maine.
- 224 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 1978. USA: Springfield, Maine.
- 225 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 1978. USA: Macwahoc, Maine.
- 226 S Ignatowicz. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 1978. USA: Macwahoc, Maine.

- 227 S Ignatowicz. Pupa, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 3 Jul 1978. USA: Mamarda, Maine.
- 228 S Ignatowicz. Pupa, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 3 Jul 1978. USA: Mamarda, Maine.
- 229 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Princeton, Maine.
- 230 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Princeton, Maine.
- 231 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Princeton, Maine.
- 232 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Princeton, Maine.
- 233 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 1978. USA: Princeton, Maine.
- 234 S Ignatowicz. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 30 Jun 1978. USA: Oak Hill, Maine.
- 235 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 30 Jun 1978. USA: Oak Hill, Maine.
- 237 [FPMI 704] P Dodge. *Therioaphis maculata* [Hemiptera: Aphididae]. Aug 1978. USA: Ithaca, New York.
- 238 [CSIRO EM560] P Dodge. *Therioaphis maculata* [Hemiptera: Aphididae]. Aug 1978. USA: Ithaca, New York.
- 239 P Dodge. *Therioaphis maculata* [Hemiptera: Aphididae]. Aug 1978. USA: Ithaca, New York.
- 359 [ARSEF 370, 823; CSIRO EM539; IPLB 844] RJ Milner ← ARSEF (103). *Therioaphis maculata* [Hemiptera: Aphididae]. Acc'd 8 Jun 1979. Australia: Armidale, New South Wales. Reisolated from field release at Armidale; forms protoplasts.
- 370 [ARSEF 359, 823; CSIRO EM539; IPLB 844] RJ Milner ← ARSEF (103). *Therioaphis maculata* [Hemiptera: Aphididae]. Acc'd 27 Jul 1979. Australia: Armidale, New South Wales. Reisolated from field release at Armidale.
- 379 [IPLB 1118] CSIRO (EM540) ← JP Latgé. *Therioaphis maculata* [Hemiptera: Aphididae]. 9 Nov 1978. Mexico.
- 388 S Keller (214). [Diptera]. Rec'd 3 Oct 1979. Switzerland: Zürich.
- 389 S Keller (217). *Dicyphus pallidus* [Hemiptera: Miridae]. Rec'd 3 Oct 1979. Switzerland: Zürich.
- 404 [FPMI 705] S Keller (59). Adult, [Lepidoptera]. 20 Jul 1977. Switzerland.
- 407 [FPMI 706] FPMI (655) ← P Degroot. 4th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 26 Jun 1979. Canada: Thessalon, Ontario.
- 491 H Beerman and DE McCabe. Reisolate of ARSEF 141 after 3 passes through *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 18 Jun 1980. Laboratory manipulation.
- 494 EL Cuebas-Incle. [Hemiptera: Cercopidae]. Summer 1979. USA: New York.
- 495 RG Kenneth (3224). *Therioaphis maculata* [Hemiptera: Aphididae] on alfalfa. Rec'd 14 Jul 1980. Israel: Bet Dagan, Hamerkaz.
- 548 RA Humber and RS Soper. [Hemiptera: Aphididae] on peach tree. 24 Aug 1980. Yugoslavia: on back road, E of train station, Bar, Montenegro.
- 571 DE McCabe. Reisolate of ARSEF 141. Fall 1980. Laboratory manipulation.
- 647 DE McCabe. Reisolate of ARSEF 141 passed through *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. Jun 1981. Laboratory manipulation.
- 685 DW Roberts (102181-12). *Nilaparvata lugens* [Hemiptera: Delphacidae]. 21 Oct 1981. PR China: Wuhan, Hupei.
- 789 [CNPAF 82-6-25-01; CP 64; CSIRO EM732] RA Daoust (EK8-1) and M Yokoyama. Adult, *Empoasca kraemeri* [Hemiptera: Cicadellidae] on beans. 25 Jun 1982. Brazil: CNPAF, Goiânia, Goiás.
- 790 [CNPAF 82-6-25-02; CP 65; CSIRO EM733] RA Daoust (EK8-2) and M Yokoyama. Adult, *Empoasca kraemeri* [Hemiptera: Cicadellidae] on beans. 25 Jun 1982. Brazil: CNPAF, Goiânia, Goiás.
- 800 EL Cuebas-Incle. [Hemiptera: Cercopidae]. Jul 1979. USA: Six Mile Creek, Ithaca, New York.
- 822 [CSIRO EM667; IPLB 421] CSIRO (EM667) ← G Remaudière. *Capitophorus* sp. [Hemiptera: Aphididae]. 24 Oct 1973. France: Quineville, Manche.
- 823 [ARSEF 359, 370; CSIRO EM539; IPLB 844] G Lutton and RJ Milner ← ARSEF (103). *Therioaphis maculata* [Hemiptera: Aphididae]. 9 Nov 1978. Australia: Armidale, New South Wales. Reisolated from field release at Armidale.
- 899 SP Wraight (Ef-1). Reisolate of ARSEF 789 passed through *Empoasca fabae* [Homoptera: Cicadellidae]. Feb 1983. Laboratory manipulation.
- 914 S Keller (445). *Drepanosiphum aceris* [Hemiptera: Aphididae]. Nov 1982. Switzerland.
- 1018 JV Maddox and MR McGuire (A). *Empoasca fabae* [Hemiptera: Cicadellidae] on potato. 12 Sep 1983. USA: Arlington Research Station, nr. Madison, Wisconsin.
- 1019 JV Maddox and MR McGuire (B). *Empoasca fabae* [Hemiptera: Cicadellidae] on potato. 12 Sep 1983. USA: Arlington Research Station, nr. Madison, Wisconsin.

- 1020 JV Maddox and MR McGuire (D). *Empoasca fabae* [Hemiptera: Cicadellidae] on potato. 12 Sep 1983. USA: Arlington Research Station, nr. Madison, Wisconsin.
- 1021 JV Maddox and MR McGuire (F). *Empoasca fabae* [Hemiptera: Cicadellidae] on potato. 12 Sep 1983. USA: Arlington Research Station, nr. Madison, Wisconsin.
- 1048 J Aoki (Ent. 8) ← H Kawamoto. *Plutella xylostella* [Lepidoptera: Plutellidae]. Dec 1975. Japan: Fuchu, Tokyo Prefecture.
- 1050 J Aoki (Ent. 26) ← M Shimazu. *Delphacodes striatella* [Hemiptera: Delphacidae]. Dec 1976. Japan: Chikugo, Fukuoka Prefecture.
- 1082 CSIRO (EM752) ← G Lutton. *Merophyas divulsana* [Lepidoptera: Tortricidae]. 28 Jul 1983. Australia: Boonah, Queensland.
- 1100 AR Rashid. Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. Apr 1981. Malaysia: Cameron Highlands.
- 1125 [CSIRO EM682] M Shimazu (F-17). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Acc'd 29 Mar 1984. Japan: Fukuoka Prefecture.
- 1130 [CSIRO EM742] S Keller (444). *Drepanosiphum acericis* [Hemiptera: Aphididae]. Nov 1982. Switzerland.
- 1136 M Shimazu (F-43). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Acc'd 3 Apr 1984. Japan: Fukuoka Prefecture.
- 1138 M Shimazu (F-55). *Nilaparvata lugens* [Hemiptera: Delphacidae]. Acc'd 3 Apr 1984. Japan: Fukuoka Prefecture.
- 1227 [CNPAF 84-04-03-6B; CP 127] DW Roberts. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 3 Apr 1984. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1228 [CNPAF 84-04-02-5D; CP 128] DW Roberts. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 2 Apr 1984. Brazil: Palmitos, Santa Catarina.
- 1229 [CNPAF 84-04-02-6F; CP 129] DW Roberts. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 2 Apr 1984. Brazil: Palmitos, Santa Catarina.
- 1231 [CNPAF 84-04-02-5B; CP 131] DW Roberts. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 2 Apr 1984. Brazil: Palmitos, Santa Catarina.
- 1232 [CNPAF 84-04-02-5C; CP 132] DW Roberts. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 2 Apr 1984. Brazil: Palmitos, Santa Catarina.
- 1233 [CNPAF 84-04-02-6G; CP 133] DW Roberts. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 2 Apr 1984. Brazil: Palmitos, Santa Catarina.
- 1234 [CNPAF 84-04-02-6B; CP 134] DW Roberts. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 2 Apr 1984. Brazil: Palmitos, Santa Catarina.
- 1235 [CNPAF 84-04-02-6C; CP 135] DW Roberts. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 2 Apr 1984. Brazil: Palmitos, Santa Catarina.
- 1236 [CNPAF 84-04-02-5J; CP 136] DW Roberts. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 2 Apr 1984. Brazil: Palmitos, Santa Catarina.
- 1237 [CNPAF 84-04-02-5A; CP 137] DW Roberts. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 2 Apr 1984. Brazil: Palmitos, Santa Catarina.
- 1239 [CNPAF 84-03-30-2A-A; CP 139] DW Roberts. [Hemiptera: Cicadellidae]. 30 Mar 1984. Brazil: Francisco Beltrão, Paraná.
- 1261 JV Maddox and MR McGuire (C). *Empoasca fabae* [Hemiptera: Cicadellidae] on potato. 12 Sep 1983. USA: Arlington Research Station, nr. Madison, Wisconsin.
- 1262 JV Maddox and MR McGuire (E). *Empoasca fabae* [Hemiptera: Cicadellidae] on potato. 12 Sep 1983. USA: Arlington Research Station, nr. Madison, Wisconsin.
- 1263 J Aoki (Ent. 5) ← M Shimazu. [Hemiptera: Cicadellidae]. Acc'd 3 May 1984. Japan: Chikugo, Fukuoka Prefecture.
- 1336 [ARSEF 1428] S Balazy (1555). Adult, [Diptera: Nematocera] attached to the leaves of herbaceous plants on a leafy forest floor. 21 May 1983. Poland: Bialowieza National Park.
- 1337 S Balazy (1558b). [Diptera] attached to the underside of leaves of arboraceous plants. 22 May 1983. Poland: Bialowieza National Park.
- 1341 S Balazy (1577/6). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 1983. Poland: Sadurki.
- 1342 S Balazy (1577/7). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 1983. Poland: Sadurki.
- 1343 S Balazy (1577/8). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 1983. Poland: Sadurki.
- 1344 S Balazy (1578/1). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 1983. Poland: gardens, Turka.
- 1345 S Balazy (1578/2). Larva, *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 1983. Poland: Turka.
- 1346 S Balazy (1578/1-2). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 1983. Poland: Turka.
- 1350 S Balazy (1589). Acc'd 5 Jun 1984. Poland.
- 1368 S Balazy (1577/3). Rec'd 19 May 1984. Location not specified.
- 1370 S Balazy (1578/2-d). Rec'd 19 May 1984. Location not specified.
- 1428 [ARSEF 1336] S Balazy (1555). [Diptera: Nematocera] attached to the leaves of herbaceous plants on a leafy forest floor. 21 May 1983. Poland: Bialowieza National Park.
- 1492 SG Wraight and SP Wraight (A-22). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 5 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1493 SG Wraight and SP Wraight (A-24). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 9 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.

- 1494 SG Wraight and SP Wraight (A-26). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 9 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1495 SG Wraight and SP Wraight (A-31). [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1496 SG Wraight and SP Wraight (A-33). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1497 SG Wraight and SP Wraight (A-37). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1498 SG Wraight and SP Wraight (A-41). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1499 SG Wraight and SP Wraight (A-42). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1500 SG Wraight and SP Wraight (A-44). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1501 SG Wraight and SP Wraight (A-50). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1502 SG Wraight and SP Wraight (B-37). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1503 SG Wraight and SP Wraight (B-33). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1504 SG Wraight and SP Wraight (B-40). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1541 SG Wraight and SP Wraight (B-48). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1542 SG Wraight and SP Wraight (B-51). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1543 SG Wraight and SP Wraight (ErI11T3). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1544 [ARSEF 1595] SG Wraight and SP Wraight (A-9). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1581 SG Wraight and SP Wraight (A-6). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 4 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1582 SG Wraight and SP Wraight (A-5). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 4 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1583 SG Wraight and SP Wraight (A-7). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 4 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1584 SG Wraight and SP Wraight (A-10). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 4 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1585 SG Wraight and SP Wraight (A-12). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 4 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1586 SG Wraight and SP Wraight (A-13). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 4 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1587 SG Wraight and SP Wraight (A-16). [Hemiptera: Cicadellidae]. 5 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1588 SG Wraight and SP Wraight (A-17). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 5 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1589 SG Wraight and SP Wraight (A-19). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 5 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1590 SG Wraight and SP Wraight (A-21). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 5 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1591 SG Wraight and SP Wraight (A-30). [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1592 SG Wraight and SP Wraight (A-35). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1593 SG Wraight and SP Wraight (A-40). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1594 SG Wraight and SP Wraight (A-43). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1595 [ARSEF 1544] SG Wraight and SP Wraight (A-9). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 Jul 1984. Brazil: CNPAF, Goiânia, Goiás.
- 1674 M Shimazu (F-448(1)). *Ptycholoma aeriferana* [Lepidoptera: Tortricidae]. 29 Jun 1984. Japan: Hokkaido Prefecture.
- 1675 M Shimazu (F-448(2)). *Ptycholoma aeriferana* [Lepidoptera: Tortricidae]. 29 Jun 1984. Japan: Hokkaido Prefecture.
- 1699 MC Rombach (A). *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. Acc'd 6 Nov 1984. Philippines: IRRI, Los Baños, Manila.
- 1719 S Keller (520). *Trioza urticae* [Hemiptera: Psyllidae]. 18 Oct 1984. Switzerland: Trasadingen, Schaffhausen.
- 1841 SG Wraight and SP Wraight (Ef239t2). Reisolate of ARSEF 239 passed through *Empoasca fabae* [Homoptera: Cicadellidae]. 24 Jan 1985. Laboratory manipulation.
- 1928 SG Wraight and SP Wraight (A1a). *Empoasca kraemeri* [Hemiptera: Cicadellidae] on cowpea. 25 May 1985. Brazil: CNPAF, Goiânia, Goiás.

- 1929 SG Wraight and SP Wraight (B1). *Empoasca kraemeri* [Hemiptera: Cicadellidae] on cowpea. 25 May 1985. Brazil: CNPAF, Goiânia, Goiás.
- 1930 SG Wraight and SP Wraight (L2). *Empoasca kraemeri* [Hemiptera: Cicadellidae] on beans. 29 May 1985. Brazil: CNPAF, Goiânia, Goiás.
- 1931 SG Wraight and SP Wraight (M2). *Empoasca kraemeri* [Hemiptera: Cicadellidae] on beans. 29 May 1985. Brazil: CNPAF, Goiânia, Goiás.
- 1932 SG Wraight and SP Wraight (K2). *Empoasca kraemeri* [Hemiptera: Cicadellidae] on beans. 29 May 1985. Brazil: CNPAF, Goiânia, Goiás.
- 1933 SG Wraight and SP Wraight (N1). *Empoasca kraemeri* [Hemiptera: Cicadellidae] on beans. 29 May 1985. Brazil: CNPAF, Goiânia, Goiás.
- 1934 SG Wraight and SP Wraight (F). *Empoasca kraemeri* [Hemiptera: Cicadellidae] on beans. 25 May 1985. Brazil: CNPAF, Goiânia, Goiás.
- 1935 SG Wraight and SP Wraight (J1). *Empoasca kraemeri* [Hemiptera: Cicadellidae] on beans. 25 May 1985. Brazil: CNPAF, Goiânia, Goiás.
- 1937 SG Wraight and SP Wraight (W3). *Empoasca kraemeri* [Hemiptera: Cicadellidae] on beans. 8 Jun 1985. Brazil: CNPAF, Goiânia, Goiás.
- 1938 MR McGuire (85-1(1pass)). *Empoasca fabae* [Hemiptera: Cicadellidae] on snapbeans. 23 Jul 1985. USA: Champaign, Illinois.
- 2196 DW Roberts. [Hemiptera: Cicadellidae]. 2 Jun 1986. Brazil: CNPAF, Goiânia, Goiás.
- 2240 RI Carruthers (HOP-IV). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Zemun, Belgrade.
- 2241 RI Carruthers (HOP-V). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Zemun, Belgrade.
- 2242 RI Carruthers (HOP-III). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Zemun, Belgrade.
- 2243 RI Carruthers (HOP-II). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Zemun, Belgrade.
- 2244 RI Carruthers (HOP-VII). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Zemun, Belgrade.
- 2245 RI Carruthers (HOP-VI). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Zemun, Belgrade.
- 2246 RI Carruthers (HOP-I). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Zemun, Belgrade.
- 2256 TJ Poprawski (8631). Adult, *Hauptida distinguenda* [Hemiptera: Cicadellidae] on sunflower. 29 Aug 1986. France: Roche sur Chalais, Charente.
- 2257 TJ Poprawski (8633). Adult, *Hauptida distinguenda* [Hemiptera: Cicadellidae] on sunflower. 29 Aug 1986. France: Roche sur Chalais, Charente.
- 2258 TJ Poprawski (8634). Adult, *Hauptida distinguenda* [Hemiptera: Cicadellidae] on sunflower. 29 Aug 1986. France: Roche sur Chalais, Charente.
- 2259 TJ Poprawski (8635). Adult, *Hauptida distinguenda* [Hemiptera: Cicadellidae] on sunflower. 29 Aug 1986. France: Roche sur Chalais, Charente.
- 2260 TJ Poprawski (8636). Adult, *Hauptida distinguenda* [Hemiptera: Cicadellidae] on sunflower. 29 Aug 1986. France: Roche sur Chalais, Charente.
- 2261 TJ Poprawski (8637). Adult, *Hauptida distinguenda* [Hemiptera: Cicadellidae] on sunflower. 29 Aug 1986. France: Roche sur Chalais, Charente.
- 2262 TJ Poprawski (8639). Adult, *Hauptida distinguenda* [Hemiptera: Cicadellidae] on sunflower. 30 Aug 1986. France: Angoulême, Charente.
- 2282 RI Carruthers (D-I). *Empoasca* sp. [Hemiptera: Cicadellidae] on sugar beet. 4 Sep 1986. Yugoslavia: Dobakov.
- 2283 RI Carruthers (D-III). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Dobakov.
- 2284 RI Carruthers (D-II). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Dobakov.
- 2285 RI Carruthers. *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Padihska Skela.
- 2286 RI Carruthers (A-IV). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Zemun, Belgrade.
- 2287 RI Carruthers (A-II). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Zemun, Belgrade.
- 2288 RI Carruthers (D-IV). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Dobakov.
- 2289 RI Carruthers (C-II). *Empoasca* sp. [Hemiptera: Cicadellidae]. 4 Sep 1986. Yugoslavia: Padihska Skela.
- 2290 SP Wraight. *Empoasca fabae* [Hemiptera: Cicadellidae]. 19 Mar 1985. Location not specified.
- 2295 RI Carruthers and IL Sivcev. *Aphis ?fabae* [Hemiptera: Aphididae]. 2 Sep 1986. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2400 H Firstencel. *Empoasca fabae* [Hemiptera: Cicadellidae]. Mar 1986. Location not specified. Segregant of ARSEF 1590, forms resting spores.
- 2410 DG Holdom (300187). Larva, *Cnaphalocrocis medicinalis* [Lepidoptera: Pyralidae]. 30 Jan 1987. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2411 DG Holdom (130287-2). Adult, *Sesamia inferens* [Lepidoptera: Noctuidae]. 13 Feb 1987. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2499 [ARSEF 2524 (deaccessioned)] J Eilenberg (KVL 32). [Diptera]. 24 Aug 1987. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2500 J Eilenberg (KVL 30). [Diptera]. 24 Aug 1987. Denmark: Strandholm, Fårevejle, Vestsjælland.

- 2501 J Eilenberg (KVL 31). [Diptera]. 24 Aug 1987. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2503 J Eilenberg (KVL 37). [Diptera]. 24 Aug 1987. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2506 J Eilenberg (KVL 35). [Diptera]. 24 Aug 1987. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2523 J Eilenberg (KVL 36). [Diptera]. 24 Aug 1987. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2524 [ARSEF 2499] J Eilenberg (KVL 32). [Diptera]. 24 Aug 1987. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2549 JV Maddox (HELMAV87, BULT). [Hemiptera: Cicadellidae]. 1987. USA: N of Champaign, Illinois.
- 2550 JV Maddox (EL87, PLH). *Empoasca fabae* [Hemiptera: Cicadellidae]. 1987. USA: N of Champaign, Illinois.
- 2551 JV Maddox (CHAMP87, BPLH-2). [Hemiptera: Cicadellidae]. 1987. USA: N of Champaign, Illinois.
- 2552 JV Maddox (UNION87, BLH-1). [Hemiptera: Cicadellidae]. 1987. USA: Union soybean field, McHenry, Illinois.
- 2554 [ARSEF 2669 (deaccessioned)] J Eilenberg (KVL 38). [Diptera]. 24 Aug 1987. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2558 H Firstencel. Laboratory reisolate of ARSEF 1590 from marcescent material stored 35 months. Rec'd 8 Mar 1988. Location not specified.
- 2600 BP Magalhães ← SP Wraight (T-7). Reisolate of ARSEF 1261. Acc'd 13 Sep 1988. Location not specified.
- 2601 BP Magalhães ← SP Wraight (T-8). Reisolate of ARSEF 1261. Acc'd 13 Sep 1988. Location not specified.
- 2666 J Eilenberg (KVL 47). *Delia radicum* [Diptera: Anthomyiidae]. 28 Jul 1988. Denmark: Roskilde, Zealand.
- 2669 [ARSEF 2554] J Eilenberg (KVL 38). [Diptera]. 24 Aug 1987. Denmark: Strandholm, Fårevejle, Vestsjælland.
- 2696 [ARSEF ?3161] TJ Poprawski (8812D). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 23 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 2697 TJ Poprawski (88102). Reisolate of ARSEF 2700 after 3 passes through *Schizaphis graminum* [Homoptera: Aphididae]. Rec'd 14 Apr 1989. Laboratory manipulation.
- 2698 TJ Poprawski (88111). Reisolate of ARSEF 2709 after 3 passes through *Chorisops tibialis* [Diptera: Stratiomyidae]. Rec'd 14 Apr 1989. Laboratory manipulation.
- 2699 TJ Poprawski (88113). Reisolate of ARSEF 2706 after 2 passes through *Empoasca flavescens* [Homoptera: Cicadellidae]. Rec'd 14 Apr 1989. Laboratory manipulation.
- 2700 [ARSEF 3171] G Mercadier and TJ Poprawski (8843A). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 21 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 2701 [ARSEF 3119] G Mercadier and TJ Poprawski (8826). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 21 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 2702 [ARSEF ?3117] TJ Poprawski (8824B). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 21 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 2703 [ARSEF 3116] G Mercadier and TJ Poprawski (8820A). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 23 Sep 1988. Yugoslavia: Kovin.
- 2704 TJ Poprawski (88100). Reisolate of ARSEF 2702 after 2 passes through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 14 Apr 1989. Laboratory manipulation.
- 2705 TJ Poprawski (88103). Reisolate of ARSEF 2701 after 7 passes through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 14 Apr 1989. Laboratory manipulation.
- 2706 [ARSEF 3149] G Mercadier and TJ Poprawski (8825A). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 21 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 2707 TJ Poprawski (88107). Reisolate of ARSEF 2696 after 2 passes through *Acyrtosiphon pisum* [Homoptera: Aphididae]. Rec'd 14 Apr 1989. Laboratory manipulation.
- 2708 [ARSEF ?3163] TJ Poprawski (8817B). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 23 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 2709 [ARSEF 3114] G Mercadier and TJ Poprawski (8818A). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 20 Sep 1988. Yugoslavia: Kovin.
- 2710 TJ Poprawski (88121). Reisolate of ARSEF 2703 after 2 passes through *Schizaphis graminum* [Homoptera: Aphididae]. Rec'd 14 Apr 1989. Laboratory manipulation.
- 2711 TJ Poprawski (88108). Reisolate of ARSEF 2696 after 2 passes through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 14 Apr 1989. Laboratory manipulation.
- 2712 TJ Poprawski (88116). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 20 Sep 1988. Yugoslavia: Kovin.
- 2713 [ARSEF 3164] G Mercadier and TJ Poprawski (8823A). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 21 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 2714 TJ Poprawski (88129). Reisolate of ARSEF 2703 passed through *Syrphus* sp. [Diptera: Syrphidae]. Rec'd 14 Apr 1989. Laboratory manipulation.

- 2716 H Firstencel ← JV Maddox. *Empoasca fabae* [Hemiptera: Cicadellidae] on snap bean. 1987. USA: Illinois Natural History Survey plot, Champaign, Illinois.
- 2717 H Firstencel ← JV Maddox. *Empoasca fabae* [Hemiptera: Cicadellidae] on soybean. 1987. USA: Union field, McHenry, Illinois.
- 2718 H Firstencel ← JV Maddox. *Empoasca fabae* [Hemiptera: Cicadellidae] on bean. 1987. USA: Helmar field, Kendall, Illinois.
- 2719 H Firstencel ← JV Maddox. *Empoasca fabae* [Hemiptera: Cicadellidae] on soybean. 1987. USA: East Lynn field, Vermillion, Illinois.
- 2720 H Firstencel ← JV Maddox. *Empoasca fabae* [Hemiptera: Cicadellidae]. 1985. USA: Champaign, Illinois.
- 2732 GW Riethmacher (EB2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 6 Apr 1989. Philippines: La Trinidad, Benguet.
- 2811 MG Feng (MD8901). *Metopolophium dirhodum* [Hemiptera: Aphididae] on spring wheat. 7 Jul 1989. USA: Parma, Idaho.
- 2893 GW Riethmacher (E2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 Apr 1989. Philippines: La Trinidad, Benguet.
- 2977 D Landis (1A). *Empoasca fabae* [Hemiptera: Cicadellidae] on alfalfa. 23 Aug 1989. USA: Michigan State University Botany Farm, Ingham County, Michigan.
- 2978 D Landis (1B). *Empoasca fabae* [Hemiptera: Cicadellidae] on alfalfa. 23 Apr 1989. USA: Michigan State University Botany Farm, Ingham County, Michigan.
- 2979 D Landis (1C). *Empoasca fabae* [Hemiptera: Cicadellidae] on alfalfa. 23 Aug 1989. USA: Michigan State University Botany Farm, Ingham County, Michigan.
- 2980 D Landis (2A). *Empoasca fabae* [Hemiptera: Cicadellidae] on alfalfa. 24 Aug 1989. USA: Hudson Farm, Allegan County, Michigan.
- 2994 LG Leite and SP Wraight (C-1 Topo SP-3). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 20 Apr 1990. Brazil: Ribeirão Grande, São Paulo.
- 2995 LG Leite and SP Wraight (C-1 Topo SP-2). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 20 Apr 1990. Brazil: Ribeirão Grande, São Paulo.
- 2996 LG Leite and SP Wraight (C-2 Test SP-5). *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 20 Apr 1990. Brazil: Ribeirão Grande, São Paulo.
- 3002 SP Wraight ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 May 1990. Brazil: control plot # 10, field # 1, Capão Bonito, São Paulo.
- 3003 SP Wraight ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 May 1990. Brazil: control plot # 4, field # 1, Capão Bonito, São Paulo.
- 3004 SP Wraight ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 May 1990. Brazil: control plot # 2, field # 2, Capão Bonito, São Paulo.
- 3005 SP Wraight ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 5 Apr 1990. Brazil: treatment plot # 1, field # 1, Capão Bonito, São Paulo.
- 3006 SP Wraight ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 May 1990. Brazil: control plot # 10, field # 1, Capão Bonito, São Paulo.
- 3007 SP Wraight ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 May 1990. Brazil: control plot # 2, field # 1, Capão Bonito, São Paulo.
- 3008 SP Wraight ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 May 1990. Brazil: control plot # 2, field # 2, Capão Bonito, São Paulo.
- 3009 SP Wraight ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 30 Apr 1990. Brazil: treatment plot # 1, field # 1, Capão Bonito, São Paulo.
- 3010 SP Wraight ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. Apr 1990. Brazil: treatment plot # 3, field # 1, Capão Bonito, São Paulo.
- 3011 SP Wraight ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 30 Apr 1990. Brazil: control plot # 1, field # 1, Capão Bonito, São Paulo.
- 3012 SP Wraight ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 7 May 1990. Brazil: treatment plot # 3, field # 1, Capão Bonito, São Paulo.
- 3013 SP Wraight ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 10 May 1990. Brazil: control plot # 1, field # 1, Capão Bonito, São Paulo.
- 3021 H Firstencel (Yugo-1). Rec'd 21 Dec 1989. Location not specified. The Yugo mix, created by H. Firstencel, is a combination of the following 7 isolates: 2706, 2246, 2288, 2712, 2240, 2283, 2243.
- 3022 H Firstencel (Yugo-2). Rec'd 21 Dec 1989. Location not specified. The Yugo mix, created by H. Firstencel, is a combination of the following 7 isolates: 2706, 2246, 2288, 2712, 2240, 2283, 2243.
- 3023 H Firstencel (Brazil-1). Rec'd 21 Dec 1989. Location not specified. The Brazil mix, created by H. Firstencel, is a combination of the following 7 isolates: 1228, 1239, 1493, 1928, 1231, 1504, 1581.
- 3024 H Firstencel (Brazil-2). Rec'd 21 Dec 1989. Location not specified. The Brazil mix, created by H. Firstencel, is a combination of the following 7 isolates: 1228, 1239, 1493, 1928, 1231, 1504, 1581.
- 3026 DW Roberts ← LG Leite. *Empoasca kraemeri* [Hemiptera: Cicadellidae]. 5 Apr 1990. Brazil.
- 3100 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 13 Sep 1990. USA: Hoffman field, strip # 1, Catherine, New York.
- 3104 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 13 Sep 1990. USA: Hoffman field, strip # 1, Catherine, New York.
- 3105 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. 13 Sep 1990. USA: Hoffman field, strip # 1, Catherine, New York.
- 3114 [ARSEF 2709] G Mercadier and TJ Poprawski (8818A). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 20 Sep 1988. Yugoslavia: Kovin.

- 3115 G Mercadier and TJ Poprawski (8819A). *Typhlocyba* sp. [Hemiptera: Cicadellidae] on sugar beet. 20 Sep 1988. Yugoslavia: Kovin.
- 3116 [ARSEF 2703] G Mercadier and TJ Poprawski (8820A). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 23 Sep 1988. Yugoslavia: Kovin.
- 3117 [ARSEF ?2702] TJ Poprawski (8824B). Reisolate of ARSEF 3150 passed through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 27 Nov 1990. Laboratory manipulation.
- 3118 TJ Poprawski (8825B). Reisolate of ARSEF 3149 passed through *Musca autumnalis* [Diptera: Muscidae]. Rec'd 27 Nov 1990. Laboratory manipulation.
- 3119 [ARSEF 2701] G Mercadier and TJ Poprawski (8826). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 21 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 3149 [ARSEF 2706] G Mercadier and TJ Poprawski (8825A). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 22 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 3150 G Mercadier and TJ Poprawski (8824A). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 22 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 3151 TJ Poprawski (8819B). *Empoasca vitis* [Hemiptera: Cicadellidae]. Rec'd 27 Nov 1990. Laboratory manipulation. Reisolate of ARSEF 3225.
- 3159 G Mercadier and TJ Poprawski (8812B). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 23 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 3160 G Mercadier and TJ Poprawski (8812C). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 23 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 3161 [ARSEF ?2696] TJ Poprawski (8812D). Rec'd 11 Dec 1990. Laboratory manipulation.
- 3162 TJ Poprawski (8817A) ← IL Sivcev. *Empoasca vitis* [Hemiptera: Cicadellidae]. 23 Sep 1988. Location not specified.
- 3163 [ARSEF ?2708] TJ Poprawski (8817B). *Diuraphis noxia* [Hemiptera: Aphididae]. Rec'd 11 Dec 1990. Laboratory manipulation. Reisolate of ARSEF 3162.
- 3164 [ARSEF 2713] G Mercadier and TJ Poprawski (8823A). *Empoasca vitis* [Hemiptera: Cicadellidae] on sugar beet. 21 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 3165 G Mercadier and TJ Poprawski (8830A). *Empoasca vitis* [Hemiptera: Cicadellidae] on cabbage. 21 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 3170 G Mercadier and TJ Poprawski (8842A). *Typhlocyba* sp. [Hemiptera: Cicadellidae] on *Abutilon* sp. 20 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 3171 [ARSEF 2700] G Mercadier and TJ Poprawski (8843A). *Typhlocyba* sp. [Hemiptera: Cicadellidae] on sugar beet. 21 Sep 1988. Yugoslavia: Zemun, Belgrade.
- 3172 TJ Poprawski (8843B). *Empoasca vitis* [Hemiptera: Cicadellidae]. Rec'd 11 Dec 1990. Laboratory manipulation. Reisolate of ARSEF 3171.
- 3204 GW Riethmacher (E3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 5 Apr 1989. Philippines: La Trinidad, Benguet.
- 3205 GW Riethmacher (E5). *Plutella xylostella* [Lepidoptera: Plutellidae]. 7 Apr 1989. Philippines: La Trinidad, Benguet.
- 3206 GW Riethmacher (E6). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 May 1989. Philippines: La Trinidad, Benguet.
- 3213 M Wheeler (Yugo Mix Plate#1). Rec'd 27 Dec 1990. Location not specified. This culture was taken from a bubbler mixture of ARSEFs 2240, 2243, 2246, 2283, 2288, 2706, and 2712.
- 3214 M Wheeler (Yugo Mix Plate#2). Rec'd 27 Dec 1990. Location not specified. This culture was taken from a bubbler mixture of ARSEFs 2240, 2243, 2246, 2283, 2288, 2706, and 2712.
- 3217 SG Wraight and SP Wraight (Ef1590). Reisolate of ARSEF 1590 passed through *Empoasca fabae* [Homoptera: Cicadellidae]. Rec'd 22 Jan 1991. Laboratory manipulation.
- 3283 [ARSEF 3284] S Roberts (Champ90LH2To(B)). *Empoasca fabae* [Hemiptera: Cicadellidae] on alfalfa. 1990. USA: Champaign County, Illinois.
- 3284 [ARSEF 3283] S Roberts (Champ90LH2To(E)). *Empoasca fabae* [Hemiptera: Cicadellidae] on alfalfa. 1990. USA: Champaign County, Illinois.
- 3355 M Wheeler. *Empoasca fabae* [Hemiptera: Cicadellidae]. Rec'd 13 Jun 1991. Laboratory manipulation. Reisolate of 1019 after two passes through PLH.
- 3376 M Wheeler ← MH Griggs. *Empoasca fabae* [Hemiptera: Cicadellidae]. 26 Jul 1991. USA: Game Farm Rd., Ithaca, New York.
- 3377 M Wheeler ← MH Griggs. *Empoasca fabae* [Hemiptera: Cicadellidae]. 29 Jul 1991. USA: Game Farm Rd., Ithaca, New York.
- 3390 M Wheeler ← MH Griggs. *Empoasca fabae* [Hemiptera: Cicadellidae]. 5 Aug 1991. USA: Game Farm Rd., Ithaca, New York.
- 3489 J Eilenberg (KVL 47). *Delia radicum* [Diptera: Anthomyiidae]. 28 Jul 1988. Denmark: Roskilde, Zealand.
- 3623 ATCC (32245) ← RG Kenneth (3029). *Empoasca* sp. [Hemiptera: Cicadellidae] on citrus leaf. Rec'd 11 Mar 1992. Israel: Girat, Brenner.
- 3697 MH Griggs. *Empoasca fabae* [Hemiptera: Cicadellidae]. Rec'd Spring 1992. Laboratory manipulation.
- 3737 I Ben-Ze'ev and A Uziel. *Therioaphis trifolii f. maculata* [Hemiptera: Aphididae]. Aug 1985. Israel: Bet-Seham Valley.

- 4520 MH Griggs (PLH3284ows). *Empoasca fabae* [Hemiptera: Cicadellidae]. 2 Jun 1994. USA: USPSNL, Ithaca, New York. Cadavers infected with ARSEF 3284 overwintered 1993-1994 and reisolated.
- 4548 MH Griggs (PLH GF). *Empoasca fabae* [Hemiptera: Cicadellidae] alfalfa field. 18 Jul 1994. USA: Game Farm Road, Ithaca, New York.
- 4781 [INIA 2330] J Eilenberg (KVL 608). *Epinotia aporema* [Lepidoptera: Tortricidae]. 7 May 1994. Uruguay.
- 4782 [INIA 2553] J Eilenberg (KVL 609). *Epinotia aporema* [Lepidoptera: Tortricidae]. 13 May 1994. Uruguay.
- 4783 [INIA 228] J Eilenberg (KVL 613). *Anacampsis humilis* [Lepidoptera: Gelechiidae]. Rec'd 13 Sep 1994. Uruguay.
- 4784 [INIA 2562] J Eilenberg (KVL 610). *Epinotia aporema* [Lepidoptera: Tortricidae]. 13 May 1994. Uruguay.
- 4785 [INIA 2377] J Eilenberg (KVL 611). *Epinotia aporema* [Lepidoptera: Tortricidae]. 7 May 1994. Uruguay.
- 5814 C López Lastra. Larva, *Epinotia aporema* [Lepidoptera: Tortricidae] on *Lupinus* sp. Rec'd 28 Aug 1998. Argentina: Los Hornos, La Plata, Buenos Aires.
- 6003 SR Sánchez Peña. Larva, *Trichoplusia ni* [Lepidoptera: Noctuidae] in a broccoli plot. Nov 1998. Mexico: Universidad Agraria Antonio Narro campus, Saltillo, Coahuila.
- 6303 R Alatorre Rosas (Jav.13). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6313 R Alatorre Rosas (Mina.2). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6314 R Alatorre Rosas (Mina.2-2). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6315 R Alatorre Rosas (Mina.16). *Plutella xylostella* [Lepidoptera: Plutellidae]. Rec'd 22 Oct 1999. Mexico: Guanajuato State.
- 6605 JL Hatting (Sample G). *Molopopterus theae* [Hemiptera: Cicadellidae]. 4 Aug 1999. South Africa: Site grid reference S 32° 00' 30.4" E 18° 55' 15.6" , Clanwilliam, Cape Province.
- 6917 C López Lastra (1). Larva, *Tuta absoluta* [Lepidoptera: Gelechiidae] on *Lycopersicon esculentum* Miller, tomato in covered greenhouses. 12 Jun 2001. Argentina: Colonia Urquiza, La Plata, Buenos Aires.
- 7208 [CEP 052] C López Lastra. *Aphis fabae* [Hemiptera: Aphididae] on *Solanum melongena* L., eggplant. 26 Mar 2003. Argentina: Colonia Urquiza, La Plata, Buenos Aires. **RESTRICTED ACCESS:** consult Curator.
- 7455 [CEP 130] C López Lastra. [Hemiptera: Aphididae] on *Brassica oleracea* L., cabbage crop. 30 Mar 2004. Argentina: Arana, La Plata, Buenos Aires.
- 7788 [CEP 172] C López Lastra ← AC Scorsetti. [Hemiptera: Aphididae] on *Cynara cardunculus* L., artichoke crop. 12 Apr 2005. Argentina: General Mansilla, Partido Magdalena, Buenos Aires.
- 7789 [CEP 173] C López Lastra ← AC Scorsetti. [Hemiptera: Aphididae] on *Cynara cardunculus* L., artichoke crop. 8 Sep 2004. Argentina: Colonia Urquiza, La Plata, Buenos Aires.
- 8466 AV Toledo (ZR062). Adult, [Diptera]. 13 May 2007. Argentina: La Plata, Buenos Aires.
- 11859 C López Lastra and R Manfrino. *Acyrtosiphon pisum* [Hemiptera: Aphididae] on *Medicago sativa* L., lucerne. 10 Jun 2012. Argentina: Monte Vera, Santa Fe.
- 11860 C López Lastra and R Manfrino. *Nasonovia ribisnigri* [Hemiptera: Aphididae] on *Lactuca sativa* L., lettuce. 31 Jul 2012. Argentina: Pereyra, Buenos Aires.
- 12800 SR Sánchez Peña (1) and RI Torres-Acosta. *Bagrada hilaris* [Hemiptera: Pentatomidae] on *Sisymbrium* sp., weedy crucifers. Oct 2014. Mexico: Saltillo, Coahuila.
- 12801 SR Sánchez Peña (2) and RI Torres-Acosta. *Bagrada hilaris* [Hemiptera: Pentatomidae] on *Sisymbrium* sp., weedy crucifers. Oct 2014. Mexico: Saltillo, Coahuila.
- 13166 SR Sánchez Peña (451). *Bactericera cockerelli* [Hemiptera: Trozidae]. 30 Apr 2015. Mexico: Saltillo, Coahuila, Mexico, Saltillo, Coahuila.

Unidentified Entomophthorales sp.
[Diptera: Tipulidae]
Unknown species 7227 7228 7229 7230
[Hemiptera: Aphididae]
Melanaphis sacchari 13631 13632
13635 13636 13638 13639 13640
13641 13642 13647 13648 13649
13650 13651 13652 13653 13655
13656 13657 13658 13659 13660
13767 13768

Basidiobolus sp.
[Anura: Bufonidae]
Bufo bufo 9894 9895 9896 9897 9898
9899 9906 9907 9908
[Anura: Dendrobatidae]
Dendrobates leucomelas 9888
[Anura: Discoglossidae]
Alytes 9903 9904 9905 9909 9910 9911
9912
Discoglossus 9900 9901 9902
[Anura: Microhylidae]
Dyscophus guineti 9887
[Anura: Ranidae]
Hylarana erythraea 9890
Hylarana glandulosa 9892
Hylarana labialis 9891 9893
[Caudata: Salamandridae]
Triturus marmoratus 9889
[Primates: Hominidae]
Homo sapiens 273

Basidiobolus haptosporus
[Diptera: Brachycera]
Unknown species 1347
[Primates: Hominidae]
Homo sapiens 261 272

Basidiobolus ranarum
[Lepidoptera: Lasiocampidae]
Dendrolimus spectabilis 1139

Batkoa sp.
[Coleoptera: Cantharidae]
Unknown species 5810
[Hemiptera: Aphididae]
Acyrtosiphon pisum 3131
[Lepidoptera: Lasiocampidae]
Malacosoma disstria 7370
[Lepidoptera: Noctuidae]
Panolis flammea 6179

Batkoa apiculata
[Diptera: Sciaridae]
Unknown species 919 927 1660 1661
Bradysia paupera 3224 3225 3226
[Hemiptera: Aphididae]
Acyrtosiphon kondoi 839
Acyrtosiphon pisum 2504 3130 3136
3140
Brevicoryne brassicae 1146
Macrosiphum euphorbiae 174
Myzus ascalonicus 67
Myzus persicae 129
Rhopalosiphum maidis 3088 3091
Rhopalosiphum padi 3080 5994
[Hemiptera: Cicadellidae]
Unknown species 132 5552

[Hymenoptera]
Unknown species 395
Batkoa gigantea
[Diptera: Tipulidae]
Tipula paludosa 214 215 403

Batkoa major
[Diptera: Drosophilidae]
Drosophila suzukii 12251
[Hemiptera: Aphididae]
Unknown species 1427
Macrosiphum euphorbiae 6
[Hemiptera: Cicadellidae]
Empoasca fabae 2936 3102 3103
[Hemiptera: Fulgoridae]
Lycorma delicatula 13769

Batkoa papillata(?)
[Diptera: Simuliidae]
Unknown species 7068

Batkoa pseudapiculatus
[Diptera: Psilidae]
Psila rosae 2493 2496 2497 2502

Conidiobolus sp.
[Coleoptera: Curculionidae]
Hypera variabilis 80 81
[Collembola]
Unknown species 11867
[Diptera: Anthomyiidae]
Unknown species 2494
Delia radicum 2672
[Diptera: Muscidae]
Musca branca 2508
[Diptera: Ptychopteridae]
Ptychoptera contaminata 2498
[Diptera: Tipulidae]
Unknown species 89
Tipula paludosa 6424
[Hemiptera: Adelgidae]
Adelges tsugae 11650
[Hemiptera: Aphididae]
Unknown species 999 1426
Aphis fabae 3383
Brevicoryne brassicae 2130
Eriosoma lanigerum 6659
Myzus persicae 3384
Schizaphis graminum 1967
[Hemiptera: Cercopidae]
Unknown species 391
Deois 2147
Deois flavopicta 2148
[Hemiptera: Cicadellidae]
Nephotettix bipunctata cincticeps 605
606
[Hemiptera: Cixiidae]
Oliarus dimidiatus 7786
[Hemiptera: Delphacidae]
Nilaparvata lugens 211 516 517 521
522 564 595 596
Sogatella furcifera 604
[Hemiptera: Membracidae]
Gargara 5404 5405 5406
[Hymenoptera]
Unknown species 2193

[Hymenoptera: Formicidae]
Solenopsis invicta 2819
[Isopoda: Oniscoidea]
Porcellio 1672
[Lepidoptera: Plutellidae]
Plutella xylostella 2771 2772 2815 2816
3208
[Lepidoptera: Tortricidae]
Choristoneura fumiferana 92 93 94
147 148
[Orthoptera: Tettigoniidae]
Unknown species 1477
[Primates: Hominidae]
Homo sapiens 2928 12338 12543
[Protura]
Unknown species 11763

Conidiobolus coronatus
[Agaricales]
Volvariella volvacea 1147
[Araneida]
Unknown species 567 7010
[Coleoptera: Curculionidae]
Ceutorhynchus napi 1572 1573 1574
1575
[Collembola]
Unknown species 8023
[Dacrymycetales]
Unknown species 3087
[Diptera: Psychodidae]
Lutzomyia 3379
Lutzomyia sordelli 3414 3415
[Diptera: Sciaridae]
Lycoriella ingenua 9940 9941 9942
[Hemiptera: Aphididae]
Acyrtosiphon pisum 96 1738
Metopolophium dirhodum 2812 2813
2814
Myzus persicae 56 61
[Hemiptera: Cicadellidae]
Unknown species 419 420 421 422
Empoasca fabae 3099 3109
Nephotettix bipunctata cincticeps 515
520 597
[Hemiptera: Delphacidae]
Delphacodes haywardii 7203
Nilaparvata lugens 329 330 349 405
406 418 462 463 464 465 511 512
514 519 523 524 525 526 528 553
563 565 655 997 1673 1876
[Hymenoptera: Formicidae]
Unknown species 7011
[Isoptera: Termitidae]
Nasutitermes corniger 8455
[Lepidoptera: Noctuidae]
Mocis latipes 1884
[Lepidoptera: Plutellidae]
Plutella xylostella 2730
[Lepidoptera: Tortricidae]
Epinotia aporema 4797
[Opiliones: Palpatores]
Unknown species 7012 7013
[Perissodactyla: Equidae]
Equus ferus caballus 2715
[Primates: Hominidae]
Homo sapiens 206

Host by Fungus

[Thysanoptera: Thripidae]	<i>Aphis fabae</i> 42 117 242 244 245 246 247 630 631 632 633 634 635 1735	<i>Aedia leucomelas</i> 198 998 1049
Unknown species 6512 9914		<i>Autographa gamma</i> 2363 2364 2365
<i>Frankliniella occidentalis</i> 3222	<i>Aphis glycines</i> 7209 7210 7211 11664	<i>Mamestra brassicae</i> 1657 1751 2362 2367 2368 2369
Conidiobolus firmipilleus	<i>Aphis gossypii</i> 83 194	<i>Pseudaletia</i> 1999
[Lepidoptera: Plutellidae]	<i>Cavariella theobaldi</i> 101 102 363 1733 1734	[Lepidoptera: Notodontidae]
<i>Plutella xylostella</i> 2731	<i>Diuraphis noxia</i> 4968	<i>Ellida caniplaga</i> 2903
Conidiobolus lamprauges	<i>Diuraphis tritici</i> 2914	<i>Heterocampa</i> 2902
[Perissodactyla: Equidae]	<i>Macrosiphum euphorbiae</i> 40	<i>Heterocampa biundata</i> 2905
<i>Equus ferus caballus</i> 2338	<i>Melanaphis sacchari</i> 13630 13633 13634 13637 13643 13644 13645 13646 13654	<i>Heterocampa guttivitta</i> 2843 2904 3039 3212
Conidiobolus macrosporus	<i>Metopolophium dirhodum</i> 2828 2829 2849 2850	[Lepidoptera: Pieridae]
[Diptera]	<i>Myzus persicae</i> 2 39 41 57 63 99 136 649 1012	<i>Colias erate poliographus</i> 2366
Unknown species 12830	<i>Rhopalosiphum insertum</i> 73	[Lepidoptera: Saturniidae]
Conidiobolus nr. coronatus	<i>Schizaphis graminum</i> 2955	<i>Dryocampa rubicunda</i> 2897
[Hemiptera: Delphacidae]	<i>Sitobion avenae</i> 2830	[Lepidoptera: Sphingidae]
<i>Nilaparvata lugens</i> 598 599 600 1742 1743	<i>Therioaphis maculata</i> 15 29 115 208	Unknown species 118
<i>Sogatella furcifera</i> 602	<i>Uroleucon</i> 120	<i>Eumorpha fasciata</i> 4796
Conidiobolus obscurus	[Hemiptera: Cicadellidae]	[Lepidoptera: Tortricidae]
[Hemiptera: ?Aphididae]	<i>Empoasca fabae</i> 3129	<i>Choristoneura fumiferana</i> 51 53 95 164 165 166 167 168 169 170 171 172 1992 1993 1994 1995 1997 1998 2896 2898 2901
Unknown species 243	[Orthoptera: Acrididae]	
[Hemiptera: Aphididae]	Unknown species 22	
Unknown species 434	Entomophaga sp.	
<i>Acyrtosiphon kondoi</i> 354 824	[Hemiptera: Cicadellidae]	Entomophaga australiensis
<i>Acyrtosiphon pisum</i> 24 69 832 834 1741 3132 3133 3134 3135 3137 3138 3139 3141	<i>Empoasca kraemeri</i> 1230	[Hemiptera: Cicadellidae]
<i>Aphis</i> 124	<i>Hortensia</i> 2189	Unknown species 743
<i>Aphis armata</i> 133 355	<i>Nephotettix bipunctata cincticeps</i> 1126	<i>Cicadella</i> 328
<i>Macrosiphum euphorbiae</i> 130 173 175 176 182	[Hemiptera: Delphacidae]	<i>Empoasca kraemeri</i> 791
<i>Metopolophium dirhodum</i> 97 2335 3092	<i>Nilaparvata lugens</i> 1881	[Hemiptera: Cicadidae]
<i>Myzus persicae</i> 236	[Lepidoptera]	<i>Cicadetta puer</i> 331 332 365
<i>Rhopalosiphum maidis</i> 3089 3090	Unknown species 393	[Hemiptera: Delphacidae]
<i>Rhopalosiphum padi</i> 125 995 1131 5992	[Orthoptera: Acrididae: Oedipodinae]	<i>Nilaparvata lugens</i> 581 607
<i>Sitobion avenae</i> 98	<i>Aiolopus thalassinus tamulus</i> 2083	
<i>Therioaphis maculata</i> 74	Entomophaga asiatica	
<i>Uroleucon</i> 119 121 122 123	[Orthoptera: Acrididae]	Entomophaga calopteni
<i>Uroleucon cichorii</i> 25	Unknown species 1393	[Orthoptera: Acrididae]
Conidiobolus osmodes	<i>Parapodisma</i> 1659	<i>Melanoplus bivittatus</i> 390 408 497 498 766
[Coleoptera: Curculionidae]	Entomophaga aulicae	<i>Melanoplus cuneatus</i> 623 626 646
<i>Hypera variabilis</i> 79	[Lepidoptera]	<i>Melanoplus differentialis</i> 2168 2522
[Hemiptera: Aphididae]	Unknown species 1140 1656	<i>Melanoplus flavidus</i> 383
Unknown species 27	[Lepidoptera: Arctiidae]	<i>Melanoplus packardii</i> 625
Conidiobolus osmodes(?)	Unknown species 1141	
[Hemiptera: Aphididae]	<i>Hyphantria cunea</i> 1996	Entomophaga conglomerata
<i>Rhopalosiphum padi</i> 5993	<i>Spilosoma niveum</i> 2372 2373 2374	[Diptera: Chironomidae]
Conidiobolus thromboides	[Lepidoptera: Geometridae]	Unknown species 2272 2273
[Diptera]	<i>Enypia griseata</i> 2000	[Diptera: Culicidae]
Unknown species 86 87	<i>Lambdina fiscellaria fiscellaria</i> 1991 2900	Unknown species 1847
[Diptera: Chamaemyiidae]	<i>Lambdina fiscellaria lugubrosa</i> 1990	
<i>Leucopis ninae</i> 4996	<i>Rheumaptera hastata</i> 2899	Entomophaga grylli
[Diptera: Culicidae]	[Lepidoptera: Lasiocampidae]	[Orthoptera: Acrididae]
<i>Culex pipiens pipiens</i> 70	<i>Dendrolimus spectabilis</i> 1142 1655	<i>Melanoplus bivittatus</i> 622
[Diptera: Helomyzidae]	<i>Malacosoma disstria</i> 3602	
Unknown species 5	[Lepidoptera: Lymantriidae]	Entomophaga macleodii
[Hemiptera: Aphididae]	<i>Euproctis chrysoorrhoea</i> 7140 7141 7142 7143 7144 7145	[Orthoptera: Acrididae]
Unknown species 58 59 248 249 250 1006	<i>Orgyia vetusta</i> 4004 4005 4006 4007 4008	<i>Camnula pellucida</i> 496 618 619 620 621 624 628 629 765 767 768 769 773 774 777 778 779 3025 4948 4949 4950 4951 4952 4953
<i>Acyrtosiphon pisum</i> 100 6662	[Lepidoptera: Noctuidae]	<i>Dissosteira carolina</i> 375 376 382 499
	Unknown species 3016	
	? <i>Heliothis</i> 251	

Entomophaga maimaiga

[Lepidoptera: Lasiocampidae]
Malacosoma americanum 6170 6173
6174
Malacosoma disstria 4544 4545
[Lepidoptera: Lymantriidae]
Lymantria dispar 1390 1391 1392 1400
1658 2370 2371 2774 2775 2779
2780 3052 3053 3828 3829 3830
3831 3832 3833 3834 3835 3911
3912 3913 4504 4505 4506 4507
4508 4509 4510 4546 4547 4549
4550 4551 4552 4553 4554 4555
5377 5378 5379 5380 5381 5382
5383 5384 5385 5386 5387 5388
5389 5390 5391 5392 5393 5394
5395 5396 5397 5398 5399 5400
5401 5564 5568 5570 6004 6005
6168 6169 6171 6172 6212 6218
6224 6253 6254 6255 6256 6257
6258 6264 6265 6266 6267 6268
6269 6270 6271 6272 6523 6524
6625 6626 6627 6628 6629 6630
6652 6653 6654 6655 6656 6657
6663 6664 6665 6666 6667 6668
6724 6725 6726 6727 6728 6729
7101 7102 7103 7104 7105 7106
7107 7108 7109 7110 7111 7112
7113 7114 7115 7116 7120 7121
7122 7123 7124 7125 7126 7127
7131 7132 7133 7134 7135 7136
7137 7138 7139 7183 7184 7185
7186 7187 7188 7189 7190 7352
7353

Entomophaga praxibuli

[Hemiptera: Cicadellidae]
Empoasca vitis 3058
[Orthoptera: Acrididae]
Praxibulus 840

Entomophaga tabanivora

[Diptera: Tabanidae]
Atylotus thoracis 627

Entomophthora sp.

[Hemiptera: Aphididae]
Macrosiphum euphorbiae 4

Entomophthora chromaphidis

[Hemiptera: Aphididae]
Acyrtosiphon kondoi 1860 1861 1862
1863
Myzus persicae 1927

Entomophthora culicis

[Diptera: Chironomidae]
Unknown species 5811
Chironomus decorus 780
[Diptera: Nematocera]
Unknown species 387

Entomophthora ferdinandii

[Diptera: Muscidae]
Coenosia tigrina 6918

Entomophthora muscae

[Diptera]
Unknown species 392 466 6701 7371
[Diptera: Anthomyiidae]
Unknown species 2087 2088 2678
Botanophila fugax 6712
Delia 2089 2090 2263 2264 2265 2266
2317
Delia antiqua 3074
Delia platura 707
Delia radicum 2665 2668 2670 2674
2675 4786 4787 4788 4789 4790
6274 6706 6707 6708 6709 6710
6711 6717 6811 6814 6815 6818
6821
[Diptera: Calliphoridae]
Pollenia rudis 651
[Diptera: Drosophilidae]
Drosophila hydei 13514
[Diptera: Muscidae]
Unknown species 5954
Musca domestica 16 454 556 557 803
969 2014 2172 2542 2543 5952
5953 6121 6122 6123 6124 6125
6126 6127 6128 6129 6130 6131
6132 6133 6134 6135 6136 6140
6141 6164 6165 6713 6714 6715
6716 6812 6813 13376
[Diptera: Syrphidae]
Unknown species 826 2673

Entomophthora planchoniana

[Hemiptera: Aphididae]
Ovatus crataegarius 6251 6252

Entomophthora scatophagae

[Diptera: Scatophagidae]
Scatophaga stercoraria 6704 6705

Entomophthora schizophorae

[Diptera: Calliphoridae]
Pollenia 6703 6816 6817
Pollenia rudis 4791
[Diptera: Muscidae]
Musca domestica 5348 6137 6138 6139
6142 6143
[Diptera: Psilidae]
Psila rosae 2540 2541 2667

Entomophthora syrphi

[Diptera: Syrphidae]
Melanostoma scalare 6819 6820
Platycheirus clypeatus 6702
Triglyphus primus 5955

Entomophthora thripidum

[Thysanoptera: Thripidae]
Thrips tabaci 5868 6517 6518 6519
6520 6521 6522 6525

Erynia sp.

[Coleoptera: Cantharidae]
Unknown species 2664 5352
Rhagonycha fulva 2525 2536 2537 2538
2539 2553 2662 2663
[Diptera]
Unknown species 876 880 884 2495
[Diptera: Brachycera]
Unknown species 1338

[Diptera: Chironomidae]
Unknown species 2507
[Diptera: Ephydriidae]
?Hydrellia 2097
[Diptera: Sciaridae]
Lycoriella mali 2433 2434
[Hemiptera: Aphididae]
Unknown species 2279 2296
Brevicoryne brassicae 2294
Macrosiphum euphorbiae 2292
Therioaphis maculata 1666
[Hemiptera: Delphacidae]
Nilaparvata lugens 658
[Lepidoptera]
Unknown species 1241
[Lepidoptera: Noctuidae]
Pseudoplusia includens 2027
[Lepidoptera: Plutellidae]
Plutella xylostella 983
[Lepidoptera: Tortricidae]
Eana argentana 1143
[Trichoptera]
Unknown species 9537

Erynia aquatica

[Diptera: Culicidae]
Unknown species 364 764
Aedes 750 885

Erynia conica

[Diptera]
Unknown species 401
[Diptera: Chironomidae]
Unknown species 2274 2277 2278 2405
[Diptera: Culicidae]
Unknown species 1740
[Diptera: Simuliidae]
Unknown species 1752 1753 1755 2275
Simulium 1439

Erynia curvispora

[Diptera: Chironomidae]
Unknown species 402
[Diptera: Culicidae]
Ochlerotatus triseriatus 36
[Diptera: Simuliidae]
Unknown species 1754 3229
Simulium 802
[Trichoptera]
Unknown species 3244

Erynia ovispora

[Diptera: Psychodidae]
Unknown species 398 399 400

Erynia rhizospora

[Trichoptera]
Unknown species 219 492 493 801 1440
1441 1442 1443 2276
[Trichoptera: Hydropsychidae]
Unknown species 2407

Erynia sciarae

[Diptera: Mycetophilidae]
Unknown species 1870

Erynia sepulchralis

[Diptera: Tipulidae]
Unknown species 12250

Host by Fungus

Eryniopsis caroliniana [Diptera: Tipulidae] <i>Tipula paludosa</i> 212 213 424 640 641 642	Neozygites turbinata [Hemiptera: Aphididae] <i>Pterochloroides persicae</i> 54	[Diptera: Nematocera] Unknown species 397 [Trichoptera] Unknown species 2406
Eryniopsis ptychopterae [Diptera: Ptychopteridae] <i>Ptychoptera contaminata</i> 2535 2671	Pandora sp. [Diptera] Unknown species 5812 [Diptera: Sciaridae] Unknown species 13512 [Hemiptera: Psyllidae] <i>Cacopsylla</i> 13371 13372 13373 13374 [Lepidoptera: Arctiidae] <i>Lophocampa caryae</i> 11764 [Lepidoptera: Plutellidae] <i>Plutella xylostella</i> 3201	Pandora gloeospora [Diptera: Sciaridae] <i>Lycoriella</i> 13406
Furia americana [Diptera] Unknown species 742 1240 1242 2192 2194	Pandora blunckii [Coleoptera: Elateridae] <i>Athalia rosae</i> 915 917 920 1715 1716 1717 1718 [Lepidoptera: Plutellidae] <i>Plutella</i> 3075 <i>Plutella maculipennis</i> 217 <i>Plutella xylostella</i> 1000 1135 2824 3200 3202 6293 6294 6295 6296 6297 6298 6299 6300 6301 6302 6304 6305 6306 6307 6308 6309 6310 6311 6312 6316	Pandora heteropterae [Hemiptera: Miridae] <i>Lygus lineolaris</i> 9266
Furia gastropachae [Lepidoptera] Unknown species 2906 [Lepidoptera: Lasiocampidae] <i>Malacosoma disstria</i> 5541 5542 5543 5544 5545 5546 5547 5869 5870 5871 5872 8926	Pandora bullata [Diptera: Calliphoridae] <i>Phaenicia sericata</i> 9 116	Pandora kondoiensis [Hemiptera: Aphididae] <i>Acyrtosiphon kondoi</i> 369 825 828 836 837
Furia ithacensis [Diptera: Empididae] Unknown species 1339 1340 [Diptera: Rhagionidae] <i>Symphoromyia hirta</i> 663	Pandora delphacis [Hemiptera: Cicadellidae] Unknown species 1238 1936 <i>Empoasca fabae</i> 3072 3093 3094 3095 3096 3106 3107 <i>Nephotettix cincticeps</i> 458 459 460 461 478 479 <i>Recilia dorsalis</i> 659 660 [Hemiptera: Delphacidae] <i>Nilaparvata lugens</i> 134 575 578 579 580 657 661 664 665 666 667 668 669 670 671 672 673 674 675 676 677 682 686 698 701 713 716 1124 1132 1133 1264 1268 1730 1731 2091 2408 <i>Sogatella furcifera</i> 593 603 2092 2093 2095 2096 2409 6538 6539 <i>Sogatodes pusanus</i> 2094 [Hemiptera: Membracidae] <i>Spissistilus festinus</i> 2028 3484 [Hemiptera: Miridae] Unknown species 3062 [Lepidoptera: Noctuidae] <i>Mamestra brassicae</i> 1265	Pandora neoaphidis [Hemiptera: Aphididae] Unknown species 26 78 200 381 1571 1695 1696 2016 2298 6902 <i>Acyrtosiphon pisum</i> 827 830 831 838 1598 1599 1603 1605 1609 2017 2018 2582 2583 2584 2585 2586 2587 2588 2589 2590 2591 2592 2593 2594 2754 2755 2756 2757 2758 2759 2760 2761 2762 2763 2766 2767 2768 2769 2770 2773 2781 2782 2783 2784 2825 2837 2838 2839 2840 2842 2844 2845 2846 2847 2848 2851 2852 2853 2854 2855 2856 2865 2866 2867 2868 2870 2872 2873 2884 2885 3234 3237 3240 4934 6631 7937 11663 <i>Aphidula</i> 1610 1615 <i>Aphis</i> 128 3410 <i>Aphis</i> ? <i>fabae</i> 77 <i>Aphis fabae</i> 608 609 610 611 612 613 614 636 637 638 639 1606 1608 1611 1981 1983 1985 2019 2020 3238 3241 5995 <i>Aphis glycines</i> 7212 7213 7214 7226 8607 <i>Brevicoryne brassicae</i> 1613 1614 1616 1617 1784 1785 1786 1824 1825 1826 1827 2021 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2280 2293 5371 5372 5373 5374 <i>Dactynotus formosanus</i> 1137 <i>Diuraphis noxia</i> 3081 3082 3126 3174 3175 <i>Hyalopterus pruni</i> 1596 <i>Hyperomyzus lactucae</i> 829 833 835 <i>Macrosiphum</i> 1607 1612 <i>Macrosiphum akebiae</i> 1134 <i>Macrosiphum euphorbiae</i> 11 19 181 2291 <i>Macrosiphum rosae</i> 1986 1987 <i>Melanaphis sacchari</i> 13165 <i>Metopolophium dirhodum</i> 2874 2875 2876 3365 3367 5707 5708 <i>Microlophium carnosum</i> 7938 7939 <i>Myzus</i> 1601 1602
Furia neopyralidarum [Lepidoptera] Unknown species 1145	Pandora dipterigena [Diptera] Unknown species 131 1720 1921 1923 [Diptera: ?Sciaridae] Unknown species 1887 [Diptera: Brachycera] Unknown species 1422 [Diptera: Calliphoridae] Unknown species 1144	
Furia pieris [Lepidoptera: Pieridae] <i>Pieris rapae</i> 781		
Furia virescens [Hemiptera: Miridae] <i>Notostira elongata</i> 394 [Lepidoptera] Unknown species 427 [Lepidoptera: Noctuidae] Unknown species 470 1127 1128 1129		
Macrobiotophthora vermicola [Rhabditida: Rhabditidae] <i>Cruznema lambdiense</i> 650		
Massospora cicadina [Hemiptera: Cicadidae] <i>Magiccada septendecim</i> 374		
Massospora levispora [Hemiptera: Cicadidae] <i>Magiccada</i> 3910 <i>Okanagana rimosa</i> 2001		
Neozygites floridana(?) [Acari: Tetranychidae] <i>Mononychellus tanajoa</i> 6219 6220 6221 <i>Tetranychus urticae</i> 662 5201 5202 5376		
Neozygites parvispora [Thysanoptera: Thripidae] <i>Thrips tabaci</i> 5620 5621		
Neozygites tetranychii [Acari: Tetranychidae] <i>Tetranychus althaeae</i> 2677		

<i>Myzus nicotinae</i> 3411 3412 3459	Zoophthora phytonomi	<i>Molopopterus theae</i> 6605
<i>Myzus persicae</i> 1600 2085 2086 3248	[Coleoptera: Curculionidae]	<i>Typhlocyba</i> 3115 3170 3171
3249 3250 3251 11662	<i>Hypera postica</i> 544 545 3342 3343 3344	[Hemiptera: Delphacidae]
<i>Nasonovia ribisnigri</i> 11862 11863	<i>Hypera punctata</i> 202 546 2188	<i>Delphacodes striatella</i> 1050
<i>Schizaphis graminum</i> 3366	<i>Hypera variabilis</i> 82 113 191 192	<i>Nilaparvata lugens</i> 685 1125 1136 1138
<i>Sitobion</i> 1597 1604	Zoophthora radicans	[Hemiptera: Miridae]
<i>Sitobion avenae</i> 5403 6166	[Diptera]	<i>Dicyphus pallidus</i> 389
<i>Uroleucon formosanus</i> 993	Unknown species 388 1337 2499 2500	[Hemiptera: Pentatomidae]
[Hemiptera: Miridae]	2501 2503 2506 2523 2524 2554	<i>Bagrada hilaris</i> 12800 12801
<i>Lygus</i> 1570	2669 8466	[Hemiptera: Psyllidae]
Pandora nouryi	[Diptera: Anthomyiidae]	<i>Psyllida etrioza</i> 126
[Hemiptera: Aphididae]	<i>Delia radicum</i> 2666 3489	<i>Trioza urticae</i> 1719
Unknown species 199	[Diptera: Drosophilidae]	[Hemiptera: Trozidae]
<i>Acyrtosiphon kondoi</i> 362	Unknown species 18	<i>Bactericera cockerelli</i> 13166
<i>Lipaphis erysimi</i> 8930 8931	[Diptera: Nematocera]	[Hymenoptera]
<i>Therioaphis maculata</i> 14 366	Unknown species 1336 1428	Unknown species 127
Schizangiella sp.	[Hemiptera: Aphididae]	[Hymenoptera: Diprionidae]
[Squamata: Colubridae]	Unknown species 195 548 7455 7788	<i>Neodiprion tsugae</i> 13
<i>Elaphe</i> 2237 2238 2239	7789	[Lepidoptera]
Schizangiella serpentis	<i>Acyrtosiphon pisum</i> 11859	Unknown species 404
[Squamata: Colubridae]	<i>Aphis ?fabae</i> 2295	[Lepidoptera: Gelechiidae]
<i>Elaphe obsoleta</i> 8000 8047	<i>Aphis fabae</i> 7208	<i>Tuta absoluta</i> 6917
[Squamata: Viperidae]	<i>Brachycaudus amygdalinus</i> 75 76	[Lepidoptera: Gelechiidae]
<i>Crotalus horridus</i> 203	<i>Capitophorus</i> 822	<i>Anacamptis humilis</i> 4783
Strongwellsea castrans	<i>Diuraphis noxia</i> 3163	[Lepidoptera: Geometridae]
[Diptera: Anthomyiidae]	<i>Drepanosiphum aceris</i> 914 1130	<i>Lambdina fiscellaria fiscellaria</i> 72
<i>Delia radicum</i> 3282 3485	<i>Hyperomyzus lactucae</i> 197	[Lepidoptera: Noctuidae]
Zoophthora sp.	<i>Macrosiphum euphorbiae</i> 10	<i>Sesamia inferens</i> 2411
[Coleoptera: Curculionidae]	<i>Metopolophium dirhodum</i> 2811	<i>Trichoplusia ni</i> 6003
<i>Hypera postica</i> 2623	<i>Nasonovia ribisnigri</i> 11860	[Lepidoptera: Pieridae]
[Dermoptera: Forficulidae]	<i>Therioaphis maculata</i> 103 104 105 106	<i>Pieris brassicae</i> 1341 1342 1343 1344
<i>Forficula auricularia</i> 3486 3487 3488	107 108 109 110 111 112 114 139	1345 1346
[Hemiptera: Aphididae]	237 238 239 359 370 379 495 823	[Lepidoptera: Plutellidae]
Unknown species 7454	<i>Therioaphis trifolii f. maculata</i> 3737	<i>Plutella xylostella</i> 1048 1100 2732 2893
Zoophthora anglica	[Hemiptera: Cercopidae]	3204 3205 3206 6303 6313 6314
[Coleoptera: Carabidae]	Unknown species 494 800	6315
<i>Trechus quadristriatus</i> 1739	[Hemiptera: Cicadellidae]	[Lepidoptera: Pyralidae]
[Coleoptera: Elateridae]	Unknown species 1239 1263 1495 1587	<i>Cnaphalocrocis medinalis</i> 1699 2410
<i>Agriotes sputator</i> 396 918 2505	1591 2196 2549 2551 2552	[Lepidoptera: Tortricidae]
[Hemiptera: Miridae]	<i>Empoasca</i> 62 2240 2241 2242 2243	<i>Acleris variana</i> 90
<i>Notostira elongata</i> 916 926	2244 2245 2246 2282 2283 2284	<i>Choristoneura fumiferana</i> 21 35 43 44
Zoophthora aphidis	2285 2286 2287 2288 2289 3623	45 46 47 48 49 50 52 88 91 141
[Hemiptera: Aphididae]	<i>Empoasca fabae</i> 1018 1019 1020 1021	142 143 144 145 146 163 221 222
<i>Anoecia corni</i> 425 467 643	1261 1262 1938 2290 2400 2550	223 224 225 226 227 228 229 230
Zoophthora lanceolata	2716 2717 2718 2719 2720 2977	231 232 233 234 235 407
[Diptera: Brachycera]	2978 2979 2980 3100 3104 3105	<i>Epinotia aporema</i> 4781 4782 4784 4785
Unknown species 468	3283 3284 3355 3376 3377 3390	5814
[Diptera: Nematocera]	3697 4520 4548	<i>Merophyas divulsana</i> 1082
Unknown species 426 469	<i>Empoasca kraemeri</i> 789 790 1227 1228	<i>Ptycholoma aeriferana</i> 1674 1675
Zoophthora occidentalis	1229 1231 1232 1233 1234 1235	<i>Tortrix viridana</i> 68
[Hemiptera: Aphididae]	1236 1237 1492 1493 1494 1496	
<i>Acyrtosiphon pisum</i> 2841 3027 3028	1497 1498 1499 1500 1501 1502	
3029 3071 3073	1503 1504 1541 1542 1543 1544	
<i>Macrosiphum euphorbiae</i> 12 207	1581 1582 1583 1584 1585 1586	
Zoophthora phalloides	1588 1589 1590 1592 1593 1594	
[Hemiptera: Aphididae]	1595 1928 1929 1930 1931 1932	
<i>Brevicoryne brassicae</i> 2281 11861	1933 1934 1935 1937 2994 2995	
<i>Capitophorus</i> 190	2996 3002 3003 3004 3005 3006	
<i>Myzus rannaculinum</i> 352 1869	3007 3008 3009 3010 3011 3012	
<i>Therioaphis maculata</i> 351	3013 3026	
	<i>Empoasca vitis</i> 2696 2700 2701 2702	
	2703 2706 2708 2709 2712 2713	
	3114 3116 3119 3149 3150 3151	
	3159 3160 3162 3164 3165 3172	
	<i>Hauptida distinguenda</i> 2256 2257 2258	
	2259 2260 2261 2262	

Animalia

Arthropoda • Arachnida

Acari: Tetranychidae

- Mononychellus tanajoa*
Brazil, Bahia
Neozygites floridana(?) 6219 6220
6221
- Tetranychus althaeae*
Czech Republic
Neozygites tetranychii 2677
- Tetranychus urticae*
USA, North Carolina
Neozygites floridana(?) 662
USA, New York
Neozygites floridana(?) 5201 5202
5376

Araneida

- Canada, Alberta
Conidiobolus coronatus 7010
- Indonesia, Sumatera Utara
Conidiobolus coronatus 567
- Canada, Alberta
Conidiobolus coronatus 7012 7013

Arthropoda • Crustacea

Isopoda: Oniscoidea

- Porcellio* sp.
USA, California
Conidiobolus sp. 1672

Arthropoda • Entognatha

Collembola

- South Africa
Conidiobolus sp. 11867
- USA, North Carolina
Conidiobolus coronatus 8023
- USA, New York
Conidiobolus sp. 11763

Arthropoda • Insecta

Coleoptera: Cantharidae

- Denmark
Batkoa sp. 5810 2664
- USA, New York
Erynia sp. 5352
- Rhagonycha fulva*
Denmark
Erynia sp. 2525 2536 2537 2538
2539 2553 2662 2663

Coleoptera: Carabidae

- Trechus quadristriatus*
United Kingdom
Zoophthora anglica 1739

Coleoptera: Curculionidae

- Ceutorhynchus napi*
Switzerland
Conidiobolus coronatus 1572 1573
1574 1575
- Hypera postica*
Location not specified
Zoophthora phytonomi 545
USA, West Virginia
Zoophthora phytonomi 544
USA, Illinois
Zoophthora phytonomi 3342 3343
3344
- USA, Kentucky
Zoophthora sp. 2623
- Hypera punctata*
Location not specified
Zoophthora phytonomi 546
USA, Delaware
Zoophthora phytonomi 2188
USA, New York
Zoophthora phytonomi 202
- Hypera variabilis*
Israel
Conidiobolus osmodes 79
Conidiobolus sp. 80 81
Zoophthora phytonomi 82 113 191
192

Coleoptera: Elateridae

- Agriotes sputator*
Denmark
Zoophthora anglica 2505
Switzerland
Zoophthora anglica 396 918
- Athalia rosae*
Switzerland
Pandora blunckii 915 917 920 1715
1716 1717 1718

Dermaptera: Forficulidae

- Forficula auricularia*
Denmark
Zoophthora sp. 3486 3487 3488

Diptera

- Argentina
Zoophthora radicans 8466
- Brazil, Goiás
Conidiobolus macrosporus 12830
- Brazil, Ceará
Erynia sp. 876 880 884
- Brazil, Goiás
Furia americana 742 2192 2194
- Brazil, Paraná
Furia americana 1240 1242
- Denmark
Entomophthora muscae 6701
Erynia sp. 2495 5812
Zoophthora radicans 2499 2500
2501 2503 2506 2523 2524 2554
2669
- Poland
Conidiobolus thromboides 86 87
Zoophthora radicans 1337
- Switzerland
Entomophthora muscae 392 466

- Erynia conica* 401
Pandora dipterigena 1720
Zoophthora radicans 388
USA, New York
Entomophthora muscae 7371
Pandora dipterigena 1921 1923
USA, Maine
Pandora dipterigena 131

Diptera: ?Sciaridae

- USA, New York
Pandora dipterigena 1887

Diptera: Anthomyiidae

- Denmark
Conidiobolus sp. 2494
Entomophthora muscae 2678
- France
Entomophthora muscae 2087 2088
- Botanophila fugax*
Denmark
Entomophthora muscae 6712
- Delia* sp.
France
Entomophthora muscae 2089 2090
2263 2264 2265 2266 2317
- Delia antiqua*
USA, New York
Entomophthora muscae 3074
- Delia platura*
United Kingdom
Entomophthora muscae 707
- Delia radicum*
Denmark
Conidiobolus sp. 2672
Entomophthora muscae 2665 2668
2670 2674 2675 4786 4787 4788
4789 4790 6706 6707 6708 6709
6710 6711 6717 6811 6814 6815
6818 6821
Strongwellsea castrans 3282 3485
Zoophthora radicans 2666 3489
- Norway
Entomophthora muscae 6274

Diptera: Brachycera

- France
Zoophthora lanceolata 468
- Poland
Basidiobolus haptosporus 1347
Erynia sp. 1338
Pandora dipterigena 1422

Diptera: Calliphoridae

- Japan
Pandora dipterigena 1144
- Phaenicia sericata*
USA, Massachusetts
Pandora bullata 9 116
- Pollenia* sp.
Denmark
Entomophthora schizophorae 6703
6816 6817
- Pollenia rudis*
USA, New York
Entomophthora muscae 651
- USA, California
Entomophthora schizophorae 4791

Diptera: Chamaemyiidae

Diptera: Tipulidae

Fungus by Host and Location

Diptera: Chamaemyiidae

Leucopis ninae
South Africa
Conidiobolus thromboides 4996

Diptera: Chironomidae

Denmark
Entomophthora culicis 5811
Switzerland
Erynia curvispora 402
United Kingdom
Erynia conica 2405
Erynia sp. 2507
USA, New York
Entomophaga conglomerata 2272
2273
Erynia conica 2274 2277 2278
Chironomus decorus
USA, New York
Entomophthora culicis 780

Diptera: Culicidae

United Kingdom
Entomophaga conglomerata 1847
Erynia conica 1740
USA, New York
Erynia aquatica 764 364
Aedes sp.
USA, New York
Erynia aquatica 750 885
Culex pipiens pipiens
Czech Republic
Conidiobolus thromboides 70
Ochlerotatus triseriatus
USA, Maine
Erynia curvispora 36

Diptera: Drosophilidae

USA, Florida
Zoophthora radicans 18
Drosophila hydei
USA, California
Entomophthora muscae 13514
Drosophila suzukii
USA, Tennessee
Batkoa major 12251

Diptera: Empididae

Poland
Furia ithacensis 1339 1340

Diptera: Ephydriidae

?*Hydrellia* sp.
Indonesia, Jawa Barat, Java
Erynia sp. 2097

Diptera: Heliomyzidae

USA, Maine
Conidiobolus thromboides 5

Diptera: Muscidae

Denmark
Entomophthora muscae 5954
Coenosia tigrina
Denmark
Entomophthora ferdinandii 6918
Musca branca
Brazil, Goiás
Conidiobolus sp. 2508

Musca domestica

Denmark
Entomophthora muscae 2542 2543
5952 5953 6121 6122 6123 6124
6125 6126 6127 6128 6129 6130
6131 6132 6133 6134 6135 6136
6140 6141 6164 6165 6713 6714
6715 6716 6812 6813 13376
Entomophthora schizophorae 6137
6138 6139 6142 6143

India

Entomophthora muscae 16
USA, New York
Entomophthora muscae 556 557 803
2014
USA, California
Entomophthora muscae 2172
USA, Nebraska
Entomophthora schizophorae 5348
USA, California
Entomophthora muscae 969
USA, New York
Entomophthora muscae 454

Diptera: Mycetophilidae

Location not specified
Erynia sciarae 1870

Diptera: Nematocera

Poland
Zoophthora radicans 1336 1428
Switzerland
Entomophthora culicis 387
Pandora dipterigena 397
Zoophthora lanceolata 426 469

Diptera: Psilidae

Psila rosae
Denmark
Batkoa pseudapiculatus 2493 2496
2497 2502
Entomophthora schizophorae 2540
2541 2667

Diptera: Psychodidae

Switzerland
Erynia ovispora 398 399 400
Lutzomyia sp.
Guatemala
Conidiobolus coronatus 3379
Lutzomyia sordelli
Costa Rica
Conidiobolus coronatus 3414 3415

Diptera: Ptychopteridae

Ptychoptera contaminata
Denmark
Conidiobolus sp. 2498
Eryniopsis ptychopterae 2535 2671

Diptera: Rhagionidae

Symphoromyia hirta
USA, New York
Furia ithacensis 663

Diptera: Scatophagidae

Scatophaga stercoraria
Denmark
Entomophthora scatophagae 6704
6705

Diptera: Sciaridae

Switzerland
Batkoa apiculata 919 927 1660 1661
USA, Pennsylvania
Pandora sp. 13512
Bradysia paupera
Denmark
Batkoa apiculata 3224 3225 3226
Lycoriella sp.
USA, Pennsylvania
Pandora gloeospora 13406
Lycoriella ingenua
Mexico
Conidiobolus coronatus 9940 9941
9942
Lycoriella mali
Location not specified
Erynia sp. 2433 2434

Diptera: Simuliidae

Canada, Newfoundland
Batkoa papillata(?) 7068
Canada, Québec
Erynia curvispora 3229
Switzerland
Erynia conica 1752 1753 1755
Erynia curvispora 1754
USA, New York
Erynia conica 2275
Simulium sp.
United Kingdom
Erynia conica 1439
USA, New York
Erynia curvispora 802

Diptera: Syrphidae

Denmark
Entomophthora muscae 2673
USA, New York
Entomophthora muscae 826
Melanostoma scalare
Denmark
Entomophthora syrphi 6819 6820
Platycheirus clypeatus
Denmark
Entomophthora syrphi 6702
Triglyphus primus
Denmark
Entomophthora syrphi 5955

Diptera: Tabanidae

Atylotus thoracis
USA, New York
Entomophaga tabanivora 627

Diptera: Tipulidae

USA, New York
Erynia sepulchralis 12250
Unidentified Entomophthorales sp.
7227 7228 7229 7230
USA, Maine
Conidiobolus sp. 89

Fungus by Host and Location

Diptera: Tipulidae
Hemiptera: Aphididae

<i>Tipula paludosa</i>	<i>Acyrtosiphon pisum</i>	USA, Washington
Switzerland	Argentina	<i>Pandora neoaphidis</i> 3410
<i>Batkoa gigantea</i> 214 215 403	<i>Zoophthora radicans</i> 11859	<i>Aphis ?fabae</i>
<i>Eryniopsis caroliniana</i> 212 213 424	Australia	Israel
640 641 642	<i>Conidiobolus obscurus</i> 834	<i>Pandora neoaphidis</i> 77
United Kingdom	<i>Pandora neoaphidis</i> 827 830 831	Yugoslavia, Belgrade
<i>Conidiobolus</i> sp. 6424	838	<i>Zoophthora radicans</i> 2295
Hemiptera: ?Aphididae	Commonwealth of Independent States	<i>Aphis armata</i>
Poland	<i>Conidiobolus thromboides</i> 100	France
<i>Conidiobolus obscurus</i> 243	Denmark	<i>Conidiobolus obscurus</i> 133 355
Hemiptera: Adelgidae	France	<i>Aphis fabae</i>
<i>Adelges tsugae</i>	<i>Conidiobolus obscurus</i> 69	Argentina
USA, New Hampshire	<i>Pandora neoaphidis</i> 1598 1605 1609	<i>Zoophthora radicans</i> 7208
<i>Conidiobolus</i> sp. 11650	Laboratory manipulation	Denmark
Hemiptera: Aphididae	<i>Conidiobolus obscurus</i> 832 1741	<i>Pandora neoaphidis</i> 5995
Argentina	<i>Pandora neoaphidis</i> 4934	France
<i>Zoophthora radicans</i> 7455 7788	Portugal	<i>Pandora neoaphidis</i> 1606 1608 1611
7789	<i>Pandora neoaphidis</i> 1599	1981 1983 1985
<i>Zoophthora</i> sp. 7454	Russian Federation	Poland
Australia	<i>Conidiobolus thromboides</i> 6662	<i>Conidiobolus thromboides</i> 242 244
<i>Pandora neoaphidis</i> 381	Spain	245 246 247 630 631 632 633 634
Commonwealth of Independent States	<i>Pandora neoaphidis</i> 1603	635
<i>Conidiobolus thromboides</i> 58 59 248	Switzerland	<i>Pandora neoaphidis</i> 608 609 610
249 250	<i>Pandora neoaphidis</i> 7937	611 612 613 614 636 637 638 639
France	United Kingdom	United Kingdom
<i>Conidiobolus obscurus</i> 434	<i>Conidiobolus coronatus</i> 96 1738	<i>Conidiobolus thromboides</i> 42 117
Israel	<i>Conidiobolus obscurus</i> 24	1735
<i>Pandora neoaphidis</i> 78	USA, New York	USA, Washington
<i>Zoophthora radicans</i> 195	<i>Pandora neoaphidis</i> 2754 2755 2756	<i>Conidiobolus</i> sp. 3383
Japan	2757 2758 2759 2760 2761 2762	<i>Pandora neoaphidis</i> 3238 3241
<i>Conidiobolus</i> sp. 999	2763 2766 2767 2768 2769 2770	Yugoslavia, Vovvodina
<i>Conidiobolus thromboides</i> 1006	2773 2781 2782 2783 2784 2837	<i>Pandora neoaphidis</i> 2019 2020
Location not specified	2838 2839 2840 2842 2844 2845	<i>Aphis glycines</i>
<i>Conidiobolus osmodes</i> 27	2846 2847 2848 2851 2852 2853	USA, New York
<i>Pandora neoaphidis</i> 26	2854 2855 2856 2865 2866 2867	<i>Conidiobolus thromboides</i> 7209
USA, New York	2868 2870 2872 2873 2884 2885	7210 7211
<i>Pandora neoaphidis</i> 1571	USA, Washington	USA, Minnesota
USA, California	<i>Pandora neoaphidis</i> 3234 3237	<i>Conidiobolus thromboides</i> 11664
<i>Pandora neoaphidis</i> 6902	USA, Idaho	USA, New York
USA, Maine	<i>Pandora neoaphidis</i> 3240 6631	<i>Pandora neoaphidis</i> 7212 7213 7214
<i>Pandora neoaphidis</i> 200	USA, Minnesota	7226 8607
<i>Pandora nouryi</i> 199	<i>Pandora neoaphidis</i> 11663	<i>Aphis gossypii</i>
Yugoslavia, Belgrade	USA, New York	Israel
<i>Batkoa major</i> 1427	<i>Zoophthora occidentalis</i> 2841	<i>Conidiobolus thromboides</i> 83 194
Yugoslavia	<i>Batkoa apiculata</i> 3130 3136 3140	<i>Brachycaudus amygdalinus</i>
<i>Conidiobolus</i> sp. 1426	<i>Batkoa</i> sp. 3131	Israel
<i>Pandora neoaphidis</i> 1695	<i>Conidiobolus obscurus</i> 3132 3133	<i>Zoophthora radicans</i> 75 76
Yugoslavia, Belgrade	3134 3135 3137 3138 3139 3141	<i>Brevicoryne brassicae</i>
<i>Pandora neoaphidis</i> 2298	<i>Pandora neoaphidis</i> 2582 2583 2584	Argentina
Yugoslavia, Montenegro	2585 2586 2587 2588 2589 2590	<i>Zoophthora phalloides</i> 11861
<i>Zoophthora radicans</i> 548	2591 2592 2593 2594 2825	Denmark
Yugoslavia, Belgrade	<i>Zoophthora occidentalis</i> 3027 3028	<i>Pandora neoaphidis</i> 5371 5372 5373
<i>Erynia</i> sp. 2279 2296	3029 3071 3073	5374
<i>Pandora neoaphidis</i> 1696 2016	Yugoslavia, Vovvodina	France
<i>Acyrtosiphon kondoi</i>	<i>Pandora neoaphidis</i> 2017 2018	<i>Pandora neoaphidis</i> 1613 1614 1616
Australia	<i>Anoecia corni</i>	1617
<i>Batkoa apiculata</i> 839	Switzerland	Japan
<i>Conidiobolus obscurus</i> 354 824	<i>Zoophthora aphidis</i> 425 467 643	<i>Batkoa apiculata</i> 1146
<i>Entomophthora chromaphidis</i> 1860	<i>Aphidula</i> sp.	Yugoslavia
1861 1862 1863	France	<i>Pandora neoaphidis</i> 1784 1785 1786
<i>Pandora kondoiensis</i> 369 825 828	<i>Pandora neoaphidis</i> 1610 1615	1824 1825 1826 1827 2124 2125
836 837	<i>Aphis</i> sp.	2126 2127 2128 2129
<i>Pandora nouryi</i> 362	Canada, Québec	Yugoslavia, Belgrade
	<i>Conidiobolus obscurus</i> 124	<i>Conidiobolus</i> sp. 2130 2294
	<i>Pandora neoaphidis</i> 128	<i>Pandora neoaphidis</i> 2021 2108 2109
		2110 2111 2112 2113 2114 2115

2116 2117 2118 2119 2120 2121 2122 2280 2293 <i>Zoophthora phalloides</i> 2281 Yugoslavia, Bosnia and Hercegovina <i>Pandora neoaphidis</i> 2123 <i>Capitophorus</i> sp. France <i>Zoophthora phalloides</i> 190 <i>Zoophthora radicans</i> 822 <i>Cavariella theobaldi</i> United Kingdom <i>Conidiobolus thromboides</i> 101 102 363 1733 1734 <i>Dactymotus formosanus</i> Japan <i>Pandora neoaphidis</i> 1137 <i>Diuraphis noxia</i> France <i>Pandora neoaphidis</i> 3126 3174 3175 Laboratory manipulation <i>Zoophthora radicans</i> 3163 South Africa <i>Conidiobolus thromboides</i> 4968 USA, Colorado <i>Pandora neoaphidis</i> 3081 3082 <i>Diuraphis tritici</i> USA, Montana <i>Conidiobolus thromboides</i> 2914 <i>Drepanosiphum aceris</i> Switzerland <i>Zoophthora radicans</i> 914 1130 <i>Eriosoma lanigerum</i> South Africa <i>Conidiobolus</i> sp. 6659 <i>Hyalopterus pruni</i> France <i>Pandora neoaphidis</i> 1596 <i>Hyperomyzus lactucae</i> Australia <i>Pandora neoaphidis</i> 829 835 Chile <i>Pandora neoaphidis</i> 833 Israel <i>Zoophthora radicans</i> 197 <i>Lipaphis erysimi</i> PR China <i>Pandora nouryi</i> 8930 8931 <i>Macrosiphum</i> sp. France <i>Pandora neoaphidis</i> 1607 1612 <i>Macrosiphum akebiae</i> Japan <i>Pandora neoaphidis</i> 1134 <i>Macrosiphum euphorbiae</i> USA, Florida <i>Pandora neoaphidis</i> 19 USA, Maine <i>Batkoa apiculata</i> 174 <i>Batkoa major</i> 6 <i>Conidiobolus obscurus</i> 130 173 175 176 182 <i>Conidiobolus thromboides</i> 40 <i>Entomophthora</i> sp. 4 <i>Pandora neoaphidis</i> 11 181 <i>Zoophthora occidentalis</i> 12 207 <i>Zoophthora radicans</i> 10	Yugoslavia, Belgrade <i>Erynia</i> sp. 2292 <i>Pandora neoaphidis</i> 2291 <i>Macrosiphum rosae</i> France <i>Pandora neoaphidis</i> 1986 1987 <i>Melanaphis sacchari</i> Mexico <i>Pandora neoaphidis</i> 13165 USA, Georgia <i>Conidiobolus thromboides</i> 13630 13633 13634 13637 13643 13644 13645 13646 13654 Unidentified Entomophthorales sp. 13631 13632 13635 13636 13638 13639 13640 13641 13642 13647 13648 13649 13650 13651 13652 13653 13655 13656 13657 13658 13659 13660 13767 13768 <i>Metopolophium dirhodum</i> France <i>Conidiobolus obscurus</i> 97 South Africa <i>Pandora neoaphidis</i> 5707 5708 USA, Idaho <i>Pandora neoaphidis</i> 3365 3367 <i>Conidiobolus coronatus</i> 2812 2813 2814 <i>Conidiobolus obscurus</i> 2335 <i>Conidiobolus thromboides</i> 2828 2829 2849 2850 <i>Pandora neoaphidis</i> 2874 2875 2876 <i>Zoophthora radicans</i> 2811 USA, Montana <i>Conidiobolus obscurus</i> 3092 <i>Microlophium carnosum</i> Switzerland <i>Pandora neoaphidis</i> 7938 7939 <i>Myzus</i> sp. Spain <i>Pandora neoaphidis</i> 1601 1602 <i>Myzus ascalonicus</i> France <i>Batkoa apiculata</i> 67 <i>Myzus nicotinae</i> USA, Kentucky <i>Pandora neoaphidis</i> 3411 3412 3459 <i>Myzus persicae</i> Australia <i>Entomophthora chromaphidis</i> 1927 Commonwealth of Independent States <i>Conidiobolus coronatus</i> 61 <i>Conidiobolus thromboides</i> 63 99 Japan <i>Conidiobolus thromboides</i> 1012 Portugal <i>Pandora neoaphidis</i> 1600 PR China <i>Pandora neoaphidis</i> 11662 Spain <i>Pandora neoaphidis</i> 2085 2086 USA, Washington <i>Conidiobolus</i> sp. 3384 USA, Arkansas <i>Pandora neoaphidis</i> 3248 3249 3250 3251	USA, Florida <i>Conidiobolus thromboides</i> 39 136 USA, Maine <i>Batkoa apiculata</i> 129 <i>Conidiobolus coronatus</i> 56 <i>Conidiobolus thromboides</i> 2 41 57 USA, New York <i>Conidiobolus obscurus</i> 236 USA, Wisconsin <i>Conidiobolus thromboides</i> 649 <i>Myzus rannaculinum</i> France <i>Zoophthora phalloides</i> 352 1869 <i>Nasonovia ribisnigri</i> Argentina <i>Pandora neoaphidis</i> 11862 11863 <i>Zoophthora radicans</i> 11860 <i>Ovatus crataegarius</i> Denmark <i>Entomophthora planchoniana</i> 6251 6252 <i>Pterochloroides persicae</i> Israel <i>Neozygites turbinata</i> 54 <i>Rhopalosiphum insertum</i> France <i>Conidiobolus thromboides</i> 73 <i>Rhopalosiphum maidis</i> USA, Montana <i>Batkoa apiculata</i> 3088 3091 <i>Conidiobolus obscurus</i> 3089 3090 <i>Rhopalosiphum padi</i> Canada, Québec <i>Conidiobolus obscurus</i> 125 Denmark <i>Batkoa apiculata</i> 5994 <i>Conidiobolus obscurus</i> 5992 <i>Conidiobolus osmodes(?)</i> 5993 Japan <i>Conidiobolus obscurus</i> 995 1131 USA, Colorado <i>Batkoa apiculata</i> 3080 <i>Schizaphis graminum</i> Canada, Alberta <i>Conidiobolus thromboides</i> 2955 USA, Michigan <i>Conidiobolus</i> sp. 1967 USA, Idaho <i>Pandora neoaphidis</i> 3366 <i>Sitobion</i> sp. <i>Pandora neoaphidis</i> 1597 France <i>Pandora neoaphidis</i> 1604 <i>Sitobion avenae</i> Denmark <i>Pandora neoaphidis</i> 5403 6166 France <i>Conidiobolus obscurus</i> 98 USA, Idaho <i>Conidiobolus thromboides</i> 2830 <i>Therioaphis maculata</i> Australia <i>Zoophthora radicans</i> 359 370 823
--	---	---

- Israel
Zoophthora radicans 103 104 105
 106 107 108 109 110 111 112 114
 139 495
- Location not specified
Pandora nouryi 14
- Mexico
Zoophthora phalloides 351
Zoophthora radicans 379
- USA, California
Conidiobolus obscurus 74
- USA
Pandora nouryi 366
- USA, California
Conidiobolus thromboides 15 29 115
 208
- USA, Illinois
Erynia sp. 1666
- USA, New York
Zoophthora radicans 237 238 239
- Therioaphis trifolii* f. *maculata*
- Israel
Zoophthora radicans 3737
- Uroleucon* sp.
 Canada, Québec
Conidiobolus obscurus 119 121 122
 123
Conidiobolus thromboides 120
- Uroleucon cichorii*
 France
Conidiobolus obscurus 25
- Uroleucon formosanus*
 Japan
Pandora neoaphidis 993
- Hemiptera: Cercopidae**
 Switzerland
Conidiobolus sp. 391
- USA, New York
Zoophthora radicans 800 494
- Deois* sp.
 Brazil, Mato Grosso
Conidiobolus sp. 2147
- Deois flavopicta*
 Brazil, Mato Grosso
Conidiobolus sp. 2148
- Hemiptera: Cicadellidae**
Batkoa apiculata 5552
- Brazil, Goiás
Pandora delphacis 1936
Entomophaga australiensis 743
Pandora delphacis 1238
Zoophthora radicans 1495 1587
 1591 2196
- Brazil, Paraná
Zoophthora radicans 1239
- Japan
Zoophthora radicans 1263
- Philippines
Conidiobolus coronatus 419 420 421
 422
- USA, Illinois
Zoophthora radicans 2549 2551
 2552
- USA, New Hampshire
Batkoa apiculata 132
- Cicadella* sp.
 Australia
Entomophaga australiensis 328
- Empoasca* sp.
 Israel
Zoophthora radicans 62 3623
- Yugoslavia, Belgrade
Zoophthora radicans 2240 2241
 2242 2243 2244 2245 2246
- Yugoslavia
Zoophthora radicans 2282 2283
 2284 2285
- Yugoslavia, Belgrade
Zoophthora radicans 2286 2287
- Yugoslavia
Zoophthora radicans 2288 2289
- Empoasca fabae*
 Laboratory manipulation
Zoophthora radicans 3355
- Location not specified
Zoophthora radicans 2290 2400
- USA, New York
Conidiobolus thromboides 3129
- USA, Illinois
Zoophthora radicans 1938
- USA, New York
Zoophthora radicans 3376 3377
 3390 4520 4548
- USA, Illinois
Zoophthora radicans 2550 2716
 2717 2718 2719 2720 3283 3284
- USA, Michigan
Zoophthora radicans 2977 2978
 2979 2980
- USA, New York
Batkoa major 2936 3102 3103
Conidiobolus coronatus 3099 3109
Pandora delphacis 3072 3093 3094
 3095 3096 3106 3107
Zoophthora radicans 3100 3104
 3105
- USA, Wisconsin
Zoophthora radicans 1018 1019
 1020 1021 1261 1262
- Empoasca fabae*
 Laboratory manipulation
Zoophthora radicans 3697
- Empoasca kraemeri*
 Brazil, Goiás
Zoophthora radicans 1543 1928
 1929 1930 1931 1932 1933 1934
 1935 1937
- Brazil
Zoophthora radicans 3026
- Brazil, Goiás
Entomophaga sp. 1230
Zoophthora radicans 789 790 1492
 1493 1494 1496 1497 1498 1499
 1500 1501 1502 1503 1504 1541
 1542 1544 1581 1582 1583 1584
 1585 1586 1588 1589 1590 1592
 1593 1594 1595
- Brazil, Rio Grande do Norte
Entomophaga australiensis 791
- Brazil, Rio Grande do Sul
Zoophthora radicans 1227
- Brazil, Santa Catarina
Zoophthora radicans 1228 1229
 1231 1232 1233 1234 1235 1236
 1237
- Brazil, São Paulo
Zoophthora radicans 2994 2995
 2996 3002 3003 3004 3005 3006
 3007 3008 3009 3010 3011 3012
 3013
- Empoasca vitis*
 Laboratory manipulation
Entomophaga praxibuli 3058
Zoophthora radicans 3151 3172
- Location not specified
Zoophthora radicans 3162
- Yugoslavia
Zoophthora radicans 2703 2709
 2712 3114 3116
- Yugoslavia, Belgrade
Zoophthora radicans 3119 3149
 3150 2696 2700 2701 2702 2706
 2708 2713 3159 3160 3164 3165
- Hauptida distinguenda*
 France
Zoophthora radicans 2256 2257
 2258 2259 2260 2261 2262
- Hortensia* sp.
 Brazil, Goiás
Entomophaga sp. 2189
- Molopopterus theae*
 South Africa
Zoophthora radicans 6605
- Nephotettix bipunctata cincticeps*
 Indonesia, Sulawesi Selatan, Celebes
Conidiobolus coronatus 597
Conidiobolus sp. 605 606
- Malaysia
Conidiobolus coronatus 515 520
- Philippines
Entomophaga sp. 1126
- Nephotettix cincticeps*
 Philippines
Pandora delphacis 458 459 460 461
 478 479
- Recilia dorsalis*
 PR China
Pandora delphacis 659 660
- Typhlocyba* sp.
 Yugoslavia
Zoophthora radicans 3115
- Yugoslavia, Belgrade
Zoophthora radicans 3170 3171
- Hemiptera: Cicadidae**
Cicadetta puer
 Australia
Entomophaga australiensis 331 332
 365
- Magიცada* sp.
 Canada, Ontario
Massospora levispora 3910
- Magიცada septendecim*
 USA, New York
Massospora cicadina 374
- Okanagana rimosa*
 Canada, Ontario
Massospora levispora 2001

Hemiptera: Cixiidae

Oliarus dimidiatus
Argentina
Conidiobolus sp. 7786

Hemiptera: Delphacidae

Delphacodes haywardii
Argentina
Conidiobolus coronatus 7203
Delphacodes striatella
Japan
Zoophthora radicans 1050
Nilaparvata lugens
Australia
Conidiobolus coronatus 329 330 349
India
Conidiobolus nr. *coronatus* 1742
1743
Conidiobolus sp. 211
Pandora delphacis 1730 1731
Indonesia, Jawa Barat, Java
Conidiobolus coronatus 1876
Indonesia, Sumatera Utara, Sumatra
Entomophaga australiensis 607
Indonesia, Jawa Barat, Java
Conidiobolus nr. *coronatus* 598
Pandora delphacis 2091 2408
Indonesia, Lombok Island
Pandora delphacis 575 579
Indonesia, Sulawesi Selatan, Celebes
Conidiobolus coronatus 563 565
Conidiobolus sp. 564
Indonesia, Sumatera Utara, Sumatra
Entomophaga australiensis 581
Pandora delphacis 580
Indonesia, Yogyakarta, Java
Conidiobolus nr. *coronatus* 599 600
Conidiobolus sp. 595 596
Pandora delphacis 578
Japan
Conidiobolus coronatus 997 1673
Pandora delphacis 134 1124 1132
1133 1264 1268
Zoophthora radicans 1125 1136
1138
Malaysia
Conidiobolus coronatus 512 514 523
524 526
Conidiobolus sp. 516 517 521 522
Philippines
Conidiobolus coronatus 405 406 418
462 463 464 465 511
PR China
Conidiobolus coronatus 655
Erynia sp. 658
Pandora delphacis 657 661 664 665
666 667 668 669 670 671 672 673
674 675 676 677 682 686 698 701
713 716
Zoophthora radicans 685
Solomon Islands
Entomophaga sp. 1881
Sri Lanka
Conidiobolus coronatus 553
Thailand
Conidiobolus coronatus 519 525
528

Sogatella furcifera
Indonesia, Jawa Barat, Java
Pandora delphacis 2092 2093 2095
2096 2409
Indonesia, Sulawesi Selatan, Celebes
Conidiobolus nr. *coronatus* 602
Conidiobolus sp. 604
Pandora delphacis 593 603
PR China
Pandora delphacis 6538 6539
Sogatodes pusanus
Indonesia, Jawa Barat, Java
Pandora delphacis 2094

Hemiptera: Fulgoridae

Lycorma delicatula
USA, Pennsylvania
Batkoa major 13769

Hemiptera: Membracidae

Gargara sp.
Canada, Québec
Conidiobolus sp. 5405 5406
USA, Vermont
Conidiobolus sp. 5404
Spissistilus festinus
USA, Alabama
Pandora delphacis 2028
USA, Arkansas
Pandora delphacis 3484

Hemiptera: Miridae

USA, New York
Pandora delphacis 3062
Dicyphus pallidus
Switzerland
Zoophthora radicans 389
Lygus sp.
USA, New York
Pandora neaphidis 1570
Lygus lineolaris
USA, Arkansas
Pandora heteropterae 9266
Notostira elongata
Switzerland
Furia virescens 394
Zoophthora anglica 916 926

Hemiptera: Pentatomidae

Bagrada hilaris
Mexico
Zoophthora radicans 12800 12801

Hemiptera: Psyllidae

Cacopsylla sp.
Denmark
Pandora sp. 13371 13372 13373
13374
Psyllida etrioza
Canada, Québec
Zoophthora radicans 126
Trioza urticae
Switzerland
Zoophthora radicans 1719

Hemiptera: Trozidae

Bactericera cockerelli
Mexico
Zoophthora radicans 13166

Hymenoptera

Brazil, Goiás
Conidiobolus sp. 2193
Switzerland
Batkoa apiculata 395
USA, Maine
Zoophthora radicans 127

Hymenoptera: Diprionidae

Neodiprion tsugae
USA, Alaska
Zoophthora radicans 13

Hymenoptera: Formicidae

Canada, Alberta
Conidiobolus coronatus 7011
Solenopsis invicta
USA, Texas
Conidiobolus sp. 2819

Isoptera: Termitidae

Nasutitermes corniger
Conidiobolus coronatus 8455

Lepidoptera

Brazil, Goiás
Erynia sp. 1241
Canada
Furia gastropachae 2906
Japan
Entomophaga aulicae 1140 1656
Furia neopyralidarum 1145
Switzerland
Entomophaga sp. 393
Furia virescens 427
Zoophthora radicans 404

Lepidoptera: Arctiidae

Japan
Entomophaga aulicae 1141
Hyphantria cunea
Canada, Ontario
Entomophaga aulicae 1996
Lophocampa caryae
USA, Vermont
Pandora sp. 11764
Spilosoma niveum
Japan
Entomophaga aulicae 2372 2373
2374

Lepidoptera: Gelechiidae

Tuta absoluta
Argentina
Zoophthora radicans 6917

Lepidoptera: Gelechiidae

Anacampsis humilis
Uruguay
Zoophthora radicans 4783

Lepidoptera: Geometridae

Enypia griseata
Canada, British Columbia
Entomophaga aulicae 2000
Lambdina fiscellaria fiscellaria
Canada, Newfoundland
Entomophaga aulicae 1991 2900
Zoophthora radicans 72

Fungus by Host and Location

Lepidoptera: Geometridae

Lepidoptera: Pieridae

- Lambdina fiscellaria lugubrosa*
Canada, British Columbia
Entomophaga aulicae 1990
- Rheumaptera hastata*
Canada, Ontario
Entomophaga aulicae 2899
- Lepidoptera: Lasiocampidae**
- Dendrolimus spectabilis*
Japan
Basidiobolus ranarum 1139
Entomophaga aulicae 1142 1655
- Malacosoma americanum*
Entomophaga maimaiga 6170 6173 6174
- Malacosoma disstria*
Entomophaga maimaiga 4544 4545
- Canada, Ontario
Furia gastropachae 5869 5870 5871 5872
- USA, New York
Batkoa sp. 7370
Entomophaga aulicae 3602
Furia gastropachae 5541 5542 5543 5544
- USA, Maryland
Furia gastropachae 5545 5546
- USA, New York
Furia gastropachae 5547
- USA, Vermont
Furia gastropachae 8926
- Lepidoptera: Lymantriidae**
- Euproctis chryssorrhoea*
USA, Maine
Entomophaga aulicae 7140 7141 7142 7143 7144 7145
- Lymantria dispar*
Entomophaga maimaiga 4546 4547
- Canada, Ontario
Entomophaga maimaiga 3911 3912 3913
- Japan
Entomophaga maimaiga 1390 1391 1392 1400 1658 2370 2371 6171 6172 6212 6224 6253 6254 6255 6256 6257 6258 6264 6265 6266 6267 6268 7104 7105 7112 7113 7114 7116 7185 7186 7187 7188 7189
- PR China
Entomophaga maimaiga 7139 7183 7184
- Russian Federation
Entomophaga maimaiga 7127
- USA, Connecticut
Entomophaga maimaiga 2774 2775
- USA, Massachusetts
Entomophaga maimaiga 2779
- USA, New Hampshire
Entomophaga maimaiga 2780
- USA, New York
Entomophaga maimaiga 3828 3829 3830 3831 3832 3833 3834 3835
- USA, Virginia
Entomophaga maimaiga 4504 4505 4506 4507
- USA, New York
Entomophaga maimaiga 4508 4509 4510 4549 4550 4551
- USA, Virginia
Entomophaga maimaiga 4552 4553 4554 4555
- USA, Maryland
Entomophaga maimaiga 5377 5378 5379 5380 5381 5382 5383 5384 5385 5386 5387 5388 5389 5390
- USA, New York
Entomophaga maimaiga 5391 5392 5393 5394 5395 5396 5397 5398 5399 5400 5401
- USA, Massachusetts
Entomophaga maimaiga 5564
- USA, Virginia
Entomophaga maimaiga 5568 5570
- USA, Massachusetts
Entomophaga maimaiga 6004 6005
- USA, West Virginia
Entomophaga maimaiga 6168
- USA, Virginia
Entomophaga maimaiga 6169 6218
- USA, Massachusetts
Entomophaga maimaiga 6269 6270 6271 6272
- USA, Michigan
Entomophaga maimaiga 6523 6524
- USA, New York
Entomophaga maimaiga 6625
- USA, Michigan
Entomophaga maimaiga 6626 6627 6628 6629 6630 6652 6653 6654 6655 6656 6657 6663 6664 6665 6666 6667 6668 6724 6725 6726 6727 6728 6729 7101 7102 7103 7106 7107 7108 7109 7110 7111 7115
- USA, Pennsylvania
Entomophaga maimaiga 7120 7121 7122
- USA, Massachusetts
Entomophaga maimaiga 7123 7124 7125 7126
- USA, Pennsylvania
Entomophaga maimaiga 7131 7132 7133 7134 7135 7136
- USA, Massachusetts
Entomophaga maimaiga 7137 7138
- USA, Pennsylvania
Entomophaga maimaiga 7190 7352 7353
- USA, New York
Entomophaga maimaiga 3052 3053
- Orgyia vetusta*
USA, California
Entomophaga aulicae 4004 4005 4006 4007 4008
- Lepidoptera: Noctuidae**
- Switzerland
Furia virescens 470 1127 1128 1129
- USA, New York
Entomophaga aulicae 3016
- ?*Heliothis* sp.
USA, Georgia
Entomophaga aulicae 251
- Aedia leucomelas*
Japan
Entomophaga aulicae 198 998 1049
- Autographa gamma*
Japan
Entomophaga aulicae 2363 2364 2365
- Mamestra brassicae*
Japan
Entomophaga aulicae 1657 1751 2362 2367 2368 2369
- Pandora delphacis* 1265
- Mocis latipes*
Brazil, Goiás
Conidiobolus coronatus 1884
- Panolis flammea*
United Kingdom
Batkoa sp. 6179
- Pseudaletia* sp.
Canada, Ontario
Entomophaga aulicae 1999
- Pseudoplusia includens*
USA, Alabama
Erynia sp. 2027
- Sesamia inferens*
Indonesia, Jawa Barat, Java
Zoophthora radicans 2411
- Trichoplusia ni*
Mexico
Zoophthora radicans 6003
- Lepidoptera: Notodontidae**
- Ellida caniplaga*
Canada, Ontario
Entomophaga aulicae 2903
- Heterocampa* sp.
Canada, Ontario
Entomophaga aulicae 2902
- Heterocampa biundata*
Canada, Ontario
Entomophaga aulicae 2905
- Heterocampa guttivitta*
Canada, Ontario
Entomophaga aulicae 2904
- USA, New York
Entomophaga aulicae 3039 3212
- USA, Vermont
Entomophaga aulicae 2843
- Lepidoptera: Pieridae**
- Colias erate poliographus*
Japan
Entomophaga aulicae 2366
- Pieris brassicae*
Poland
Zoophthora radicans 1341 1342 1343 1344 1345 1346
- Pieris rapae*
USA, New York
Furia pieris 781

Lepidoptera: Plutellidae

Plutella sp.
 Australia
Pandora blunckii 3075
Plutella maculipennis
 Germany
Pandora blunckii 217
Plutella xylostella
 Japan
Erynia sp. 983
Pandora blunckii 1000 1135
Zoophthora radicans 1048
 Malaysia
Zoophthora radicans 1100
 Mexico
Pandora blunckii 6293 6294 6295
 6296 6297 6298 6299 6300 6301
 6302 6304 6305 6306 6307 6308
 6309 6310 6311 6312 6316
Zoophthora radicans 6303 6313
 6314 6315
 Philippines
Conidiobolus coronatus 2730
Conidiobolus firmipilleus 2731
Conidiobolus sp. 2771 2772 2815
 2816 3208
Pandora blunckii 2824 3200 3202
Pandora sp. 3201
Zoophthora radicans 2732 2893
 3204 3205 3206

Lepidoptera: Pyralidae
Cnaphalocrocis medinalis
 Indonesia, Jawa Barat, Java
Zoophthora radicans 2410
 Philippines
Zoophthora radicans 1699

Lepidoptera: Saturniidae
Dryocampa rubicunda
 Canada, Ontario
Entomophaga aulicae 2897

Lepidoptera: Sphingidae
 USA, Maine
Entomophaga aulicae 118
Eumorpha fasciata
 USA, Florida
Entomophaga aulicae 4796

Lepidoptera: Tortricidae
Acleris variana
 USA, Maine
Zoophthora radicans 90
Choristoneura fumiferana
 Canada, Newfoundland
Entomophaga aulicae 2896 2898
 Canada, Ontario
Entomophaga aulicae 1992 1993
 1994 1995 1997 1998 2901
Zoophthora radicans 407
 Location not specified
Zoophthora radicans 35
 USA, Maine
Conidiobolus sp. 92 93 94 147 148
Entomophaga aulicae 51 53 95 164
 165 166 167 168 169 170 171 172

Zoophthora radicans 21 43 44 45 46
 47 48 49 50 52 88 91 141 142 143
 144 145 146 163 221 222 223 224
 225 226 227 228 229 230 231 232
 233 234 235
Eana argentana
 Japan
Erynia sp. 1143
Epinotia aporema
 Argentina
Zoophthora radicans 5814
 Uruguay
Conidiobolus coronatus 4797
Zoophthora radicans 4781 4782
 4784 4785
Merophyas divulsana
 Australia
Zoophthora radicans 1082
Ptycholoma aeriferana
 Japan
Zoophthora radicans 1674 1675
Tortrix viridana
 France
Zoophthora radicans 68

Orthoptera: Acrididae
 Japan
Entomophaga asiatica 1393
 USA, Montana
Conidiobolus thromboides 22
Camnula pellucida
 USA, Arizona
Entomophaga macleodii 765 767
 769 773 774 777 778 779
 USA, Oregon
Entomophaga macleodii 4948 4949
 4950 4951 4952 4953
 USA, Arizona
Entomophaga macleodii 496 618
 619 620 621 624 628 629 768
 USA, North Dakota
Entomophaga macleodii 3025
Dissosteira carolina
 Canada, Ontario
Entomophaga macleodii 375 376
 USA, New York
Entomophaga macleodii 382 499
Melanoplus bivittatus
 USA, Arizona
Entomophaga calopteni 766 497
Entomophaga grylli 622
 USA, Montana
Entomophaga calopteni 408
 USA, South Dakota
Entomophaga calopteni 498
 USA, Wyoming
Entomophaga calopteni 390
Melanoplus cuneatus
 USA, Arizona
Entomophaga calopteni 646 623
 626
Melanoplus differentialis
 USA, Kansas
Entomophaga calopteni 2168 2522
Melanoplus flavidus
 USA, Wyoming
Entomophaga calopteni 383

Melanoplus packardii
 USA, Arizona
Entomophaga calopteni 625
Parapodisma sp.
 Japan
Entomophaga asiatica 1659
Praxibulus sp.
 Australia
Entomophaga praxibuli 840

Orthoptera: Acrididae: Oedipodinae
Aiolopus thalassinus tamulus
 Indonesia, Jawa Barat, Java
Entomophaga sp. 2083

Orthoptera: Tettigoniidae
 Brazil, Goiás
Conidiobolus sp. 1477

Thysanoptera: Thripidae
 USA, Vermont
Conidiobolus coronatus 6512 9914
Frankliniella occidentalis
 USA, Florida
Conidiobolus coronatus 3222
Thrips tabaci
 Germany
Entomophthora thripidum 5868
 6517 6518 6519 6520 6521 6522
 6525
 Switzerland
Neozygites parvispora 5620 5621

Trichoptera
 Canada, Québec
Erynia curvispora 3244
 Russian Federation
Erynia sp. 9537
 United Kingdom
Erynia rhizospora 1440 1441 1443
Pandora dipterigena 2406
 USA, New York
Erynia rhizospora 801
 USA, Maine
Erynia rhizospora 219
 USA, New York
Erynia rhizospora 492 493 2276
 Wales
Erynia rhizospora 1442

Trichoptera: Hydropsychidae
 United Kingdom
Erynia rhizospora 2407

Chordata • Amphibia

Anura: Bufonidae
Bufo bufo
 United Kingdom
Basidiobolus sp. 9894 9895 9896
 9897 9898 9899 9906 9907 9908

Anura: Dendrobatidae
Dendrobates leucomelas
 Switzerland
Basidiobolus sp. 9888

Fungus by Host and Location

Anura: Discoglossidae

- Alytes* sp.
United Kingdom
Basidiobolus sp. 9903 9904 9905
9909 9910 9911 9912
Discoglossus sp.
Italy
Basidiobolus sp. 9900 9901 9902

Anura: Microhylidae

- Dyscophus guineti*
Switzerland
Basidiobolus sp. 9887

Anura: Ranidae

- Hylarana erythraea*
Malaysia
Basidiobolus sp. 9890
Hylarana glandulosa
Malaysia
Basidiobolus sp. 9892
Hylarana labialis
Malaysia
Basidiobolus sp. 9891 9893

Caudata: Salamandridae

- Triturus marmoratus*
Switzerland
Basidiobolus sp. 9889

Chordata • Mammalia

Perissodactyla: Equidae

- Equus ferus caballus*
USA, Louisiana
Conidiobolus lamprauges 2338
Conidiobolus coronatus 2715

Primates: Hominidae

- Homo sapiens*
India
Conidiobolus sp. 12338 12543
Indonesia
Basidiobolus haptosporus 261 272
Location not specified
Basidiobolus sp. 273
Nigeria
Conidiobolus coronatus 206
USA, Texas
Conidiobolus sp. 2928

Nemata • Secernentea

Rhabditida: Rhabditidae

- Cruzema lambdiense*
USA, Tennessee
Macrobotophthora vermicola 650

Vertebrata • Reptilia

Squamata: Colubridae

- Elaphe* sp.
Germany
Schizangiella sp. 2237 2238 2239
Elaphe obsoleta
USA, Virginia
Schizangiella serpentis 8000 8047

Squamata: Viperidae

- Crotalus horridus*
USA, Maryland
Schizangiella serpentis 203

Fungi

Basidiomycota • Hymenomycetes

Agaricales

- Volvariella volvacea*
USA, Puerto Rico
Conidiobolus coronatus 1147
USA, New York
Conidiobolus coronatus 3087

Antarctica

Victoria Land
Conidiobolus antarcticus 6913

Argentina

Buenos Aires
Conidiobolus coronatus 7203
Conidiobolus sp. 7786
Pandora neoaphidis 11862 11863
Zoophthora radicans 5814 6917 7208
7455 7788 7789 8466 11860
Zoophthora sp. 7454
Santa Fe
Zoophthora phalloides 11861
Zoophthora radicans 11859

Australia

Conidiobolus sp. 2924 2925 2926 2927
Pandora neoaphidis 381
Australian Capital Territory
Pandora neoaphidis 835
New South Wales
Batkoa apiculata 839
Conidiobolus coronatus 471
Conidiobolus obscurus 354 824 834
Entomophaga praxibuli 840
Pandora kondoiensis 828 836 837
Pandora neoaphidis 827 829 831 838
Zoophthora radicans 359 370 823
Queensland
Conidiobolus coronatus 329 330 349
Entomophaga australiensis 328 331
332 365
Entomophthora chromaphidis 1860
1861 1862 1863 1927
Pandora blunckii 3075
Pandora kondoiensis 369 825
Pandora nouryi 362
Zoophthora radicans 1082
Victoria
Pandora neoaphidis 830

Barbados

Basidiobolus sp. 3764

Brazil

Zoophthora radicans 3026

Bahia

Neozygites floridana(?) 6219 6220
6221

Ceará

Erynia sp. 876 880 884

Goiás

Conidiobolus coronatus 1884
Conidiobolus macrosporus 12830
Conidiobolus sp. 1477 2193 2508
Entomophaga australiensis 743 1888
Entomophaga sp. 1230 2189
Erynia sp. 1241
Furia americana 742 2192 2194
Pandora delphacis 1238 1936
Zoophthora radicans 789 790 1492
1493 1494 1495 1496 1497 1498 1499
1500 1501 1502 1503 1504 1541 1542
1543 1544 1581 1582 1583 1584 1585
1586 1587 1588 1589 1590 1591 1592
1593 1594 1595 1928 1929 1930 1931
1932 1933 1934 1935 1937 2196

Mato Grosso

Conidiobolus sp. 2147 2148

Paraná

Furia americana 1240 1242
Zoophthora radicans 1239

Rio Grande do Norte

Entomophaga australiensis 791

Rio Grande do Sul

Zoophthora radicans 1227

Santa Catarina

Zoophthora radicans 1228 1229 1231
1232 1233 1234 1235 1236 1237

São Paulo

Zoophthora radicans 2994 2995 2996
3002 3003 3004 3005 3006 3007 3008
3009 3010 3011 3012 3013

Canada

Furia gastropachae 2906

Alberta

Conidiobolus coronatus 7010 7011
7012 7013

Conidiobolus sp. 3402

Conidiobolus thromboides 2955

British Columbia

Entomophaga aulicae 1990 2000

Newfoundland

Batkoa papillata(?) 7068
Entomophaga aulicae 1991 2896 2898
2900
Zoophthora radicans 72

Ontario

Entomophaga aulicae 1992 1993 1994
1995 1996 1997 1998 1999 2897 2899
2901 2902 2903 2904 2905
Entomophaga macleodii 375 376
Entomophaga maimaiga 3911 3912
3913

Furia gastropachae 5869 5870 5871
5872

Massospora levispora 2001 3910

Zoophthora radicans 407

Québec

Conidiobolus obscurus 119 121 122
123 124 125

Conidiobolus sp. 5405 5406

Conidiobolus thromboides 120

Erynia curvispora 3229 3244

Pandora neoaphidis 128

Zoophthora radicans 126

Chile

Easter Island

Pandora neoaphidis 833

Commonwealth of Independent States

Conidiobolus coronatus 61 66

Conidiobolus thromboides 58 59 63 64
100 248 249 250

Pandora neoaphidis 60 65

Russia

Conidiobolus thromboides 99

Costa Rica

Conidiobolus coronatus 274

Conidiobolus sp. 3763

Guanacaste

Conidiobolus coronatus 3414 3415

Czech Republic

Conidiobolus obscurus 28

Conidiobolus thromboides 70

Neozygites tetranychii 2677

Denmark

Batkoa apiculata 3224 3225 3226

Batkoa sp. 5810

Pandora sp. 5812

Frederiksberg

Strongwellsea castrans 3485

Zoophthora sp. 3486 3487 3488

Jutland

Entomophthora muscae 2542

Entomophthora syrphi 6819 6820

Lammfjorden

Erynia sp. 2664

Malmöhus

Conidiobolus sp. 2494

Entomophthora muscae 2668

Roskilde

Conidiobolus sp. 2498

Eryniopsis ptychopterae 2535 2671

Vestsjælland

Batkoa pseudapiculatus 2493 2496
2497 2502

Entomophthora schizophorae 2540
2541 2667

Erynia sp. 2495

Zoophthora anglica 2505

Zoophthora radicans 2499 2500 2501
2503 2506 2523 2524 2554 2669

Zealand

Batkoa apiculata 5994

Conidiobolus obscurus 5992

Conidiobolus osmodes(?) 5993

Conidiobolus sp. 2672

Entomophthora culicis 5811

Entomophthora ferdinandii 6918

Entomophthora muscae 2665 2670
2673 2674 2675 4786 4787 4788 4789

4790 5952 5953 5954 6121 6122 6123

6124 6125 6126 6127 6128 6129 6130

6131 6132 6133 6134 6135 6136 6140

6141 6164 6165 6701 6706 6707 6708

6709 6710 6711 6712 6713 6714 6715

6716 6717 6811 6812 6813 6814 6815

6818 6821 13376

Entomophthora planchoniana 6251

6252

Entomophthora scatophagae 6704

6705

Entomophthora schizophorae 6137

6138 6139 6142 6143 6703 6816 6817

Entomophthora syrphi 5955 6702

Pandora neoaphidis 5371 5372 5373

5374 5403 5995 6166

Pandora sp. 13371 13372 13373 13374

Strongwellsea castrans 3282

Zoophthora radicans 2666 3489

Geographical Origin

- Zeeland
Batkoa apiculata 2504
Entomophthora muscae 2543 2678
Erynia sp. 2525 2536 2537 2538 2539
2553 2662 2663
- France**
Batkoa apiculata 67
Conidiobolus obscurus 434
Pandora neoaphidis 1596 1604 1605
1606 1607 1608 1609 1610 1611 1612
1613 1614 1615 1616 1617 1981 1983
1985 1986 1987
Zoophthora lanceolata 468
Zoophthora phalloides 190
- Avignon
Pandora neoaphidis 1598
- Charente
Zoophthora radicans 2256 2257 2258
2259 2260 2261 2262
- Essonne
Zoophthora radicans 68
- Gironde
Conidiobolus obscurus 98
- Hérault
Pandora neoaphidis 3126 3174 3175
- Ille-et-Vilaine
Conidiobolus obscurus 97
Zoophthora phalloides 352 1869
- Isère
Conidiobolus obscurus 25
- La Varenne
Conidiobolus thromboides 73
- Manche
Zoophthora radicans 822
- Moselle
Conidiobolus obscurus 133 355
- Vienne
Conidiobolus obscurus 69
- Yvelines
Entomophthora muscae 2087 2088
2089 2090 2263 2264 2265 2266 2317
- Germany**
Schizangiella sp. 2237 2238 2239
- Braunschweig
Entomophthora thripidum 5868 6517
6518 6519 6520 6521 6522 6525
- Hesse
Entomophthora sp. 216
Pandora blunckii 217
- Guatemala**
Petén
Conidiobolus coronatus 3379
- India**
Conidiobolus sp. 12338 12543
Entomophthora muscae 16
- Andhra Pradesh
Conidiobolus nr. *coronatus* 1742 1743
Conidiobolus sp. 211
Pandora delphacis 1730 1731
- Karnataka
Conidiobolus bangalorensis 449
- Indonesia**
Basidiobolus haptosporus 261 272
Basidiobolus sp. 271
- Jawa Barat, Java
Conidiobolus coronatus 1876
Conidiobolus nr. *coronatus* 598
Entomophaga sp. 2083
Erynia sp. 2097
Pandora delphacis 2091 2092 2093
2094 2095 2096 2408 2409
Zoophthora radicans 2410 2411
- Lombok Island
Pandora delphacis 575 579
- Sulawesi Selatan, Celebes
Conidiobolus coronatus 563 565 597
Conidiobolus nr. *coronatus* 602
Conidiobolus sp. 564 604 605 606
Pandora delphacis 593 603
- Sumatera Utara
Conidiobolus coronatus 567
- Sumatera Utara, Sumatra
Entomophaga australiensis 581 607
Pandora delphacis 580
- Yogyakarta, Java
Conidiobolus nr. *coronatus* 599 600
Conidiobolus sp. 595 596
Pandora delphacis 578
- Israel**
Conidiobolus osmodes 79
Conidiobolus sp. 80 81
Conidiobolus thromboides 83 194
Pandora neoaphidis 77 78
Zoophthora phytonomi 82 113 191 192
Zoophthora radicans 103 104 114 139
195 197 3737
- Brenner
Zoophthora radicans 62 3623
- Central District
Neozygites turbinata 54
Zoophthora radicans 75 76
- Hamerkaz
Zoophthora radicans 105 106 107 108
109 110 111 112 495
- Italy**
Sardinia
Basidiobolus sp. 9900 9901 9902
- Japan**
Chiba Prefecture
Entomophaga aulicae 2373 2374
Entomophaga maimaiga 2370 2371
6212 6224 6253 6254 6255 6256 6257
6264 6267
- Fukui Prefecture
Entomophaga asiatica 1393 1659
- Fukuoka Prefecture
Conidiobolus coronatus 997 1673
Conidiobolus obscurus 995 1131
Erynia sp. 1052 1266 1267
Pandora blunckii 1004
Pandora delphacis 134 1101 1124 1132
1133 1264 1268
Pandora neoaphidis 1134
Zoophthora radicans 1050 1125 1136
1138 1263
- Hiroshima Prefecture
Entomophaga maimaiga 7185 7186
7187 7188 7189
- Hokkaido Prefecture
Entomophaga aulicae 2362 2363 2364
2365 2366 2367 2368 2369
Erynia sp. 1143
Zoophthora radicans 1674 1675
- Ibaraki Prefecture
Entomophaga aulicae 1140 1141 1142
1655 1656 1657 1751 2372
Entomophaga maimaiga 6171 6172
6258 6265 6266 6268
Furia neopyralidarum 1145
- Ishikawa Prefecture
Entomophaga maimaiga 1390 1391
1392 1400 1658
- Iwate Prefecture
Entomophaga maimaiga 7104 7105
7112 7113 7114 7116
- Saitama Prefecture
Basidiobolus ranarum 1139
- Shizuoka Prefecture
Batkoa apiculata 1146
- Tochigi Prefecture
Pandora dipterigena 1144
- Tokyo Prefecture
Conidiobolus sp. 999
Conidiobolus thromboides 1006 1012
Entomophaga aulicae 198 998 1049
Erynia sp. 983
Pandora blunckii 1000 1135
Pandora delphacis 1265
Pandora neoaphidis 993 1137
Zoophthora radicans 1048
- Laboratory manipulation**
Conidiobolus coronatus 1736 1737
Conidiobolus obscurus 832 1741
Conidiobolus thromboides 84 85
Entomophaga australiensis 1920
Entomophaga calopteni 500
Entomophaga grylli 615
Entomophaga macleodii 770 771 772
775 776 3077 3078 3079
Entomophaga maimaiga 1746 2661
3110 3880
Entomophaga praxibuli 2084 2721
2963 2964 2965 2966 2967 2968 2969
2970 3058 3059 3060 3061 3067 3068
3069 3356 3357 3358
Pandora delphacis 2046 2047
Pandora neoaphidis 4934
Zoophthora radicans 161 162 183 184
185 186 187 188 491 571 647 899
1841 2697 2698 2699 2704 2705 2707
2710 2711 2714 3117 3118 3151 3161
3163 3172 3217 3355 3697
- Malaysia**
Basidiobolus sp. 9890 9891 9892 9893
Conidiobolus coronatus 512 514 524
Conidiobolus sp. 521 522
Zoophthora radicans 1100
- Wellesley Province
Conidiobolus coronatus 515 520 523
526

- Conidiobolus* sp. 516 517
- Mexico**
Zoophthora phalloides 351
Zoophthora radicans 379
- Baja California
Basidiobolus haptosporus 263
- Coahuila
Pandora neoaphidis 13165
Zoophthora radicans 6003 12800
12801 13166
- Guanajuato State
Pandora blunckii 6293 6294 6295 6296
6297 6298 6299 6300 6301 6302 6304
6305 6306 6307 6308 6309 6310 6311
6312 6316
Zoophthora radicans 6303 6313 6314
6315
- Veracruz
Conidiobolus coronatus 9940 9941
9942
- Nigeria**
Conidiobolus coronatus 206
- Norway**
Akershus
Entomophthora muscae 6274
- Philippines**
Benguet
Conidiobolus coronatus 2730
Conidiobolus firmipilleus 2731
Conidiobolus sp. 2771 2772 2815 2816
3208
Pandora blunckii 2824 3200 3202
Pandora sp. 3201
Zoophthora radicans 2732 2893 3204
3205 3206
- Laguna
Conidiobolus coronatus 405 406 418
419 420 421 422
- Manila
Conidiobolus coronatus 462 463 464
465 511
Entomophaga sp. 1126
Pandora delphacis 458 459 460 461
478 479
Zoophthora radicans 1699
- Poland**
Basidiobolus haptosporus 1347
Conidiobolus thromboides 86 87 631
633 634 635
Erynia sp. 1338
Furia ithacensis 1339 1340
Pandora dipterigena 1422
Pandora neoaphidis 608 609 610 611
612 613 614 636 637
Zoophthora radicans 1336 1337 1341
1342 1343 1344 1345 1346 1350 1428
- Szczecin
Conidiobolus obscurus 243
Conidiobolus thromboides 242 244 245
246 247 630 632
Pandora neoaphidis 638 639
- Portugal**
Pandora neoaphidis 1599 1600
- PR China**
Heilongjiang
Entomophaga maimaiga 7139 7183
7184
- Hunan
Pandora delphacis 664
- Hupei
Pandora delphacis 665 666 667 669
676 677 698 701 713
Zoophthora radicans 685
- Jiangsu
Pandora delphacis 657 659 660 661
668 672 673 674 682 686 716
- Kwon Tung
Conidiobolus coronatus 655
Pandora delphacis 671 675
- Yunnan Province
Pandora nouryi 8930 8931
- Zhejiang Province
Pandora delphacis 6538 6539
Pandora neoaphidis 11662
- Zhijiang
Erynia sp. 658
Pandora delphacis 670
- Republic of Korea**
Kangwon-do
Conidiobolus sp. 5712
- Russian Federation**
Khabarovsk
Entomophaga maimaiga 7127
- Krasnodarsky Krai
Erynia sp. 9537
- Novosibirsk Region
Conidiobolus thromboides 6662
- Solomon Islands**
Guadalcanal
Entomophaga sp. 1881
- South Africa**
Cape Province
Conidiobolus sp. 6659
Zoophthora radicans 6605
- Free State
Conidiobolus thromboides 4968 4996
- KwaZulu-Natal
Conidiobolus sp. 11867
- Western Cape Province
Pandora neoaphidis 5707 5708
- Spain**
Pandora neoaphidis 1601 1602 1603
2085 2086
- Sri Lanka**
Conidiobolus coronatus 553
- Sweden**
Zoophthora radicans 189
- Switzerland**
Basidiobolus sp. 9887 9888 9889
Batkoa apiculata 395 919 927 1660
1661
Batkoa gigantea 214 215 403
Conidiobolus coronatus 1572 1573
1574 1575
Conidiobolus sp. 391
Entomophaga sp. 393
Entomophaga tenthredinis 423
Entomophthora culicis 387
Entomophthora muscae 392 466
Eryniopsis caroliniana 212 213 424
640 641 642
Erynia conica 401 1752 1753 1755
Erynia curvispora 402 1754
Erynia ovispora 398 399 400
Furia virescens 394 427 428 470 1127
1128 1129
Pandora blunckii 915 917 920
Pandora dipterigena 397
Zoophthora anglica 396 916 918 926
Zoophthora aphidis 425 467 643
Zoophthora lanceolata 426 469
Zoophthora radicans 388 389 404 914
1130
- Schaffhausen
Pandora dipterigena 1720
Pandora neoaphidis 7938
Zoophthora radicans 1719
- Zurich
Neozygites parvispora 5620 5621
Pandora blunckii 1715 1716 1717 1718
Pandora neoaphidis 7937 7939
- Thailand**
Conidiobolus coronatus 519 525 528
- United Kingdom**
England
Basidiobolus ranarum 6380 6382
Basidiobolus sp. 9894 9895 9896 9897
9898 9899 9903 9904 9905 9906 9907
9908 9909 9910 9911 9912
Conidiobolus adiaeretus 6377
Conidiobolus coronatus 96 1738 6379
Conidiobolus firmipilleus 6384
Conidiobolus heterosporus 6386
Conidiobolus iuxtagenitus 6378
Conidiobolus lamprauges 6385
Conidiobolus obscurus 24
Conidiobolus pumilus 6383
Conidiobolus sp. 1444 1445 1485 1486
1487 1488 6424
Conidiobolus thromboides 42 101 102
117 363 1733 1734 1735 6381
Entomophaga conglomerata 1847
Entomophthora muscae 707
Erynia conica 1439 1740 2405
Erynia rhizospora 1440 1441 1443
2407
Erynia sp. 2507
Pandora dipterigena 2406
Zoophthora anglica 1739
- Scotland
Batkoa sp. 6179

Geographical Origin

Uruguay	<i>Pandora neoaphidis</i> 19	<i>Entomophaga maimaiga</i> 5377 5378
<i>Conidiobolus coronatus</i> 4797	<i>Zoophthora radicans</i> 18	5379 5380 5381 5382 5383 5384 5385
<i>Zoophthora radicans</i> 4781 4782 4783	Georgia	5386 5387 5388 5389 5390
4784 4785	<i>Conidiobolus thromboides</i> 13630	<i>Furia gastropachae</i> 5545 5546
	13633 13634 13637 13643 13644	<i>Schizangiella serpentis</i> 203
USA	13645 13646 13654	Massachusetts
<i>Conidiobolus coronatus</i> 205	<i>Entomophaga aulicae</i> 251	<i>Entomophaga maimaiga</i> 2779 5564
<i>Pandora nouryi</i> 366	Unidentified Entomophthorales sp.	6004 6005 6269 6270 6271 6272 7123
Alabama	13631 13632 13635 13636 13638	7124 7125 7126 7137 7138
<i>Erynia</i> sp. 2027	13639 13640 13641 13642 13647	<i>Pandora bullata</i> 9 116
<i>Pandora delphacis</i> 2028	13648 13649 13650 13651 13652	Michigan
Alaska	13653 13655 13656 13657 13658	<i>Conidiobolus</i> sp. 1967
<i>Zoophthora radicans</i> 13	13659 13660 13767 13768	<i>Entomophaga maimaiga</i> 6523 6524
Arizona	Idaho	6626 6627 6628 6629 6630 6652 6653
<i>Basidiobolus</i> sp. 5336	<i>Conidiobolus coronatus</i> 2812 2813	6654 6655 6656 6657 6663 6664 6665
<i>Entomophaga calopteni</i> 497 623 625	2814	6666 6667 6668 6724 6725 6726 6727
626 646 766	<i>Conidiobolus obscurus</i> 2335	6728 6729 7101 7102 7103 7106 7107
<i>Entomophaga grylli</i> 622	<i>Conidiobolus thromboides</i> 2828 2829	7108 7109 7110 7111 7115
<i>Entomophaga macleodii</i> 496 618 619	2830 2849 2850	<i>Zoophthora radicans</i> 2977 2978 2979
620 621 624 628 629 765 767 768	<i>Pandora neoaphidis</i> 2874 2875 2876	2980
769 773 774 777 778 779	3240 3365 3366 3367 6631	Minnesota
Arkansas	<i>Zoophthora radicans</i> 2811	<i>Conidiobolus thromboides</i> 11664
<i>Pandora delphacis</i> 3484	Illinois	<i>Pandora neoaphidis</i> 11663
<i>Pandora heteropterae</i> 9266	<i>Erynia</i> sp. 1666	Montana
<i>Pandora neoaphidis</i> 3248 3249 3250	<i>Zoophthora phytonomi</i> 3342 3343 3344	<i>Batkoa apiculata</i> 3088 3091
3251	<i>Zoophthora radicans</i> 1938 2549 2550	<i>Conidiobolus obscurus</i> 3089 3090 3092
California	2551 2552 2716 2717 2718 2719 2720	<i>Conidiobolus thromboides</i> 22 2914
<i>Basidiobolus haptosporus</i> 262 264	3283 3284	<i>Entomophaga calopteni</i> 408
<i>Basidiobolus microsporus</i> 265 266 267	Kansas	Nebraska
268 269	<i>Entomophaga calopteni</i> 2168 2522	<i>Entomophthora schizophorae</i> 5348
<i>Basidiobolus ranarum</i> 260	Kentucky	New Hampshire
<i>Conidiobolus coronatus</i> 11651	<i>Pandora neoaphidis</i> 3411 3412 3459	<i>Batkoa apiculata</i> 132
<i>Conidiobolus obscurus</i> 74	<i>Zoophthora</i> sp. 2623	<i>Conidiobolus</i> sp. 11650
<i>Conidiobolus</i> sp. 1672	Louisiana	<i>Entomophaga maimaiga</i> 2780
<i>Conidiobolus thromboides</i> 15 29 115	<i>Basidiobolus ranarum</i> 2787	New York
208	<i>Conidiobolus coronatus</i> 2715	<i>Basidiobolus haptosporus</i> 8307 8309
<i>Entomophaga aulicae</i> 4004 4005 4006	<i>Conidiobolus lamprauges</i> 2338	<i>Basidiobolus ranarum</i> 8308
4007 4008	<i>Conidiobolus osmodes</i> 193 447	<i>Batkoa apiculata</i> 3130 3136 3140
<i>Entomophthora muscae</i> 969 2172	<i>Conidiobolus rhysosporus</i> 448	<i>Batkoa major</i> 2936 3102 3103
13514	Maine	<i>Batkoa</i> sp. 3131 7370
<i>Entomophthora schizophorae</i> 4791	<i>Batkoa apiculata</i> 129 174	<i>Conidiobolus adiaeretus</i> 8427
<i>Pandora neoaphidis</i> 6902	<i>Batkoa major</i> 6	<i>Conidiobolus coronatus</i> 3087 3099
Colorado	<i>Conidiobolus coronatus</i> 56	3109 7922
<i>Batkoa apiculata</i> 3080	<i>Conidiobolus obscurus</i> 130 173 175	<i>Conidiobolus iuxtagenitus</i> 7944
<i>Pandora neoaphidis</i> 3081 3082	176 182	<i>Conidiobolus megalotocus</i> 8428
Connecticut	<i>Conidiobolus</i> sp. 89 92 93 94 147 148	<i>Conidiobolus obscurus</i> 236 3132 3133
<i>Entomophaga maimaiga</i> 2774 2775	<i>Conidiobolus thromboides</i> 2 5 40 41	3134 3135 3137 3138 3139 3141
Delaware	57	<i>Conidiobolus</i> sp. 7942 8429 11763
<i>Zoophthora phytonomi</i> 2188	<i>Entomophaga aulicae</i> 51 53 95 118	<i>Conidiobolus stromoideus</i> 8430
Florida	164 165 166 167 168 169 170 171	<i>Conidiobolus thromboides</i> 3129 7209
<i>Basidiobolus ranarum</i> 5889 5890 5891	172 1740 7141 7142 7143 7144 7145	7210 7211
5892 5893 5894 5895 5896 5897 5898	<i>Entomophthora</i> sp. 4	<i>Entomophaga aulicae</i> 3016 3039 3212
5899 5900 5901 5902 5903 5904 5905	<i>Erynia curvispora</i> 36	3602
5906 5907 5908 5909 5910 5911 5912	<i>Erynia rhizospora</i> 219	<i>Entomophaga conglomerata</i> 2272
5913 5914 5915 5916 5917 5918 5919	<i>Pandora dipterigena</i> 131	2273
5920 5921 5922 5923 5924 5925 5926	<i>Pandora neoaphidis</i> 11 181 200	<i>Entomophaga macleodii</i> 382 499
5927 5928 5929 5930 5931 5932 5933	<i>Pandora nouryi</i> 199	<i>Entomophaga maimaiga</i> 3052 3053
5934 5935 5936 5937 5938 5939 5940	<i>Zoophthora occidentalis</i> 12 207	3828 3829 3830 3831 3832 3833 3834
5941 5942 5943 5944 5945 5946 5947	<i>Zoophthora radicans</i> 10 21 43 44 45	3835 4508 4509 4510 4549 4550 4551
5948 5949 5950 5951	46 47 48 49 50 52 88 90 91 127 141	5391 5392 5393 5394 5395 5396 5397
<i>Basidiobolus</i> sp. 2048 2049 2050 2051	142 143 144 145 146 163 221 222	5398 5399 5400 5401 6625
2052	223 224 225 226 227 228 229 230	<i>Entomophaga tabanivora</i> 627
<i>Conidiobolus coronatus</i> 3222	231 232 233 234 235	<i>Entomophthora culicis</i> 780
<i>Conidiobolus</i> sp. 3406 3407	Maryland	<i>Entomophthora muscae</i> 454 556 557
<i>Conidiobolus thromboides</i> 39 136	<i>Basidiobolus</i> sp. 270	651 803 826 2014 3074 7371
<i>Entomophaga aulicae</i> 4796	<i>Conidiobolus adiaeretus</i> 451	<i>Erynia aquatica</i> 364 750 764 885

- Erynia conica* 2274 2275 2277 2278
Erynia curvispora 802
Erynia rhizospora 492 493 801 2276
Erynia sepulchralis 12250
Erynia sp. 5352
Furia gastropachae 5541 5542 5543
 5544 5547
Furia ithacensis 663
Furia pieris 781
Massospora cicadina 374
Neozygites floridana(?) 5201 5202
 5376
Pandora delphacis 3062 3072 3093
 3094 3095 3096 3106 3107
Pandora dipterigena 1887 1921 1923
Pandora neoaphidis 1570 1571 2582
 2583 2584 2585 2586 2587 2588 2589
 2590 2591 2592 2593 2594 2754 2755
 2756 2757 2758 2759 2760 2761 2762
 2763 2766 2767 2768 2769 2770 2773
 2781 2782 2783 2784 2825 2837 2838
 2839 2840 2842 2844 2845 2846 2847
 2848 2851 2852 2853 2854 2855 2856
 2865 2866 2867 2868 2870 2872 2873
 2884 2885 7212 7213 7214 7226 8607
 Unidentified Entomophthorales sp.
 7227 7228 7229 7230
Zoophthora occidentalis 2841 3027
 3028 3029 3071 3073
Zoophthora phytonomi 202
Zoophthora radicans 237 238 239 494
 800 3100 3104 3105 3376 3377 3390
 4520 4548
 North Carolina
Conidiobolus brefeldianus 452
Conidiobolus coronatus 8023
Conidiobolus sp. 3409
Neozygites floridana(?) 662
 North Dakota
Entomophaga macleodii 3025
 Oregon
Entomophaga macleodii 4948 4949
 4950 4951 4952 4953
 Pennsylvania
Batkoa major 13769
Entomophaga maimaiga 7120 7121
 7122 7131 7132 7133 7134 7135 7136
 7190 7352 7353
Pandora gloeospora 13406
Pandora sp. 13512
 Puerto Rico
Conidiobolus coronatus 1147
 South Dakota
Entomophaga calopteni 498
 Tennessee
Batkoa major 12251
Conidiobolus adiaeretus 8320
Conidiobolus sp. 8313 8314
Macrobotophthora vermicola 650
 Texas
Conidiobolus sp. 2819 2928
 Vermont
Conidiobolus coronatus 5162 6512
 9295 9296 9913 9914
Conidiobolus sp. 5404 6505
Entomophaga aulicae 2843
Furia gastropachae 8926
Pandora sp. 11764
 Virginia
Conidiobolus pumilus 453
Entomophaga maimaiga 4504 4505
 4506 4507 4552 4553 4554 4555 5568
 5570 6169 6218
Schizangiella serpentis 8000 8047
 Washington
Conidiobolus sp. 3383 3384
Pandora neoaphidis 3234 3237 3238
 3241 3410
 West Virginia
Entomophaga maimaiga 6168
Zoophthora phytonomi 544
 Wisconsin
Conidiobolus paulus 450
Conidiobolus thromboides 649
Zoophthora radicans 1018 1019 1020
 1021 1261 1262
 Wyoming
Entomophaga calopteni 383 390
 Wales
 Powys
Erynia rhizospora 1442
 West Indies
 Trinidad and Tobago
Conidiobolus lamprauges 6361
 Yugoslavia
Conidiobolus sp. 1426
Pandora neoaphidis 1695 1784 1785
 1786 1824 1825 1826 1827 2124 2125
 2126 2127 2128 2129
Zoophthora radicans 2282 2283 2284
 2285 2288 2289 2703 2709 2712 3114
 3115 3116
 Belgrade
Batkoa major 1427
Conidiobolus sp. 2130
Erynia sp. 2279 2292 2294 2296
Pandora neoaphidis 1696 2016 2021
 2108 2109 2110 2111 2112 2113 2114
 2115 2116 2117 2118 2119 2120 2121
 2122 2280 2291 2293 2298
Zoophthora phalloides 2281
Zoophthora radicans 2240 2241 2242
 2243 2244 2245 2246 2286 2287 2295
 2696 2700 2701 2702 2706 2708 2713
 3119 3149 3150 3159 3160 3164 3165
 3170 3171
 Bosnia and Hercegovina
Pandora neoaphidis 2123
 Montenegro
Zoophthora radicans 548
 Voyvodina
Pandora neoaphidis 2017 2018 2019
 2020

Alternate Collections

AFTOL

137 *Conidiobolus coronatus* 8715

Alatorre Rosas, Raquel

Andres.2 *Pandora blunckii* 6304
 Andres.3 *Pandora blunckii* 6305
 Andres.5 *Pandora blunckii* 6306
 Andres.6 *Pandora blunckii* 6307
 Andres.7 *Pandora blunckii* 6308
 Bujanos.1 *Pandora blunckii* 6309
 Bujanos.3 *Pandora blunckii* 6310
 Bujanos.4 *Pandora blunckii* 6311
 Bujanos.5 *Pandora blunckii* 6312
 Jav.1 *Pandora blunckii* 6293
 Jav.10 *Pandora blunckii* 6300
 Jav.11 *Pandora blunckii* 6301
 Jav.12 *Pandora blunckii* 6302
 Jav.13 *Zoophthora radicans* 6303
 Jav.3 *Pandora blunckii* 6294
 Jav.4 *Pandora blunckii* 6295
 Jav.6 *Pandora blunckii* 6296
 Jav.7 *Pandora blunckii* 6297
 Jav.8 *Pandora blunckii* 6298
 Jav.9 *Pandora blunckii* 6299
 Mina.16 *Zoophthora radicans* 6315
 Mina.19 *Pandora blunckii* 6316
 Mina.2 *Zoophthora radicans* 6313
 Mina.2-2 *Zoophthora radicans* 6314

Aoki, Joji

Ent. 11 *Conidiobolus coronatus* 997
 Ent. 12 *Entomophaga aulicae* 1049
 Ent. 14 *Entomophaga aulicae* 998
 Ent. 15 *Conidiobolus thromboides* 1006
 Ent. 18 *Erynia* sp. 983
 Ent. 25 *Pandora neaphididis* 993
 Ent. 26 *Zoophthora radicans* 1050
 Ent. 29 *Conidiobolus thromboides* 1012
 Ent. 30 *Pandora blunckii* 1000
 Ent. 34 *Erynia* sp. 1266
 Ent. 35 *Pandora blunckii* 1004
 Ent. 36 *Pandora delphacis* 1101
 Ent. 37 *Erynia* sp. 1267
 Ent. 42 *Erynia* sp. 1052
 Ent. 45 *Conidiobolus* sp. 999
 Ent. 5 *Zoophthora radicans* 1263
 Ent. 6 *Pandora delphacis* 1264
 Ent. 7 *Pandora delphacis* 1265
 Ent. 8 *Zoophthora radicans* 1048
 Ent. 9 *Conidiobolus obscurus* 995
 Ent. 9 *Conidiobolus obscurus* 1131

ARSEF

?1066 *Pandora dipterigena* 397
 ?1377 *Zoophthora anglica* 396
 ?198 *Entomophaga aulicae* 998
 ?2696 *Zoophthora radicans* 3161
 ?2702 *Zoophthora radicans* 3117
 ?2708 *Zoophthora radicans* 3163
 ?3117 *Zoophthora radicans* 2702
 ?3161 *Zoophthora radicans* 2696
 ?3163 *Zoophthora radicans* 2708
 ?426 *Zoophthora lanceolata* 468
 ?468 *Zoophthora lanceolata* 426
 ?998 *Entomophaga aulicae* 198
 101 *Conidiobolus thromboides* 1733
 102 *Conidiobolus thromboides* 363

102 *Conidiobolus thromboides* 1734
 103 *Zoophthora radicans* 359
 103 *Zoophthora radicans* 370
 103 *Zoophthora radicans* 823
 113 *Zoophthora phyttonomi* 82
 1131 *Conidiobolus obscurus* 995
 1140 *Entomophaga aulicae* 1656
 1142 (lost) *Entomophaga aulicae* 1655
 115 *Conidiobolus thromboides* 15
 115 *Conidiobolus thromboides* 208
 115 *Conidiobolus thromboides* 3360
 116 *Pandora bullata* 9
 117 (lost) *Conidiobolus thromboides* 42
 133 *Conidiobolus obscurus* 355
 1336 *Zoophthora radicans* 1428
 1428 *Zoophthora radicans* 1336
 15 *Conidiobolus thromboides* 115
 15 *Conidiobolus thromboides* 208
 15 *Conidiobolus thromboides* 3361
 1544 *Zoophthora radicans* 1595
 1595 *Zoophthora radicans* 1544
 1655 *Entomophaga aulicae* 1142
 1656 *Entomophaga aulicae* 1140
 1660 *Batkoa apiculata* 927
 1661 *Batkoa apiculata* 919
 1733 *Conidiobolus thromboides* 101
 1734 *Conidiobolus thromboides* 102
 1734 *Conidiobolus thromboides* 363
 1738 *Conidiobolus coronatus* 96
 1869 (lost) *Zoophthora phalloides* 352
 193 (lost) *Conidiobolus osmodes* 447
 2 *Conidiobolus thromboides* 3364
 208 *Conidiobolus thromboides* 15
 208 *Conidiobolus thromboides* 115
 212 (deaccessioned) *Eryniopsis caroliniana* 642
 213 (deaccessioned) *Eryniopsis caroliniana* 640
 2499 *Zoophthora radicans* 2524
 2524 (deaccessioned) *Zoophthora radicans* 2499
 2553 *Erynia* sp. 2662
 2554 *Zoophthora radicans* 2669
 2662 (deaccessioned) *Erynia* sp. 2553
 2669 (deaccessioned) *Zoophthora radicans* 2554
 2700 *Zoophthora radicans* 3171
 2701 *Zoophthora radicans* 3119
 2703 *Zoophthora radicans* 3116
 2706 *Zoophthora radicans* 3149
 2709 *Zoophthora radicans* 3114
 2713 *Zoophthora radicans* 3164
 3114 *Zoophthora radicans* 2709
 3116 *Zoophthora radicans* 2703
 3119 *Zoophthora radicans* 2701
 3149 *Zoophthora radicans* 2706
 3164 *Zoophthora radicans* 2713
 3171 *Zoophthora radicans* 2700
 3283 *Zoophthora radicans* 3284
 3284 *Zoophthora radicans* 3283
 331 *Entomophaga australiensis* 332
 332 (lost) *Entomophaga australiensis* 331
 3359 *Conidiobolus thromboides* 41
 3360 *Conidiobolus thromboides* 15
 3360 *Conidiobolus thromboides* 115
 3360 *Conidiobolus thromboides* 208
 3361 *Conidiobolus thromboides* 15
 3361 *Conidiobolus thromboides* 115
 3361 *Conidiobolus thromboides* 208
 3362 *Conidiobolus thromboides* 40
 3363 *Conidiobolus thromboides* 70
 3364 *Conidiobolus thromboides* 2
 352 *Zoophthora phalloides* 1869
 354 *Conidiobolus obscurus* 824
 355 *Conidiobolus obscurus* 133
 359 *Zoophthora radicans* 370
 359 *Zoophthora radicans* 823
 363 *Conidiobolus thromboides* 102
 363 *Conidiobolus thromboides* 1734
 369 *Pandora kondoiensis* 825
 370 *Zoophthora radicans* 359
 370 *Zoophthora radicans* 823
 3762 *Entomophaga maimaiga* 3880
 392 *Entomophthora muscae* 466
 40 *Conidiobolus thromboides* 3362
 41 *Conidiobolus thromboides* 3359
 42 *Conidiobolus thromboides* 117
 424 (lost) *Eryniopsis caroliniana* 641
 425 *Zoophthora aphidis* 467
 425 *Zoophthora aphidis* 643
 447 *Conidiobolus osmodes* 193
 466 (lost) *Entomophthora muscae* 392
 467 (lost) *Zoophthora aphidis* 425
 467 (lost) *Zoophthora aphidis* 643
 640 *Eryniopsis caroliniana* 213
 641 *Eryniopsis caroliniana* 424
 642 *Eryniopsis caroliniana* 212
 643 (lost) *Zoophthora aphidis* 425
 643 (lost) *Zoophthora aphidis* 467
 674 *Pandora delphacis* 11872
 674 *Pandora delphacis* 11873
 70 *Conidiobolus thromboides* 3363
 82 (lost) *Zoophthora phyttonomi* 113
 823 *Zoophthora radicans* 359
 823 *Zoophthora radicans* 370
 824 *Conidiobolus obscurus* 354
 825 *Pandora kondoiensis* 369
 84 *Conidiobolus thromboides* 85
 85 *Conidiobolus thromboides* 84
 86 *Conidiobolus thromboides* 87
 87 *Conidiobolus thromboides* 86
 9 (lost) *Pandora bullata* 116
 919 *Batkoa apiculata* 1661
 927 *Batkoa apiculata* 1660
 96 (lost) *Conidiobolus coronatus* 1738
 995 (deaccessioned) *Conidiobolus obscurus* 1131

ATCC

12584 *Conidiobolus pumilus* 453
 12588 *Conidiobolus rhyosporus* 448
 12589 *Conidiobolus adiaeretus* 451
 12590 *Conidiobolus osmodes* 193
 12590 *Conidiobolus osmodes* 447
 12942 *Conidiobolus paulus* 450
 14269 *Pandora nouryi* 14
 14270 *Conidiobolus thromboides* 15
 14270 *Conidiobolus thromboides* 115
 14270 *Conidiobolus thromboides* 208
 14449 *Basidiobolus ranarum* 8328
 14450 *Basidiobolus meristosporus* 8329

15379 *Basidiobolus magnus* 8330
15431 *Entomophthora muscae* 16
16576 *Conidiobolus bangalorensis* 449
16579 *Basidiobolus haptosporus* var.
 minor 8331
16580 *Basidiobolus heterosporus* 8332
24298 *Pandora bullata* 9
24298 *Pandora bullata* 116
24418 *Conidiobolus obscurus* 74
24419 *Conidiobolus thromboides* 73
24493 *Zoophthora radicans* 72
28691 *Conidiobolus coronatus* 205
28845 *Conidiobolus coronatus* 8715
28847 *Conidiobolus brefeldianus* 452
32245 *Zoophthora radicans* 62
32245 *Zoophthora radicans* 3623
32797 *Zoophthora radicans* 189
32867 *Conidiobolus coronatus* 206
34292 *Zoophthora phytonomi* 82
34292 *Zoophthora phytonomi* 113
34698 *Pandora blunckii* 217
76115 *Conidiobolus iuxtagenitus* 6378

Balazy, Stanislaw

1496c *Pandora dipterigena* 1422
1555 *Zoophthora radicans* 1336
1555 *Zoophthora radicans* 1428
1558b *Zoophthora radicans* 1337
1559 *Erynia* sp. 1338
1561 *Furia ithacensis* 1339
1561a *Furia ithacensis* 1340
1577/3 *Zoophthora radicans* 1368
1577/6 *Zoophthora radicans* 1341
1577/7 *Zoophthora radicans* 1342
1577/8 *Zoophthora radicans* 1343
1578/1 *Zoophthora radicans* 1344
1578/1-2 *Zoophthora radicans* 1346
1578/2 *Zoophthora radicans* 1345
1578/2-d *Zoophthora radicans* 1370
1580b *Basidiobolus haptosporus* 1347
1589 *Zoophthora radicans* 1350

Ben-Ze'ev, Israel

38 *Conidiobolus thromboides* 194

Bernard, Ernest C.

CRSM *Conidiobolus coronatus* 8023

Blaschke-Hellmessen, Renate

1 *Schizangiella* sp. 2237
14 *Schizangiella* sp. 2239
7 *Schizangiella* sp. 2238

Boucias, Drion G.

5866 *Entomophaga aulicae* 4796

Bruun Jensen, Annette

KVL 00-60 *Entomophthora scatophagae*
 6704
KVL 00-61 *Entomophthora scatophagae*
 6705
KVL 00-92 *Entomophthora muscae* 6701
KVL 00-93 *Entomophthora schizophorae*
 6817
KVL 00-94 *Entomophthora schizophorae*
 6816
KVL 01-21 *Entomophthora muscae* 6710
KVL 01-22 *Entomophthora muscae* 6821

KVL 01-24 *Entomophthora muscae* 6711
KVL 01-34 *Entomophthora syrphi* 6820
KVL 01-35 *Entomophthora syrphi* 6819
KVL 01-36 *Entomophthora syrphi* 6702
KVL 01-37 *Entomophthora muscae* 6712
KVL 01-38 *Entomophthora schizophorae*
 6703
KVL 01-39 *Entomophthora muscae* 6818
KVL 98-10 *Entomophthora muscae* 5952
KVL 98-12 *Entomophthora muscae* 5953
KVL 98-18 *Entomophthora muscae* 5954
KVL 98-19 *Entomophthora syrphi* 5955
KVL 99-1 *Entomophthora muscae* 6121
KVL 99-10 *Entomophthora muscae* 6129
KVL 99-102 *Entomophthora muscae*
 6815
KVL 99-109 *Entomophthora muscae*
 6814
KVL 99-11 *Entomophthora muscae* 6130
KVL 99-110 *Entomophthora muscae*
 6813
KVL 99-12 *Entomophthora muscae* 6131
KVL 99-13 *Entomophthora muscae* 6132
KVL 99-138 *Entomophthora muscae*
 6708
KVL 99-139 *Entomophthora muscae*
 6709
KVL 99-14 *Entomophthora muscae* 6133
KVL 99-15 *Entomophthora muscae* 6134
KVL 99-16 *Entomophthora muscae* 6135
KVL 99-17 *Entomophthora muscae* 6136
KVL 99-18 *Entomophthora schizophorae*
 6137
KVL 99-19 *Entomophthora schizophorae*
 6138
KVL 99-2 *Entomophthora muscae* 6122
KVL 99-20 *Entomophthora schizophorae*
 6139
KVL 99-21 *Entomophthora muscae* 6165
KVL 99-22 *Entomophthora muscae* 6140
KVL 99-23 *Entomophthora muscae* 6141
KVL 99-24 *Entomophthora schizophorae*
 6142
KVL 99-25 *Entomophthora schizophorae*
 6143
KVL 99-3 *Entomophthora muscae* 6123
KVL 99-4 *Entomophthora muscae* 6164
KVL 99-5 *Entomophthora muscae* 6124
KVL 99-6 *Entomophthora muscae* 6125
KVL 99-7 *Entomophthora muscae* 6126
KVL 99-72 *Entomophthora muscae* 6714
KVL 99-74 *Entomophthora muscae* 6715
KVL 99-74 *Entomophthora muscae* 6812
KVL 99-75 *Entomophthora muscae* 6706
KVL 99-8 *Entomophthora muscae* 6127
KVL 99-80 *Entomophthora muscae* 6713
KVL 99-84 *Entomophthora muscae* 6717
KVL 99-85 *Entomophthora muscae* 6811
KVL 99-9 *Entomophthora muscae* 6128
KVL 99-92 *Entomophthora ferdinandii*
 6918
KVL 99-93 *Entomophthora muscae* 6707
KVL 99-95 *Entomophthora muscae* 6716

Callaghan, Arthur A.

01:020 *Conidiobolus pumilus* 6383
01:072 *Basidiobolus ranarum* 6382
04:012 *Conidiobolus coronatus* 6379
04:023 *Conidiobolus iuxtagenitus* 6378
04:036 *Conidiobolus heterosporus* 6386
04:037 *Conidiobolus thromboides* 6381
04:041 *Conidiobolus adiaeretus* 6377
04:103 *Basidiobolus ranarum* 6380
08:026 *Conidiobolus firmipilleus* 6384
08:229 *Conidiobolus lamprauges* 6385
30 *Basidiobolus ranarum* 6380
31 *Basidiobolus ranarum* 6382
35 *Conidiobolus pumilus* 6383
42 *Conidiobolus thromboides* 6381
45 *Conidiobolus coronatus* 6379
53 *Conidiobolus firmipilleus* 6384
55 *Conidiobolus iuxtagenitus* 6378
62 *Conidiobolus adiaeretus* 6377

Carruthers, Raymond I.

A-II *Zoophthora radicans* 2287
A-IV *Zoophthora radicans* 2286
C-II *Zoophthora radicans* 2289
D-I *Zoophthora radicans* 2282
D-II *Zoophthora radicans* 2284
D-III *Zoophthora radicans* 2283
D-IV *Zoophthora radicans* 2288
HOP-I *Zoophthora radicans* 2246
HOP-II *Zoophthora radicans* 2243
HOP-III *Zoophthora radicans* 2242
HOP-IV *Zoophthora radicans* 2240
HOP-V *Zoophthora radicans* 2241
HOP-VI *Zoophthora radicans* 2245
HOP-VII *Zoophthora radicans* 2244

CBS

136.57 *Conidiobolus adiaeretus* 451
140.57 *Conidiobolus paulus* 450
141.39 *Conidiobolus brefeldianus* 452
152.56 *Conidiobolus pumilus* 453
155.56 *Conidiobolus osmodes* 193
155.56 *Conidiobolus osmodes* 447
157.56 *Conidiobolus rhyssosporus* 448
180.60 *Pandora nouryi* 14
182.60 *Conidiobolus obscurus* 74
183.60 *Conidiobolus thromboides* 15
183.60 *Conidiobolus thromboides* 115
183.60 *Conidiobolus thromboides* 208
194.77 *Pandora blunckii* 217
205.64 *Basidiobolus magnus* 8330
207.66 *Batkoa pseudapiculatus* 196
20966 *Conidiobolus coronatus* 8715
216.66 *Zoophthora radicans* 189
310.66 *Basidiobolus haptosporus* var.
 minor 8331

CDC

B-4741 *Conidiobolus* sp. 2925
B-4742 *Conidiobolus* sp. 2924
B-4743 *Conidiobolus* sp. 2926
B-4744 *Conidiobolus* sp. 2927

CEP

052 *Zoophthora radicans* 7208
 062 *Conidiobolus coronatus* 7203
 127 *Zoophthora* sp. 7454
 130 *Zoophthora radicans* 7455
 172 *Zoophthora radicans* 7788
 173 *Zoophthora radicans* 7789
 184 *Conidiobolus* sp. 7786

Chernov, Kim

Ruby Mine *Conidiobolus* sp. 3409
 V *Conidiobolus* sp. 3406
 VI *Conidiobolus* sp. 3407

CNPAF

82-3-10-01 *Furia americana* 742
 82-3-10-04 *Entomophaga australiensis*
 743
 82-5-7-3D-1 *Entomophaga australiensis*
 791
 82-6-25-01 *Zoophthora radicans* 789
 82-6-25-02 *Zoophthora radicans* 790
 83-04-15-2A *Erynia* sp. 880
 83-04-15-2B *Erynia* sp. 876
 83-04-15-2C *Erynia* sp. 884
 84-03-30-1A *Furia americana* 1242
 84-03-30-2A-A *Zoophthora radicans* 1239
 84-03-30-4B *Furia americana* 1240
 84-04-02-5A *Zoophthora radicans* 1237
 84-04-02-5B *Zoophthora radicans* 1231
 84-04-02-5C *Zoophthora radicans* 1232
 84-04-02-5D *Zoophthora radicans* 1228
 84-04-02-5J *Zoophthora radicans* 1236
 84-04-02-6B *Zoophthora radicans* 1234
 84-04-02-6C *Zoophthora radicans* 1235
 84-04-02-6F *Zoophthora radicans* 1229
 84-04-02-6G *Zoophthora radicans* 1233
 84-04-03-6B *Zoophthora radicans* 1227
 84-04-09-1B *Entomophaga* sp. 1230
 84-04-13-1B *Pandora delphacis* 1238
 84-04-13-1C *Erynia* sp. 1241
 84-04-25-2 *Conidiobolus* sp. 1477
 86-2-21 *Entomophaga* sp. 2189
 86-4-24 *Furia americana* 2192
 86-5-19 *Conidiobolus* sp. 2193
 86-5-21-A *Furia americana* 2194

Correa, Jose A.

I *Entomophaga macleodii* 4948
 II *Entomophaga macleodii* 4949
 III *Entomophaga macleodii* 4950
 IV *Entomophaga macleodii* 4951
 V *Entomophaga macleodii* 4952
 VI *Entomophaga macleodii* 4953

CP

106 *Erynia* sp. 876
 110 *Erynia* sp. 880
 114 *Erynia* sp. 884
 127 *Zoophthora radicans* 1227
 128 *Zoophthora radicans* 1228
 129 *Zoophthora radicans* 1229
 130 *Entomophaga* sp. 1230
 131 *Zoophthora radicans* 1231
 132 *Zoophthora radicans* 1232
 133 *Zoophthora radicans* 1233
 134 *Zoophthora radicans* 1234
 135 *Zoophthora radicans* 1235

136 *Zoophthora radicans* 1236
 137 *Zoophthora radicans* 1237
 138 *Pandora delphacis* 1238
 139 *Zoophthora radicans* 1239
 140 *Furia americana* 1240
 141 *Erynia* sp. 1241
 142 *Furia americana* 1242
 167 *Conidiobolus* sp. 1477
 173 *Conidiobolus coronatus* 1884
 199 *Entomophaga* sp. 2189
 202 *Furia americana* 2192
 203 *Conidiobolus* sp. 2193
 204 *Furia americana* 2194
 235 *Conidiobolus* sp. 2508
 32 *Furia americana* 742
 33 *Entomophaga australiensis* 743
 44 *Entomophaga australiensis* 791
 64 *Zoophthora radicans* 789
 65 *Zoophthora radicans* 790

CSIRO

EM503 *Conidiobolus thromboides* 102
 EM503 *Conidiobolus thromboides* 363
 EM503 *Conidiobolus thromboides* 1734
 EM507 *Pandora kondoiensis* 369
 EM507 *Pandora kondoiensis* 825
 EM509 *Pandora nouryi* 14
 EM510 *Conidiobolus thromboides* 15
 EM510 *Conidiobolus thromboides* 115
 EM510 *Conidiobolus thromboides* 208
 EM517 *Zoophthora radicans* 114
 EM518 *Zoophthora radicans* 103
 EM529 *Conidiobolus obscurus* 97
 EM532 *Zoophthora radicans* 72
 EM534 *Conidiobolus thromboides* 73
 EM535 *Conidiobolus obscurus* 354
 EM535 *Conidiobolus obscurus* 824
 EM538 *Pandora nouryi* 362
 EM539 *Zoophthora radicans* 359
 EM539 *Zoophthora radicans* 370
 EM539 *Zoophthora radicans* 823
 EM540 *Zoophthora radicans* 379
 EM541 *Zoophthora phalloides* 351
 EM542 *Pandora nouryi* 366
 EM543 *Conidiobolus obscurus* 133
 EM543 *Conidiobolus obscurus* 355
 EM548 *Zoophthora phalloides* 352
 EM548 *Zoophthora phalloides* 1869
 EM551 *Conidiobolus thromboides* 83
 EM552 *Conidiobolus thromboides* 100
 EM553 *Zoophthora radicans* 104
 EM554 *Zoophthora radicans* 107
 EM555 *Zoophthora radicans* 110
 EM556 *Zoophthora radicans* 111
 EM557 *Conidiobolus thromboides* 63
 EM558 *Conidiobolus obscurus* 175
 EM560 *Zoophthora radicans* 238
 EM561 *Zoophthora radicans* 112
 EM566 *Conidiobolus obscurus* 832
 EM569 *Zoophthora radicans* 88
 EM570 *Conidiobolus thromboides* 2
 EM571 *Conidiobolus thromboides* 15
 EM571 *Conidiobolus thromboides* 115
 EM571 *Conidiobolus thromboides* 208
 EM572 *Conidiobolus thromboides* 83
 EM573 *Conidiobolus thromboides* 100

EM578 *Zoophthora radicans* 103
 EM591 *Conidiobolus obscurus* 834
 EM598 *Pandora kondoiensis* 828
 EM600 *Pandora kondoiensis* 837
 EM623 *Pandora neoaphidis* 831
 EM629 *Batkoa apiculata* 839
 EM633 *Pandora neoaphidis* 835
 EM635 *Pandora kondoiensis* 836
 EM652 *Pandora nouryi* 199
 EM653 *Pandora neoaphidis* 638
 EM654 *Pandora delphacis* 593
 EM667 *Zoophthora radicans* 822
 EM667 *Zoophthora radicans* 822
 EM670 *Pandora neoaphidis* 838
 EM680 *Zoophthora occidentalis* 207
 EM681 *Zoophthora phalloides* 352
 EM682 *Zoophthora radicans* 1125
 EM685 *Pandora blunckii* 1135
 EM690 *Entomophaga aulicae* 1657
 EM693 *Entomophaga aulicae* 1142
 EM693 *Entomophaga aulicae* 1655
 EM694 *Erynia* sp. 1143
 EM696 *Pandora dipterigena* 1144
 EM717 *Pandora neoaphidis* 827
 EM723 *Pandora neoaphidis* 830
 EM724 *Zoophthora radicans* 103
 EM725 *Zoophthora radicans* 104
 EM726 *Zoophthora radicans* 105
 EM727 *Zoophthora radicans* 106
 EM728 *Zoophthora radicans* 108
 EM729 *Zoophthora radicans* 109
 EM730 *Zoophthora radicans* 111
 EM731 *Zoophthora radicans* 139
 EM732 *Zoophthora radicans* 789
 EM733 *Zoophthora radicans* 790
 EM736 *Pandora neoaphidis* 829
 EM739 *Pandora neoaphidis* 833
 EM740 *Zoophthora aphidis* 425
 EM742 *Zoophthora radicans* 1130
 EM752 *Zoophthora radicans* 1082

Cuebas-Incle, Esteban L.

I *Entomophaga conglomerata* 2272
 II *Entomophaga conglomerata* 2273
 III *Erynia conica* 2274
 IV *Erynia conica* 2275
 V *Erynia rhizospora* 2276
 VI *Erynia conica* 2277
 VII *Erynia conica* 2278

Daoust, Richard A.

EK8-1 *Zoophthora radicans* 789
 EK8-2 *Zoophthora radicans* 790

DAR

30604 *Conidiobolus coronatus* 471

de Fine Licht, Henrik Hjarvard

200913-01 *Entomophthora muscae* 12524
 260813-01 *Entomophthora schizophorae*
 12523
 HHDFL 130914-01 *Entomophthora mus-*
cae 13376
 KVL 14-115 *Entomophthora muscae*
 13376

Delalibera Junior, Italo

AB 10,11 *Neozygites floridana*(?) 6219
AC 16 *Neozygites floridana*(?) 6220
L 13 *Neozygites floridana*(?) 6221

Descals, E.

C-1756-4 *Erynia rhizospora* 1442

Dromph, Karsten

KVL 633 *Pandora neoaphidis* 6166

Duetting, Patrick S.

G1 *Pandora neoaphidis* 6631

Eilenberg, Jørgen

KVL 1 *Entomophthora schizophorae* 2540
KVL 11 *Batkoa pseudapiculatus* 2496
KVL 12 *Zoophthora anglica* 2505
KVL 13 *Entomophthora schizophorae* 2667
KVL 14 *Erynia* sp. 2495
KVL 15 *Conidiobolus* sp. 2494
KVL 16 *Entomophthora muscae* 2668
KVL 16-43 *Pandora* sp. 13371
KVL 16-44 *Pandora* sp. 13372
KVL 16-46 *Pandora* sp. 13374
KVL 17 *Entomophthora muscae* 2678
KVL 18 *Erynia* sp. 2536
KVL 19 *Erynia* sp. 2553
KVL 19 *Erynia* sp. 2662
KVL 2 *Entomophthora schizophorae* 2541
KVL 20 *Erynia* sp. 2538
KVL 21 *Batkoa pseudapiculatus* 2497
KVL 22 *Erynia* sp. 2539
KVL 23 *Erynia* sp. 2537
KVL 24 *Batkoa pseudapiculatus* 2502
KVL 25 *Conidiobolus* sp. 2498
KVL 29 *Batkoa apiculata* 2504
KVL 3 *Entomophthora muscae* 2542
KVL 30 *Zoophthora radicans* 2500
KVL 31 *Zoophthora radicans* 2501
KVL 32 *Zoophthora radicans* 2499
KVL 32 *Zoophthora radicans* 2524
KVL 33 *Erynia* sp. 2663
KVL 34 *Erynia* sp. 2525
KVL 35 *Zoophthora radicans* 2506
KVL 36 *Zoophthora radicans* 2523
KVL 37 *Zoophthora radicans* 2503
KVL 38 *Zoophthora radicans* 2554
KVL 38 *Zoophthora radicans* 2669
KVL 39 *Erynia* sp. 2507
KVL 40 *Erynia* sp. 2664
KVL 44 *Entomophthora muscae* 2675
KVL 45 *Entomophthora muscae* 2670
KVL 46 *Entomophthora muscae* 2665
KVL 47 *Zoophthora radicans* 2666
KVL 47 *Zoophthora radicans* 3489
KVL 48 *Eryniopsis ptychopterae* 2671
KVL 49 *Conidiobolus* sp. 2672
KVL 5 *Eryniopsis ptychopterae* 2535
KVL 50 *Entomophthora muscae* 2673
KVL 51 *Entomophthora muscae* 2674
KVL 6 *Batkoa pseudapiculatus* 2493
KVL 608 *Zoophthora radicans* 4781
KVL 609 *Zoophthora radicans* 4782
KVL 610 *Zoophthora radicans* 4784

KVL 611 *Zoophthora radicans* 4785
KVL 613 *Zoophthora radicans* 4783
KVL 614 *Conidiobolus coronatus* 4797
KVL 62 *Strongwellsea castrans* 3282
KVL 79 *Zoophthora* sp. 3486
KVL 8 *Entomophthora muscae* 2543
KVL 80 *Zoophthora* sp. 3487
KVL 81 *Zoophthora* sp. 3488
KVL 84 *Strongwellsea castrans* 3485
KVL 92 *Entomophthora muscae* 4789
KVL 93 *Entomophthora muscae* 4790
KVL 94 *Entomophthora muscae* 4787
KVL 95 *Entomophthora muscae* 4788
KVL 96 *Entomophthora muscae* 4786
KVL 98-4 *Entomophthora culicis* 5811
KVL16-45 *Pandora* sp. 13373

Emmons, C.W.

2501 *Basidiobolus* sp. 270
2502 *Basidiobolus* sp. 271
2505 *Basidiobolus haptosporus* 272
2507 *Basidiobolus* sp. 273

Enkerli, Jürg

ETHZ 110 *Pandora neoaphidis* 7937
ETHZ 115 *Pandora neoaphidis* 7939

ERL

1539b *Furia gastropachae* 8926
1600 *Conidiobolus coronatus* 9295
1601 *Conidiobolus coronatus* 9296
1746 *Conidiobolus coronatus* 9913
1747 *Conidiobolus coronatus* 9914
1788/1c *Conidiobolus* sp. 11650
1970 *Pandora* sp. 11764
2078 *Conidiobolus* sp. 11763
582 *Conidiobolus coronatus* 11651

Feng, Ming-Guang

F95125 *Pandora delphacis* 6538
F95129 *Pandora delphacis* 6539
MD8602 *Conidiobolus obscurus* 2335
MD8901 *Zoophthora radicans* 2811
MD8902 *Conidiobolus thromboides* 2849
MD8903 *Conidiobolus thromboides* 2828
MD8904 *Conidiobolus coronatus* 2812
MD8905 *Conidiobolus coronatus* 2813
MD8906 *Conidiobolus coronatus* 2814
MD8907 *Conidiobolus thromboides* 2829
MD8908 *Conidiobolus thromboides* 2850
MD8930 *Pandora neoaphidis* 2874
MD8931 *Pandora neoaphidis* 2875
MD8932 *Pandora neoaphidis* 2876
MTMD9002 *Conidiobolus obscurus* 3092
MTRM9001 *Batkoa apiculata* 3088
MTRM9002 *Conidiobolus obscurus* 3089
MTRM9003 *Conidiobolus obscurus* 3090
MTRM9004 *Batkoa apiculata* 3091
SA8901 *Conidiobolus thromboides* 2830
ZJU0603 *Pandora nouryi* 8930
ZJU0604 *Pandora nouryi* 8931

Filotas, Melanie

CTLD A *Furia gastropachae* 5547
MD97 S1-1 *Furia gastropachae* 5545
MD97 S1-2 *Furia gastropachae* 5546
NY I1 *Furia gastropachae* 5541
NY I2 *Furia gastropachae* 5542
NY V *Furia gastropachae* 5543
NY Z *Furia gastropachae* 5544

Firstencel, Heidi

Brazil-1 *Zoophthora radicans* 3023
Brazil-2 *Zoophthora radicans* 3024
Yugo-1 *Zoophthora radicans* 3021
Yugo-2 *Zoophthora radicans* 3022

Folker-Hansen, Pernille

E:020590 *Batkoa apiculata* 3224
F:040590 *Batkoa apiculata* 3225
I:080990 *Batkoa apiculata* 3226

Forest Pest Management Institute

FPMI 713 *Furia gastropachae* 5869
FPMI 922-1a *Furia gastropachae* 5870
FPMI 922-2a *Furia gastropachae* 5871
FPMI 922-3a *Furia gastropachae* 5872

FPMI

28 *Conidiobolus thromboides* 73
458 *Entomophaga aulicae* 1991
487 *Zoophthora radicans* 72
491 *Entomophaga aulicae* 1990
513 *Entomophaga aulicae* 2000
521 *Entomophaga aulicae* 2896
558 *Entomophaga aulicae* 1996
576 *Entomophaga aulicae* 1999
597 *Entomophaga aulicae* 2902
598 *Entomophaga aulicae* 2903
600 *Entomophaga aulicae* 2904
602 *Entomophaga aulicae* 2905
625 *Entomophaga macleodii* 376
626 *Entomophaga aulicae* 2897
631 *Massospora levispora* 2001
646 *Entomophaga aulicae* 2898
647 *Entomophaga macleodii* 375
655 *Zoophthora radicans* 407
667 *Conidiobolus obscurus* 434
687 *Zoophthora radicans* 141
688 *Zoophthora radicans* 68
695 *Conidiobolus osmodes* 79
696 *Zoophthora radicans* 13
697 *Zoophthora radicans* 44
698 *Zoophthora radicans* 50
699 *Zoophthora radicans* 62
700 *Zoophthora radicans* 75
701 *Zoophthora radicans* 103
702 *Zoophthora radicans* 126
703 *Zoophthora radicans* 189
704 *Zoophthora radicans* 237
705 *Zoophthora radicans* 404
706 *Zoophthora radicans* 407
707 *Entomophaga aulicae* 198
717 *Entomophaga aulicae* 2899
752 *Pandora blumckii* 1004
767 *Entomophaga australiensis* 328
768 *Batkoa gigantea* 403
769 *Entomophaga tabanivora* 627
770 *Entomophaga* sp. 393
771 *Entomophaga aulicae* 1993

776 *Entomophaga aulicae* 1994
 777 *Entomophaga aulicae* 1995
 877 *Entomophaga aulicae* 1998
 889 *Entomophaga aulicae* 1992
 893 *Entomophaga aulicae* 2900
 894 *Entomophaga aulicae* 1997
 934 *Entomophaga aulicae* 2901
 951 *Zoophthora phytonomi* 82
 951 *Zoophthora phytonomi* 113
 952 *Entomophaga maimaiga* 1400
 963 *Entomophaga maimaiga* 1391
 964 *Entomophaga maimaiga* 1392

Freimoser, Florian
 ETH 16b *Entomophthora planchoniana* 6251
 ETH 16c *Entomophthora planchoniana* 6252
 ETH 602 *Entomophthora thripidum* 6517
 ETH 603 *Entomophthora thripidum* 6518
 ETH 604 *Entomophthora thripidum* 6519
 ETH 605 *Entomophthora thripidum* 6520
 ETH 606 *Entomophthora thripidum* 6525
 ETH 607 *Entomophthora thripidum* 6521
 ETH 608 *Entomophthora thripidum* 6522

Goettel, Mark S.
 17 *Conidiobolus* sp. 3402

Gouli, Svetlana
 CA-700 *Conidiobolus coronatus* 11651
 GP-69 *Conidiobolus coronatus* 5162
 SVG-11-1 *Pandora* sp. 11764
 THR-11-67 *Conidiobolus* sp. 11763
 Thr.-09-1 *Conidiobolus coronatus* 9913

Gouli, Vladimir
 GA-348 *Conidiobolus* sp. 6505
 GA-361 *Conidiobolus coronatus* 6512
 HWA-G-50/c *Conidiobolus* sp. 11650
 Thr.-09-2 *Conidiobolus coronatus* 9914

Gouli, Vladimir & Svetlana
 FTC *Furia gastropachae* 8926
 Thr-08-E1 *Conidiobolus coronatus* 9295
 Thr-08-E2 *Conidiobolus coronatus* 9296

Greif, Matthew
 EIAW 369 *Conidiobolus coronatus* 7010
 EIAW 389 *Conidiobolus coronatus* 7011
 EIAW 400 *Conidiobolus coronatus* 7012
 EIAW 410 *Conidiobolus coronatus* 7013

Griggs, Michael H.
 PLH GF *Zoophthora radicans* 4548
 PLH3284ows *Zoophthora radicans* 4520

Grundschober, Anne
 301 *Neozygites parvispora* 5620
 302 *Neozygites parvispora* 5621
 ETH 601 *Entomophthora thripidum* 5868

Gryganskyi, Andrii P.
 102 *Conidiobolus* sp. 11765
 122 *Basidiobolus* sp. 11772
 123 *Basidiobolus* sp. 11773
 134 *Basidiobolus* sp. 11774
 136 *Basidiobolus* sp. 11775
 137 *Basidiobolus* sp. 11776
 138 *Basidiobolus* sp. 11777
 139 *Basidiobolus* sp. 11778
 140 *Basidiobolus* sp. 11779
 142 *Basidiobolus* sp. 11780
 143 *Basidiobolus* sp. 11781
 144 *Basidiobolus* sp. 11782
 146 *Basidiobolus* sp. 11783
 36 *Basidiobolus* sp. 11766
 37 *Basidiobolus* sp. 11767
 38 *Basidiobolus* sp. 11768
 61 *Basidiobolus* sp. 11769
 62 *Basidiobolus* sp. 11770
 64 *Basidiobolus* sp. 11771
 Sciarid fungus 1 *Pandora gloeospora* 13406
 Sciarid fungus 2 *Pandora* sp. 13512

HACC
 190 *Conidiobolus bangalorensis* 449

Hajek, Ann E.
 00 MI 3-2-2 *Entomophaga maimaiga* 6724
 00 MI 12-2-1 *Entomophaga maimaiga* 6666
 00 MI 12-2-2 *Entomophaga maimaiga* 6667
 00 MI 12-2-3 *Entomophaga maimaiga* 6668
 00 MI 17-1-1 *Entomophaga maimaiga* 6627
 00 MI 17-1-2 *Entomophaga maimaiga* 6728
 00 MI 17-2-1 *Entomophaga maimaiga* 6729
 00 MI 18-2-1 *Entomophaga maimaiga* 6654
 00 MI 19-1-1 *Entomophaga maimaiga* 6628
 00 MI 19-2-1 *Entomophaga maimaiga* 6725
 00 MI 2-1-1 *Entomophaga maimaiga* 6652
 00 MI 2-2-1 *Entomophaga maimaiga* 6663
 00 MI 24-2-1 *Entomophaga maimaiga* 6629
 00 MI 24-2-2 *Entomophaga maimaiga* 6726
 00 MI 27-1-1 *Entomophaga maimaiga* 6630
 00 MI 27-1-2 *Entomophaga maimaiga* 6727
 00 MI 28-1-1 *Entomophaga maimaiga* 7107
 00 MI 28-1-3 *Entomophaga maimaiga* 7108
 00 MI 28-2-1 *Entomophaga maimaiga* 6655

00 MI 29-1-1 *Entomophaga maimaiga* 7109
 00 MI 29-1-2 *Entomophaga maimaiga* 7103
 00 MI 29-2-1 *Entomophaga maimaiga* 6656
 00 MI 3-1-1 *Entomophaga maimaiga* 6664
 00 MI 3-1-2 *Entomophaga maimaiga* 6665
 00 MI 3-2-2 *Entomophaga maimaiga* 6626
 00 MI 33-1-1 *Entomophaga maimaiga* 6657
 00 MI 33-2-1 *Entomophaga maimaiga* 7110
 00 MI 33-2-2 *Entomophaga maimaiga* 7111
 00 MI 4-2-1 *Entomophaga maimaiga* 6653
 00 NY 1-1-2 *Entomophaga maimaiga* 6625
 001-TA *Entomophaga maimaiga* 3828
 001-TB *Entomophaga maimaiga* 3829
 001-TC *Entomophaga maimaiga* 3830
 001-TD *Entomophaga maimaiga* 3831
 001-TE *Entomophaga maimaiga* 3832
 001-TF *Entomophaga maimaiga* 3833
 001-TG *Entomophaga maimaiga* 3834
 001-TH *Entomophaga maimaiga* 3835
 01 JP 4-11-1 *Entomophaga maimaiga* 7104
 01 JP 4-11-2 *Entomophaga maimaiga* 7112
 01 JP 4-11-3 *Entomophaga maimaiga* 7113
 01 JP 4-12-1 *Entomophaga maimaiga* 7114
 01 JP 4-12-2 *Entomophaga maimaiga* 7105
 01 JP 4-12-3 *Entomophaga maimaiga* 7116
 02 CN 1-1-1 *Entomophaga maimaiga* 7139
 02 CN 1-2-1 *Entomophaga maimaiga* 7183
 02 CN 1-2-2 *Entomophaga maimaiga* 7184
 03 JP 5-1-1 *Entomophaga maimaiga* 7185
 03 JP 5-1-2 *Entomophaga maimaiga* 7186
 03 JP 5-1-4 *Entomophaga maimaiga* 7187
 03 JP 5-1-5 *Entomophaga maimaiga* 7189
 03 JP 5-1-6 *Entomophaga maimaiga* 7188
 03 MA 3-1-1 *Entomophaga maimaiga* 7123
 03 MA 3-2-1 *Entomophaga maimaiga* 7124
 03 MA 3-2-2 *Entomophaga maimaiga* 7125
 03 MA 3-2-3 *Entomophaga maimaiga* 7126

- 03 MA 3-2-4 *Entomophaga maimaiga* 7137
 03 MA 3-2-5 *Entomophaga maimaiga* 7138
 03 ME 1-1-1 *Entomophaga aulicae* 7140
 03 ME 2-1-1 *Entomophaga aulicae* 7141
 03 ME 3-1-2 *Entomophaga aulicae* 7142
 03 ME 4-1-1 *Entomophaga aulicae* 7143
 03 ME 5-1-1 *Entomophaga aulicae* 7144
 03 ME 6-1-1 *Entomophaga aulicae* 7145
 03 NY 8-1-3 Unidentified Entomophthorales sp. 7229
 03 NY 7-3-1 *Conidiobolus thromboides* 7209
 03 NY 7-3-2 *Conidiobolus thromboides* 7210
 03 NY 7-3-3 *Conidiobolus thromboides* 7211
 03 NY 7-3-4 *Pandora neoaphidis* 7212
 03 NY 7-3-4 *Pandora neoaphidis* 8607
 03 NY 7-4-1 *Pandora neoaphidis* 7213
 03 NY 7-4-2 *Pandora neoaphidis* 7214
 03 NY 7-4-3 *Pandora neoaphidis* 7226
 03 NY 8-1-1 Unidentified Entomophthorales sp. 7227
 03 NY 8-1-2 Unidentified Entomophthorales sp. 7228
 03 NY 8-1-4 Unidentified Entomophthorales sp. 7230
 03 PA 1-1-1A *Entomophaga maimaiga* 7120
 03 PA 1-1-1B *Entomophaga maimaiga* 7121
 03 PA 1-1-2 *Entomophaga maimaiga* 7122
 03 PA 1-1-5 *Entomophaga maimaiga* 7190
 03 PA 2-1-1 *Entomophaga maimaiga* 7131
 03 PA 3-1-1 *Entomophaga maimaiga* 7132
 03 PA 4-1-1 *Entomophaga maimaiga* 7133
 03 PA 5-1-1 *Entomophaga maimaiga* 7134
 03 PA 5-1-5 *Entomophaga maimaiga* 7352
 03 PA 6-1-1 *Entomophaga maimaiga* 7135
 03 PA 6-1-4 *Entomophaga maimaiga* 7353
 03 PA 7-1-1 *Entomophaga maimaiga* 7136
 03 RU 1-1-1 *Entomophaga maimaiga* 7127
 04 NY 1-1-1 *Entomophthora muscae* 7371
 04 NY 9-1-1 *Batkooa* sp. 7370
 92NJ1-1A *Entomophaga maimaiga* 5565
 92NJ1-1B *Entomophaga maimaiga* 5572
 94 NY1-4A *Entomophaga maimaiga* 4549
 94 VA4-3A *Entomophaga maimaiga* 6218
 94 VA8-1A *Entomophaga maimaiga* 6169
 94 WV1-1A *Entomophaga maimaiga* 6168
 94VA2-2A *Entomophaga maimaiga* 5566
 94VA2-2B *Entomophaga maimaiga* 5567
 96 MD A2-1 *Entomophaga maimaiga* 5377
 96 MD A2-2 *Entomophaga maimaiga* 5378
 96 MD B2-1 *Entomophaga maimaiga* 5379
 96 MD B2-2 *Entomophaga maimaiga* 5380
 96 MD B2-3 *Entomophaga maimaiga* 5381
 96 MD B2-4 *Entomophaga maimaiga* 5382
 96 MD B2-4 *Entomophaga maimaiga* 6161
 96 MD B2-5 *Entomophaga maimaiga* 5383
 96 MD B2-6 *Entomophaga maimaiga* 5384
 96 MD C2-1 *Entomophaga maimaiga* 5385
 96 MD D2-1 *Entomophaga maimaiga* 5386
 96 MD D2-2 *Entomophaga maimaiga* 5387
 96 MD E2-1 *Entomophaga maimaiga* 5388
 96 MD E2-2 *Entomophaga maimaiga* 5389
 96 MD F2-1 *Entomophaga maimaiga* 5390
 96 NY B2 *Entomophaga maimaiga* 5391
 96 NY C2 *Entomophaga maimaiga* 5392
 96 NY C3 *Entomophaga maimaiga* 5393
 96 NY D1 *Entomophaga maimaiga* 5394
 96 NY D2 *Entomophaga maimaiga* 5395
 96 NY D3 *Entomophaga maimaiga* 5396
 96 NY E1 *Entomophaga maimaiga* 5397
 96 NY E2 *Entomophaga maimaiga* 5398
 96 NY E3 *Entomophaga maimaiga* 5399
 96 NY F1 *Entomophaga maimaiga* 5400
 96 NY F3 *Entomophaga maimaiga* 5401
 96MA1-1A *Entomophaga maimaiga* 5563
 96MA1-1B *Entomophaga maimaiga* 5564
 96MA1-1C *Entomophaga maimaiga* 5711
 96VA9-1A *Entomophaga maimaiga* 5569
 96VA9-1B *Entomophaga maimaiga* 5570
 97VA10-1A *Entomophaga maimaiga* 5568
 97VA10-1B *Entomophaga maimaiga* 5571
 98 JP2-10A *Entomophaga maimaiga* 6254
 98 JP2-10B *Entomophaga maimaiga* 6224
 98 JP2-14A *Entomophaga maimaiga* 6255
 98 JP2-14B *Entomophaga maimaiga* 6256
 98 JP2-21A *Entomophaga maimaiga* 6267
 98 JP2-22A *Entomophaga maimaiga* 6257
 98 JP2-22B *Entomophaga maimaiga* 6223
 98 JP2-22B *Entomophaga maimaiga* 6264
 98 JP2-4A *Entomophaga maimaiga* 6253
 98 JP2-5A *Entomophaga maimaiga* 6212
 98 JP2-5B *Entomophaga maimaiga* 6163
 98 JP2-9A *Entomophaga maimaiga* 6162
 98 JP3-5A *Entomophaga maimaiga* 6171
 98 JP3-5B *Entomophaga maimaiga* 6172
 98 JP3-8A *Entomophaga maimaiga* 6258
 98 JP3-8B *Entomophaga maimaiga* 6265
 98 JP3-9A *Entomophaga maimaiga* 6266
 98 JP3-9B *Entomophaga maimaiga* 6268
 98 MA2-14A *Entomophaga maimaiga* 6005
 98 MA2-14B *Entomophaga maimaiga* 6272
 98 MA2-2A *Entomophaga maimaiga* 6269
 98 MA2-2B *Entomophaga maimaiga* 6270
 98 MA2-6A *Entomophaga maimaiga* 6271
 98 MA2-8A *Entomophaga maimaiga* 6004
 98MA2-12A *Entomophaga maimaiga* 6107
 98MA2-12B *Entomophaga maimaiga* 6108
 98MA2-4A *Entomophaga maimaiga* 6051
 98MA2-4B *Entomophaga maimaiga* 6052
 98MA2-6B *Entomophaga maimaiga* 6105
 98MA2-8B *Entomophaga maimaiga* 6106
 98MII-1A *Entomophaga maimaiga* 6053
 98MII-1B *Entomophaga maimaiga* 6054
 98MII-2A *Entomophaga maimaiga* 6006
 98MII-2B *Entomophaga maimaiga* 6007
 99 MI 21 *Entomophaga maimaiga* 7115
 99 MI 27 *Entomophaga maimaiga* 7102
 99 MI 28-1 *Entomophaga maimaiga* 7106
 99 MI 5-1 *Entomophaga maimaiga* 7101
 99 MI9-1A *Entomophaga maimaiga* 6523
 99 MI9-2A *Entomophaga maimaiga* 6524
 99 WV2-2A *Entomophaga maimaiga* 6173
 99 WV2-2B *Entomophaga maimaiga* 6174
 99 WV2-2C *Entomophaga maimaiga* 6170
 A-OV *Entomophaga aulicae* 4004
 B-20MD#1 *Entomophaga maimaiga* 4544
 B-20MD#2 *Entomophaga maimaiga* 4545
 C.i.-2 *Entomophaga maimaiga* 4505
 C.i.-3 *Entomophaga maimaiga* 4506
 C.i.-4 *Entomophaga maimaiga* 4507
 Ci-1 *Entomophaga maimaiga* 4504
 CTIV-2 *Entomophaga maimaiga* 2774
 CTIV-3 *Entomophaga maimaiga* 2775
 D-OV *Entomophaga aulicae* 4008
 GC1 *Entomophaga maimaiga* 4546
 GC2 *Entomophaga maimaiga* 4547
 I.A.-3 *Entomophaga maimaiga* 4510

- I.S. 4 *Entomophaga maimaiga* 4549
 I.S. 5 *Entomophaga maimaiga* 4550
 I.S. 6 *Entomophaga maimaiga* 4551
 I.S.-1 *Entomophaga maimaiga* 4508
 I.S.-2 *Entomophaga maimaiga* 4509
 L1 *Entomophaga maimaiga* 3052
 L3 *Entomophaga maimaiga* 3053
 SLF 213-7 *Batkoa major* 13769
 VA - A *Entomophaga maimaiga* 4552
 VA - C *Entomophaga maimaiga* 4553
 VA - E *Entomophaga maimaiga* 4554
 VA - F *Entomophaga maimaiga* 4555
 VA-IVY *Entomophaga maimaiga* 6169
- Harris, Dr. Karen**
 SCA-A *Conidiobolus thromboides* 13630
 SCA1 Unidentified Entomophthorales sp. 13631
 SCA11 Unidentified Entomophthorales sp. 13632
 SCA13 *Conidiobolus thromboides* 13633
 SCA14 *Conidiobolus thromboides* 13634
 SCA15a Unidentified Entomophthorales sp. 13635
 SCA16 Unidentified Entomophthorales sp. 13636
 SCA19a *Conidiobolus thromboides* 13637
 SCA19b Unidentified Entomophthorales sp. 13767
 SCA19c Unidentified Entomophthorales sp. 13768
 SCA20 Unidentified Entomophthorales sp. 13638
 SCA22 Unidentified Entomophthorales sp. 13639
 SCA23 Unidentified Entomophthorales sp. 13640
 SCA24 Unidentified Entomophthorales sp. 13641
 SCA38 Unidentified Entomophthorales sp. 13642
 SCA43 *Conidiobolus thromboides* 13643
 SCA44 *Conidiobolus thromboides* 13644
 SCA45 Unidentified Entomophthorales sp. 13659
 SCA46 *Conidiobolus thromboides* 13645
 SCA47 *Conidiobolus thromboides* 13646
 SCA48A Unidentified Entomophthorales sp. 13647
 SCA48B Unidentified Entomophthorales sp. 13648
 SCA49 Unidentified Entomophthorales sp. 13649
 SCA50 Unidentified Entomophthorales sp. 13650
 SCA53 Unidentified Entomophthorales sp. 13660
 SCA54 Unidentified Entomophthorales sp. 13651
 SCA55 Unidentified Entomophthorales sp. 13652
 SCA57 Unidentified Entomophthorales sp. 13653
 SCA58 *Conidiobolus thromboides* 13654
 SCA59 Unidentified Entomophthorales sp. 13655
- SCA60 Unidentified Entomophthorales sp. 13656
 SCA61 Unidentified Entomophthorales sp. 13657
 SCA62 Unidentified Entomophthorales sp. 13658
- Hatting, Justin**
 2 *Conidiobolus thromboides* 4996
 A *Conidiobolus thromboides* 4968
- Hatting, Justin L.**
 5 *Pandora neoaphidis* 5707
 6 *Pandora neoaphidis* 5708
 Sample G *Zoophthora radicans* 6605
 SGI-915 *Conidiobolus* sp. 11867
- Henk, Daniel A.**
 dah11DG1 *Basidiobolus* sp. 9887
 dah6DL1 *Basidiobolus* sp. 9888
 dah8TM1 *Basidiobolus* sp. 9889
 dahBR17 *Basidiobolus* sp. 9890
 dahBR2 *Basidiobolus* sp. 9891
 dahBR4 *Basidiobolus* sp. 9892
 dahBR5 *Basidiobolus* sp. 9893
 dahCH1 *Basidiobolus* sp. 9894
 dahCH10 *Basidiobolus* sp. 9895
 dahCH4 *Basidiobolus* sp. 9896
 dahOWT1 *Basidiobolus* sp. 9897
 dahOWT2 *Basidiobolus* sp. 9898
 dahOWT3 *Basidiobolus* sp. 9899
 dahSAR2A *Basidiobolus* sp. 9900
 dahSAR3A *Basidiobolus* sp. 9901
 dahSAR4A *Basidiobolus* sp. 9902
 dahT14 *Basidiobolus* sp. 9903
 dahT53 *Basidiobolus* sp. 9904
 dahT90 *Basidiobolus* sp. 9905
 dahTF3 *Basidiobolus* sp. 9906
 dahTF6 *Basidiobolus* sp. 9907
 dahTF8 *Basidiobolus* sp. 9908
 dahTPOO1 *Basidiobolus* sp. 9909
 dahU22 *Basidiobolus* sp. 9910
 dahU71 *Basidiobolus* sp. 9911
 dahU84 *Basidiobolus* sp. 9912
- Hicks, Barry J.**
 3 *Batkoa* sp. 6179
- Holdom, David G.**
 020286 *Pandora delphacis* 2095
 060286 *Pandora delphacis* 2096
 130286 *Erynia* sp. 2097
 130287-2 *Zoophthora radicans* 2411
 2 *Conidiobolus coronatus* 1876
 200186-2 *Pandora delphacis* 2091
 260186-1 *Pandora delphacis* 2092
 260186-2 *Pandora delphacis* 2093
 270186 *Pandora delphacis* 2094
 300187 *Zoophthora radicans* 2410
 310187-1 *Pandora delphacis* 2409
 310187-3 *Pandora delphacis* 2408
 UQE-1 *Entomophthora chromaphidis* 1861
 UQE-15 *Entomophthora chromaphidis* 1862
 UQE-2-2 *Entomophthora chromaphidis* 1860
- UQE-21 *Entomophthora chromaphidis* 1863
- Huang, Bo**
 3-litter-1 A *Conidiobolus adiaeretus* 8320
 B1 *Conidiobolus* sp. 7942
 GSM3-L-1C1 *Conidiobolus* sp. 8313
 GSM3-L-1C2 *Conidiobolus* sp. 8314
 L051115B3 *Conidiobolus stromoideus* 8430
 L051115B8 *Conidiobolus iuxtagenitus* 7944
 L051203L2 *Basidiobolus haptosporus* 8307
 L060401C1 *Basidiobolus ranarum* 8308
 L060407A2 *Basidiobolus haptosporus* 8309
 M051114A1 *Conidiobolus adiaeretus* 8427
 M051114A3 *Conidiobolus* sp. 8429
 S051114A2 *Conidiobolus megalotocus* 8428
- Hural, Kirsten**
 Au-1 *Pandora neoaphidis* 2762
 Au-10 *Pandora neoaphidis* 2766
 Au-11 *Pandora neoaphidis* 2768
 Au-12 *Pandora neoaphidis* 2885
 Au-14 *Pandora neoaphidis* 2767
 Au-15 *Pandora neoaphidis* 2757
 Au-17 *Pandora neoaphidis* 2784
 Au-18 *Pandora neoaphidis* 2759
 Au-19 *Pandora neoaphidis* 2770
 Au-20 *Pandora neoaphidis* 2781
 Au-21 *Pandora neoaphidis* 2769
 Au-24 *Pandora neoaphidis* 2848
 Au-26 *Pandora neoaphidis* 2838
 Au-27 *Pandora neoaphidis* 2839
 Au-28 *Pandora neoaphidis* 2837
 Au-29 *Pandora neoaphidis* 2847
 Au-30 *Pandora neoaphidis* 2855
 Au-4 *Pandora neoaphidis* 2854
 Au-6 *Pandora neoaphidis* 2761
 Au-7 *Pandora neoaphidis* 2754
 Au-8 *Pandora neoaphidis* 2760
 EW-5 *Pandora neoaphidis* 2868
 Fe-2 *Pandora neoaphidis* 2782
 FR-1 *Pandora neoaphidis* 2852
 FR-10 *Pandora neoaphidis* 2851
 FR-12 *Pandora neoaphidis* 2763
 FR-14 *Pandora neoaphidis* 2755
 FR-16 *Pandora neoaphidis* 2840
 FR-17 *Zoophthora occidentalis* 2841
 FR-18 *Pandora neoaphidis* 2842
 FR-19 *Pandora neoaphidis* 2844
 FR-20 *Pandora neoaphidis* 2845
 FR-21 *Pandora neoaphidis* 2846
 FR-22 *Pandora neoaphidis* 2853
 FR-23 *Pandora neoaphidis* 2865
 FR-24 *Pandora neoaphidis* 2866
 FR-25 *Pandora neoaphidis* 2867
 FR-26 *Pandora neoaphidis* 2872
 FR-4 *Pandora neoaphidis* 2773
 FR-5 *Pandora neoaphidis* 2884
 FR-7 *Pandora neoaphidis* 2758
 FR-8 *Pandora neoaphidis* 2870
 GF-2 *Batkoa apiculata* 3130

GF-3 *Batkoa* sp. 3131
GF-4 *Conidiobolus obscurus* 3132
GF-5 *Conidiobolus obscurus* 3133
GF-6 *Conidiobolus obscurus* 3134
GF-7 *Conidiobolus obscurus* 3135
HG7201 *Pandora neoaphidis* 2582
HG72010 *Pandora neoaphidis* 2590
HG72011 *Pandora neoaphidis* 2591
HG72012 *Pandora neoaphidis* 2592
HG72013 *Pandora neoaphidis* 2593
HG72014 *Pandora neoaphidis* 2594
HG7202 *Pandora neoaphidis* 2583
HG7203 *Pandora neoaphidis* 2584
HG7204 *Pandora neoaphidis* 2585
HG7206 *Pandora neoaphidis* 2586
HG7207 *Pandora neoaphidis* 2587
HG7208 *Pandora neoaphidis* 2588
HG7209 *Pandora neoaphidis* 2589
Hoff-1 *Batkoa apiculata* 3136
Hoff-2 *Conidiobolus obscurus* 3137
Hoff-3 *Conidiobolus obscurus* 3138
Hoff-4 *Conidiobolus obscurus* 3139
Hoff-5 *Batkoa apiculata* 3140
Hoff-6 *Conidiobolus obscurus* 3141
Ma-1 *Pandora neoaphidis* 2756
Ma-2 *Pandora neoaphidis* 2783
MP-2 *Pandora neoaphidis* 2856
MP-5 *Pandora neoaphidis* 2873

Hywel-Jones, Nigel

H84178-2 *Erynia conica* 1439

IACR-Rothamsted

NW 231 *Pandora neoaphidis* 4934

IMI

118284 *Conidiobolus bangalorensis* 449
118287 *Basidiobolus haptosporus* var.
 minor 8331
211910 *Pandora blunckii* 217

INIA

2193 *Conidiobolus coronatus* 4797
228 *Zoophthora radicans* 4783
2330 *Zoophthora radicans* 4781
2377 *Zoophthora radicans* 4785
2553 *Zoophthora radicans* 4782
2562 *Zoophthora radicans* 4784

IP

396 *Conidiobolus macrosporus* 12830

IPLB

1027 *Batkoa pseudapiculatus* 1665
1066 *Pandora nouryi* 366
1116 *Zoophthora phalloides* 351
1118 *Zoophthora radicans* 379
18 *Conidiobolus obscurus* 119
180 *Conidiobolus obscurus* 25
19 *Conidiobolus thromboides* 120
20 *Conidiobolus obscurus* 121
21 *Conidiobolus obscurus* 122
22 *Conidiobolus obscurus* 123
27 *Zoophthora radicans* 126
4 *Conidiobolus thromboides* 70
40 *Zoophthora radicans* 127
421 *Zoophthora radicans* 822
423 *Zoophthora phalloides* 190

455 *Conidiobolus obscurus* 69
52 *Pandora neoaphidis* 128
54 *Conidiobolus obscurus* 124
542 *Conidiobolus obscurus* 133
542 *Conidiobolus obscurus* 355
542 (=ARSEFs 133 & 355) *Conidiobolus*
 obscurus 434
602 *Batkoa apiculata* 67
624 *Zoophthora radicans* 68
66 *Conidiobolus obscurus* 125
698 *Batkoa pseudapiculatus* 1662
706 *Batkoa pseudapiculatus* 1663
722 *Conidiobolus obscurus* 434
844 *Zoophthora radicans* 359
844 *Zoophthora radicans* 370
844 *Zoophthora radicans* 823
877 *Batkoa pseudapiculatus* 1664
951.72 *Conidiobolus coronatus* 206

Keller, Siegfried

100 *Erynia ovispora* 399
102 *Erynia ovispora* 400
114 *Entomophaga* sp. 393
115 *Zoophthora lanceolata* 469
149 *Erynia conica* 401
150 *Erynia curvispora* 402
20 *Entomophaga tenthredinis* 423
21 *Conidiobolus* sp. 391
214 *Zoophthora radicans* 388
217 *Zoophthora radicans* 389
24 *Furia virescens* 394
250 *Furia virescens* 427
250? *Furia virescens* 428
251 *Furia virescens* 470
292 *Furia virescens* 1127
293 *Furia virescens* 1128
35 *Batkoa apiculata* 395
36 *Batkoa gigantea* 403
39 *Entomophthora muscae* 392
39 *Entomophthora muscae* 466
41 *Eryniopsis caroliniana* 424
41 *Eryniopsis caroliniana* 641
411 *Zoophthora anglica* 916
412 *Zoophthora anglica* 926
416 *Furia virescens* 1129
425 *Pandora blunckii* 917
426 *Pandora blunckii* 915
430 *Pandora blunckii* 920
444 *Zoophthora radicans* 1130
445 *Zoophthora radicans* 914
449 *Batkoa apiculata* 927
449 *Batkoa apiculata* 1660
450 *Batkoa apiculata* 919
450 *Batkoa apiculata* 1661
470 *Zoophthora anglica* 918
478 *Batkoa pseudapiculatus* 1662
479 *Batkoa pseudapiculatus* 1663
48 *Zoophthora anglica* 396
480 *Batkoa pseudapiculatus* 1664
482 *Batkoa pseudapiculatus* 1665
490 *Conidiobolus coronatus* 1572
491 *Conidiobolus coronatus* 1573
493 *Conidiobolus coronatus* 1574
494 *Conidiobolus coronatus* 1575
514 *Pandora blunckii* 1715
515 *Pandora blunckii* 1716

516 *Pandora blunckii* 1717
517 *Pandora blunckii* 1718
520 *Zoophthora radicans* 1719
521 *Pandora dipterigena* 1720
527 *Erynia conica* 1752
528 *Erynia conica* 1753
529 *Erynia curvispora* 1754
530 *Erynia conica* 1755
55 *Entomophthora culicis* 387
59 *Zoophthora radicans* 404
65 *Eryniopsis caroliniana* 212
65 *Eryniopsis caroliniana* 642
69 *Eryniopsis caroliniana* 213
69 *Eryniopsis caroliniana* 640
74 *Batkoa gigantea* 214
75 *Batkoa gigantea* 215
84 *Zoophthora aphidis* 425
84 *Zoophthora aphidis* 467
84 *Zoophthora aphidis* 643
92 *Pandora dipterigena* 397
95 *Zoophthora lanceolata* 426
95 *Zoophthora lanceolata* 468
97 *Erynia ovispora* 398

Kenneth, Robert G.

2884 *Zoophthora radicans* 189
3 *Conidiobolus osmodes* 79
3022 *Conidiobolus thromboides* 15
3022 *Conidiobolus thromboides* 115
3022 *Conidiobolus thromboides* 208
3023 *Conidiobolus thromboides* 41
3024 *Conidiobolus thromboides* 40
3025 *Conidiobolus thromboides* 42
3025 *Conidiobolus thromboides* 117
3029 *Zoophthora radicans* 62
3029 *Zoophthora radicans* 3623
3035 *Conidiobolus thromboides* 15
3035 *Conidiobolus thromboides* 115
3035 *Conidiobolus thromboides* 208
3040 *Conidiobolus thromboides* 73
3043 *Conidiobolus obscurus* 74
3044 *Zoophthora radicans* 189
3045 *Zoophthora radicans* 44
3046 *Zoophthora radicans* 72
3060 *Zoophthora radicans* 75
3061 *Zoophthora radicans* 76
3071 *Pandora neoaphidis* 77
3072 *Pandora neoaphidis* 78
3080 *Conidiobolus osmodes* 79
3081 *Conidiobolus* sp. 80
3082 *Conidiobolus* sp. 81
3085 *Zoophthora phytonomi* 82
3085 *Zoophthora phytonomi* 113
3086 *Conidiobolus thromboides* 83
3095 *Zoophthora phytonomi* 191
3096 *Zoophthora radicans* 114
3097 *Zoophthora radicans* 139
3100 *Zoophthora radicans* 103
3101 *Zoophthora radicans* 104
3102 *Zoophthora radicans* 105
3103 *Zoophthora radicans* 106
3104 *Zoophthora radicans* 107
3105 *Zoophthora radicans* 108
3106 *Zoophthora radicans* 109
3107 *Zoophthora radicans* 110
3109 *Zoophthora radicans* 111

3110 *Zoophthora radicans* 112
 3123 *Conidiobolus osmodes* 193
 3123 *Conidiobolus osmodes* 447
 3133 *Zoophthora phytonomi* 192
 3134 *Zoophthora radicans* 195
 3136 *Entomophaga aulicae* 198
 3139 *Zoophthora radicans* 197
 3178 *Zoophthora phytonomi* 202
 3224 *Zoophthora radicans* 495
 C.o. 10 *Conidiobolus* sp. 81
 C.o. 15 *Conidiobolus* sp. 80
 E.a. 11 *Pandora neoaphidis* 78
 E.a. 38 *Conidiobolus thromboides* 83
 E.a. 4 *Pandora neoaphidis* 77
 E.p. 2 *Zoophthora phytonomi* 191
 E.s. 15 *Zoophthora radicans* 76
 E.s. 28 *Zoophthora radicans* 75
 E.s. 29 *Zoophthora radicans* 114
 E.s. 30 *Zoophthora radicans* 139
 E.s. 31 *Zoophthora radicans* 103
 E.s. 32 *Zoophthora radicans* 104
 E.s. 33 *Zoophthora radicans* 105
 E.s. 34 *Zoophthora radicans* 106
 E.s. 35 *Zoophthora radicans* 107
 E.s. 36 *Zoophthora radicans* 108
 E.s. 37 *Zoophthora radicans* 109
 E.s. 38 *Zoophthora radicans* 110
 E.s. 40 *Zoophthora radicans* 111
 E.s. 41 *Zoophthora radicans* 112

King, D.S.

75 *Conidiobolus coronatus* 205
 C-23 *Conidiobolus adiaeretus* 451
 C-31 *Conidiobolus brefeldianus* 452
 C-32 *Conidiobolus pumilus* 453
 M-7 *Conidiobolus osmodes* 193
 M-7 *Conidiobolus osmodes* 447

Klingen, Ingeborg

NCRI 1-99 *Entomophthora muscae* 6274

Landis, Doug

1A *Zoophthora radicans* 2977
 1B *Zoophthora radicans* 2978
 1C *Zoophthora radicans* 2979
 2A *Zoophthora radicans* 2980

Leonard, David E.

BBIV-20 *Zoophthora radicans* 21

López Lastra, Claudia

1 *Zoophthora radicans* 6917

Maddox, Joseph V.

CHAMP87, BPLH-2 *Zoophthora radicans* 2551
 EL87, PLH *Zoophthora radicans* 2550
 HELMAV87, BULT *Zoophthora radicans* 2549
 UNION87, BLH-1 *Zoophthora radicans* 2552

Majchrowicz, Irena

10 *Pandora neoaphidis* 3459
 102 *Pandora neoaphidis* 636
 103 *Pandora neoaphidis* 637
 104 *Pandora neoaphidis* 638
 105 *Pandora neoaphidis* 639
 106 *Conidiobolus thromboides* 630
 107 *Conidiobolus thromboides* 631
 108 *Conidiobolus thromboides* 635
 109 *Conidiobolus thromboides* 633
 110 *Conidiobolus thromboides* 632
 111 *Conidiobolus thromboides* 634
 14 10.6 *Conidiobolus thromboides* 84
 14 10.6 *Conidiobolus thromboides* 85
 161 *Pandora neoaphidis* 1599
 164 *Pandora neoaphidis* 1600
 17 16.6 *Conidiobolus thromboides* 86
 17 16.6 *Conidiobolus thromboides* 87
 170 *Pandora neoaphidis* 1601
 172 *Pandora neoaphidis* 1602
 178 *Pandora neoaphidis* 1603
 18 *Conidiobolus* sp. 3383
 201 *Pandora neoaphidis* 1604
 211 *Pandora neoaphidis* 1605
 216 *Pandora neoaphidis* 1606
 224 *Pandora neoaphidis* 1607
 229 *Pandora neoaphidis* 1608
 230 *Pandora neoaphidis* 1609
 236 *Pandora neoaphidis* 1610
 246 *Pandora neoaphidis* 1611
 25-b *Conidiobolus* sp. 3384
 251 *Pandora neoaphidis* 1612
 257 *Pandora neoaphidis* 1613
 258 *Pandora neoaphidis* 1614
 260 4.08 *Pandora neoaphidis* 1618
 263 *Pandora neoaphidis* 1615
 269 *Pandora neoaphidis* 1616
 275 *Pandora neoaphidis* 1617
 28 *Pandora neoaphidis* 3234
 32 *Pandora neoaphidis* 3237
 34 *Pandora neoaphidis* 1596
 37 *Pandora neoaphidis* 1597
 37 *Pandora neoaphidis* 3238
 50 *Pandora neoaphidis* 1598
 58 *Pandora neoaphidis* 3240
 71 *Pandora neoaphidis* 3410
 8 *Pandora neoaphidis* 3411
 80 *Pandora neoaphidis* 608
 81 *Pandora neoaphidis* 609
 82 *Pandora neoaphidis* 610
 83 *Pandora neoaphidis* 3241
 87 *Pandora neoaphidis* 611
 88 *Pandora neoaphidis* 612
 90 *Pandora neoaphidis* 613
 91 *Pandora neoaphidis* 614

Martinell, Brian J.

001(FSA) *Entomophaga macleodii* 619
 002 *Entomophaga macleodii* 629
 003(Rodeo) *Entomophaga macleodii* 618
 004A(M. cun femur) *Entomophaga calopteni* 626
 004B(M. cun haem) *Entomophaga calopteni* 623
 006(Judd B proto) *Entomophaga macleodii* 620

008 *Entomophaga macleodii* 628
 010(AlpineA) *Entomophaga macleodii* 621
 011(JuddA) *Entomophaga macleodii* 624
 014B *Entomophaga calopteni* 625
 015(Eagar) *Entomophaga grylli* 622
 1 *Entomophaga macleodii* 767
 10 *Entomophaga macleodii* 773
 11 *Entomophaga macleodii* 775
 12 *Entomophaga macleodii* 772
 13 *Entomophaga macleodii* 769
 20 *Entomophaga macleodii* 770
 21 *Entomophaga macleodii* 771
 22 *Entomophaga macleodii* 779
 23 *Entomophaga macleodii* 778
 25 *Entomophaga macleodii* 774
 28 *Entomophaga macleodii* 777
 3 *Entomophaga macleodii* 768
 36 *Entomophaga calopteni* 766
 41 *Entomophaga macleodii* 765
 8 *Entomophaga macleodii* 776

McGuire, Michael R.

85-1(1pass) *Zoophthora radicans* 1938
 A *Zoophthora radicans* 1018
 B *Zoophthora radicans* 1019
 C *Zoophthora radicans* 1261
 D *Zoophthora radicans* 1020
 E *Zoophthora radicans* 1262
 F *Zoophthora radicans* 1021

Mitsuhashi, Jun

Emb-1 *Entomophaga aulicae* 1751

Nadeau, Martin

222 *Erynia curvispora* 3229
 241 *Erynia curvispora* 3244

Nelson, Rex

USF 50 *Basidiobolus ranarum* 5889
 USF 56 *Basidiobolus ranarum* 5890
 USF 57 *Basidiobolus ranarum* 5891
 USF 70 *Basidiobolus ranarum* 5892
 USF 71 *Basidiobolus ranarum* 5893
 USF 74 *Basidiobolus ranarum* 5894
 USF 75 *Basidiobolus ranarum* 5895
 USF 76 *Basidiobolus ranarum* 5896
 USF 77 *Basidiobolus ranarum* 5897
 USF 78 *Basidiobolus ranarum* 5898
 USF 78MCZ-1 *Basidiobolus ranarum* 5906
 USF 78MCZ-11 *Basidiobolus ranarum* 5908
 USF 78MCZ-15 *Basidiobolus ranarum* 5909
 USF 78MCZ-16 *Basidiobolus ranarum* 5910
 USF 78MCZ-18 *Basidiobolus ranarum* 5911
 USF 78MCZ-19 *Basidiobolus ranarum* 5912
 USF 78MCZ-2 *Basidiobolus ranarum* 5907
 USF 78MCZ-20 *Basidiobolus ranarum* 5913
 USF 79 *Basidiobolus ranarum* 5899
 USF 80 *Basidiobolus ranarum* 5900
 USF 84 *Basidiobolus ranarum* 5901

USF 85 *Basidiobolus ranarum* 5902
USF 85Z1 *Basidiobolus ranarum* 5915
USF 85Z11 *Basidiobolus ranarum* 5921
USF 85Z12 *Basidiobolus ranarum* 5922
USF 85Z13 *Basidiobolus ranarum* 5923
USF 85Z14 *Basidiobolus ranarum* 5924
USF 85Z15 *Basidiobolus ranarum* 5925
USF 85Z16 *Basidiobolus ranarum* 5926
USF 85Z17 *Basidiobolus ranarum* 5927
USF 85Z18 *Basidiobolus ranarum* 5928
USF 85Z19 *Basidiobolus ranarum* 5950
USF 85Z1Z1 *Basidiobolus ranarum* 5933
USF 85Z1Z10 *Basidiobolus ranarum* 5941
USF 85Z1Z11 *Basidiobolus ranarum* 5942
USF 85Z1Z12 *Basidiobolus ranarum* 5943
USF 85Z1Z13 *Basidiobolus ranarum* 5944
USF 85Z1Z14 *Basidiobolus ranarum* 5945
USF 85Z1Z15 *Basidiobolus ranarum* 5946
USF 85Z1Z16 *Basidiobolus ranarum* 5947
USF 85Z1Z17 *Basidiobolus ranarum* 5948
USF 85Z1Z19 *Basidiobolus ranarum* 5949
USF 85Z1Z2 *Basidiobolus ranarum* 5934
USF 85Z1Z20 *Basidiobolus ranarum* 5951
USF 85Z1Z3 *Basidiobolus ranarum* 5935
USF 85Z1Z4 *Basidiobolus ranarum* 5936
USF 85Z1Z5 *Basidiobolus ranarum* 5937
USF 85Z1Z7 *Basidiobolus ranarum* 5938
USF 85Z1Z8 *Basidiobolus ranarum* 5939
USF 85Z1Z9 *Basidiobolus ranarum* 5940
USF 85Z2 *Basidiobolus ranarum* 5916
USF 85Z20 *Basidiobolus ranarum* 5929
USF 85Z21 *Basidiobolus ranarum* 5930
USF 85Z22 *Basidiobolus ranarum* 5931
USF 85Z23 *Basidiobolus ranarum* 5932
USF 85Z3 *Basidiobolus ranarum* 5917
USF 85Z4 *Basidiobolus ranarum* 5918
USF 85Z5 *Basidiobolus ranarum* 5919
USF 85Z6 *Basidiobolus ranarum* 5920
USF 90 *Basidiobolus ranarum* 5903
USF SD1MCZ-1 *Basidiobolus ranarum* 5914
USF SDI *Basidiobolus ranarum* 5904
USF SDII *Basidiobolus ranarum* 5905

Nielsen, Charlotte

KVL 1996-1 *Pandora neoaphidis* 5371
KVL 1996-2 *Pandora neoaphidis* 5372
KVL 1996-3 *Pandora neoaphidis* 5373
KVL 1996-4 *Pandora neoaphidis* 5374
KVL 98-13 *Conidiobolus obscurus* 5992
KVL 98-15 *Conidiobolus osmodes*(?) 5993
KVL 98-17 *Batkoa apiculata* 5994
KVL 98-21 *Pandora neoaphidis* 5995

NRRL

1232 *Basidiobolus haptosporus* 261
2780 *Conidiobolus thromboides* 15
2780 *Conidiobolus thromboides* 115
2780 *Conidiobolus thromboides* 208
28638 *Conidiobolus coronatus* 8715
3682 *Conidiobolus bangalorensis* 449
3733 *Basidiobolus meristosporus* 8329
3734 *Basidiobolus magnus* 8330
3742 *Pandora nouryi* 14
3743 *Entomophthora muscae* 16

O'Donnell, Kerry L.

con-2 *Conidiobolus* sp. 12338

Ostrowska, Katherine

21 *Conidiobolus coronatus* 3414
22 *Conidiobolus coronatus* 3415
4 *Conidiobolus coronatus* 3379

Padhye, A. A.

CDC 76-075022 *Schizangiella serpentis* 203

Parker, Bruce L.

GA-113 *Conidiobolus* sp. 5404
GA-169 *Conidiobolus* sp. 5405
GA-169A *Conidiobolus* sp. 5406

Pell, J. K.

NW 231 *Pandora neoaphidis* 4934

Pérez Martínez, Carolina

Lyc0 1 *Conidiobolus coronatus* 9940
Lyc0 4 *Conidiobolus coronatus* 9941
Lyc0 5 *Conidiobolus coronatus* 9942

Poprawski, Tadeusz J.

0184 *Pandora neoaphidis* 1981
0186 *Pandora neoaphidis* 1983
0188 *Pandora neoaphidis* 1985
0189 *Pandora neoaphidis* 1986
0190 *Pandora neoaphidis* 1987
0191 *Pandora neoaphidis* 2085
0193 *Pandora neoaphidis* 2086
0195 *Entomophthora muscae* 2087
0196 *Entomophthora muscae* 2088
0197 *Entomophthora muscae* 2089
0198 *Entomophthora muscae* 2090
8617 *Entomophthora muscae* 2263
8619 *Entomophthora muscae* 2264
8622 *Entomophthora muscae* 2265
8624 *Entomophthora muscae* 2266
8631 *Zoophthora radicans* 2256
8633 *Zoophthora radicans* 2257
8634 *Zoophthora radicans* 2258
8635 *Zoophthora radicans* 2259
8636 *Zoophthora radicans* 2260
8637 *Zoophthora radicans* 2261
8639 *Zoophthora radicans* 2262
8640 *Entomophthora muscae* 2317
88100 *Zoophthora radicans* 2704
88102 *Zoophthora radicans* 2697
88103 *Zoophthora radicans* 2705
88107 *Zoophthora radicans* 2707
88108 *Zoophthora radicans* 2711
88111 *Zoophthora radicans* 2698
88113 *Zoophthora radicans* 2699
88116 *Zoophthora radicans* 2712

88121 *Zoophthora radicans* 2710
88129 *Zoophthora radicans* 2714
8812B *Zoophthora radicans* 3159
8812C *Zoophthora radicans* 3160
8812D *Zoophthora radicans* 2696
8812D *Zoophthora radicans* 3161
8817A *Zoophthora radicans* 3162
8817B *Zoophthora radicans* 2708
8817B *Zoophthora radicans* 3163
8818A *Zoophthora radicans* 2709
8818A *Zoophthora radicans* 3114
8819A *Zoophthora radicans* 3115
8819B *Zoophthora radicans* 3151
8820A *Zoophthora radicans* 2703
8820A *Zoophthora radicans* 3116
8823A *Zoophthora radicans* 2713
8823A *Zoophthora radicans* 3164
8824A *Zoophthora radicans* 3150
8824B *Zoophthora radicans* 2702
8824B *Zoophthora radicans* 3117
8825A *Zoophthora radicans* 2706
8825A *Zoophthora radicans* 3149
8825B *Zoophthora radicans* 3118
8826 *Zoophthora radicans* 2701
8826 *Zoophthora radicans* 3119
8830A *Zoophthora radicans* 3165
8842A *Zoophthora radicans* 3170
8843A *Zoophthora radicans* 2700
8843A *Zoophthora radicans* 3171
8843B *Zoophthora radicans* 3172
9014 *Pandora neoaphidis* 3126
9015 *Pandora neoaphidis* 3174
9016 *Pandora neoaphidis* 3175

Postie, Lori

Reisolate 1 *Entomophaga macleodii* 3077
Reisolate 2 *Entomophaga macleodii* 3078
Reisolate 3 *Entomophaga macleodii* 3079

Ramos, Mark E.

Cape *Entomophaga praxibuli* 3356
Mebi *Entomophaga praxibuli* 3358
Mesa *Entomophaga praxibuli* 3357

Remaudière, Georges

625 *Zoophthora radicans* 126

Riethmacher, Guenter W.

C1 *Conidiobolus coronatus* 2730
C2 *Conidiobolus firmipilleus* 2731
C3 *Conidiobolus* sp. 2771
C4 *Conidiobolus* sp. 2772
C4.1a *Conidiobolus* sp. 3208
C5 *Conidiobolus* sp. 2815
C6 *Conidiobolus* sp. 2816
E2 *Zoophthora radicans* 2893
E3 *Zoophthora radicans* 3204
E5 *Zoophthora radicans* 3205
E6 *Zoophthora radicans* 3206
EB2 *Zoophthora radicans* 2732
EB3 *Pandora blunckii* 3200
EB4 *Pandora blunckii* 2824
EB6 *Pandora* sp. 3201
EB7 *Pandora blunckii* 3202

Roberts, Donald W.

- 0 *Neozygites floridana*(?) 5376
020184-2A *Entomophaga* sp. 1126
1 *Neozygites floridana*(?) 5201
100881-4-3 *Pandora delphacis* 664
100981-1 *Pandora delphacis* 716
100981-3 *Pandora delphacis* 673
100981-4 *Pandora delphacis* 674
101081-1 *Pandora delphacis* 686
101081-2-3 *Pandora delphacis* 682
101081-3 *Pandora delphacis* 668
101081-4 *Pandora delphacis* 657
101081-5-3 *Pandora delphacis* 672
101081-6-2 *Pandora delphacis* 659
101081-6-2 *Pandora delphacis* 660
101081-7 *Pandora delphacis* 661
101381-1 *Pandora delphacis* 670
101481-1 *Erynia* sp. 658
102181-1 *Pandora delphacis* 666
102181-12 *Zoophthora radicans* 685
102181-2 *Pandora delphacis* 669
102181-4 *Pandora delphacis* 701
102181-4 *Pandora delphacis* 713
102181-5 *Pandora delphacis* 676
102181-5 *Pandora delphacis* 677
102181-6 *Pandora delphacis* 667
102181-9 *Pandora delphacis* 665
102381-2 *Pandora delphacis* 675
102381-3 *Pandora delphacis* 671
102381-6 *Conidiobolus coronatus* 655
110485-2 *Entomophaga* sp. 1881
2 *Neozygites floridana*(?) 5202
26102a *Conidiobolus* nr. *coronatus* 1742
26104 *Conidiobolus* nr. *coronatus* 1743
26105 *Pandora delphacis* 1731
26108 *Pandora delphacis* 1730
81380-4 *Conidiobolus coronatus* 511
82180-4a *Conidiobolus coronatus* 512
82180-4b *Conidiobolus* sp. 521
82180-4c *Conidiobolus coronatus* 524
82180-7b *Conidiobolus* sp. 522
82180-7c *Conidiobolus coronatus* 514
82380-10 *Conidiobolus* sp. 516
82380-18 *Conidiobolus coronatus* 515
82380-19 *Conidiobolus* sp. 517
82380-20 *Conidiobolus coronatus* 520
82380-22 *Conidiobolus coronatus* 523
82380-23 *Conidiobolus coronatus* 526
82880-11 *Conidiobolus coronatus* 525
82980-1 *Conidiobolus coronatus* 528
82980-4 *Conidiobolus coronatus* 519
A *Conidiobolus coronatus* 418
B *Conidiobolus coronatus* 419
C *Conidiobolus coronatus* 420
E *Conidiobolus coronatus* 421
F *Conidiobolus coronatus* 422

Roberts, Steve

- Champ90LH2To(B) *Zoophthora radicans*
3283
Champ90LH2To(E) *Zoophthora radicans*
3284

Rombach, Michiel C.

- A *Zoophthora radicans* 1699

RSA

- 1269 *Basidiobolus haptosporus* 263
1737 *Basidiobolus microsporus* 268
2088 *Basidiobolus microsporus* 269
2252 *Basidiobolus haptosporus* 264
228 *Basidiobolus haptosporus* 261
334 *Basidiobolus ranarum* 260
962 *Basidiobolus microsporus* 265
964 *Basidiobolus haptosporus* 262
977 *Basidiobolus microsporus* 266
982 *Basidiobolus microsporus* 267

Sánchez Peña, Sergio René

- 1 *Zoophthora radicans* 12800
2 *Zoophthora radicans* 12801
4-2 *Conidiobolus* sp. 2819
451 *Zoophthora radicans* 13166
533 *Pandora neoaphidis* 13165

Shimazu, Mitsuaki

- F-16 *Pandora delphacis* 1124
F-17 *Zoophthora radicans* 1125
F-25 *Conidiobolus obscurus* 995
F-25 *Conidiobolus obscurus* 1131
F-28 *Conidiobolus coronatus* 1673
F-32 *Pandora delphacis* 1132
F-327 *Entomophaga aulicae* 1657
F-33 *Pandora delphacis* 1133
F-339 *Entomophaga aulicae* 1140
F-339 *Entomophaga aulicae* 1656
F-340 *Entomophaga aulicae* 1141
F-343 *Entomophaga aulicae* 1142
F-343 *Entomophaga aulicae* 1655
F-344 *Erynia* sp. 1143
F-354 *Pandora dipterigena* 1144
F-356 *Furia neopyralidarum* 1145
F-36 *Pandora neoaphidis* 1134
F-382 *Batkoa apiculata* 1146
F-41 *Pandora blunckii* 1135
F-43 *Zoophthora radicans* 1136
F-446 *Entomophaga maimaiga* 1658
F-448(1) *Zoophthora radicans* 1674
F-448(2) *Zoophthora radicans* 1675
F-457 *Entomophaga asiatica* 1659
F-530-1 *Entomophaga aulicae* 2374
F-530-2 *Entomophaga aulicae* 2373
F-531 *Entomophaga aulicae* 2372
F-54 *Pandora neoaphidis* 1137
F-541-1 *Entomophaga maimaiga* 2371
F-541-2 *Entomophaga maimaiga* 2370
F-55 *Zoophthora radicans* 1138
F-553-1 *Entomophaga aulicae* 2365
F-553-2 *Entomophaga aulicae* 2364
F-553-3 *Entomophaga aulicae* 2363
F-554-1 *Entomophaga aulicae* 2369
F-554-2 *Entomophaga aulicae* 2368
F-554-3 *Entomophaga aulicae* 2367
F-554-4 *Entomophaga aulicae* 2362
F-555 *Entomophaga aulicae* 2366
F-56 *Pandora delphacis* 1268
F-57 *Basidiobolus ranarum* 1139
FE1 *Pandora dipterigena* 1923
FE3 *Pandora dipterigena* 1921

Sivcev, Ivan L.

- 160/85 *Conidiobolus* sp. 2130
174/85 *Pandora neoaphidis* 2108
184/85 *Pandora neoaphidis* 2109
185/85 *Pandora neoaphidis* 2110
198/85 *Pandora neoaphidis* 2123
20/86 *Erynia* sp. 2279
21/85 *Pandora neoaphidis* 2016
21/86 *Erynia* sp. 2296
217 *Pandora neoaphidis* 1695
228/85 *Pandora neoaphidis* 2111
229/85 *Pandora neoaphidis* 2112
237/85 *Pandora neoaphidis* 2113
249/85 *Pandora neoaphidis* 2124
250/85 *Pandora neoaphidis* 2125
251/85 *Pandora neoaphidis* 2126
253/85 *Pandora neoaphidis* 2127
261/85 *Pandora neoaphidis* 2128
264/85 *Pandora neoaphidis* 2129
271 *Pandora neoaphidis* 1786
271/85 *Pandora neoaphidis* 2114
278 *Pandora neoaphidis* 1785
280/85 *Pandora neoaphidis* 2115
281 *Pandora neoaphidis* 1784
282/85 *Pandora neoaphidis* 2116
284/85 *Pandora neoaphidis* 2117
291/85 *Pandora neoaphidis* 2118
294/85 *Pandora neoaphidis* 2119
297/85 *Pandora neoaphidis* 2120
301/85 *Pandora neoaphidis* 2121
304/85 *Pandora neoaphidis* 2122
42/86 *Erynia* sp. 2292
43/86 *Pandora neoaphidis* 2291
46/86 *Pandora neoaphidis* 2280
52/86 *Zoophthora phalloides* 2281
53/86 *Pandora neoaphidis* 2293
55/86 *Erynia* sp. 2294
63/85 *Pandora neoaphidis* 2019
65/85 *Pandora neoaphidis* 2020
74/85 *Pandora neoaphidis* 2017
76/85 *Pandora neoaphidis* 2018
85/85 *Pandora neoaphidis* 2021
F-19 *Pandora neoaphidis* 1825
F-30 *Pandora neoaphidis* 1827
F-34 *Pandora neoaphidis* 1826
R-1 *Pandora neoaphidis* 1696
V-11 *Pandora neoaphidis* 1824

Smith, Michael

- I01:020 *Conidiobolus* sp. 1488
K13:004 *Conidiobolus* sp. 1445
L05:001 *Conidiobolus* sp. 1444
N01:141 *Conidiobolus* sp. 1485
O08:017 *Conidiobolus* sp. 1486
Q01:119 *Conidiobolus* sp. 1487

Soper, Richard S.

- 1B *Conidiobolus coronatus* 462
2A *Conidiobolus coronatus* 464
2C *Conidiobolus coronatus* 463
2D *Conidiobolus coronatus* 465
81223-1 *Pandora delphacis* 580
81223-1 *Entomophaga australiensis* 581
81224-2 *Conidiobolus coronatus* 567
81226-1 *Conidiobolus* sp. 596
81227-2 *Conidiobolus* sp. 595
81227-3 *Pandora delphacis* 578

81227-3 *Conidiobolus* nr. *coronatus* 600
81227-4 *Conidiobolus* nr. *coronatus* 599
8132-1 *Pandora delphacis* 575
8132-1 *Pandora delphacis* 579
8133-1 *Conidiobolus coronatus* 597
8133-1 *Conidiobolus* sp. 605
8133-1 *Conidiobolus* sp. 606
8133-1/BPH-1 *Conidiobolus* sp. 564
8133-1/BPH-1 *Conidiobolus coronatus*
565
8133-1/BPH-2 *Conidiobolus coronatus*
563
8133-2 *Pandora delphacis* 593
8133-2 *Conidiobolus* nr. *coronatus* 602
8133-2 *Pandora delphacis* 603
8133-2 *Conidiobolus* sp. 604
8135 *Conidiobolus* nr. *coronatus* 598
84528-1 *Batkoa major* 1427
84626-3 *Entomophaga maimaiga* 1390
84626-7 *Entomophaga maimaiga* 1400
84626-7-1 *Entomophaga maimaiga* 1391
84626-7-1 *Entomophaga maimaiga* 1392
84627-6 *Entomophaga asiatica* 1393
8465-1 *Conidiobolus* sp. 1426
B *Pandora delphacis* 478
C *Pandora delphacis* 479
P-38 *Entomophaga australiensis* 328

SRCAMB

B-156 *Conidiobolus thromboides* 7215
B-157 *Conidiobolus* sp. 7216
G-161 *Conidiobolus obscurus* 7217
VL-1659 *Erynia* sp. 9537
VL-1704 *Conidiobolus obscurus* 9536

St-Germain, Guy

LSPQ 0467 *Conidiobolus lamprauges*
6361

Steinkraus, Donald C.

1 *Pandora neoaphidis* 3248
2 *Pandora neoaphidis* 3249
5 *Pandora neoaphidis* 3250
6 *Pandora neoaphidis* 3251

Susilo, Fransis X.

HM15 *Zoophthora* sp. 2623

TeStrake, Diane

TL-10 *Basidiobolus* sp. 2048
TL-12 *Basidiobolus* sp. 2049
TL-13 *Basidiobolus* sp. 2050
TT-5 *Basidiobolus* sp. 2051
TT-9 *Basidiobolus* sp. 2052

Toledo, Andrea V.

ZR062 *Zoophthora radicans* 8466

Tucker, Bruce E.

171 *Conidiobolus coronatus* 274

UMO

2(2) *Conidiobolus thromboides* 136

UTMB

3109 *Conidiobolus* sp. 2928

VIZR

47 *Conidiobolus obscurus* 9536

Walsh, Scott

3762T23 *Entomophaga maimaiga* 3880
Hr 56 *Entomophaga maimaiga* 3887

Welton, Mary

FPMI 992 *Entomophaga maimaiga* 3911
FPMI 992 *Entomophaga maimaiga* 3912
FPMI 992 *Entomophaga maimaiga* 3913

Welton, Mary A.

FPMI 465 *Massospora levispora* 3910

Wheeler, Mike

Yugo Mix Plate#1 *Zoophthora radicans*
3213
Yugo Mix Plate#2 *Zoophthora radicans*
3214

White, Merlin M.

NF-7-W3a *Batkoa papillata*(?) 7068

Wilding, Neil

1 *Conidiobolus thromboides* 101
1 *Entomophaga aulicae* 118
1 *Pandora dipterigena* 131
1 *Conidiobolus thromboides* 1733
10 *Batkoa apiculata* 129
106 *Entomophaga conglomerata* 1847
11 *Conidiobolus obscurus* 130
2 *Conidiobolus thromboides* 102
2 *Conidiobolus thromboides* 363
2 *Conidiobolus thromboides* 1734
27 *Zoophthora phalloides* 352
27 *Zoophthora phalloides* 1869
3 *Conidiobolus thromboides* 42
3 *Conidiobolus thromboides* 117
32 *Conidiobolus coronatus* 96
32 *Conidiobolus coronatus* 1738
4 *Conidiobolus coronatus* 1736
5 *Conidiobolus coronatus* 1737
6 *Conidiobolus obscurus* 97
8 *Conidiobolus thromboides* 99
8 *Conidiobolus thromboides* 1735
80 *Erynia sciarae* 1870
85 *Zoophthora anglica* 1739
86 *Erynia conica* 1740
9 *Conidiobolus thromboides* 100
90 *Conidiobolus obscurus* 1741

Wraight, Stephen P.

A-10 *Zoophthora radicans* 1584
A-12 *Zoophthora radicans* 1585
A-13 *Zoophthora radicans* 1586
A-16 *Zoophthora radicans* 1587
A-17 *Zoophthora radicans* 1588
A-19 *Zoophthora radicans* 1589
A-21 *Zoophthora radicans* 1590
A-22 *Zoophthora radicans* 1492
A-24 *Zoophthora radicans* 1493
A-26 *Zoophthora radicans* 1494
A-30 *Zoophthora radicans* 1591
A-31 *Zoophthora radicans* 1495
A-33 *Zoophthora radicans* 1496
A-35 *Zoophthora radicans* 1592
A-37 *Zoophthora radicans* 1497
A-40 *Zoophthora radicans* 1593
A-41 *Zoophthora radicans* 1498
A-42 *Zoophthora radicans* 1499

A-43 *Zoophthora radicans* 1594
A-44 *Zoophthora radicans* 1500
A-5 *Zoophthora radicans* 1582
A-50 *Zoophthora radicans* 1501
A-6 *Zoophthora radicans* 1581
A-7 *Zoophthora radicans* 1583
A-9 *Zoophthora radicans* 1544
A-9 *Zoophthora radicans* 1595
A1a *Zoophthora radicans* 1928
B-33 *Zoophthora radicans* 1503
B-37 *Zoophthora radicans* 1502
B-40 *Zoophthora radicans* 1504
B-48 *Zoophthora radicans* 1541
B-51 *Zoophthora radicans* 1542
B1 *Zoophthora radicans* 1929
C-1 Topo SP-2 *Zoophthora radicans* 2995
C-1 Topo SP-3 *Zoophthora radicans* 2994
C-2 Test SP-5 *Zoophthora radicans* 2996
Ef-1 *Zoophthora radicans* 899
Ef1590 *Zoophthora radicans* 3217
EF239t2 *Zoophthora radicans* 1841
ErI11T3 *Zoophthora radicans* 1543
F *Zoophthora radicans* 1934
J1 *Zoophthora radicans* 1935
K2 *Zoophthora radicans* 1932
L2 *Zoophthora radicans* 1930
M2 *Zoophthora radicans* 1931
N1 *Zoophthora radicans* 1933
Q1 *Pandora delphacis* 1936
T-7 *Zoophthora radicans* 2600
T-8 *Zoophthora radicans* 2601
W3 *Zoophthora radicans* 1937

Zhou, Xiang

ZAFU1004 *Pandora neoaphidis* 11662

Zimmermann, Gisbert

1 *Entomophthora* sp. 216
2 *Pandora blunckii* 217

2	<i>Conidiobolus thromboides</i>	87	<i>Conidiobolus thromboides</i>	173	<i>Conidiobolus obscurus</i>
4	<i>Entomophthora</i> sp.	88	<i>Zoophthora radicans</i>	174	<i>Batkoa apiculata</i>
5	<i>Conidiobolus thromboides</i>	89	<i>Conidiobolus</i> sp.	175	<i>Conidiobolus obscurus</i>
6	<i>Batkoa major</i>	90	<i>Zoophthora radicans</i>	176	<i>Conidiobolus obscurus</i>
9	<i>Pandora bullata</i>	91	<i>Zoophthora radicans</i>	181	<i>Pandora neoaphidis</i>
10	<i>Zoophthora radicans</i>	92	<i>Conidiobolus</i> sp.	182	<i>Conidiobolus obscurus</i>
11	<i>Pandora neoaphidis</i>	93	<i>Conidiobolus</i> sp.	183	<i>Zoophthora radicans</i>
12	<i>Zoophthora occidentalis</i>	94	<i>Conidiobolus</i> sp.	184	<i>Zoophthora radicans</i>
13	<i>Zoophthora radicans</i>	95	<i>Entomophaga aulicae</i>	185	<i>Zoophthora radicans</i>
14	<i>Pandora nouryi</i>	96	<i>Conidiobolus coronatus</i>	186	<i>Zoophthora radicans</i>
15	<i>Conidiobolus thromboides</i>	97	<i>Conidiobolus obscurus</i>	187	<i>Zoophthora radicans</i>
16	<i>Entomophthora muscae</i>	98	<i>Conidiobolus obscurus</i>	188	<i>Zoophthora radicans</i>
18	<i>Zoophthora radicans</i>	99	<i>Conidiobolus thromboides</i>	189	<i>Zoophthora radicans</i>
19	<i>Pandora neoaphidis</i>	100	<i>Conidiobolus thromboides</i>	190	<i>Zoophthora phalloides</i>
21	<i>Zoophthora radicans</i>	101	<i>Conidiobolus thromboides</i>	191	<i>Zoophthora phytonomi</i>
22	<i>Conidiobolus thromboides</i>	102	<i>Conidiobolus thromboides</i>	192	<i>Zoophthora phytonomi</i>
24	<i>Conidiobolus obscurus</i>	103	<i>Zoophthora radicans</i>	193	<i>Conidiobolus osmodes</i>
25	<i>Conidiobolus obscurus</i>	104	<i>Zoophthora radicans</i>	194	<i>Conidiobolus thromboides</i>
26	<i>Pandora neoaphidis</i>	105	<i>Zoophthora radicans</i>	195	<i>Zoophthora radicans</i>
27	<i>Conidiobolus osmodes</i>	106	<i>Zoophthora radicans</i>	196	<i>Batkoa pseudapiculatus</i>
28	<i>Conidiobolus obscurus</i>	107	<i>Zoophthora radicans</i>	197	<i>Zoophthora radicans</i>
29	<i>Conidiobolus thromboides</i>	108	<i>Zoophthora radicans</i>	198	<i>Entomophaga aulicae</i>
35	<i>Zoophthora radicans</i>	109	<i>Zoophthora radicans</i>	199	<i>Pandora nouryi</i>
36	<i>Erynia curvispora</i>	110	<i>Zoophthora radicans</i>	200	<i>Pandora neoaphidis</i>
39	<i>Conidiobolus thromboides</i>	111	<i>Zoophthora radicans</i>	202	<i>Zoophthora phytonomi</i>
40	<i>Conidiobolus thromboides</i>	112	<i>Zoophthora radicans</i>	203	<i>Schizangiella serpentis</i>
41	<i>Conidiobolus thromboides</i>	113	<i>Zoophthora phytonomi</i>	205	<i>Conidiobolus coronatus</i>
42	<i>Conidiobolus thromboides</i>	114	<i>Zoophthora radicans</i>	206	<i>Conidiobolus coronatus</i>
43	<i>Zoophthora radicans</i>	115	<i>Conidiobolus thromboides</i>	207	<i>Zoophthora occidentalis</i>
44	<i>Zoophthora radicans</i>	116	<i>Pandora bullata</i>	208	<i>Conidiobolus thromboides</i>
45	<i>Zoophthora radicans</i>	117	<i>Conidiobolus thromboides</i>	211	<i>Conidiobolus</i> sp.
46	<i>Zoophthora radicans</i>	118	<i>Entomophaga aulicae</i>	212	<i>Eryniopsis caroliniana</i>
47	<i>Zoophthora radicans</i>	119	<i>Conidiobolus obscurus</i>	213	<i>Eryniopsis caroliniana</i>
48	<i>Zoophthora radicans</i>	120	<i>Conidiobolus thromboides</i>	214	<i>Batkoa gigantea</i>
49	<i>Zoophthora radicans</i>	121	<i>Conidiobolus obscurus</i>	215	<i>Batkoa gigantea</i>
50	<i>Zoophthora radicans</i>	122	<i>Conidiobolus obscurus</i>	216	<i>Entomophthora</i> sp.
51	<i>Entomophaga aulicae</i>	123	<i>Conidiobolus obscurus</i>	217	<i>Pandora blunckii</i>
52	<i>Zoophthora radicans</i>	124	<i>Conidiobolus obscurus</i>	219	<i>Erynia rhizospora</i>
53	<i>Entomophaga aulicae</i>	125	<i>Conidiobolus obscurus</i>	221	<i>Zoophthora radicans</i>
54	<i>Neozygites turbinata</i>	126	<i>Zoophthora radicans</i>	222	<i>Zoophthora radicans</i>
56	<i>Conidiobolus coronatus</i>	127	<i>Zoophthora radicans</i>	223	<i>Zoophthora radicans</i>
57	<i>Conidiobolus thromboides</i>	128	<i>Pandora neoaphidis</i>	224	<i>Zoophthora radicans</i>
58	<i>Conidiobolus thromboides</i>	129	<i>Batkoa apiculata</i>	225	<i>Zoophthora radicans</i>
59	<i>Conidiobolus thromboides</i>	130	<i>Conidiobolus obscurus</i>	226	<i>Zoophthora radicans</i>
60	<i>Pandora neoaphidis</i>	131	<i>Pandora dipterigena</i>	227	<i>Zoophthora radicans</i>
61	<i>Conidiobolus coronatus</i>	132	<i>Batkoa apiculata</i>	228	<i>Zoophthora radicans</i>
62	<i>Zoophthora radicans</i>	133	<i>Conidiobolus obscurus</i>	229	<i>Zoophthora radicans</i>
63	<i>Conidiobolus thromboides</i>	134	<i>Pandora delphacis</i>	230	<i>Zoophthora radicans</i>
64	<i>Conidiobolus thromboides</i>	136	<i>Conidiobolus thromboides</i>	231	<i>Zoophthora radicans</i>
65	<i>Pandora neoaphidis</i>	139	<i>Zoophthora radicans</i>	232	<i>Zoophthora radicans</i>
66	<i>Conidiobolus coronatus</i>	141	<i>Zoophthora radicans</i>	233	<i>Zoophthora radicans</i>
67	<i>Batkoa apiculata</i>	142	<i>Zoophthora radicans</i>	234	<i>Zoophthora radicans</i>
68	<i>Zoophthora radicans</i>	143	<i>Zoophthora radicans</i>	235	<i>Zoophthora radicans</i>
69	<i>Conidiobolus obscurus</i>	144	<i>Zoophthora radicans</i>	236	<i>Conidiobolus obscurus</i>
70	<i>Conidiobolus thromboides</i>	145	<i>Zoophthora radicans</i>	237	<i>Zoophthora radicans</i>
72	<i>Zoophthora radicans</i>	146	<i>Zoophthora radicans</i>	238	<i>Zoophthora radicans</i>
73	<i>Conidiobolus thromboides</i>	147	<i>Conidiobolus</i> sp.	239	<i>Zoophthora radicans</i>
74	<i>Conidiobolus obscurus</i>	148	<i>Conidiobolus</i> sp.	242	<i>Conidiobolus thromboides</i>
75	<i>Zoophthora radicans</i>	161	<i>Zoophthora radicans</i>	243	<i>Conidiobolus obscurus</i>
76	<i>Zoophthora radicans</i>	162	<i>Zoophthora radicans</i>	244	<i>Conidiobolus thromboides</i>
77	<i>Pandora neoaphidis</i>	163	<i>Zoophthora radicans</i>	245	<i>Conidiobolus thromboides</i>
78	<i>Pandora neoaphidis</i>	164	<i>Entomophaga aulicae</i>	246	<i>Conidiobolus thromboides</i>
79	<i>Conidiobolus osmodes</i>	165	<i>Entomophaga aulicae</i>	247	<i>Conidiobolus thromboides</i>
80	<i>Conidiobolus</i> sp.	166	<i>Entomophaga aulicae</i>	248	<i>Conidiobolus thromboides</i>
81	<i>Conidiobolus</i> sp.	167	<i>Entomophaga aulicae</i>	249	<i>Conidiobolus thromboides</i>
82	<i>Zoophthora phytonomi</i>	168	<i>Entomophaga aulicae</i>	250	<i>Conidiobolus thromboides</i>
83	<i>Conidiobolus thromboides</i>	169	<i>Entomophaga aulicae</i>	251	<i>Entomophaga aulicae</i>
84	<i>Conidiobolus thromboides</i>	170	<i>Entomophaga aulicae</i>	260	<i>Basidiobolus ranarum</i>
85	<i>Conidiobolus thromboides</i>	171	<i>Entomophaga aulicae</i>	261	<i>Basidiobolus haptosporus</i>
86	<i>Conidiobolus thromboides</i>	172	<i>Entomophaga aulicae</i>	262	<i>Basidiobolus haptosporus</i>

263	<i>Basidiobolus haptosporus</i>	434	<i>Conidiobolus obscurus</i>	597	<i>Conidiobolus coronatus</i>
264	<i>Basidiobolus haptosporus</i>	447	<i>Conidiobolus osmodes</i>	598	<i>Conidiobolus nr. coronatus</i>
265	<i>Basidiobolus microsporus</i>	448	<i>Conidiobolus rhyosporus</i>	599	<i>Conidiobolus nr. coronatus</i>
266	<i>Basidiobolus microsporus</i>	449	<i>Conidiobolus bangalorensis</i>	600	<i>Conidiobolus nr. coronatus</i>
267	<i>Basidiobolus microsporus</i>	450	<i>Conidiobolus paulus</i>	602	<i>Conidiobolus nr. coronatus</i>
268	<i>Basidiobolus microsporus</i>	451	<i>Conidiobolus adiaeretus</i>	603	<i>Pandora delphacis</i>
269	<i>Basidiobolus microsporus</i>	452	<i>Conidiobolus brefeldianus</i>	604	<i>Conidiobolus sp.</i>
270	<i>Basidiobolus sp.</i>	453	<i>Conidiobolus pumilus</i>	605	<i>Conidiobolus sp.</i>
271	<i>Basidiobolus sp.</i>	454	<i>Entomophthora muscae</i>	606	<i>Conidiobolus sp.</i>
272	<i>Basidiobolus haptosporus</i>	458	<i>Pandora delphacis</i>	607	<i>Entomophaga australiensis</i>
273	<i>Basidiobolus sp.</i>	459	<i>Pandora delphacis</i>	608	<i>Pandora neoaphidis</i>
274	<i>Conidiobolus coronatus</i>	460	<i>Pandora delphacis</i>	609	<i>Pandora neoaphidis</i>
328	<i>Entomophaga australiensis</i>	461	<i>Pandora delphacis</i>	610	<i>Pandora neoaphidis</i>
329	<i>Conidiobolus coronatus</i>	462	<i>Conidiobolus coronatus</i>	611	<i>Pandora neoaphidis</i>
330	<i>Conidiobolus coronatus</i>	463	<i>Conidiobolus coronatus</i>	612	<i>Pandora neoaphidis</i>
331	<i>Entomophaga australiensis</i>	464	<i>Conidiobolus coronatus</i>	613	<i>Pandora neoaphidis</i>
332	<i>Entomophaga australiensis</i>	465	<i>Conidiobolus coronatus</i>	614	<i>Pandora neoaphidis</i>
349	<i>Conidiobolus coronatus</i>	466	<i>Entomophthora muscae</i>	615	<i>Entomophaga grylli</i>
351	<i>Zoopphthora phalloides</i>	467	<i>Zoopphthora aphidis</i>	618	<i>Entomophaga macleodii</i>
352	<i>Zoopphthora phalloides</i>	468	<i>Zoopphthora lanceolata</i>	619	<i>Entomophaga macleodii</i>
354	<i>Conidiobolus obscurus</i>	469	<i>Zoopphthora lanceolata</i>	620	<i>Entomophaga macleodii</i>
355	<i>Conidiobolus obscurus</i>	470	<i>Furia virescens</i>	621	<i>Entomophaga macleodii</i>
359	<i>Zoopphthora radicans</i>	471	<i>Conidiobolus coronatus</i>	622	<i>Entomophaga grylli</i>
362	<i>Pandora nouryi</i>	478	<i>Pandora delphacis</i>	623	<i>Entomophaga calopteni</i>
363	<i>Conidiobolus thromboides</i>	479	<i>Pandora delphacis</i>	624	<i>Entomophaga macleodii</i>
364	<i>Erynia aquatica</i>	491	<i>Zoopphthora radicans</i>	625	<i>Entomophaga calopteni</i>
365	<i>Entomophaga australiensis</i>	492	<i>Erynia rhizospora</i>	626	<i>Entomophaga calopteni</i>
366	<i>Pandora nouryi</i>	493	<i>Erynia rhizospora</i>	627	<i>Entomophaga tabanivora</i>
369	<i>Pandora kondoiensis</i>	494	<i>Zoopphthora radicans</i>	628	<i>Entomophaga macleodii</i>
370	<i>Zoopphthora radicans</i>	495	<i>Zoopphthora radicans</i>	629	<i>Entomophaga macleodii</i>
374	<i>Massospora cicadina</i>	496	<i>Entomophaga macleodii</i>	630	<i>Conidiobolus thromboides</i>
375	<i>Entomophaga macleodii</i>	497	<i>Entomophaga calopteni</i>	631	<i>Conidiobolus thromboides</i>
376	<i>Entomophaga macleodii</i>	498	<i>Entomophaga calopteni</i>	632	<i>Conidiobolus thromboides</i>
379	<i>Zoopphthora radicans</i>	499	<i>Entomophaga macleodii</i>	633	<i>Conidiobolus thromboides</i>
381	<i>Pandora neoaphidis</i>	500	<i>Entomophaga calopteni</i>	634	<i>Conidiobolus thromboides</i>
382	<i>Entomophaga macleodii</i>	511	<i>Conidiobolus coronatus</i>	635	<i>Conidiobolus thromboides</i>
383	<i>Entomophaga calopteni</i>	512	<i>Conidiobolus coronatus</i>	636	<i>Pandora neoaphidis</i>
387	<i>Entomophthora culicis</i>	514	<i>Conidiobolus coronatus</i>	637	<i>Pandora neoaphidis</i>
388	<i>Zoopphthora radicans</i>	515	<i>Conidiobolus coronatus</i>	638	<i>Pandora neoaphidis</i>
389	<i>Zoopphthora radicans</i>	516	<i>Conidiobolus sp.</i>	639	<i>Pandora neoaphidis</i>
390	<i>Entomophaga calopteni</i>	517	<i>Conidiobolus sp.</i>	640	<i>Eryniopsis caroliniana</i>
391	<i>Conidiobolus sp.</i>	519	<i>Conidiobolus coronatus</i>	641	<i>Eryniopsis caroliniana</i>
392	<i>Entomophthora muscae</i>	520	<i>Conidiobolus coronatus</i>	642	<i>Eryniopsis caroliniana</i>
393	<i>Entomophaga sp.</i>	521	<i>Conidiobolus sp.</i>	643	<i>Zoopphthora aphidis</i>
394	<i>Furia virescens</i>	522	<i>Conidiobolus sp.</i>	646	<i>Entomophaga calopteni</i>
395	<i>Batkoa apiculata</i>	523	<i>Conidiobolus coronatus</i>	647	<i>Zoopphthora radicans</i>
396	<i>Zoopphthora anglica</i>	524	<i>Conidiobolus coronatus</i>	649	<i>Conidiobolus thromboides</i>
397	<i>Pandora dipterigena</i>	525	<i>Conidiobolus coronatus</i>	650	<i>Macrobotophthora vermicola</i>
398	<i>Erynia ovispora</i>	526	<i>Conidiobolus coronatus</i>	651	<i>Entomophthora muscae</i>
399	<i>Erynia ovispora</i>	528	<i>Conidiobolus coronatus</i>	655	<i>Conidiobolus coronatus</i>
400	<i>Erynia ovispora</i>	544	<i>Zoopphthora phytonomi</i>	657	<i>Pandora delphacis</i>
401	<i>Erynia conica</i>	545	<i>Zoopphthora phytonomi</i>	658	<i>Erynia sp.</i>
402	<i>Erynia curvispora</i>	546	<i>Zoopphthora phytonomi</i>	659	<i>Pandora delphacis</i>
403	<i>Batkoa gigantea</i>	548	<i>Zoopphthora radicans</i>	660	<i>Pandora delphacis</i>
404	<i>Zoopphthora radicans</i>	553	<i>Conidiobolus coronatus</i>	661	<i>Pandora delphacis</i>
405	<i>Conidiobolus coronatus</i>	556	<i>Entomophthora muscae</i>	662	<i>Neozygites floridana(?)</i>
406	<i>Conidiobolus coronatus</i>	557	<i>Entomophthora muscae</i>	663	<i>Furia ithacensis</i>
407	<i>Zoopphthora radicans</i>	563	<i>Conidiobolus coronatus</i>	664	<i>Pandora delphacis</i>
408	<i>Entomophaga calopteni</i>	564	<i>Conidiobolus sp.</i>	665	<i>Pandora delphacis</i>
418	<i>Conidiobolus coronatus</i>	565	<i>Conidiobolus coronatus</i>	666	<i>Pandora delphacis</i>
419	<i>Conidiobolus coronatus</i>	567	<i>Conidiobolus coronatus</i>	667	<i>Pandora delphacis</i>
420	<i>Conidiobolus coronatus</i>	571	<i>Zoopphthora radicans</i>	668	<i>Pandora delphacis</i>
421	<i>Conidiobolus coronatus</i>	575	<i>Pandora delphacis</i>	669	<i>Pandora delphacis</i>
422	<i>Conidiobolus coronatus</i>	578	<i>Pandora delphacis</i>	670	<i>Pandora delphacis</i>
423	<i>Entomophaga tenthredinis</i>	579	<i>Pandora delphacis</i>	671	<i>Pandora delphacis</i>
424	<i>Eryniopsis caroliniana</i>	580	<i>Pandora delphacis</i>	672	<i>Pandora delphacis</i>
425	<i>Zoopphthora aphidis</i>	581	<i>Entomophaga australiensis</i>	673	<i>Pandora delphacis</i>
426	<i>Zoopphthora lanceolata</i>	593	<i>Pandora delphacis</i>	674	<i>Pandora delphacis</i>
427	<i>Furia virescens</i>	595	<i>Conidiobolus sp.</i>	675	<i>Pandora delphacis</i>
428	<i>Furia virescens</i>	596	<i>Conidiobolus sp.</i>	676	<i>Pandora delphacis</i>

677	<i>Pandora delphacis</i>	926	<i>Zoophthora anglica</i>	1267	<i>Erynia</i> sp.
682	<i>Pandora delphacis</i>	927	<i>Batkoa apiculata</i>	1268	<i>Pandora delphacis</i>
685	<i>Zoophthora radicans</i>	969	<i>Entomophthora muscae</i>	1336	<i>Zoophthora radicans</i>
686	<i>Pandora delphacis</i>	983	<i>Erynia</i> sp.	1337	<i>Zoophthora radicans</i>
698	<i>Pandora delphacis</i>	993	<i>Pandora neoaphidis</i>	1338	<i>Erynia</i> sp.
701	<i>Pandora delphacis</i>	995	<i>Conidiobolus obscurus</i>	1339	<i>Furia ithacensis</i>
707	<i>Entomophthora muscae</i>	997	<i>Conidiobolus coronatus</i>	1340	<i>Furia ithacensis</i>
713	<i>Pandora delphacis</i>	998	<i>Entomophaga aulicae</i>	1341	<i>Zoophthora radicans</i>
716	<i>Pandora delphacis</i>	999	<i>Conidiobolus</i> sp.	1342	<i>Zoophthora radicans</i>
742	<i>Furia americana</i>	1000	<i>Pandora blunckii</i>	1343	<i>Zoophthora radicans</i>
743	<i>Entomophaga australiensis</i>	1004	<i>Pandora blunckii</i>	1344	<i>Zoophthora radicans</i>
745	<i>Entomophaga grylli</i>	1006	<i>Conidiobolus thromboides</i>	1345	<i>Zoophthora radicans</i>
747	<i>Entomophaga grylli</i>	1012	<i>Conidiobolus thromboides</i>	1346	<i>Zoophthora radicans</i>
750	<i>Erynia aquatica</i>	1018	<i>Zoophthora radicans</i>	1347	<i>Basidiobolus haptosporus</i>
764	<i>Erynia aquatica</i>	1019	<i>Zoophthora radicans</i>	1350	<i>Zoophthora radicans</i>
765	<i>Entomophaga macleodii</i>	1020	<i>Zoophthora radicans</i>	1368	<i>Zoophthora radicans</i>
766	<i>Entomophaga calopteni</i>	1021	<i>Zoophthora radicans</i>	1370	<i>Zoophthora radicans</i>
767	<i>Entomophaga macleodii</i>	1048	<i>Zoophthora radicans</i>	1390	<i>Entomophaga maimaiga</i>
768	<i>Entomophaga macleodii</i>	1049	<i>Entomophaga aulicae</i>	1391	<i>Entomophaga maimaiga</i>
769	<i>Entomophaga macleodii</i>	1050	<i>Zoophthora radicans</i>	1392	<i>Entomophaga maimaiga</i>
770	<i>Entomophaga macleodii</i>	1052	<i>Erynia</i> sp.	1393	<i>Entomophaga asiatica</i>
771	<i>Entomophaga macleodii</i>	1082	<i>Zoophthora radicans</i>	1400	<i>Entomophaga maimaiga</i>
772	<i>Entomophaga macleodii</i>	1100	<i>Zoophthora radicans</i>	1422	<i>Pandora dipterigena</i>
773	<i>Entomophaga macleodii</i>	1101	<i>Pandora delphacis</i>	1426	<i>Conidiobolus</i> sp.
774	<i>Entomophaga macleodii</i>	1124	<i>Pandora delphacis</i>	1427	<i>Batkoa major</i>
775	<i>Entomophaga macleodii</i>	1125	<i>Zoophthora radicans</i>	1428	<i>Zoophthora radicans</i>
776	<i>Entomophaga macleodii</i>	1126	<i>Entomophaga</i> sp.	1439	<i>Erynia conica</i>
777	<i>Entomophaga macleodii</i>	1127	<i>Furia virescens</i>	1440	<i>Erynia rhizospora</i>
778	<i>Entomophaga macleodii</i>	1128	<i>Furia virescens</i>	1441	<i>Erynia rhizospora</i>
779	<i>Entomophaga macleodii</i>	1129	<i>Furia virescens</i>	1442	<i>Erynia rhizospora</i>
780	<i>Entomophthora culicis</i>	1130	<i>Zoophthora radicans</i>	1443	<i>Erynia rhizospora</i>
781	<i>Furia pieris</i>	1131	<i>Conidiobolus obscurus</i>	1444	<i>Conidiobolus</i> sp.
789	<i>Zoophthora radicans</i>	1132	<i>Pandora delphacis</i>	1445	<i>Conidiobolus</i> sp.
790	<i>Zoophthora radicans</i>	1133	<i>Pandora delphacis</i>	1477	<i>Conidiobolus</i> sp.
791	<i>Entomophaga australiensis</i>	1134	<i>Pandora neoaphidis</i>	1485	<i>Conidiobolus</i> sp.
800	<i>Zoophthora radicans</i>	1135	<i>Pandora blunckii</i>	1486	<i>Conidiobolus</i> sp.
801	<i>Erynia rhizospora</i>	1136	<i>Zoophthora radicans</i>	1487	<i>Conidiobolus</i> sp.
802	<i>Erynia curvispora</i>	1137	<i>Pandora neoaphidis</i>	1488	<i>Conidiobolus</i> sp.
803	<i>Entomophthora muscae</i>	1138	<i>Zoophthora radicans</i>	1492	<i>Zoophthora radicans</i>
822	<i>Zoophthora radicans</i>	1139	<i>Basidiobolus ranarum</i>	1493	<i>Zoophthora radicans</i>
823	<i>Zoophthora radicans</i>	1140	<i>Entomophaga aulicae</i>	1494	<i>Zoophthora radicans</i>
824	<i>Conidiobolus obscurus</i>	1141	<i>Entomophaga aulicae</i>	1495	<i>Zoophthora radicans</i>
825	<i>Pandora kondoiensis</i>	1142	<i>Entomophaga aulicae</i>	1496	<i>Zoophthora radicans</i>
826	<i>Entomophthora muscae</i>	1143	<i>Erynia</i> sp.	1497	<i>Zoophthora radicans</i>
827	<i>Pandora neoaphidis</i>	1144	<i>Pandora dipterigena</i>	1498	<i>Zoophthora radicans</i>
828	<i>Pandora kondoiensis</i>	1145	<i>Furia neopyralidarum</i>	1499	<i>Zoophthora radicans</i>
829	<i>Pandora neoaphidis</i>	1146	<i>Batkoa apiculata</i>	1500	<i>Zoophthora radicans</i>
830	<i>Pandora neoaphidis</i>	1147	<i>Conidiobolus coronatus</i>	1501	<i>Zoophthora radicans</i>
831	<i>Pandora neoaphidis</i>	1227	<i>Zoophthora radicans</i>	1502	<i>Zoophthora radicans</i>
832	<i>Conidiobolus obscurus</i>	1228	<i>Zoophthora radicans</i>	1503	<i>Zoophthora radicans</i>
833	<i>Pandora neoaphidis</i>	1229	<i>Zoophthora radicans</i>	1504	<i>Zoophthora radicans</i>
834	<i>Conidiobolus obscurus</i>	1230	<i>Entomophaga</i> sp.	1541	<i>Zoophthora radicans</i>
835	<i>Pandora neoaphidis</i>	1231	<i>Zoophthora radicans</i>	1542	<i>Zoophthora radicans</i>
836	<i>Pandora kondoiensis</i>	1232	<i>Zoophthora radicans</i>	1543	<i>Zoophthora radicans</i>
837	<i>Pandora kondoiensis</i>	1233	<i>Zoophthora radicans</i>	1544	<i>Zoophthora radicans</i>
838	<i>Pandora neoaphidis</i>	1234	<i>Zoophthora radicans</i>	1570	<i>Pandora neoaphidis</i>
839	<i>Batkoa apiculata</i>	1235	<i>Zoophthora radicans</i>	1571	<i>Pandora neoaphidis</i>
840	<i>Entomophaga praxibuli</i>	1236	<i>Zoophthora radicans</i>	1572	<i>Conidiobolus coronatus</i>
876	<i>Erynia</i> sp.	1237	<i>Zoophthora radicans</i>	1573	<i>Conidiobolus coronatus</i>
880	<i>Erynia</i> sp.	1238	<i>Pandora delphacis</i>	1574	<i>Conidiobolus coronatus</i>
884	<i>Erynia</i> sp.	1239	<i>Zoophthora radicans</i>	1575	<i>Conidiobolus coronatus</i>
885	<i>Erynia aquatica</i>	1240	<i>Furia americana</i>	1581	<i>Zoophthora radicans</i>
899	<i>Zoophthora radicans</i>	1241	<i>Erynia</i> sp.	1582	<i>Zoophthora radicans</i>
914	<i>Zoophthora radicans</i>	1242	<i>Furia americana</i>	1583	<i>Zoophthora radicans</i>
915	<i>Pandora blunckii</i>	1261	<i>Zoophthora radicans</i>	1584	<i>Zoophthora radicans</i>
916	<i>Zoophthora anglica</i>	1262	<i>Zoophthora radicans</i>	1585	<i>Zoophthora radicans</i>
917	<i>Pandora blunckii</i>	1263	<i>Zoophthora radicans</i>	1586	<i>Zoophthora radicans</i>
918	<i>Zoophthora anglica</i>	1264	<i>Pandora delphacis</i>	1587	<i>Zoophthora radicans</i>
919	<i>Batkoa apiculata</i>	1265	<i>Pandora delphacis</i>	1588	<i>Zoophthora radicans</i>
920	<i>Pandora blunckii</i>	1266	<i>Erynia</i> sp.	1589	<i>Zoophthora radicans</i>

1590	Zoophthora radicans	1753	Erynia conica	2051	Basidiobolus sp.
1591	Zoophthora radicans	1754	Erynia curvispora	2052	Basidiobolus sp.
1592	Zoophthora radicans	1755	Erynia conica	2083	Entomophaga sp.
1593	Zoophthora radicans	1784	Pandora neoaphidis	2084	Entomophaga praxibuli
1594	Zoophthora radicans	1785	Pandora neoaphidis	2085	Pandora neoaphidis
1595	Zoophthora radicans	1786	Pandora neoaphidis	2086	Pandora neoaphidis
1596	Pandora neoaphidis	1824	Pandora neoaphidis	2087	Entomophthora muscae
1597	Pandora neoaphidis	1825	Pandora neoaphidis	2088	Entomophthora muscae
1598	Pandora neoaphidis	1826	Pandora neoaphidis	2089	Entomophthora muscae
1599	Pandora neoaphidis	1827	Pandora neoaphidis	2090	Entomophthora muscae
1600	Pandora neoaphidis	1841	Zoophthora radicans	2091	Pandora delphacis
1601	Pandora neoaphidis	1847	Entomophaga conglomerata	2092	Pandora delphacis
1602	Pandora neoaphidis	1860	Entomophthora chromaphidis	2093	Pandora delphacis
1603	Pandora neoaphidis	1861	Entomophthora chromaphidis	2094	Pandora delphacis
1604	Pandora neoaphidis	1862	Entomophthora chromaphidis	2095	Pandora delphacis
1605	Pandora neoaphidis	1863	Entomophthora chromaphidis	2096	Pandora delphacis
1606	Pandora neoaphidis	1869	Zoophthora phalloides	2097	Erynia sp.
1607	Pandora neoaphidis	1870	Erynia sciarae	2108	Pandora neoaphidis
1608	Pandora neoaphidis	1876	Conidiobolus coronatus	2109	Pandora neoaphidis
1609	Pandora neoaphidis	1881	Entomophaga sp.	2110	Pandora neoaphidis
1610	Pandora neoaphidis	1884	Conidiobolus coronatus	2111	Pandora neoaphidis
1611	Pandora neoaphidis	1887	Pandora dipterigena	2112	Pandora neoaphidis
1612	Pandora neoaphidis	1888	Entomophaga australiensis	2113	Pandora neoaphidis
1613	Pandora neoaphidis	1920	Entomophaga australiensis	2114	Pandora neoaphidis
1614	Pandora neoaphidis	1921	Pandora dipterigena	2115	Pandora neoaphidis
1615	Pandora neoaphidis	1923	Pandora dipterigena	2116	Pandora neoaphidis
1616	Pandora neoaphidis	1927	Entomophthora chromaphidis	2117	Pandora neoaphidis
1617	Pandora neoaphidis	1928	Zoophthora radicans	2118	Pandora neoaphidis
1618	Pandora neoaphidis	1929	Zoophthora radicans	2119	Pandora neoaphidis
1655	Entomophaga aulicae	1930	Zoophthora radicans	2120	Pandora neoaphidis
1656	Entomophaga aulicae	1931	Zoophthora radicans	2121	Pandora neoaphidis
1657	Entomophaga aulicae	1932	Zoophthora radicans	2122	Pandora neoaphidis
1658	Entomophaga maimaiga	1933	Zoophthora radicans	2123	Pandora neoaphidis
1659	Entomophaga asiatica	1934	Zoophthora radicans	2124	Pandora neoaphidis
1660	Batkoa apiculata	1935	Zoophthora radicans	2125	Pandora neoaphidis
1661	Batkoa apiculata	1936	Pandora delphacis	2126	Pandora neoaphidis
1662	Batkoa pseudapiculatus	1937	Zoophthora radicans	2127	Pandora neoaphidis
1663	Batkoa pseudapiculatus	1938	Zoophthora radicans	2128	Pandora neoaphidis
1664	Batkoa pseudapiculatus	1967	Conidiobolus sp.	2129	Pandora neoaphidis
1665	Batkoa pseudapiculatus	1981	Pandora neoaphidis	2130	Conidiobolus sp.
1666	Erynia sp.	1983	Pandora neoaphidis	2147	Conidiobolus sp.
1672	Conidiobolus sp.	1985	Pandora neoaphidis	2148	Conidiobolus sp.
1673	Conidiobolus coronatus	1986	Pandora neoaphidis	2168	Entomophaga calopteni
1674	Zoophthora radicans	1987	Pandora neoaphidis	2172	Entomophthora muscae
1675	Zoophthora radicans	1990	Entomophaga aulicae	2188	Zoophthora phytonomi
1695	Pandora neoaphidis	1991	Entomophaga aulicae	2189	Entomophaga sp.
1696	Pandora neoaphidis	1992	Entomophaga aulicae	2192	Furia americana
1699	Zoophthora radicans	1993	Entomophaga aulicae	2193	Conidiobolus sp.
1715	Pandora blunckii	1994	Entomophaga aulicae	2194	Furia americana
1716	Pandora blunckii	1995	Entomophaga aulicae	2196	Zoophthora radicans
1717	Pandora blunckii	1996	Entomophaga aulicae	2237	Schizangiella sp.
1718	Pandora blunckii	1997	Entomophaga aulicae	2238	Schizangiella sp.
1719	Zoophthora radicans	1998	Entomophaga aulicae	2239	Schizangiella sp.
1720	Pandora dipterigena	1999	Entomophaga aulicae	2240	Zoophthora radicans
1730	Pandora delphacis	2000	Entomophaga aulicae	2241	Zoophthora radicans
1731	Pandora delphacis	2001	Massospora levispora	2242	Zoophthora radicans
1733	Conidiobolus thromboides	2014	Entomophthora muscae	2243	Zoophthora radicans
1734	Conidiobolus thromboides	2016	Pandora neoaphidis	2244	Zoophthora radicans
1735	Conidiobolus thromboides	2017	Pandora neoaphidis	2245	Zoophthora radicans
1736	Conidiobolus coronatus	2018	Pandora neoaphidis	2246	Zoophthora radicans
1737	Conidiobolus coronatus	2019	Pandora neoaphidis	2256	Zoophthora radicans
1738	Conidiobolus coronatus	2020	Pandora neoaphidis	2257	Zoophthora radicans
1739	Zoophthora anglica	2021	Pandora neoaphidis	2258	Zoophthora radicans
1740	Erynia conica	2027	Erynia sp.	2259	Zoophthora radicans
1741	Conidiobolus obscurus	2028	Pandora delphacis	2260	Zoophthora radicans
1742	Conidiobolus nr. coronatus	2046	Pandora delphacis	2261	Zoophthora radicans
1743	Conidiobolus nr. coronatus	2047	Pandora delphacis	2262	Zoophthora radicans
1746	Entomophaga maimaiga	2048	Basidiobolus sp.	2263	Entomophthora muscae
1751	Entomophaga aulicae	2049	Basidiobolus sp.	2264	Entomophthora muscae
1752	Erynia conica	2050	Basidiobolus sp.	2265	Entomophthora muscae

ARSEF Number

2266	<i>Entomophthora muscae</i>	2523	<i>Zoopththora radicans</i>	2714	<i>Zoopththora radicans</i>
2272	<i>Entomophaga conglomerata</i>	2524	<i>Zoopththora radicans</i>	2715	<i>Conidiobolus coronatus</i>
2273	<i>Entomophaga conglomerata</i>	2525	<i>Erynia</i> sp.	2716	<i>Zoopththora radicans</i>
2274	<i>Erynia conica</i>	2535	<i>Eryniopsis ptychopterae</i>	2717	<i>Zoopththora radicans</i>
2275	<i>Erynia conica</i>	2536	<i>Erynia</i> sp.	2718	<i>Zoopththora radicans</i>
2276	<i>Erynia rhizospora</i>	2537	<i>Erynia</i> sp.	2719	<i>Zoopththora radicans</i>
2277	<i>Erynia conica</i>	2538	<i>Erynia</i> sp.	2720	<i>Zoopththora radicans</i>
2278	<i>Erynia conica</i>	2539	<i>Erynia</i> sp.	2721	<i>Entomophaga praxibuli</i>
2279	<i>Erynia</i> sp.	2540	<i>Entomophthora schizophorae</i>	2730	<i>Conidiobolus coronatus</i>
2280	<i>Pandora neoaphidis</i>	2541	<i>Entomophthora schizophorae</i>	2731	<i>Conidiobolus firmipilleus</i>
2281	<i>Zoopththora phalloides</i>	2542	<i>Entomophthora muscae</i>	2732	<i>Zoopththora radicans</i>
2282	<i>Zoopththora radicans</i>	2543	<i>Entomophthora muscae</i>	2754	<i>Pandora neoaphidis</i>
2283	<i>Zoopththora radicans</i>	2549	<i>Zoopththora radicans</i>	2755	<i>Pandora neoaphidis</i>
2284	<i>Zoopththora radicans</i>	2550	<i>Zoopththora radicans</i>	2756	<i>Pandora neoaphidis</i>
2285	<i>Zoopththora radicans</i>	2551	<i>Zoopththora radicans</i>	2757	<i>Pandora neoaphidis</i>
2286	<i>Zoopththora radicans</i>	2552	<i>Zoopththora radicans</i>	2758	<i>Pandora neoaphidis</i>
2287	<i>Zoopththora radicans</i>	2553	<i>Erynia</i> sp.	2759	<i>Pandora neoaphidis</i>
2288	<i>Zoopththora radicans</i>	2554	<i>Zoopththora radicans</i>	2760	<i>Pandora neoaphidis</i>
2289	<i>Zoopththora radicans</i>	2558	<i>Zoopththora radicans</i>	2761	<i>Pandora neoaphidis</i>
2290	<i>Zoopththora radicans</i>	2582	<i>Pandora neoaphidis</i>	2762	<i>Pandora neoaphidis</i>
2291	<i>Pandora neoaphidis</i>	2583	<i>Pandora neoaphidis</i>	2763	<i>Pandora neoaphidis</i>
2292	<i>Erynia</i> sp.	2584	<i>Pandora neoaphidis</i>	2766	<i>Pandora neoaphidis</i>
2293	<i>Pandora neoaphidis</i>	2585	<i>Pandora neoaphidis</i>	2767	<i>Pandora neoaphidis</i>
2294	<i>Erynia</i> sp.	2586	<i>Pandora neoaphidis</i>	2768	<i>Pandora neoaphidis</i>
2295	<i>Zoopththora radicans</i>	2587	<i>Pandora neoaphidis</i>	2769	<i>Pandora neoaphidis</i>
2296	<i>Erynia</i> sp.	2588	<i>Pandora neoaphidis</i>	2770	<i>Pandora neoaphidis</i>
2298	<i>Pandora neoaphidis</i>	2589	<i>Pandora neoaphidis</i>	2771	<i>Conidiobolus</i> sp.
2317	<i>Entomophthora muscae</i>	2590	<i>Pandora neoaphidis</i>	2772	<i>Conidiobolus</i> sp.
2335	<i>Conidiobolus obscurus</i>	2591	<i>Pandora neoaphidis</i>	2773	<i>Pandora neoaphidis</i>
2338	<i>Conidiobolus lamprauges</i>	2592	<i>Pandora neoaphidis</i>	2774	<i>Entomophaga maimaiga</i>
2362	<i>Entomophaga aulicae</i>	2593	<i>Pandora neoaphidis</i>	2775	<i>Entomophaga maimaiga</i>
2363	<i>Entomophaga aulicae</i>	2594	<i>Pandora neoaphidis</i>	2779	<i>Entomophaga maimaiga</i>
2364	<i>Entomophaga aulicae</i>	2600	<i>Zoopththora radicans</i>	2780	<i>Entomophaga maimaiga</i>
2365	<i>Entomophaga aulicae</i>	2601	<i>Zoopththora radicans</i>	2781	<i>Pandora neoaphidis</i>
2366	<i>Entomophaga aulicae</i>	2623	<i>Zoopththora</i> sp.	2782	<i>Pandora neoaphidis</i>
2367	<i>Entomophaga aulicae</i>	2661	<i>Entomophaga maimaiga</i>	2783	<i>Pandora neoaphidis</i>
2368	<i>Entomophaga aulicae</i>	2662	<i>Erynia</i> sp.	2784	<i>Pandora neoaphidis</i>
2369	<i>Entomophaga aulicae</i>	2663	<i>Erynia</i> sp.	2787	<i>Basidiobolus ranarum</i>
2370	<i>Entomophaga maimaiga</i>	2664	<i>Erynia</i> sp.	2811	<i>Zoopththora radicans</i>
2371	<i>Entomophaga maimaiga</i>	2665	<i>Entomophthora muscae</i>	2812	<i>Conidiobolus coronatus</i>
2372	<i>Entomophaga aulicae</i>	2666	<i>Zoopththora radicans</i>	2813	<i>Conidiobolus coronatus</i>
2373	<i>Entomophaga aulicae</i>	2667	<i>Entomophthora schizophorae</i>	2814	<i>Conidiobolus coronatus</i>
2374	<i>Entomophaga aulicae</i>	2668	<i>Entomophthora muscae</i>	2815	<i>Conidiobolus</i> sp.
2400	<i>Zoopththora radicans</i>	2669	<i>Zoopththora radicans</i>	2816	<i>Conidiobolus</i> sp.
2405	<i>Erynia conica</i>	2670	<i>Entomophthora muscae</i>	2819	<i>Conidiobolus</i> sp.
2406	<i>Pandora dipterigena</i>	2671	<i>Eryniopsis ptychopterae</i>	2824	<i>Pandora blunckii</i>
2407	<i>Erynia rhizospora</i>	2672	<i>Conidiobolus</i> sp.	2825	<i>Pandora neoaphidis</i>
2408	<i>Pandora delphacis</i>	2673	<i>Entomophthora muscae</i>	2828	<i>Conidiobolus thromboides</i>
2409	<i>Pandora delphacis</i>	2674	<i>Entomophthora muscae</i>	2829	<i>Conidiobolus thromboides</i>
2410	<i>Zoopththora radicans</i>	2675	<i>Entomophthora muscae</i>	2830	<i>Conidiobolus thromboides</i>
2411	<i>Zoopththora radicans</i>	2677	<i>Neozygites tetranynchi</i>	2837	<i>Pandora neoaphidis</i>
2433	<i>Erynia</i> sp.	2678	<i>Entomophthora muscae</i>	2838	<i>Pandora neoaphidis</i>
2434	<i>Erynia</i> sp.	2696	<i>Zoopththora radicans</i>	2839	<i>Pandora neoaphidis</i>
2493	<i>Batkoa pseudapiculatus</i>	2697	<i>Zoopththora radicans</i>	2840	<i>Pandora neoaphidis</i>
2494	<i>Conidiobolus</i> sp.	2698	<i>Zoopththora radicans</i>	2841	<i>Zoopththora occidentalis</i>
2495	<i>Erynia</i> sp.	2699	<i>Zoopththora radicans</i>	2842	<i>Pandora neoaphidis</i>
2496	<i>Batkoa pseudapiculatus</i>	2700	<i>Zoopththora radicans</i>	2843	<i>Entomophaga aulicae</i>
2497	<i>Batkoa pseudapiculatus</i>	2701	<i>Zoopththora radicans</i>	2844	<i>Pandora neoaphidis</i>
2498	<i>Conidiobolus</i> sp.	2702	<i>Zoopththora radicans</i>	2845	<i>Pandora neoaphidis</i>
2499	<i>Zoopththora radicans</i>	2703	<i>Zoopththora radicans</i>	2846	<i>Pandora neoaphidis</i>
2500	<i>Zoopththora radicans</i>	2704	<i>Zoopththora radicans</i>	2847	<i>Pandora neoaphidis</i>
2501	<i>Zoopththora radicans</i>	2705	<i>Zoopththora radicans</i>	2848	<i>Pandora neoaphidis</i>
2502	<i>Batkoa pseudapiculatus</i>	2706	<i>Zoopththora radicans</i>	2849	<i>Conidiobolus thromboides</i>
2503	<i>Zoopththora radicans</i>	2707	<i>Zoopththora radicans</i>	2850	<i>Conidiobolus thromboides</i>
2504	<i>Batkoa apiculata</i>	2708	<i>Zoopththora radicans</i>	2851	<i>Pandora neoaphidis</i>
2505	<i>Zoopththora anglica</i>	2709	<i>Zoopththora radicans</i>	2852	<i>Pandora neoaphidis</i>
2506	<i>Zoopththora radicans</i>	2710	<i>Zoopththora radicans</i>	2853	<i>Pandora neoaphidis</i>
2507	<i>Erynia</i> sp.	2711	<i>Zoopththora radicans</i>	2854	<i>Pandora neoaphidis</i>
2508	<i>Conidiobolus</i> sp.	2712	<i>Zoopththora radicans</i>	2855	<i>Pandora neoaphidis</i>
2522	<i>Entomophaga calopteni</i>	2713	<i>Zoopththora radicans</i>	2856	<i>Pandora neoaphidis</i>

2865	<i>Pandora neoaphidis</i>	3052	<i>Entomophaga maimaiga</i>	3165	<i>Zoopththora radicans</i>
2866	<i>Pandora neoaphidis</i>	3053	<i>Entomophaga maimaiga</i>	3170	<i>Zoopththora radicans</i>
2867	<i>Pandora neoaphidis</i>	3058	<i>Entomophaga praxibuli</i>	3171	<i>Zoopththora radicans</i>
2868	<i>Pandora neoaphidis</i>	3059	<i>Entomophaga praxibuli</i>	3172	<i>Zoopththora radicans</i>
2870	<i>Pandora neoaphidis</i>	3060	<i>Entomophaga praxibuli</i>	3174	<i>Pandora neoaphidis</i>
2872	<i>Pandora neoaphidis</i>	3061	<i>Entomophaga praxibuli</i>	3175	<i>Pandora neoaphidis</i>
2873	<i>Pandora neoaphidis</i>	3062	<i>Pandora delphacis</i>	3200	<i>Pandora blunckii</i>
2874	<i>Pandora neoaphidis</i>	3067	<i>Entomophaga praxibuli</i>	3201	<i>Pandora sp.</i>
2875	<i>Pandora neoaphidis</i>	3068	<i>Entomophaga praxibuli</i>	3202	<i>Pandora blunckii</i>
2876	<i>Pandora neoaphidis</i>	3069	<i>Entomophaga praxibuli</i>	3204	<i>Zoopththora radicans</i>
2884	<i>Pandora neoaphidis</i>	3071	<i>Zoopththora occidentalis</i>	3205	<i>Zoopththora radicans</i>
2885	<i>Pandora neoaphidis</i>	3072	<i>Pandora delphacis</i>	3206	<i>Zoopththora radicans</i>
2893	<i>Zoopththora radicans</i>	3073	<i>Zoopththora occidentalis</i>	3208	<i>Conidiobolus sp.</i>
2896	<i>Entomophaga aulicae</i>	3074	<i>Entomophthora muscae</i>	3212	<i>Entomophaga aulicae</i>
2897	<i>Entomophaga aulicae</i>	3075	<i>Pandora blunckii</i>	3213	<i>Zoopththora radicans</i>
2898	<i>Entomophaga aulicae</i>	3077	<i>Entomophaga macleodii</i>	3214	<i>Zoopththora radicans</i>
2899	<i>Entomophaga aulicae</i>	3078	<i>Entomophaga macleodii</i>	3217	<i>Zoopththora radicans</i>
2900	<i>Entomophaga aulicae</i>	3079	<i>Entomophaga macleodii</i>	3222	<i>Conidiobolus coronatus</i>
2901	<i>Entomophaga aulicae</i>	3080	<i>Batkoa apiculata</i>	3224	<i>Batkoa apiculata</i>
2902	<i>Entomophaga aulicae</i>	3081	<i>Pandora neoaphidis</i>	3225	<i>Batkoa apiculata</i>
2903	<i>Entomophaga aulicae</i>	3082	<i>Pandora neoaphidis</i>	3226	<i>Batkoa apiculata</i>
2904	<i>Entomophaga aulicae</i>	3087	<i>Conidiobolus coronatus</i>	3229	<i>Erynia curvispora</i>
2905	<i>Entomophaga aulicae</i>	3088	<i>Batkoa apiculata</i>	3234	<i>Pandora neoaphidis</i>
2906	<i>Furia gastropachae</i>	3089	<i>Conidiobolus obscurus</i>	3237	<i>Pandora neoaphidis</i>
2914	<i>Conidiobolus thromboides</i>	3090	<i>Conidiobolus obscurus</i>	3238	<i>Pandora neoaphidis</i>
2924	<i>Conidiobolus sp.</i>	3091	<i>Batkoa apiculata</i>	3240	<i>Pandora neoaphidis</i>
2925	<i>Conidiobolus sp.</i>	3092	<i>Conidiobolus obscurus</i>	3241	<i>Pandora neoaphidis</i>
2926	<i>Conidiobolus sp.</i>	3093	<i>Pandora delphacis</i>	3244	<i>Erynia curvispora</i>
2927	<i>Conidiobolus sp.</i>	3094	<i>Pandora delphacis</i>	3248	<i>Pandora neoaphidis</i>
2928	<i>Conidiobolus sp.</i>	3095	<i>Pandora delphacis</i>	3249	<i>Pandora neoaphidis</i>
2936	<i>Batkoa major</i>	3096	<i>Pandora delphacis</i>	3250	<i>Pandora neoaphidis</i>
2955	<i>Conidiobolus thromboides</i>	3099	<i>Conidiobolus coronatus</i>	3251	<i>Pandora neoaphidis</i>
2963	<i>Entomophaga praxibuli</i>	3100	<i>Zoopththora radicans</i>	3282	<i>Strongwellsea castrans</i>
2964	<i>Entomophaga praxibuli</i>	3102	<i>Batkoa major</i>	3283	<i>Zoopththora radicans</i>
2965	<i>Entomophaga praxibuli</i>	3103	<i>Batkoa major</i>	3284	<i>Zoopththora radicans</i>
2966	<i>Entomophaga praxibuli</i>	3104	<i>Zoopththora radicans</i>	3342	<i>Zoopththora phytonomi</i>
2967	<i>Entomophaga praxibuli</i>	3105	<i>Zoopththora radicans</i>	3343	<i>Zoopththora phytonomi</i>
2968	<i>Entomophaga praxibuli</i>	3106	<i>Pandora delphacis</i>	3344	<i>Zoopththora phytonomi</i>
2969	<i>Entomophaga praxibuli</i>	3107	<i>Pandora delphacis</i>	3355	<i>Zoopththora radicans</i>
2970	<i>Entomophaga praxibuli</i>	3109	<i>Conidiobolus coronatus</i>	3356	<i>Entomophaga praxibuli</i>
2977	<i>Zoopththora radicans</i>	3110	<i>Entomophaga maimaiga</i>	3357	<i>Entomophaga praxibuli</i>
2978	<i>Zoopththora radicans</i>	3114	<i>Zoopththora radicans</i>	3358	<i>Entomophaga praxibuli</i>
2979	<i>Zoopththora radicans</i>	3115	<i>Zoopththora radicans</i>	3359	<i>Conidiobolus thromboides</i>
2980	<i>Zoopththora radicans</i>	3116	<i>Zoopththora radicans</i>	3360	<i>Conidiobolus thromboides</i>
2994	<i>Zoopththora radicans</i>	3117	<i>Zoopththora radicans</i>	3361	<i>Conidiobolus thromboides</i>
2995	<i>Zoopththora radicans</i>	3118	<i>Zoopththora radicans</i>	3362	<i>Conidiobolus thromboides</i>
2996	<i>Zoopththora radicans</i>	3119	<i>Zoopththora radicans</i>	3363	<i>Conidiobolus thromboides</i>
3002	<i>Zoopththora radicans</i>	3126	<i>Pandora neoaphidis</i>	3364	<i>Conidiobolus thromboides</i>
3003	<i>Zoopththora radicans</i>	3129	<i>Conidiobolus thromboides</i>	3365	<i>Pandora neoaphidis</i>
3004	<i>Zoopththora radicans</i>	3130	<i>Batkoa apiculata</i>	3366	<i>Pandora neoaphidis</i>
3005	<i>Zoopththora radicans</i>	3131	<i>Batkoa sp.</i>	3367	<i>Pandora neoaphidis</i>
3006	<i>Zoopththora radicans</i>	3132	<i>Conidiobolus obscurus</i>	3376	<i>Zoopththora radicans</i>
3007	<i>Zoopththora radicans</i>	3133	<i>Conidiobolus obscurus</i>	3377	<i>Zoopththora radicans</i>
3008	<i>Zoopththora radicans</i>	3134	<i>Conidiobolus obscurus</i>	3379	<i>Conidiobolus coronatus</i>
3009	<i>Zoopththora radicans</i>	3135	<i>Conidiobolus obscurus</i>	3383	<i>Conidiobolus sp.</i>
3010	<i>Zoopththora radicans</i>	3136	<i>Batkoa apiculata</i>	3384	<i>Conidiobolus sp.</i>
3011	<i>Zoopththora radicans</i>	3137	<i>Conidiobolus obscurus</i>	3390	<i>Zoopththora radicans</i>
3012	<i>Zoopththora radicans</i>	3138	<i>Conidiobolus obscurus</i>	3402	<i>Conidiobolus sp.</i>
3013	<i>Zoopththora radicans</i>	3139	<i>Conidiobolus obscurus</i>	3406	<i>Conidiobolus sp.</i>
3016	<i>Entomophaga aulicae</i>	3140	<i>Batkoa apiculata</i>	3407	<i>Conidiobolus sp.</i>
3021	<i>Zoopththora radicans</i>	3141	<i>Conidiobolus obscurus</i>	3409	<i>Conidiobolus sp.</i>
3022	<i>Zoopththora radicans</i>	3149	<i>Zoopththora radicans</i>	3410	<i>Pandora neoaphidis</i>
3023	<i>Zoopththora radicans</i>	3150	<i>Zoopththora radicans</i>	3411	<i>Pandora neoaphidis</i>
3024	<i>Zoopththora radicans</i>	3151	<i>Zoopththora radicans</i>	3412	<i>Pandora neoaphidis</i>
3025	<i>Entomophaga macleodii</i>	3159	<i>Zoopththora radicans</i>	3414	<i>Conidiobolus coronatus</i>
3026	<i>Zoopththora radicans</i>	3160	<i>Zoopththora radicans</i>	3415	<i>Conidiobolus coronatus</i>
3027	<i>Zoopththora occidentalis</i>	3161	<i>Zoopththora radicans</i>	3459	<i>Pandora neoaphidis</i>
3028	<i>Zoopththora occidentalis</i>	3162	<i>Zoopththora radicans</i>	3484	<i>Pandora delphacis</i>
3029	<i>Zoopththora occidentalis</i>	3163	<i>Zoopththora radicans</i>	3485	<i>Strongwellsea castrans</i>
3039	<i>Entomophaga aulicae</i>	3164	<i>Zoopththora radicans</i>	3486	<i>Zoopththora sp.</i>

ARSEF Number

3487	Zoophtora sp.	4996	Conidiobolus thromboides	5869	Furia gastropachae
3488	Zoophtora sp.	5162	Conidiobolus coronatus	5870	Furia gastropachae
3489	Zoophtora radicans	5201	Neozygites floridana(?)	5871	Furia gastropachae
3602	Entomophaga aulicae	5202	Neozygites floridana(?)	5872	Furia gastropachae
3623	Zoophtora radicans	5336	Basidiobolus sp.	5889	Basidiobolus ranarum
3697	Zoophtora radicans	5348	Entomophthora schizophorae	5890	Basidiobolus ranarum
3737	Zoophtora radicans	5352	Erynia sp.	5891	Basidiobolus ranarum
3762	Entomophaga maimaiga	5371	Pandora neoaphidis	5892	Basidiobolus ranarum
3763	Conidiobolus sp.	5372	Pandora neoaphidis	5893	Basidiobolus ranarum
3764	Basidiobolus sp.	5373	Pandora neoaphidis	5894	Basidiobolus ranarum
3828	Entomophaga maimaiga	5374	Pandora neoaphidis	5895	Basidiobolus ranarum
3829	Entomophaga maimaiga	5376	Neozygites floridana(?)	5896	Basidiobolus ranarum
3830	Entomophaga maimaiga	5377	Entomophaga maimaiga	5897	Basidiobolus ranarum
3831	Entomophaga maimaiga	5378	Entomophaga maimaiga	5898	Basidiobolus ranarum
3832	Entomophaga maimaiga	5379	Entomophaga maimaiga	5899	Basidiobolus ranarum
3833	Entomophaga maimaiga	5380	Entomophaga maimaiga	5900	Basidiobolus ranarum
3834	Entomophaga maimaiga	5381	Entomophaga maimaiga	5901	Basidiobolus ranarum
3835	Entomophaga maimaiga	5382	Entomophaga maimaiga	5902	Basidiobolus ranarum
3880	Entomophaga maimaiga	5383	Entomophaga maimaiga	5903	Basidiobolus ranarum
3887	Entomophaga maimaiga	5384	Entomophaga maimaiga	5904	Basidiobolus ranarum
3910	Massospora levispora	5385	Entomophaga maimaiga	5905	Basidiobolus ranarum
3911	Entomophaga maimaiga	5386	Entomophaga maimaiga	5906	Basidiobolus ranarum
3912	Entomophaga maimaiga	5387	Entomophaga maimaiga	5907	Basidiobolus ranarum
3913	Entomophaga maimaiga	5388	Entomophaga maimaiga	5908	Basidiobolus ranarum
4004	Entomophaga aulicae	5389	Entomophaga maimaiga	5909	Basidiobolus ranarum
4005	Entomophaga aulicae	5390	Entomophaga maimaiga	5910	Basidiobolus ranarum
4006	Entomophaga aulicae	5391	Entomophaga maimaiga	5911	Basidiobolus ranarum
4007	Entomophaga aulicae	5392	Entomophaga maimaiga	5912	Basidiobolus ranarum
4008	Entomophaga aulicae	5393	Entomophaga maimaiga	5913	Basidiobolus ranarum
4504	Entomophaga maimaiga	5394	Entomophaga maimaiga	5914	Basidiobolus ranarum
4505	Entomophaga maimaiga	5395	Entomophaga maimaiga	5915	Basidiobolus ranarum
4506	Entomophaga maimaiga	5396	Entomophaga maimaiga	5916	Basidiobolus ranarum
4507	Entomophaga maimaiga	5397	Entomophaga maimaiga	5917	Basidiobolus ranarum
4508	Entomophaga maimaiga	5398	Entomophaga maimaiga	5918	Basidiobolus ranarum
4509	Entomophaga maimaiga	5399	Entomophaga maimaiga	5919	Basidiobolus ranarum
4510	Entomophaga maimaiga	5400	Entomophaga maimaiga	5920	Basidiobolus ranarum
4520	Zoophtora radicans	5401	Entomophaga maimaiga	5921	Basidiobolus ranarum
4544	Entomophaga maimaiga	5403	Pandora neoaphidis	5922	Basidiobolus ranarum
4545	Entomophaga maimaiga	5404	Conidiobolus sp.	5923	Basidiobolus ranarum
4546	Entomophaga maimaiga	5405	Conidiobolus sp.	5924	Basidiobolus ranarum
4547	Entomophaga maimaiga	5406	Conidiobolus sp.	5925	Basidiobolus ranarum
4548	Zoophtora radicans	5541	Furia gastropachae	5926	Basidiobolus ranarum
4549	Entomophaga maimaiga	5542	Furia gastropachae	5927	Basidiobolus ranarum
4550	Entomophaga maimaiga	5543	Furia gastropachae	5928	Basidiobolus ranarum
4551	Entomophaga maimaiga	5544	Furia gastropachae	5929	Basidiobolus ranarum
4552	Entomophaga maimaiga	5545	Furia gastropachae	5930	Basidiobolus ranarum
4553	Entomophaga maimaiga	5546	Furia gastropachae	5931	Basidiobolus ranarum
4554	Entomophaga maimaiga	5547	Furia gastropachae	5932	Basidiobolus ranarum
4555	Entomophaga maimaiga	5552	Batkoa apiculata	5933	Basidiobolus ranarum
4781	Zoophtora radicans	5563	Entomophaga maimaiga	5934	Basidiobolus ranarum
4782	Zoophtora radicans	5564	Entomophaga maimaiga	5935	Basidiobolus ranarum
4783	Zoophtora radicans	5565	Entomophaga maimaiga	5936	Basidiobolus ranarum
4784	Zoophtora radicans	5566	Entomophaga maimaiga	5937	Basidiobolus ranarum
4785	Zoophtora radicans	5567	Entomophaga maimaiga	5938	Basidiobolus ranarum
4786	Entomophthora muscae	5568	Entomophaga maimaiga	5939	Basidiobolus ranarum
4787	Entomophthora muscae	5569	Entomophaga maimaiga	5940	Basidiobolus ranarum
4788	Entomophthora muscae	5570	Entomophaga maimaiga	5941	Basidiobolus ranarum
4789	Entomophthora muscae	5571	Entomophaga maimaiga	5942	Basidiobolus ranarum
4790	Entomophthora muscae	5572	Entomophaga maimaiga	5943	Basidiobolus ranarum
4791	Entomophthora schizophorae	5620	Neozygites parvispora	5944	Basidiobolus ranarum
4796	Entomophaga aulicae	5621	Neozygites parvispora	5945	Basidiobolus ranarum
4797	Conidiobolus coronatus	5707	Pandora neoaphidis	5946	Basidiobolus ranarum
4934	Pandora neoaphidis	5708	Pandora neoaphidis	5947	Basidiobolus ranarum
4948	Entomophaga macleodii	5711	Entomophaga maimaiga	5948	Basidiobolus ranarum
4949	Entomophaga macleodii	5712	Conidiobolus sp.	5949	Basidiobolus ranarum
4950	Entomophaga macleodii	5810	Batkoa sp.	5950	Basidiobolus ranarum
4951	Entomophaga macleodii	5811	Entomophthora culicis	5951	Basidiobolus ranarum
4952	Entomophaga macleodii	5812	Pandora sp.	5952	Entomophthora muscae
4953	Entomophaga macleodii	5814	Zoophtora radicans	5953	Entomophthora muscae
4968	Conidiobolus thromboides	5868	Entomophthora thripidum	5954	Entomophthora muscae

5955	<i>Entomophthora syrphi</i>	6255	<i>Entomophaga maimaiga</i>	6626	<i>Entomophaga maimaiga</i>
5992	<i>Conidiobolus obscurus</i>	6256	<i>Entomophaga maimaiga</i>	6627	<i>Entomophaga maimaiga</i>
5993	<i>Conidiobolus osmodes(?)</i>	6257	<i>Entomophaga maimaiga</i>	6628	<i>Entomophaga maimaiga</i>
5994	<i>Batkoa apiculata</i>	6258	<i>Entomophaga maimaiga</i>	6629	<i>Entomophaga maimaiga</i>
5995	<i>Pandora neoaphidis</i>	6264	<i>Entomophaga maimaiga</i>	6630	<i>Entomophaga maimaiga</i>
6000	<i>Conidiobolus thromboides</i>	6265	<i>Entomophaga maimaiga</i>	6631	<i>Pandora neoaphidis</i>
6001	<i>Conidiobolus thromboides</i>	6266	<i>Entomophaga maimaiga</i>	6652	<i>Entomophaga maimaiga</i>
6003	<i>Zoophthora radicans</i>	6267	<i>Entomophaga maimaiga</i>	6653	<i>Entomophaga maimaiga</i>
6004	<i>Entomophaga maimaiga</i>	6268	<i>Entomophaga maimaiga</i>	6654	<i>Entomophaga maimaiga</i>
6005	<i>Entomophaga maimaiga</i>	6269	<i>Entomophaga maimaiga</i>	6655	<i>Entomophaga maimaiga</i>
6006	<i>Entomophaga maimaiga</i>	6270	<i>Entomophaga maimaiga</i>	6656	<i>Entomophaga maimaiga</i>
6007	<i>Entomophaga maimaiga</i>	6271	<i>Entomophaga maimaiga</i>	6657	<i>Entomophaga maimaiga</i>
6051	<i>Entomophaga maimaiga</i>	6272	<i>Entomophaga maimaiga</i>	6659	<i>Conidiobolus sp.</i>
6052	<i>Entomophaga maimaiga</i>	6274	<i>Entomophthora muscae</i>	6662	<i>Conidiobolus thromboides</i>
6053	<i>Entomophaga maimaiga</i>	6276	<i>Neozygites parvispora</i>	6663	<i>Entomophaga maimaiga</i>
6054	<i>Entomophaga maimaiga</i>	6277	<i>Neozygites parvispora</i>	6664	<i>Entomophaga maimaiga</i>
6105	<i>Entomophaga maimaiga</i>	6278	<i>Neozygites parvispora</i>	6665	<i>Entomophaga maimaiga</i>
6106	<i>Entomophaga maimaiga</i>	6279	<i>Neozygites parvispora</i>	6666	<i>Entomophaga maimaiga</i>
6107	<i>Entomophaga maimaiga</i>	6280	<i>Neozygites parvispora</i>	6667	<i>Entomophaga maimaiga</i>
6108	<i>Entomophaga maimaiga</i>	6293	<i>Pandora blunckii</i>	6668	<i>Entomophaga maimaiga</i>
6121	<i>Entomophthora muscae</i>	6294	<i>Pandora blunckii</i>	6701	<i>Entomophthora muscae</i>
6122	<i>Entomophthora muscae</i>	6295	<i>Pandora blunckii</i>	6702	<i>Entomophthora syrphi</i>
6123	<i>Entomophthora muscae</i>	6296	<i>Pandora blunckii</i>	6703	<i>Entomophthora schizophorae</i>
6124	<i>Entomophthora muscae</i>	6297	<i>Pandora blunckii</i>	6704	<i>Entomophthora scatophagae</i>
6125	<i>Entomophthora muscae</i>	6298	<i>Pandora blunckii</i>	6705	<i>Entomophthora scatophagae</i>
6126	<i>Entomophthora muscae</i>	6299	<i>Pandora blunckii</i>	6706	<i>Entomophthora muscae</i>
6127	<i>Entomophthora muscae</i>	6300	<i>Pandora blunckii</i>	6707	<i>Entomophthora muscae</i>
6128	<i>Entomophthora muscae</i>	6301	<i>Pandora blunckii</i>	6708	<i>Entomophthora muscae</i>
6129	<i>Entomophthora muscae</i>	6302	<i>Pandora blunckii</i>	6709	<i>Entomophthora muscae</i>
6130	<i>Entomophthora muscae</i>	6303	<i>Zoophthora radicans</i>	6710	<i>Entomophthora muscae</i>
6131	<i>Entomophthora muscae</i>	6304	<i>Pandora blunckii</i>	6711	<i>Entomophthora muscae</i>
6132	<i>Entomophthora muscae</i>	6305	<i>Pandora blunckii</i>	6712	<i>Entomophthora muscae</i>
6133	<i>Entomophthora muscae</i>	6306	<i>Pandora blunckii</i>	6713	<i>Entomophthora muscae</i>
6134	<i>Entomophthora muscae</i>	6307	<i>Pandora blunckii</i>	6714	<i>Entomophthora muscae</i>
6135	<i>Entomophthora muscae</i>	6308	<i>Pandora blunckii</i>	6715	<i>Entomophthora muscae</i>
6136	<i>Entomophthora muscae</i>	6309	<i>Pandora blunckii</i>	6716	<i>Entomophthora muscae</i>
6137	<i>Entomophthora schizophorae</i>	6310	<i>Pandora blunckii</i>	6717	<i>Entomophthora muscae</i>
6138	<i>Entomophthora schizophorae</i>	6311	<i>Pandora blunckii</i>	6724	<i>Entomophaga maimaiga</i>
6139	<i>Entomophthora schizophorae</i>	6312	<i>Pandora blunckii</i>	6725	<i>Entomophaga maimaiga</i>
6140	<i>Entomophthora muscae</i>	6313	<i>Zoophthora radicans</i>	6726	<i>Entomophaga maimaiga</i>
6141	<i>Entomophthora muscae</i>	6314	<i>Zoophthora radicans</i>	6727	<i>Entomophaga maimaiga</i>
6142	<i>Entomophthora schizophorae</i>	6315	<i>Zoophthora radicans</i>	6728	<i>Entomophaga maimaiga</i>
6143	<i>Entomophthora schizophorae</i>	6316	<i>Pandora blunckii</i>	6729	<i>Entomophaga maimaiga</i>
6161	<i>Entomophaga maimaiga</i>	6361	<i>Conidiobolus lamprauges</i>	6811	<i>Entomophthora muscae</i>
6162	<i>Entomophaga maimaiga</i>	6377	<i>Conidiobolus adiaeretus</i>	6812	<i>Entomophthora muscae</i>
6163	<i>Entomophaga maimaiga</i>	6378	<i>Conidiobolus iuxtagenitus</i>	6813	<i>Entomophthora muscae</i>
6164	<i>Entomophthora muscae</i>	6379	<i>Conidiobolus coronatus</i>	6814	<i>Entomophthora muscae</i>
6165	<i>Entomophthora muscae</i>	6380	<i>Basidiobolus ranarum</i>	6815	<i>Entomophthora muscae</i>
6166	<i>Pandora neoaphidis</i>	6381	<i>Conidiobolus thromboides</i>	6816	<i>Entomophthora schizophorae</i>
6168	<i>Entomophaga maimaiga</i>	6382	<i>Basidiobolus ranarum</i>	6817	<i>Entomophthora schizophorae</i>
6169	<i>Entomophaga maimaiga</i>	6383	<i>Conidiobolus pumilus</i>	6818	<i>Entomophthora muscae</i>
6170	<i>Entomophaga maimaiga</i>	6384	<i>Conidiobolus firmipilleus</i>	6819	<i>Entomophthora syrphi</i>
6171	<i>Entomophaga maimaiga</i>	6385	<i>Conidiobolus lamprauges</i>	6820	<i>Entomophthora syrphi</i>
6172	<i>Entomophaga maimaiga</i>	6386	<i>Conidiobolus heterosporus</i>	6821	<i>Entomophthora muscae</i>
6173	<i>Entomophaga maimaiga</i>	6424	<i>Conidiobolus sp.</i>	6902	<i>Pandora neoaphidis</i>
6174	<i>Entomophaga maimaiga</i>	6505	<i>Conidiobolus sp.</i>	6913	<i>Conidiobolus antarcticus</i>
6179	<i>Batkoa sp.</i>	6512	<i>Conidiobolus coronatus</i>	6917	<i>Zoophthora radicans</i>
6210	<i>Batkoa sp.</i>	6517	<i>Entomophthora thripidum</i>	6918	<i>Entomophthora ferdinandii</i>
6211	<i>Furia sp.</i>	6518	<i>Entomophthora thripidum</i>	7010	<i>Conidiobolus coronatus</i>
6212	<i>Entomophaga maimaiga</i>	6519	<i>Entomophthora thripidum</i>	7011	<i>Conidiobolus coronatus</i>
6218	<i>Entomophaga maimaiga</i>	6520	<i>Entomophthora thripidum</i>	7012	<i>Conidiobolus coronatus</i>
6219	<i>Neozygites floridana(?)</i>	6521	<i>Entomophthora thripidum</i>	7013	<i>Conidiobolus coronatus</i>
6220	<i>Neozygites floridana(?)</i>	6522	<i>Entomophthora thripidum</i>	7068	<i>Batkoa papillata(?)</i>
6221	<i>Neozygites floridana(?)</i>	6523	<i>Entomophaga maimaiga</i>	7101	<i>Entomophaga maimaiga</i>
6223	<i>Entomophaga maimaiga</i>	6524	<i>Entomophaga maimaiga</i>	7102	<i>Entomophaga maimaiga</i>
6224	<i>Entomophaga maimaiga</i>	6525	<i>Entomophthora thripidum</i>	7103	<i>Entomophaga maimaiga</i>
6251	<i>Entomophthora planchoniana</i>	6538	<i>Pandora delphacis</i>	7104	<i>Entomophaga maimaiga</i>
6252	<i>Entomophthora planchoniana</i>	6539	<i>Pandora delphacis</i>	7105	<i>Entomophaga maimaiga</i>
6253	<i>Entomophaga maimaiga</i>	6605	<i>Zoophthora radicans</i>	7106	<i>Entomophaga maimaiga</i>
6254	<i>Entomophaga maimaiga</i>	6625	<i>Entomophaga maimaiga</i>	7107	<i>Entomophaga maimaiga</i>

ARSEF Number

7108	<i>Entomophaga maimaiga</i>	7944	<i>Conidiobolus iuxtagenitus</i>	11765	<i>Conidiobolus</i> sp.
7109	<i>Entomophaga maimaiga</i>	8000	<i>Schizangiella serpentis</i>	11766	<i>Basidiobolus</i> sp.
7110	<i>Entomophaga maimaiga</i>	8023	<i>Conidiobolus coronatus</i>	11767	<i>Basidiobolus</i> sp.
7111	<i>Entomophaga maimaiga</i>	8047	<i>Schizangiella serpentis</i>	11768	<i>Basidiobolus</i> sp.
7112	<i>Entomophaga maimaiga</i>	8307	<i>Basidiobolus haptosporus</i>	11769	<i>Basidiobolus</i> sp.
7113	<i>Entomophaga maimaiga</i>	8308	<i>Basidiobolus ranarum</i>	11770	<i>Basidiobolus</i> sp.
7114	<i>Entomophaga maimaiga</i>	8309	<i>Basidiobolus haptosporus</i>	11771	<i>Basidiobolus</i> sp.
7115	<i>Entomophaga maimaiga</i>	8313	<i>Conidiobolus</i> sp.	11772	<i>Basidiobolus</i> sp.
7116	<i>Entomophaga maimaiga</i>	8314	<i>Conidiobolus</i> sp.	11773	<i>Basidiobolus</i> sp.
7120	<i>Entomophaga maimaiga</i>	8320	<i>Conidiobolus adiaeretus</i>	11774	<i>Basidiobolus</i> sp.
7121	<i>Entomophaga maimaiga</i>	8328	<i>Basidiobolus ranarum</i>	11775	<i>Basidiobolus</i> sp.
7122	<i>Entomophaga maimaiga</i>	8329	<i>Basidiobolus meristosporus</i>	11776	<i>Basidiobolus</i> sp.
7123	<i>Entomophaga maimaiga</i>	8330	<i>Basidiobolus magnus</i>	11777	<i>Basidiobolus</i> sp.
7124	<i>Entomophaga maimaiga</i>	8331	<i>Basidiobolus haptosporus</i> var. <i>minor</i>	11778	<i>Basidiobolus</i> sp.
7125	<i>Entomophaga maimaiga</i>	8332	<i>Basidiobolus heterosporus</i>	11779	<i>Basidiobolus</i> sp.
7126	<i>Entomophaga maimaiga</i>	8427	<i>Conidiobolus adiaeretus</i>	11780	<i>Basidiobolus</i> sp.
7127	<i>Entomophaga maimaiga</i>	8428	<i>Conidiobolus megalotocus</i>	11781	<i>Basidiobolus</i> sp.
7131	<i>Entomophaga maimaiga</i>	8429	<i>Conidiobolus</i> sp.	11782	<i>Basidiobolus</i> sp.
7132	<i>Entomophaga maimaiga</i>	8430	<i>Conidiobolus stromoideus</i>	11783	<i>Basidiobolus</i> sp.
7133	<i>Entomophaga maimaiga</i>	8455	<i>Conidiobolus coronatus</i>	11859	<i>Zoopththora radicans</i>
7134	<i>Entomophaga maimaiga</i>	8466	<i>Zoopththora radicans</i>	11860	<i>Zoopththora radicans</i>
7135	<i>Entomophaga maimaiga</i>	8606	<i>Furia ithacensis</i>	11861	<i>Zoopththora phalloides</i>
7136	<i>Entomophaga maimaiga</i>	8607	<i>Pandora neoaphidis</i>	11862	<i>Pandora neoaphidis</i>
7137	<i>Entomophaga maimaiga</i>	8715	<i>Conidiobolus coronatus</i>	11863	<i>Pandora neoaphidis</i>
7138	<i>Entomophaga maimaiga</i>	8926	<i>Furia gastropachae</i>	11867	<i>Conidiobolus</i> sp.
7139	<i>Entomophaga maimaiga</i>	8930	<i>Pandora nouryi</i>	11872	<i>Pandora delphacis</i>
7140	<i>Entomophaga aulicae</i>	8931	<i>Pandora nouryi</i>	11873	<i>Pandora delphacis</i>
7141	<i>Entomophaga aulicae</i>	9266	<i>Pandora heteropterae</i>	12182	<i>Furia ithacensis</i>
7142	<i>Entomophaga aulicae</i>	9295	<i>Conidiobolus coronatus</i>	12250	<i>Erynia sepulchralis</i>
7143	<i>Entomophaga aulicae</i>	9296	<i>Conidiobolus coronatus</i>	12251	<i>Batkoa major</i>
7144	<i>Entomophaga aulicae</i>	9536	<i>Conidiobolus obscurus</i>	12338	<i>Conidiobolus</i> sp.
7145	<i>Entomophaga aulicae</i>	9537	<i>Erynia</i> sp.	12523	<i>Entomophthora schizophorae</i>
7183	<i>Entomophaga maimaiga</i>	9887	<i>Basidiobolus</i> sp.	12524	<i>Entomophthora muscae</i>
7184	<i>Entomophaga maimaiga</i>	9888	<i>Basidiobolus</i> sp.	12543	<i>Conidiobolus</i> sp.
7185	<i>Entomophaga maimaiga</i>	9889	<i>Basidiobolus</i> sp.	12800	<i>Zoopththora radicans</i>
7186	<i>Entomophaga maimaiga</i>	9890	<i>Basidiobolus</i> sp.	12801	<i>Zoopththora radicans</i>
7187	<i>Entomophaga maimaiga</i>	9891	<i>Basidiobolus</i> sp.	12830	<i>Conidiobolus macrosporus</i>
7188	<i>Entomophaga maimaiga</i>	9892	<i>Basidiobolus</i> sp.	13165	<i>Pandora neoaphidis</i>
7189	<i>Entomophaga maimaiga</i>	9893	<i>Basidiobolus</i> sp.	13166	<i>Zoopththora radicans</i>
7190	<i>Entomophaga maimaiga</i>	9894	<i>Basidiobolus</i> sp.	13371	<i>Pandora</i> sp.
7203	<i>Conidiobolus coronatus</i>	9895	<i>Basidiobolus</i> sp.	13372	<i>Pandora</i> sp.
7208	<i>Zoopththora radicans</i>	9896	<i>Basidiobolus</i> sp.	13373	<i>Pandora</i> sp.
7209	<i>Conidiobolus thromboides</i>	9897	<i>Basidiobolus</i> sp.	13374	<i>Pandora</i> sp.
7210	<i>Conidiobolus thromboides</i>	9898	<i>Basidiobolus</i> sp.	13376	<i>Entomophthora muscae</i>
7211	<i>Conidiobolus thromboides</i>	9899	<i>Basidiobolus</i> sp.	13406	<i>Pandora gloeospora</i>
7212	<i>Pandora neoaphidis</i>	9900	<i>Basidiobolus</i> sp.	13512	<i>Pandora</i> sp.
7213	<i>Pandora neoaphidis</i>	9901	<i>Basidiobolus</i> sp.	13514	<i>Entomophthora muscae</i>
7214	<i>Pandora neoaphidis</i>	9902	<i>Basidiobolus</i> sp.	13630	<i>Conidiobolus thromboides</i>
7215	<i>Conidiobolus thromboides</i>	9903	<i>Basidiobolus</i> sp.	13631	Unidentified <i>Entomophthorales</i> sp.
7216	<i>Conidiobolus</i> sp.	9904	<i>Basidiobolus</i> sp.	13632	Unidentified <i>Entomophthorales</i> sp.
7217	<i>Conidiobolus obscurus</i>	9905	<i>Basidiobolus</i> sp.	13633	<i>Conidiobolus thromboides</i>
7226	<i>Pandora neoaphidis</i>	9906	<i>Basidiobolus</i> sp.	13634	<i>Conidiobolus thromboides</i>
7227	Unidentified <i>Entomophthorales</i> sp.	9907	<i>Basidiobolus</i> sp.	13635	Unidentified <i>Entomophthorales</i> sp.
7228	Unidentified <i>Entomophthorales</i> sp.	9908	<i>Basidiobolus</i> sp.	13636	Unidentified <i>Entomophthorales</i> sp.
7229	Unidentified <i>Entomophthorales</i> sp.	9909	<i>Basidiobolus</i> sp.	13637	<i>Conidiobolus thromboides</i>
7230	Unidentified <i>Entomophthorales</i> sp.	9910	<i>Basidiobolus</i> sp.	13638	Unidentified <i>Entomophthorales</i> sp.
7352	<i>Entomophaga maimaiga</i>	9911	<i>Basidiobolus</i> sp.	13639	Unidentified <i>Entomophthorales</i> sp.
7353	<i>Entomophaga maimaiga</i>	9912	<i>Basidiobolus</i> sp.	13640	Unidentified <i>Entomophthorales</i> sp.
7370	<i>Batkoa</i> sp.	9913	<i>Conidiobolus coronatus</i>	13641	Unidentified <i>Entomophthorales</i> sp.
7371	<i>Entomophthora muscae</i>	9914	<i>Conidiobolus coronatus</i>	13642	Unidentified <i>Entomophthorales</i> sp.
7454	<i>Zoopththora</i> sp.	9940	<i>Conidiobolus coronatus</i>	13643	<i>Conidiobolus thromboides</i>
7455	<i>Zoopththora radicans</i>	9941	<i>Conidiobolus coronatus</i>	13644	<i>Conidiobolus thromboides</i>
7786	<i>Conidiobolus</i> sp.	9942	<i>Conidiobolus coronatus</i>	13645	<i>Conidiobolus thromboides</i>
7788	<i>Zoopththora radicans</i>	11650	<i>Conidiobolus</i> sp.	13646	<i>Conidiobolus thromboides</i>
7789	<i>Zoopththora radicans</i>	11651	<i>Conidiobolus coronatus</i>	13647	Unidentified <i>Entomophthorales</i> sp.
7922	<i>Conidiobolus coronatus</i>	11662	<i>Pandora neoaphidis</i>	13648	Unidentified <i>Entomophthorales</i> sp.
7937	<i>Pandora neoaphidis</i>	11663	<i>Pandora neoaphidis</i>	13649	Unidentified <i>Entomophthorales</i> sp.
7938	<i>Pandora neoaphidis</i>	11664	<i>Conidiobolus thromboides</i>	13650	Unidentified <i>Entomophthorales</i> sp.
7939	<i>Pandora neoaphidis</i>	11763	<i>Conidiobolus</i> sp.	13651	Unidentified <i>Entomophthorales</i> sp.
7942	<i>Conidiobolus</i> sp.	11764	<i>Pandora</i> sp.	13652	Unidentified <i>Entomophthorales</i> sp.

13653

13769

ARSEF Number

13653 Unidentified Entomophthorales sp.
13654 Conidiobolus thromboides
13655 Unidentified Entomophthorales sp.
13656 Unidentified Entomophthorales sp.
13657 Unidentified Entomophthorales sp.
13658 Unidentified Entomophthorales sp.
13659 Unidentified Entomophthorales sp.
13660 Unidentified Entomophthorales sp.
13767 Unidentified Entomophthorales sp.
13768 Unidentified Entomophthorales sp.
13769 Batkoa major