

Identifier Training:

Possibly the last Coccidology workshop was hosted by the University of Maryland this past June. Dr. John Davidson, University of Maryland, with the aid of Dr. Douglass Miller, Research Leader, SEL, Dr. Michael Kosztarab, Virginia Polytechnic Institute, Mr. Richard Wilkey of Arthropod Slidemounts, Bluffton, Indiana, and our own Victor Blackburn taught the course. Among the students were members of private industry, graduate students, educators, and seven PPQ identifiers.

Leucinodes orbonalis Guenee (Lepidoptera - Pyralidae):

Some of you have noticed the similarity between the larvae of the Old World species, Leucinodes orbonalis Guenee, and the New World species, Neoleucinodes elegantalis (Guenee) and have suggested that L. orbonalis larvae are intercepted from such countries as Jamaica or the Dominican Republic. Although only one description away in Weisman's key, these species are known to be worlds apart in distribution. In fact, the specialists have agreed with you that the distinction between these larvae can be tenuous at times. L. orbonalis may well be established in the Caribbean as we have seen with the recently noticed African lygaeid, Diachus armatipes (Walker), or the more well-known Mango Seed Weevil, Sternochetus mangiferae (F.). However, the only way to verify the existence of Leucinodes orbonalis from the new world is to procure adults and examine the genitalia. Therefore, even though these New World specimens may key out to L. orbonalis, and the specialist agrees that the larvae keys out and matches the larval description, he or she has qualified the identification with a note and has not agreed that these larval specimens are indeed L. orbonalis. The identification of L. orbonalis based on larvae from the New World is conjectural, and we will not knowingly enter such data into our computer.

Discard authority changes:

A final review of the Lepidoptera discard authority, mentioned in the last INOI, is enclosed. This is a computer runoff with the combined authorities for all the current entomology identifiers. There is a possibility that an organism for which you have discard authority is not listed. If so, then please call or drop me a note, and I will make any corrections necessary. There are changes in nomenclature, distributions, and identification levels to reflect the current knowledge of the immature Lepidoptera.

Changes:

Idaea sp. (Geometridae). Authority revoked. The specialist is not identifying this beyond subfamily. DMO, RME, and JGE please note.

Plocamosaris sp. (Gelechiidae) has been changed to Dichomeris sp. DRR please note.

Phthorimea operculella (Zeller) (Gelechiidae). The origin is changed to delete South America (SAM). There are newly described species of Phthorimea which may be encountered. JGE and DJP please note.

Tegeticula sp. (Incurvariidae). Authority revoked. Please reapply to subfamily level. RME please note.

Agrotis subterranea (F.) (Noctuidae). Authority revoked. There are over 50 species of Agrotis in the New World and most of the immatures are undescribed. DMO and PAC please reapply to the genus level.

"Autographa group." Please resubmit, this is being identified to genus or subfamily. WDM please note.

Heliothis sp. (Noctuidae) from Central America, West Indies and Mexico DMO and JTR change authority to read Heliothis sp. or Helicoverpa sp. However, DMO and JTR should be able to identify to species. This is also to remind you that Heliothis or Helicoverpa from the West Indies, Mexico, or Central America is non-reportable.

Heliothis sp. or "Heliothis group" from Europe or the Old World. This is being identified to subfamily, genus and even species. Remember that this genus has been split into Heliothis and Helicoverpa. Helicoverpa armigera (Hubner) is frequently identified by Dr. Poole on commodities from Europe. Those of you with discard authority should ROUTINELY submit specimens and reapply for discard authority. These are reportable taxa.

Helicoverpa zea (Boddie) on Zea mays from South America. RLO please note that your authority is rescinded. There are other members of Helicoverpa to contend with. Reapply on a country by country basis.

Mamestra brassicae (L.) (Noctuidae). All of you with discard authority should ROUTINELY submit specimens and reapply for this species because although this is being identified by Dr. Poole, he is also identifying others as "Mamestra brassicae group" where the genus and species may be closely related to M. brassicae. The reason for this caution is that several genera were moved into the genus Mamestra making some larval identifications tenuous.

Trichoplusia ni (Hubner) (Noctuidae). Authority is rescinded for South America. FAT, JGE, OA please note. The rest of you should know that there is an exotic Trichoplusia in Japan.

Chilo suppressalis (Walker) (Pyralidae). Those of you with discard authority, your authority is limited to origins from Korea and Japan.

Davara caricae (Dyar) (Pyralidae). Authority is revoked. JTR please note.

Diaphania hyalinata (L.) (Pyralidae). This authority is rescinded. Those of you with discard authority should reapply. The differences between this species and D. indica are moot.

Diaphania sp. (Pyralidae). This is currently being identified as "Diaphania indica-hyalinata complex". PAC please note.

Dichocrocis punctiferalis (Guenee) (Pyralidae). In recent research for a publication of Pests Not Known to Occur in the United States (PNKTO) for the pyralid D. punctiferalis, Dr. Ferguson, research scientist with SEL, examined the specimens of this species in the National Museum and the published host records and found that there were inconsistencies. A closer examination revealed that what has been called D. punctiferalis is a complex of at least nine species. Dr. Eugene Munroe (retired), a world authority of the Pyralidae, allowed that there was indeed a problem and Dr. Munroe at one time started a revision of the genus but never finished. The end result is that what we have been calling D. punctiferalis is in doubt and all discard authority for this species is rescinded. Please resubmit and identify to the genus level. In addition, the new name for Dichocrocis is Conogethes.

Etiella zinckenella (Trei.) (Pyralidae). The enclosed paper by Naito and Harnoto (1986) gives a description and the known distribution for E. hobsoni (Butler) which may be confused with E. zinckenella. Accordingly, authorities for E. zinckenella will be limited to exclude: The Pacific area, Formosa, Indonesia, Philippines, SE Asia, and Australia.

Potosa rufofascialis Capps (Pyralidae). This species cannot be readily separated from other members of the Chrysauginae in the larval form. Authority is rescinded. GDE please note.

Tryporyza incertulus (Walker) (Pyralidae). The name has been changed to Schoenobius incertulus Walker. RKK please note.

Cryptophlebia leucotreta (Meyrek) (Tortricidae). A series of this species was donated from Africa for an ongoing project of the Biosystematics and Beneficial Insects Institute (BBII) to collect specimens for a PNKTO collection for eventual distribution to entomology identifiers. The adult specimens were reared in Africa from larvae taken from beans. The larvae were identified in Africa as C. leucotreta, and the reared adults were presumed to be the same species. The adult specimens were then sent to Dr. Hodges, research scientist at SEL, for confirmation. The result is that the adults are an unknown species of Cryptophlebia and probably undescribed. This revelation again shows that what we have been calling C. leucotreta in the larval stage is now uncertain. Therefore, all discard authority for C. leucotreta is rescinded. Please resubmit and identify to the genus level.

Cryptophlebia ombrodelta (Lower) (Tortricidae). Authority for the Philippines origins is withdrawn. There is another species. RKK and ELJ please note.

Please amend your discard authorities as above. In addition, you should review your officers' discard authorities and amend them to reflect these changes.

## Pathology Notes:

The following note is provided by Dr. Mary Palm, APHIS mycologist.

Monochaetina terminaliae on Psidium. I have received a number of specimens of Psidium guajava, mostly from Mexico, on which was found a "Pestalotia-like" fungus that did not fit the description of the fungi generally found on that host. I have identified those specimens as Truncatella sp. (sect. Monosetulatae). We now have a name for that fungus, which also occurs on other substrates. Muthumary, Abbas, and Sutton recently (1986. Trans. Brit. Mycol. Soc. 87:103-108) described Monochaetina terminaliae (Batista & Bezerra) Muthumary et al. The fungus produces conidia that are 3-septate with the median cells pigmented; the apical cell is hyaline with one short appendage usually oriented at an angle; and a basal cell that is hyaline, sometimes with a short, central appendage.

## Technique for making spore mounts of rusts and smuts:

The following technique was recently published in the Mycological Society of America Newsletter 38(1):65. It was submitted by Dr. D.B.O Savile, a well-known rust specialist.

"One's aim is a well-cleared mount with plenty of spores near the center of the cover-glass. Good clearing of the contents and turgor of the spores are necessary, for detailed study of wall sculpturing, and for accurate measurements. Heated lactophenol is very effective, although the mounts deteriorate after a few months; but the trick is to keep most of the spores in the middle of the mount despite having to heat it nearly to boiling point to achieve full clearing and remove air bubbles. Polish a slide well with cleaning tissue, so that it wets readily with any liquid. Toward the right end add two vertical streaks of lactophenol about 1 cm long and 1.5 cm apart. Pick up some lactophenol from one streak on a spear-pointed needle and deposit a small drop centrally between the two streaks. Under the dissecting microscope to ensure that nearly all spores are fully cleared (uncleared spores are usually much darker). Rust spores from arid regions are often so heavily pigmented that it may be necessary to heat and cool the slide several times. Even the most delicate wall markings can be measured under phase or interference contrast. Making mounts under the dissecting scope simplifies distinction between spore states and guards against picking up sand grains, which would wreck the mount."

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