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NEW PHYCITINE RECORDS FOR THE DOMINICAN REPUBLIC AND DESCRIPTION OF A

NEW SPECIES OF NEFUNDELLA

(LEPIDOPTERA: PYRALIDAE: PHYCITINAE)

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ABSTRACT.- Twenty-nine species of Phycitinae are reported from the Dominican Republic for the first time. Also, Nefundella munroei n. sp. is described and illustrated, and a figure of the female genitalia of Hemiptiloceroides deltus Neunzig and Dow is included.

KEY WORDS: Amegarthria, Amyelois, Anabasis, Ancylostomia, Anadelosemia, Anegcephalesis, Anypsipyla, Australephestiodes, Bema, Caribbean, Caristanius, Coptarthria, Crocidomera, Davara, distribution, Ectomyelois, Erelieva, Etiella, Florida, Fundella, Haiti, Hemiptiloceroides, Hispaniola, Homoeosoma, hostplants, Hypargyria, Hypochalcia, Hypsipyla, Lipographis, Moodnopsis, Nefundella munroei n. sp., Neotropical, Olyca, Oncolabis, Oryctometopia, Ozamia, Peadus, Phycitodes, Stylopalpia, taxonomy, Ufa, USA, West Indies, Zamagiria.

In his study of the American species of Phycitinae, Heinrich (1956) recorded only 9 species from the Dominican Republic, namely, Amyelois transitella (Walker), Ancylostomia stercorea (Zeller), Crocidomera fissuralis (Walker), Davara caricae (Dyar), Davara interjecta Heinrich, [Hypochalcia] cervinistrigalis Walker, Olyca phryganoides Walker, Ozamia lucidalis (Walker), and Ufa rubedinella (Zeller). An additional 4 species, Erelieva quantulella (Hulst), Fundella argentina Dyar, Fundella pellucens Zeller, and Hypsipyla grandella (Zeller), were recognized by Heinrich from neighboring Haiti, which shares the island of Hispaniola with the Dominican Republic. Heinrich (1956) also reported a few widely distributed phycitines, such as Etiella zinckenella (Treitschke), as occurring in the general region of "Tropical America."

Based on a study of more recently acquired specimens in the National Museum of Natural History (USNM) (Smithsonian Institution, Washington, DC) and the Carnegie Museum of Natural History (CMNH) (Pittsburgh, Pennsylvania), I have published descriptions (Neunzig, 1996) of 14 new species of Dominican Republic phycitines. As part of the same study, I identified 29 species of phycitines previously known from the New World, but not recorded from the Dominican Republic. The present paper provides an annotated list of these new distribution records, with hostplant records, as well as the description of one new species.

Information on collection sites was given in my 1996 paper. Specimens were collected by the following (note abbreviations in brackets as used in species data below): C. V. Covell, Jr. (C.), R. Davidson (D.), D. and M. Davis (D. & D.), O. Flint and L. Gomez (F. & G.), M. Klinger (K.), G. Onore (O.), J. Rawlins (R.), S. Thompson (T.), and C. Young (Y.).

NEW RECORDS FOR THE DOMINICAN REPUBLIC

Amegarthria cervicalis (Dyar)

7 moths of this species were collected in the Dominican Republic as follows: 2 males, Dajabon Province, 20-22 May 1973, D. & D.; 2 males, El Seibo Province, 31 May 1973, D. & D.; 3 males, Hato Mayor, 7-9 Jul 1992, Y., D., T., R.

Most A. cervicalis have previously been collected in Central America (Heinrich, 1956) (as Megarthria beta Heinrich). The type locality of A. cervicalis, however, is Tánamo, Cuba.

Anabasis ochrodesma (Zeller)

Females of this species were collected as follows: 6, La Palma, 2-13 Jun 1969, F. & G.; 1, La Toma, 9-10 Jun 1969, F. & G.; 1, Dajabon Province, 26 May 1973, D. & D. The larval hosts of A. ochrodesma are members of the Fabaceae (Neunzig, 1979, 1986). This phycitine is common in southern Florida (Kimball, 1965; Neunzig, 1979), in Central America and northern South America (Amsel, 1956, 1957; Heinrich, 1956), and on some Caribbean islands (Heinrich, 1956).

Anadelosemia texanella (Hulst)

One male of this small phycitine was collected as follows: San Juan, 1 Sep 1995, R., O., D. A. texanella has been previously reported from Texas, Florida, Cuba and Puerto Rico.

Anegcephalesis arctella (Ragonot)

A. arctella was collected at three sites in the Dominican Republic as follows: 1 female, Pedernales, 17-18 Jul 1990, Y., R., T.; 4 males, 9 females, Azua, 25-26 Jul 1992, Y., D., T., R.; 1 male, San Juan, 1 Sep 1995, R., O., D.

A. arctella has been previously collected in southern Florida, the Bahamas and Cuba (Heinrich, 1956). The male has a tuft of sex-scales on the underside of the forewing just posteriad of the retinaculum, a diagnostic feature apparently overlooked previously by other workers.

Dyar (1919) reared adults of A. arctella from bustic (Dipholis salicifolia (L.) A. De Candolle) (Sapotaceae).

Anypsipyla univitella Dyar

A. univitella was described by Dyar in 1914 from Panama. It since has been reported as occurring in Cuba, Jamaica, Mexico, Guatemala, Venezuela, Ecuador, Peru, and Brazil (Heinrich, 1956; Amsel, 1956, 1957), southern Florida (Neunzig, 1990) and Belize (Neunzig and Dow, 1993). In the Dominican Republic, 3 females were collected at Montecristi, 29-30 Nov, D., K., T., R.

Larvae feed in the fruits of several species of Fabaceae (Neunzig, 1990).

Australephestiodes stictellus (Hampson)

Heinrich (1956) found this species (as Ephestiodes stictella) to be common in Puerto Rico and the Virgin Islands. He also reported it from the Bahamas and Jamaica, and Shaffer (1978) established its presence in Dominica. In 1990, I identified specimens of A. stictellus from southern Florida. In the Dominican Republic, 6 A. stictellus were collected as follows: 1 male, 2 females, National District, 13-18 May 1973, D. & D.; 1 male, 1 female, Dajabon Province, 20-22 May 1973, D. & D.; 1 female, Pedernales, 26-27 Sep 1991, R., D., Y., T.

The unique female genitalia of *Australephestiodes*, with the 8th abdominal collar produced anteriorly into a tongue-like structure, and posteriorly into curved projecting arms, provide a very useful diagnostic feature.

Bema neuricella (Zeller)

B. neuricella is common throughout most of Central America, the Caribbean, and South America (Heinrich, 1956; Shaffer, 1978; Neunzig and Dow, 1993). Moths of this species were collected at several localities in the Dominican Republic as follows: 1 female, Corrento, 13 Jun 1969, F. & G.; 4 males, 7 females, Dajabon Province, 20-22 May 1973, D. & D.; 1 female, La Estrelleta Province, 24-25 May 1973, D. & D.; 1 male, La Vega Province, 28 May 1973, D. & D.; 1 female, El Seibo Province, 31 May 1973, D. & D.; 6 females, Pedernales, 25, 27 Sep 1991, R., D., Y., T.; 1 female, Peravia, 4 Oct 1991; D., Y., T., R.; 1 male, 3 females, Independencia, 13-15 Oct 1991, R., D., Y., T.; 1 male, Elias Pina, 15 Oct 1991, Y., T., D., R.; 1 male, 3 females, La Vega, 19-23 Nov 1992, R., K., D., T.; 1 male, 1 female, Puerto Plata, 28 Nov 1992, R., D., K., T.; 1 female, Elias Pina, 29 Aug 1995, R., O., D.; 4 males, 4 females, San Juan, 1 Sep 1995, R., O., D.

The larvae of *B. neuricella* feed within the seed pods of various leguminous trees (Heinrich, 1956; Neunzig and Dow, 1993).

Caristanius pellucidellus (Ragonot)

C. pellucidellus appears to be chiefly a Caribbean species. Heinrich (1956) also included specimens from Surinam and Brazil in his treatment. In the Dominican Republic, C. pellucidellus was obtained at each of seven different localities as follows: 1 male, Dajabon Province, 20-22 May 1973, D. & D.; 1 male, Azua, 3-4 Oct 1991, Y., T., D., R.; 1 female, Samana, 10 Oct 1991, Y., T., D., R.; 1 female, Monsenor Nouel, 28 July 1992, D., R., T., Y.; 1 male, Puerto Plata, 28 Nov 1992, R., D., K., T.; 1 male, 1 female, Elias Pina, 29 Aug 1995, R., O., D.; 1 female, San Juan, 1 Sep 1995, R., O., D.

Coptarthria dasypyga (Zeller)

The male antenna of *C. dasypyga* has a unique basal segment of the shaft that is elongate, flattened and deeply notched. The species previously has been reported from the Caribbean (Shaffer, 1978), Central America (Heinrich, 1956; Neunzig and Dow, 1993) and northern South America (Heinrich, 1956). Specimens collected in the Dominican Republic are: 1 male, Convento, 13 Jun 1969, F. & G.; 1 male, Baoruco, 11-12 Aug 1990, R., T.; Pedernales, 21 Oct 1991, R., D., Y., T.; 1 male, San Juan, 1 Sep 1995, R., O., D.

Crocidomera imitata Neunzig

C. imitata was previously known only from tropical Florida and southern Texas. The following were collected in the Dominican Republic: 1 female, Pedernales, 17 Jul 1987, R., D.; 3 females, Pedernales, 26-27 Sept 1991, Y., T., D., R.; 4 males, Independencia, 12 Oct 1991, D., Y., T. R.; 9 males and 31 females, La Attagracia, 3 Jul 1992, Y., D., T., R.; 2 females, Pedernales, 17 Jul 1992, R., T., Y., D.; 2 males and 5 females, Independencia, 23 Jul 1992, D., R., T., Y.

Species in the genus *Crocidomera* have some adults that are overall distinctly darker than most of the population, or have some adults with dark streaks on the forewings. In *C. imitata* a general melanism of the scales of the entire forewing occurs in a few males and females of a population. In other species, such as *C. fissuralis* (Walker) and *Crocidomera stenopteryx* (Dyar), some moths have a black, longitudinal streak on the forewing. In *C. fissuralis* this streak has, thus far, only been found in females; Walker's type of *C. fissuralis* exhibits this characteristic. A few moths of both sexes of *C. stenopteryx* have been seen with this feature. Approximately 2% of the males and 13% of the females of *C. imitata* collected in the Dominican Republic were melanistic.

Davara rufulella (Ragonot)

This species has previously been reported only from Puerto Rico (Heinrich, 1956). In the Dominican Republic, it has been collected in two provinces as follows: 3 males, 12 females, Dajabon Province, 20-26 May 1973, D. & D.; 1 female, La Vega Province, 29 May 1973, D. & D.

Ectomyelois decolor (Zeller)

Moths of this phycitine were collected as follows: 2 females Pedernales, 13, 17 Jul 1987, R., D.; 1 male, Azua, 3-4 Oct 1991, Y., T., D., R.; 4 females, Hato Mayor, 7-9 July 1992, D., R., T., Y.

E. decolor appears to be confined to the New World. According to Heinrich (1956), it occurs from the Caribbean and Central America south to Brazil. Larval host information was given by Heinrich, and included the legumes carob (Ceratonia siliqua L.) and guapinol (Hymenaea courbaril L.), and a member of Annonaceae, sweet sop (Annona squamosa L.).

Ectomyelois muriscis (Dyar)

This species feeds as a larva in the seed capsules of guapinol (Hymenaea courbaril L.) (Janzen, 1983) and cacao (Theobroma cacao L.) (Heinrich, 1956). E. muriscis is widely distributed in the neotropics. Only a single male was collected in the Dominican Republic: La Vega Province, 28 May 1973, D. & D. As Heinrich (1956) indicated, Dyar's name, muriscis, is most likely a junior synonym of furvidorsella Ragonot. Insufficient material has been available to resolve this possibility.

Etiella zinckenella (Treitschke)

E. zinckenella is a widespread species in the tropics of both the New and Old World (Whalley, 1973). The species appears to be relatively common in the Dominican Republic as evidenced by the following moths collected: 1 female, Pedernales, 19 Jul 1990, R., Y., T.; 2 males, 2 females, Pedernales, 21-31 Jul 1990, Y., R., T.; 3 males, 2 females, Azua, 7 Aug 1990, R., T.; 2 males, 1 female, 3-4 Oct 1991, Y., T., D., R.; 1 male, Pedernales, 21 Oct 1991, R., D., Y., T.; 2 males, Independencia, 23 July 1992, D., R., T., Y.; 1 male, Elias Pina, 29 Aug 1995, R., O., D.; 1 female, San Juan, 30 Aug 1995, R., O., D.; 3 males, 3 females, San Juan, 1 Sep 1995, R., O., D.

Fundella argentina Dyar

F. argentina occurs from southern Florida to Argentina (Heinrich, 1956; Shaffer, 1978; Neunzig, 1979; Neunzig and Dow, 1993; Landry and Neunzig, 1998). Larval hosts are species of Fabaceae. Three adults were collected in the Dominican Republic as follows: 1 male, Pedernales, 30 Jul 1990, Y., R., T.; 1 female, Peravia, 4 Oct 1991, D., Y., T., R.; 1 male, Montecristi, 29-30 Nov 1992, D., K., T., R.

Fundella ignobilis Heinrich

F. ignobilis appears to be the most abundant species of Fundella in the Dominican Republic. It is also known from other islands in the Caribbean, Mexico, Central America and northern South America (Amsel, 1956, 1957; Heinrich, 1956, Neunzig and Dow, 1993). Sixty-five moths of F. ignobilis were collected in the Dominican Republic as follows: 3 females, Convento, 6-13 Jun 1969, F. & G.; 2 females, La Toma, 9-10 Jun 1969, F. & G.; 1 male, 1.5 km. N. Boca Chica, 13-18 May 1973, D. & D.; 1 male, 5 females, Dajabon Province, 20-22 May 1973, D. & D.; 1 male, 2 females, Montecristi Province, 23 May 1973, D. & D.; 1 female, Dajabon Province, 26 May 1973, D. & D.; 4 males, 7 females, La Vega Province, 28, 29 May 1973, D. & D.; 1 female, vic. Jarabacoa, 27 Jun 1981, C.; 3 males, 17 females, Pedernales, 19-30 Jul 1990, R., Y., T.; 2 females, Pedernales, 26-27 Sep 1991, Y., T., D., R.; 4 females, Azua, 3-4 Oct 1991, R., D., Y., T.; 2 females, Independencia, 12 Oct 1991, D., Y., T., R.; 2 females, Pedernales, 21 Oct 1991, D., Y., T., R.; 2 females, Puerto Plata, 28 Nov 1992, R., D., K., T.; 3 females, Montecristi 29-30 Nov 1992, D., K., T., R.; 1 male, Elias Pina, 29 Aug 1995, R., O., D.; 1 male, San Juan, 1 Sep 1995, R., O., D.

Fundella pellucens Zeller

Heinrich (1956) reported *F. pellucens* from Haiti. Its presence in the Dominican Republic was therefore expected. It is widespread from southern Florida south to Brazil and Bolivia (Heinrich, 1956). In the Dominican Republic a female was collected in Independencia, 12 Oct 1991, D., Y., T., R. The developing seeds of various fabaceous plants are eaten by the larvae.

Hemiptiloceroides deltus Neunzig & Dow

H. deltus was previously known only from Belize (Neunzig and Dow, 1993). It was described from a single male. In the Dominican Republic, both sexes were collected as follows: 3 males and 1 female, Hato Mayor, 7-9 Jul 1992, Y., D., T., R.; 9 males, Azua, 25-26 Jul 1992, Y., D., T., R. The moths collected at Hato Mayor were generally paler and slightly smaller than those collected at Azua. The larval host of H. deltus is unknown.

The female genitalia of *H. deltus* (Fig. 5) have the ductus bursae moderately long and membranous posteriorly, and lightly sclerotized, strongly wrinkled and scobinate anteriorly; the corpus bursae is subspherical with a signum in the form of a scobinate pocket, and the ductus seminalis is attached to the posterior part of the corpus bursae.

Homoeosoma electellum (Hulst)

H. electellum appears to be relatively widespread in much of the northern half of the New World (Goodson and Neunzig, 1993). It is a migratory species whose larvae feed on many different species within the large, widely distributed plant family Asteraceae.

The following adults of *H. electellum* were collected in the Dominican Republic: 2 males, 2 females, Pedernales, 11, 12 Jul 1987, D., R.; 9 males, 5 females, Pedernales, 21-31 Jul 1990, Y., R., T.

Hypargyria slossonella (Hulst)

Moths of this species were collected as follows: 2 males, 1 female, La Vega Province, 28 May 1973, D. & D.; 1 female, El Seibo Province, 31 May 1973, D. & D.; 1 female, vic. Jarabacoa, 27 Jun 1981, C.; 1 female, Pedernales, 12 Jul 1987, R., D.; 1 female, Pedernales, 23-24 Jul 1990, Y., R., T.; 1 male and 3 females, Azua, 7 Aug 1990, R., T.; 3 males and 4 females, Santiago, 11 Jul 1992, R., T., Y., D.; 1 female, Montecristi, 29-30 Nov 1992, D., K., T., R.

Heinrich (1956) gave *H. slossonella*'s distribution as southern Florida and southern Mexico. Grimes and Neunzig (1984) found that in Florida the larval host of *H. slossonella* is *Hippocratea volubilis* L. (Hippocrateaceae). It seems likely that in the Dominican Republic larvae of *H. slossonella* also feed on *Hippocratea*. Moscoso (1943), in his flora of the Dominican Republic, included three species of *Hippocratea*, one of which was *H. volubilis*. Furthermore, Moscoso included Santiago, one of the sites where *H. slossonella* was collected by one of the Carnegie expeditions, in his list of known places where *H. volubilis* occurs in the Dominican Republic.

Unlike other species of the genus, males of *H. slossonella* lack the spectacular, metallic-appearing, silver-colored scales on the underside of the wings.

Hypsipyla grandella (Zeller)

The mahogany shootborer is a common pest in the Caribbean and Central and South America (Amsel, 1956, 1957; Heinrich, 1956; Shaffer, 1978; Neunzig and Dow, 1993). The larval hosts are various meliaceous trees. It is not surprising to find *H. grandella* in the Dominican Republic, particularly because it has been recorded from neighboring Haiti. This rather large phycitine was collected as follows: 1 female, La Toma, 9-10 Jun 1969, F. & G.; 2 males, 2 females, La Vega Province, 28-29 May 1973, D. & D.; 2 males, 1 female, El Seibo Province, 31 May 1971, D. & D.; 1 female, Pedernales, 26-27 Sep 1991, R., D., Y., T.; 1 female, 30 km N Cabo Rojo, 27 Sep 1991; D., Y., T., R.; 1 male, Azua, 25-26 Jul 1992, Y., D., T., R.; 2 males, San Juan, 1 Sep 1995, R., O., D.

Lipographis subosseella Hulst

L. subosseella was described from a single male type collected in the Bahama Islands. Two additional males, but unfortunately no females, were collected in the Dominican Republic as follows: Azua, 7 Aug 1990, R., T. and Pedernales, 27 Sep 1991, D., Y., T., R.

Moodnopsis portoricensis Heinrich

Heinrich (1956) described *M. portoricensis* from two males and a female collected in Lares, Puerto Rico. Lares is in western Puerto Rico only about 150 km from the eastern coast of the Dominican Republic. In the Dominican Republic, adults were collected as follows: 2 females, Pedernales, 14, 15 Jul 1987, D., R.; 4 males, 1 female, Pedernales, 14 Jul 1990, R., Y., T.; 1 male, Independencia, 28-29 Sep 1991, R., D., Y., T.; 1 male, Pedernales, 30 Sep 1991, D., Y., T., R.; 2 males, Independencia, 13-15 Oct 1991, R., D., Y., T.; 1 female, Hato Mayor, 7-9 Jul 1992, D., R., T., Y.; 4 males, Independencia, 21-22 Jul 1992, R., T., Y., D.; 1 male, 1 female, La Vega-Monsenor Nouel, 19-23 Nov 1992, R., K., D., T.

Oncolabis anticella Zeller

O. anticella is a wide ranging phycitine in the neotropics. It has been collected from Cuba south to Argentina. A few adults have been reared from elephants foot (*Elephantopus* sp., Compositae) (Heinrich, 1956). In the Dominican Republic, the following specimens of O. anticella were collected: 2 males, Elias Pina, 29 Aug 1995, R., O., D.; 1 male, San Juan, 1 Sep 1995, R., O., D. Males are easily identified by the hook-like element at the base of the antennal shaft.

Oryctometopia fossulatella Ragonot

O. fossulatella is common in Mexico, the Caribbean, Central America and much of South America; it also occurs in southern Florida and southern Texas (Amsel, 1956, 1957; Heinrich, 1956; Shaffer, 1978; Neunzig and Dow, 1993). In the Dominican Republic, the following were collected: 1 male, La Toma, 9-10 Jun 1969, F. & G.; 1 male, Convento, 13 Jun 1969, F. & G.; 1 female, La Venta Province, 28 May 1973, D. & D.; 2 females, El Seibo Province, 31 May 1973, D. & D.; 1 male, vic. Jarabocoa, 27 Jun 1981, C.; 1 female, Pedernales, 11 Jul 1987, D., R.; 1 male, 1 female, Pedernales, 21-24 Jul 1990, Y., R., T.; 1 male, Azua, 7 Aug 1990, R., Y.; 1 female, Peravia, 4 Oct 1991, D., Y., T., R.; 3 females, Hato Mayor, 6-9 Jul 1992, R., T., Y., D.; 1 female, Dajabon, 12 Jul 1992, R., T., Y., D.; 1 female, Azua, 25-26 Jul 1992, Y., D., T., R.; 1 male, San Juan, 1 Sep 1995, R., O., D.

Peadus burdettellus (Schaus)

Members of the genus *Peadus* have peculiar male genitalia in that the uncus and gnathos are greatly reduced. *P. burdettellus* has only previously been reported from Guatemala and Costa Rica (Heinrich, 1956). In the Dominican Republic, the following were collected: 4 females, Independencia, 28-29 Sep 1991, R., D., Y., T.; 6 females, Peravia, 5-6 Oct 1991, R., D., Y., T.; 1 male, Pedernales, 20 Oct 1991, R., D., Y., T.

Phycitodes olivaceella (Ragonot)

This species occurs from Cuba to southern South America. One specimen was taken in the Dominican Republic as follows: 1 female, San Juan, 1 Sep 1995, R., O., D. The larval host plants are Asteraceae.

Stylopalpia lunigerella Hampson

The following specimens of *S. lunigerella* were collected in the Dominican Republic: 4 males, 3 females, La Toma, 9-10 Jun 1969, F. & G.; 2 males, 5 females, National District, 13-18 May 1973, D. & D.; 4 males, 1 female, Azua, 7 Aug 1990, R., T.; 1 male, Azua, 3-4 Oct 1991, Y., T., D., R.; 1 female, Peravia, 4 Oct 1991, D., Y., T., R.; 1 female, Samana, 10 Oct 1991, Y., T., D., R.

S. lunigerella has been frequently collected in Puerto Rico; it also has been reported from the Bahamas, Cuba, Jamaica and Mexico (Heinrich, 1956).

Zamagiria laidion (Zeller)

This species is widely distributed, occurring from tropical Florida south to Brazil and Bolivia. Larval hosts include sapodilla (Manilkara sapota (L.) Royen (= Achras sapota), and wild dilly (Manilkara bahamensis (Baker) Lamarch and Meeuse (= Mimusops emarginata) (Sapotaceae) (Heinrich, 1956). The larvae feed on leaves and flowers of the hosts. A single female was collected at Elias Pina, 29 Aug 1995, R., O., D.

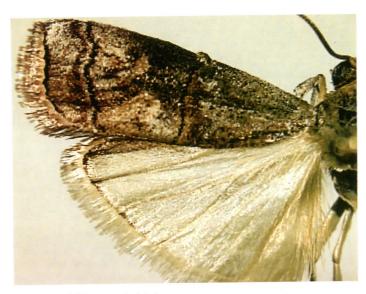


Fig. 1. Nefundella munroei, & holotype.

Nefundella munroei Neunzig, new sp. (Fig. 1-4)

Diagnosis.— *Nefundella munroei* can be easily separated from other species in the genus by examining the valva of the male genitalia. The appearance of the slender, sinuous process located subbasally on the costa of the valva is particularly diagnostic, and the sacculus of the valva has a distinctive, short, fingerlike element (Fig. 2).

Description - Size: Length of forewing: 8.5-9.0mm. Head: brownish white to pale golden-brown. Labial palpus barely reaching vertex, pale goldenbrown and brownish white. Maxillary palpus squamous, brownish white. Basal segment of antenna (scape) simple, reddish brown anteriorly, brownish white posteriorly, shaft filiform, with abundant short sensilla trichodea (cilia). Collar: reddish brown and purplish brown dorsally, and with contrasting patch of black and red scales ventrally under head. Forewing: above brownish gray basally, lightly dusted with white; a few scattered black scales in basal and medial areas; reddish purple basal and subbasal streak of scales on inner margin; antemedial line weakly developed, pale golden brown, preceded, and in part obscured, by patch of reddish brown, and followed by a narrow line of black scales; medial area with inverted triangularly-shaped, mostly brownish gray patch (patch mostly white near inner margin of wing); remainder of medial area mostly brownish white with short streaks of black and red scales overlying the M and CuA veins; discal spot pale golden- brown; postmedial line weakly developed, brownish white suffused with reddish brown; line preceded by thin streak of black scales; terminal area brownish gray, heavily dusted with white on costal half and suffused with reddish brown on inner half; terminal margin with thin streak of black scales; fringe ochre suffused with reddish brown distally. Hindwing: mostly pale golden yellow, fuscous along margins; undersurface with patch of golden scales (distal margin of each scale forming patch curled downward toward wing). Abdomen: with lateral pockets and curved scale tufts between segments 2 and 3. Male genitalia (Fig. 2-3): Uncus broadly rounded apically, narrowed toward base with lateral margins straight; apical process of gnathos a pair of large, sclerotized, winglike elements that reach almost to apex of uncus; juxta strongly developed, U-shaped, setose; valva elongate, constricted medially, and clubbed and densely setose apically; costa of valva with subbasal, slender, sinuous, process; sacculus of valva with short, fingerlike element; vesica of aedoeagus with long slender, sharply pointed cornutus; vinculum about as long as its greatest width.

Female genitalia (Fig. 4): With collar of abdominal segment 8 strongly sclerotized, rounded, fused anteriorly into a V-shaped structure; apophysis posterioris and apophysis anterioris slender, weakly developed; ductus bursae membranous, about as long as corpus bursae, with scobinations near junction with corpus bursae; corpus bursae membranous, with posterior two-thirds scobinate, without signum; ductus seminalis attached to corpus bursae near junction of ductus bursae and corpus bursae.

Type material.— *Holotype*: 8, Dominican Republic, San Juan, 8 km NE Vallejuelo, 690m, 18°42'N, 71°16'W, 30 Aug 1995, R., O., D., arid thornscrub/woodland, genitalia slide HHN 4148: in CMNH.

Paratypes: 1 &, Dominican Republic, La Vega Province, Constanza, 1164m, Hotel Nueva Suiza, 29 May 1973, D. & D., genitalia slide HHN 3878: in USNM; 1 &, Dominican Republic, Pedernales, 30 km N Cabo Rojo, 18°07'N, 71°37'W, 1070m, 31 Jul 1990, Y., R., T., genitalia slide HHN 3762: in CMNH.

Distribution.- Known only from western Dominican Republic.

Remarks.— Nefundella munroei is most similar to Nefundella dentata Neunzig & Dow which occurs in Central America. Obvious differences in the male genitalia separate the two species. In N. munroei the distal elements of the gnathos reach almost to the apex of the uncus, the costa of the valva has a slender, sinuous, process subbasally and lacks teeth on the distal half, and the sacculus of the valva bears a short, finger-like process; in N. dentata the distal elements of the gnathos reach only about one-half the way to the apex of the uncus, the costa of the valva bears a large, robust, claw-like process at midcosta and the distal half of the costa is strongly denticulate, and the sacculus lacks a short, fingerlike process.

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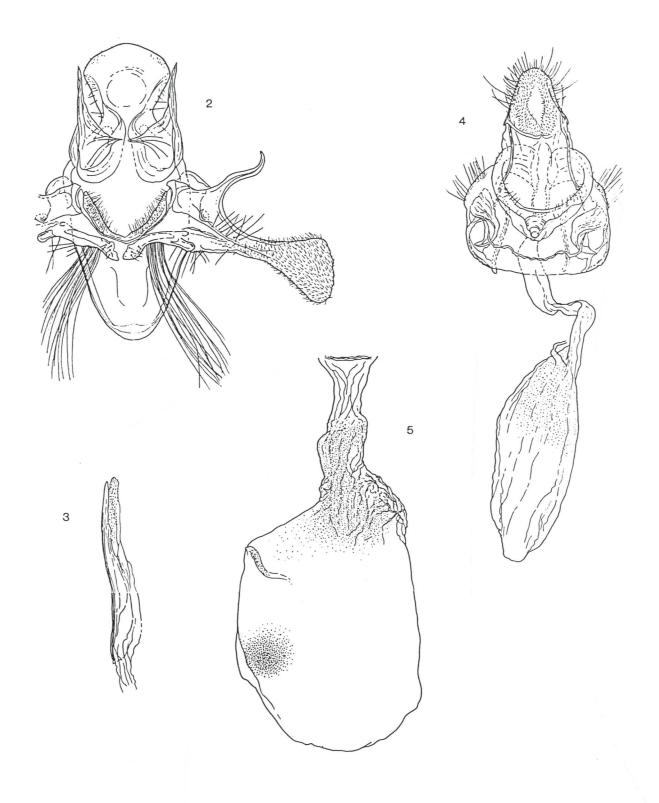


Fig. 2-5. Nefundella munroei: 2-3) male genitalia, 4) female genitalia; 5) Hemiptiloceroides deltus, female genitalia.

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