

METHIINI AND OEMINI (COLEOPTERA: CERAMBYCIDAE: CERAMBYCINAE) OF HISPANIOLA

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ABSTRACT

Two species of Methiini, *Tessaropa hispaniolae* Lingafelter, **new species**, and *Methia dolichoptera* Lingafelter, **new species**, (Coleoptera: Cerambycidae) from Hispaniola are diagnosed, described, and illustrated. The Dominican Republic represents a **new country record** for *Malacopterus tenellus* (F.) (Oemini). A discussion of the tribal characters, followed by a key to the four species of both tribes known from Hispaniola, is included.

Key Words: Dominican Republic, longhorned beetles, systematics, taxonomy

The tribal definitions and boundaries between Methiini (Thomson 1860) and Oemini (Lacordaire 1868) (Coleoptera: Cerambycidae: Cerambycinae) have been poorly understood since they were proposed. Linsley (1962), recognizing the inadequacy of characters to separate the tribes, combined them in his study of the North American fauna. His Methiini + Oemini was defined by a combination of features including coarsely faceted eyes, antennomere 2 less than twice as long as broad and less than half as long as antennomere 3, anterior coxae prominent, conical and narrowly separated or contiguous, widely exposed trochantin at the coxal insertion, and prosternal process between the procoxae absent or very narrow and laterally compressed, not or barely extending beyond the posterior margin of the procoxae.

Martins and Carvalho (1984) studied the type genera of Methiini and Oemini and concluded that they are distinct tribes. They differentiated Methiini and Oemini by the following: larvae with the first maxillary palpomere with long setae in Methiini (lacking long setae in Oemini); eyes with hairs between the ommatidia in Methiini (variable in Oemini); last palpomeres sub-acuminate in Methiini (sub-securiform in Oemini); scape without asperites in Methiini (generally with asperites in Oemini); and elytra generally reduced in Methiini (usually entire in Oemini). Despite the nonconformity of some of these characters to their tribal definitions, most current workers have followed this classification and have maintained the tribes as separate entities (e.g. Martins 1997; Philips and Ivie 1998; Monné and Bezark 2010).

In this work I describe two new species of Methiini. One species of Oemini, *Malacopterus tenellus* (F.), is recorded for the Dominican Republic

for the first time. All locality records for these species are recorded and mapped. I have included a key to all four species of Methiini and Oemini known from Hispaniola (including *Methia necydalea* (F.), a common and widespread southern U.S., Mexican, and West Indian species). Because the characters used to distinguish these tribes are not uniform among the included taxa, they are treated together in this key.

MATERIAL AND METHODS

The material examined in this study was mostly collected by R. H. Turnbow, Jr. (RHTC), E. F. Giesbert (FSCA), J. Rawlins, R. Davidson, C. Young, and S. Thompson (CMNH), and M. Ivie and K. Guerrero (WIBF). Holotypes are deposited in the Smithsonian Institution (USNM) and are in the online photographic database (Lingafelter *et al.* 2010). In the course of this work, these collections and others were examined for holdings. I also consulted Nearn *et al.* (2006) for comparison of the new species against those in the Fernando de Zayas collection. The acronyms and contact persons are listed below:

- CMNH** - Carnegie Museum of Natural History, Pittsburgh, PA, U.S.A. (J. Rawlins, R. Davidson, R. Androw)
- EFGC** - Edmund F. Giesbert Collection, Gainesville (at FSCA), FL, U.S.A. (M. Thomas, P. Skelley)
- FSCA** - Florida State Collection of Arthropods, Gainesville, FL, U.S.A. (M. Thomas, P. Skelley)
- RHTC** - Robert H. Turnbow, Jr. Private Collection, Ft. Rucker, AL, U.S.A.

USNM - National Museum of Natural History, Smithsonian Institution, Washington, DC, U.S.A. (S. Lingafelter)

WIBF - West Indian Beetle Fauna Project, Bozeman, MT, U.S.A. (M. Ivie)

***Tessaropa hispaniolae* Lingafelter, new species**
(Figs. 1, 4)

Diagnosis. This new species, among the smallest of all Methiini, fits the definition of *Tessaropa* Haldeman given in Linsley (1962) due to the completely divided eyes, indistinct second antennomere, and abdomen imbricated at the sides. As in females of *Methia* Newman, the abdominal apex is modified with a large apical opening. The asperate, carinate scape is a feature that is unusual among methiines, apparently, and does not match Methiini as defined in couplet 2 of the key to tribes (Martins and Carvalho 1984).

Only one other species of *Tessaropa*, *T. luctuosa* Zayas from Cuba (Zayas 1975; Monné and Bezark 2010), is known from the West Indies. *Tessaropa hispaniolae*, known from a unique female specimen, is distinguished from *T. luctuosa* by having a mostly glossy integument (matte in *T. luctuosa*), bicolored elytra (entirely black in *T. luctuosa*), and three rather distinct longitudinal, raised calli on the pronotum (without distinct pronotal calli in *T. luctuosa*).

Description. Small, 2.6 mm long, 0.7 mm wide; integument testaceous, with head darker and elytra paler at middle. **Head** mostly glabrous; uniformly, minutely punctate and asperate. Upper and lower eye lobes completely, widely separated; lower lobes occupying nearly all of head below antennal insertion in lateral view; upper lobes much smaller, each with about 10 rows of facets, broadly

separate on vertex behind antennal tubercles. Inter-antennal impression lacking; antennal tubercles barely elevated. Antennae of only known specimen lacking antennomere 11 on one side and possessing only scape on other side; extending approximately as long as body; minutely asperate with fine, inconspicuous, short, translucent pubescence. Scape extending to anterior pronotal margin; moderately asperate, with 3–4 transverse carinae. Fifth antennomere noticeably longer than all others. **Pronotum** distinctly longer than broad, weakly rounded at sides; distinctly narrower than elytral base; pubescent at sides with fine, translucent setae. Large, longitudinal central callus present with less pronounced, shorter peripheral contiguous calli, 1 on either side of middle. Prosternum glabrous, smooth, without punctation or pubescence. **Elytron** smooth, shiny, mostly glabrous and impunctate; incomplete, extending less than halfway to abdominal apex; testaceous with central disk paler than base and apex, giving bicolored appearance. Elytra broadly acuminate toward apices, widely separated, and rounded. **Scutellum** shiny, glabrous, rounded posteriorly. **Legs** short; hind femora reaching halfway to abdominal apex from insertion; uniformly testaceous. Femora strongly clavate and flattened. Protibia moderately flattened, curved, shorter than meso- and metatibiae. **Venter** shiny, glabrous. Abdomen of female highly modified: fifth ventrite greatly reduced, exposing broad, incurved ovipositor underneath overhanging, notched, terminal tergite.

Etymology. The specific epithet is based on Hispaniola from where this species is known. The epithet is a noun in genitive case.

Type material. Holotype (female): Dominican Republic, Pedernales, 25.5 km N Cabo Rojo, 21 May 1992, R. Turnbow (RHTC, donated to USNM).

***Methia dolichoptera* Lingafelter, new species**
(Figs. 2, 4)

Diagnosis. This is among the largest known species of Methiini. This species is unusual among *Methia* in having very elongate elytra and elongate terminal palpomeres, both of which are atypical for the genus (Martins and Carvalho 1984; Philips and Ivie 1998). Like *Tessaropa*, females of *Methia*, including *M. dolichoptera*, have a modified abdominal apex with a large opening (Philips and Ivie 1998).

Methia dolichoptera is very similar in size and form to the western U.S. and Mexican *Methia mormona* Linell, but differs most obviously in having the elytra extending beyond the abdominal apex (the elytra extend to or do not reach the abdominal apex in *M. mormona*). *Methia dolichoptera* has



Fig. 1. *Tessaropa hispaniolae*, holotype. a) Dorsal habitus, b) Ventral habitus, c) Anterior perspective of head.

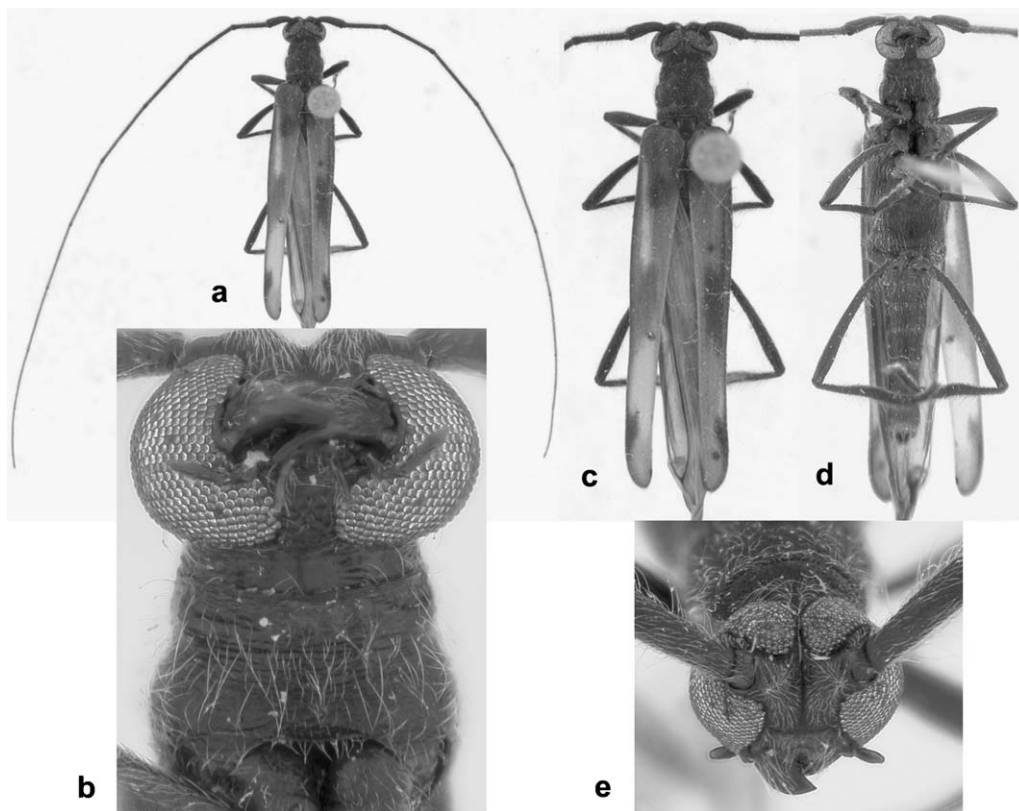


Fig. 2. *Methia dolichopectera*, holotype. a) Dorsal habitus, b) Ventral view of head and prothorax, c) Dorsal habitus, d) Ventral habitus, e) Anterior perspective of head.

on the elytra, of most specimens, three diffuse, dark maculae (one at base, one at middle, and one at apex) which are connected at the lateral margin, but do not reach the suture. In *M. mormona*, most specimens have the elytra dark at the base, apex, and along the suture (but most specimens are also dark maculate on the lateral margins). The only other *Methia* known from Hispaniola, *M. necydalea*, is much smaller (usually less than 10 mm) and has abbreviated elytra usually not attaining the abdominal apex.

Description. Moderate size, 9–14 mm long, 1.7–2.0 mm wide; integument medium to dark testaceous, with elytra mostly paler with indistinct darker maculae. *Head* with fine, translucent to golden pubescence; moderately punctate. Eyes very large, coarsely faceted; lobes broadly connected by 5–6 rows of ommatidia; lower lobe strongly bulging laterally, occupying nearly all of head below antennal insertion in lateral view; upper lobe smaller, but still large, occupying most of head behind antennal tubercles, contiguous at middle. Interantennal impression broadly V-shaped with deep groove; antennal

tubercles moderately elevated. Antennae very long, over 1.3× longer than body in females to 1.5× longer than body in males; very fine, slender, minutely asperate, with moderately dense, translucent pubescence covering most antennomeres. Scape extending to anterior pronotal margin. Antennomere 2 very short and inconspicuous; remaining antennomeres very long, subequal. *Pronotum* slightly longer than broad, moderately tuberculate at middle of sides with vaguely elevated middle and peripheral calli; distinctly narrower than elytral base with anterior of pronotum distinctly narrower than base. Moderately pubescent throughout, with very long pubescence on prosternum, but not concealing finely punctate surface. *Elytron* very elongate; extending beyond abdominal apex; regularly, finely pubescent; shallowly punctate; paler than other integument, with poorly defined testaceous maculae at base, middle, and apex along lateral margin (some specimens without evident maculae). Weakly acuminate at apices. *Scutellum* small, dark testaceous, minutely punctate; narrowly rounded posteriorly. *Legs* elongate; hind femora reaching to base of terminal ventrite;

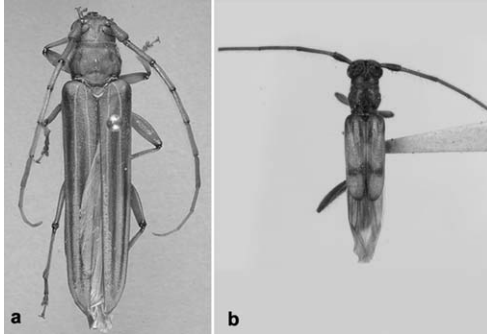


Fig. 3. Dorsal habitus views of a) *Malacopecterus tenellus* and b) *Methia necydalea*.

uniformly testaceous. Metatibiae very elongate, 1.2× metafemoral length. Femora and tibiae slender; not clavate. *Venter* moderately punctate and pubescent. Abdomen of female modified with large, broad opening formed from terminal ventrite and tergite; the opening with a V-shaped notch ventrally, lined with evenly-spaced, short, thick, curved setae. Apical abdominal opening smaller in males, not V-shaped ventrally, without thick, curved setal lining along ventrite margin.

Etymology. The specific epithet is formed from the Greek “dolicho,” meaning long, and the Greek “ptera,” meaning wings, and describes the unusual state of the long elytra.

Type material. Holotype (male): Dominican Republic, Nacimiento Rio Yuna, Loma Hundida, Parque Juan B. Perez Rancier, La Vega Prov.,

18°49.750'N; 70°38.057'W, 2139 m, October 27, 2002, R. Bastardo (USNM). Paratypes (all Dominican Republic): La Vega Prov., Cordillera Central, Coma Casabito, 15.8 km NW Bonao, 19°02'12"N; 70°31'08"W, 1455 m, 28 May 2003, J. Rawlins, C. Young, R. Davidson, C. Nunez, P. Acevedo, evergreen cloud forest, east slope, UV light, Sample 21212 (2 females, CMNH); Independencia Prov., Sierra de Neiba, just south of crest, 5 km NNW Angel Feliz, 1780 m, 18°41'N; 71°46'W, 13-15 October 1991, J. Rawlins, C. Young, R. Davidson, S. Thompson (3 females, 3 males, CMNH).

Malacopecterus tenellus (F.)
(Figs. 3a, 4)

Discussion. This species of Oemini is widespread in the southwestern U.S., Mexico, Central America, northern South America, and in the Caribbean islands of Cuba, Guadeloupe, and Jamaica (Monné and Bezark 2010). It was not recorded for Hispaniola by Perez-Gelabert (2008) and is herein reported for the Dominican Republic (**new country record**), where it is uncommon. All specimens were collected from June through August.

Specimen Localities for the Dominican Republic. Bonao (Monseñor Prov.) (USNM); El Choco (Puerto Plata Prov.) (CMNH); La Laguna, Nisibon at Rio Maimon, Finca Papagallo (La Altagracia Prov.) (EFGC/FSCA); Sierra Martín García (Azua Prov.) (CMNH); Guaraguao (La Altagracia Prov.) (CMNH); 3 km S. Sabana de la Mar (Hato Mayor Prov.) (WIBF); Barahona, 6 km NW Paraiso, Rio Nizao (Barahona Prov.) (CMNH).

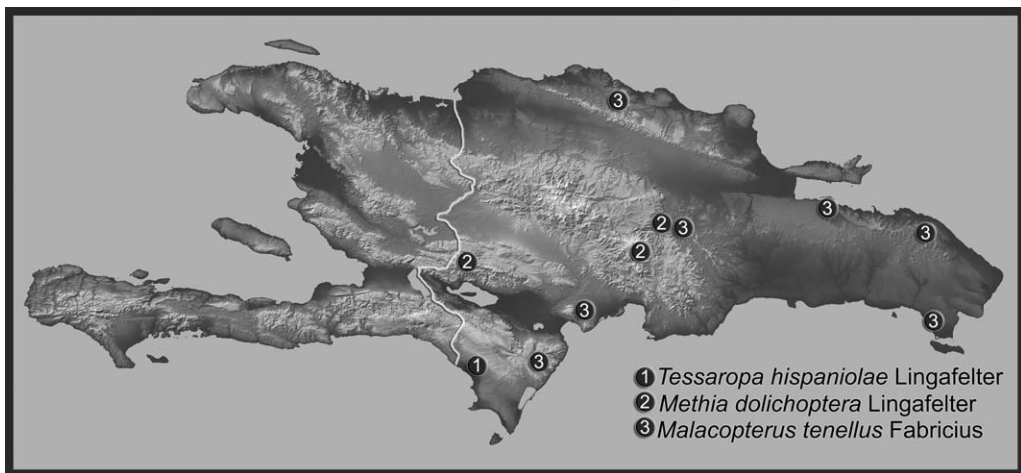


Fig. 4. Map of Hispaniola showing distribution of *Tessaropa hispaniolae*, *Methia dolichoptera*, and *Malacopecterus tenellus*. The widespread circum-Caribbean and West Indian species *Methia necydalea* is not shown since it would obscure the distribution points of the other species.

KEY TO SPECIES OF METHIINI
AND OEMINI FROM HISPANIOLA

1. Elytra moderately to strongly abbreviated, exposing much of hind wings posteriorly and usually at least several tergites. Length nearly always <10 mm.....2
- 1'. Elytra fully developed, very little, if any, of hind wings and abdomen visible from above. Length >11 mm.....3
2. Eyes completely divided; upper eye lobe very small and widely separated from lower lobe. Elytra not extending beyond metasternum.....
..... *Tessaropa hispaniolae* Lingafelter
- 2'. Eyes not divided; upper eye lobe connected to lower eye lobe by at least one (and usually more) rows of ommatidia. Elytra extending beyond first several ventrites (Fig. 3b).....
..... *Methia necydalea* (F.)
3. Elytral costae very distinct, eburneous, separated by darker, longitudinal maculations; size usually >20 mm; apex of femora and base of tibiae much darker than remaining part of legs.....*Malacopterus tenellus* (F.)
- 3'. Elytral costae less distinct, not eburneous, not separated by darker, longitudinal maculae; size <15 mm; legs unicolorous.....
.....*Methia dolichoptera* Lingafelter

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