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Redescription of *Linsleyonides* Skiles (Coleoptera: Cerambycidae) and Inclusion of *Elaphidion portoricensis* Fisher

By

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ABSTRACT *Elaphidion portoricensis* Fisher is transferred to *Linsleyonides* based on four hypothesized autapomorphies for the genus. *Linsleyonides* is redescribed and diagnostic characters are illustrated. Differences between *Linsleyonides* and the closely related *Elaphidion* are discussed. A key for the three species of *Linsleyonides* is presented.

Key words: Systematics, Taxonomy, West Indies, Longhorned Woodborers.

INTRODUCTION

Linsleyonides is a member of the tribe Elaphidiini. This West Indian genus was proposed by Skiles (1985) to accomrnodate 2 species: *L. albomaculatus* (Champlain & Knull, 1922) and *L. chemsaki* (Skiles, 1985). *Elaphidion portoricensis* Fisher is transferred to *Linsleyonides* because it possesses four character states shared by the other two species of *Linsleyonides* (hypothesized autapomorphies of the genus) which are not known from other elaphidiine taxa. Additionally, *L. portoricensis* lacks the hypothesized synapomorphies of *Elaphidion* and other potentially closely related genera. *Linsleyonides* is redescribed below, and many of the diagnostic morphological features are illustrated. Parenthetical notations are included to indicate hypothesized autapomorphies and deviations from or agreement with Skiles' 1985 description.

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SYSTEMATICS

Linsleyonides Skiles

Linsleyonides Skiles, 1985: 316. Type species, Elaphidion albomaculatum Champlain & Knull, by original designation.

Description.—*Size*: small to moderate (7-20mm). *Head:* eye large and coarsely faceted, occupying more than 50% of the exposed region of the head when viewed laterally; distinct, rounded or triangular patches of dense, white or yellow, supraocular pubescence present (Figs. 1-3) (Autapomorphy); frontoclypeal margin arcuate with lateral pits present (first mentioned by Skiles, 1985) (Fig. 5) (Autapomorphy); mandible with a narrow incisor region (less than one-third width of base of mandible when viewed from mesal or biting surface) and an apical and basal indentation separated by an undentate plateau; terminal labial palpomere without digitiform sensillum; terminal maxillary palpomere expanded apically, apical width over half length with distinct, narrow digitiform sensillum (Fig. 6); antenna of female strongly spined apicomesally on antennomeres 3-6, weakly so on antennomere 7; antenna of male, strongly spined mesally on antennomeres 3-5, weakly so on antennomeres 6-7; antenna not spined laterally; antennomeres gradually widened at apices, particularly after antennomere 6; antenna without carina (Skiles, 1985 indicates antennae are partially dorsally carinate, but my clearing of a specimen did not reveal this); antennomere three about two-thirds length of pronotum in male, slightly longer than half length of pronotum in female; terminal antennomere without pseudo-segmental constriction or setae. *Prothorax:* raised median callus and peripheral calli present on pronotum; procoxal cavities open posteriorly; prosternal intercoxal process only slightly expanded apically, gradually declivous posteriorly; lateral margin of procoxal cavity closed (trochantin hidden, propleuron and prosternum fused very close to coxa); pronotum without lateral tubercle or transverse ridges on pronotal disc; prosternum more heavily pubescent in female than male. *Mesothorax:* mesocoxal cavity closed or barely open laterally (mesepimeron contacting mesocoxae directly in some

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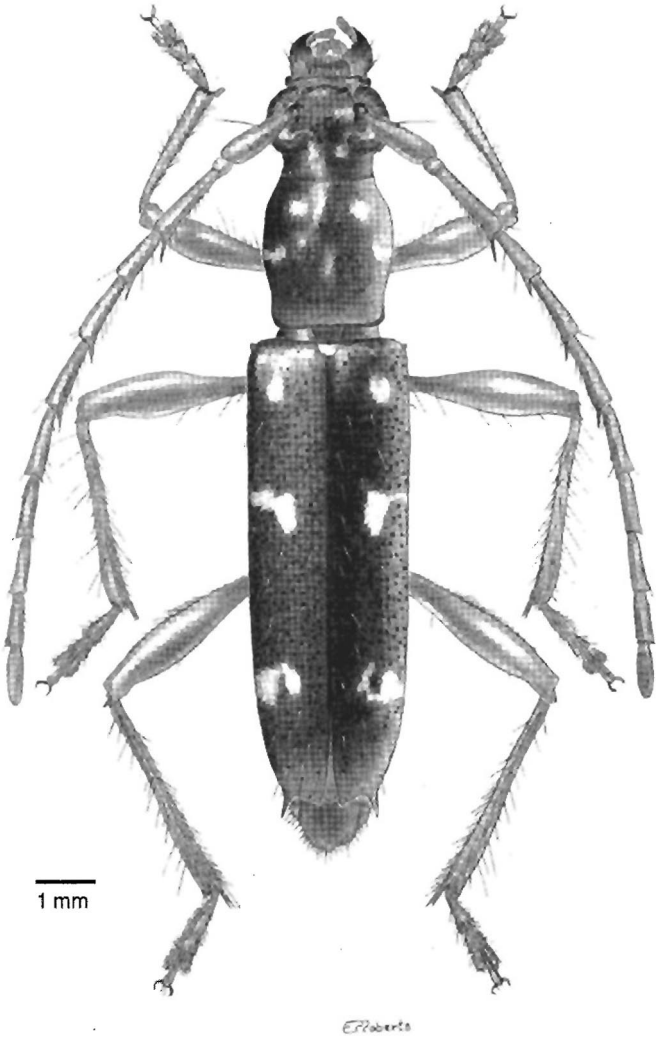
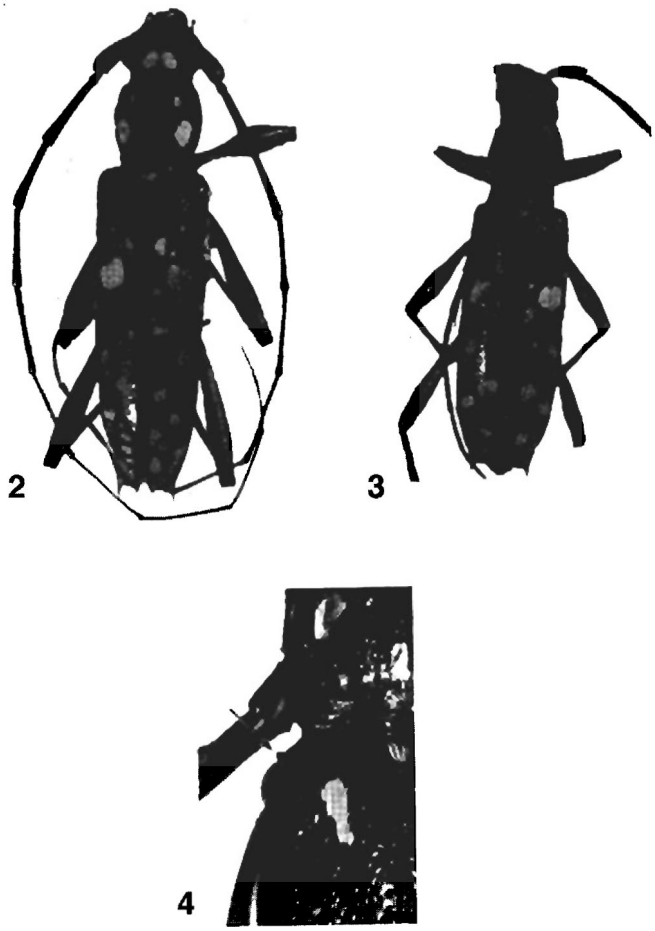


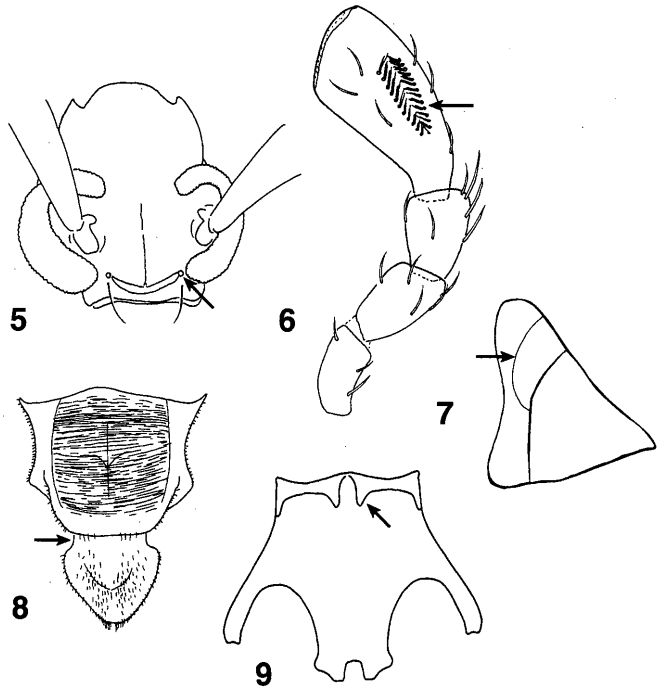
Fig. 1. Habitus of *Linsleyonides portoricensis* (Fisher), female.



Figs. 2–4. Habiti and diagnostic characters of *Linsleyonides*. 2–Habitus of *L. chemsaki* Skiles. male. 3–Habitus of L. *albomaculatus* (Champlain & Knull), rnale. 4–Epipleural tooth on *L. portoricensis*.

specimens, in others, closure of metasternum and mesosternum prevents this contact); anterior margin of mesosternum as in Fig. 9; intercoxal process of mesostemum with small, indistinct lateral projection into acetabular excavation in mesocoxa; wide, truncate notch in mesosternal intercoxal process; anterior margin of mesonotum broadly rounded (Fig. 8); mesoprescutum (scutellum) with basal constriction and small apical notch on otherwise rounded posterior margin (Fig. 8); mesepisternal carina evenly arcuate (Fig. 7). *Metathorax:* metasternal notch acute; metastemal sulcus incomplete, only attaining anterior one-third of metasternum; metepisternum with longitudinal keel positioned equidistant from dorsal and ventral margin, more heavily sclerotized ventral to keel; metepisternal notch at posterior margin narrow and reaching approximately half way to keel. Legs: mesal and lateral mesofemoral apices dentiform to weakly spinose; mesal and lateral metafemoral apices spinose; metafemur linear to slightly enlarged at middle; metafemur finely punctate; meso and metatibia with very reduced carina proximally, not visible distally; metacoxa with pronounced ridges on anterior face. *Wings:* elytron with scattered spots of dense white or yellow pubescence (Figs. 1-3) (Autapomorphy); elytral humerus with small, distinct tooth (Fig. 4) (Autapomorphy); elytra with strong apicolateral spine and dentiform sutural angle; hind wing MP-CuA incomplete, not contacting MP1+2; hind wing without CuA1+2.

Diagnostic characters.—The hypothesized autapomorphies for *Linsleyonides* include the distinct postocular patches of pubescence as well as the small, dense, pubescent patches on the elytra (Figs. 1-3); the elytral humerus with a small epipleural tooth (but also present in some Eburiini, Fig. 4); and the arcuate frontoclypeal suture with



Figs. 5–9. Diagnostic characters of *Linsleyonides.* 5–Head showing frontoclypeal pits. 6–Maxillary palpus showing medially positioned digitiform sensillum. 7–Mesepisternum (anterior to the left) showing arcuate carina. 8–Mesonotum and scutellum (anterior to top) showing constricted scutellar base. 9–Mesosternum showing sclerotized pattern on anterior margin.

lateral pits (first discussed by Skiles, 1985) (Fig. 5). Other diagnostic characters not widely distributed in Elaphidiini include the incomplete metasternal sulcus; terminal antennomere without subapical setae and without pseudoantennomere constriction; and the sclerotization pattern of the anterior margin of the mesosternum (Fig. 9).

Distribution and Diversity of *Linsleyonides.*—This attractive genus occurs in extreme southeastern United States and the West Indies; particularly southern Florida and Cuba (L. albomaculatus), Virgin Islands and Puerto Rico (L. portoricensis), and Jamaica (L. chemsaki).

Discussion.—*Linsleyonides* and Elaphidion share the basic form of the sclerotization of the anterior margin of the mesosternum, but in Linsleyonides there is a posterior medial projection (see arrow, Fig. 9). Additionally, the mesofemoral and antennal spines in *Linsleyonides* are not as prominent as in Elaphidion, and Linsleyonides lacks the abruptly declivous prosternal intercoxal process characteristic of Elaphidion.

A phylogenetic analysis of Elaphidiini (Lingafelter, 1998) using implied weights (PIWE, Goloboff, 1993) showed Linsleyonides to be closely related to several genera including Elaphidion Audinet-Serville, *Curtomerus* Stephens, and Eburia Lepeletier & Audinet-Serville. An equal weighting phylogenetic analysis of the same taxa in that study (Lingafelter, 1998) using PAUP (Swofford, 1991) showed Linsleyonides to be a sister taxon to other Elaphidion exemplars. These analyses used an exemplar approach and included L. portoricensis. Because the type species of the genus, L. *albomaculatus,* and some potentially closely related West Indian genera were not available for dissection and inclusion in that study, further analyses are required for a robust hypothesis of relationships among these closely related genera.

SPECIES CATALOG OF *LINSLEYONIDES*

Linsleyonides *albomaculatus* (Champlain and Knull), 1922: 146. Originally described as Elaphidion, transferred to *Elaphidionoides* by Linsley (1963), then placed in Linsleyonides by Skiles (1985). Designated as type species of Linsleyonides by Skiles (1985: 316). Type locality: Miami, Florida. Type deposition: Field Museum of Natural History (Chicago, Illinois); not examined.

Linsleyonides *chemsaki* Skiles, 1985: 317. Type locality: Hardwar Gap, Jamaica. Type deposition: Canadian National Collection, Agriculture Canada (Ottawa, Ontario); examined.

Linsleyonides portoricensis (Fisher), 1932: 33. **New Combination,** transferred from Elaphidion. Type locality: Coamo Springs, Puerto Rico. Type deposition: American Museum of Natural History (New York, New York); examined.

Key to species of Linsleyonides

1. Postocular pubescence in large, rounded, contiguous patches (Fig. 2); patches of pubescence on head, pronotum, and elytra yellow; pronotal disc with four round patches, anterior two smaller than posterior two ..... L. ***chemsaki* Skiles**

— Postocular pubescence in small, triangular, typically non-contiguous patches (Figs. 1, 3); patches of pubescence on head, pronotum, and elytra white; pronotal disc with four or six patches, anterior two rounded and larger than the others 2

2. Each elytron with at least seven distinct, rounded patches of pubescence of differing sizes (Fig. 3) ..... L. ***albomaculatus* (Champlain & Knull)**

— Each elytron with three triangular or irregularly shaped patches of pubescence (positioned basally, antemedially, and at posterior one-third) (Fig. 1) ..... L. portoricensis **(Fisher)**

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