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# New Apioninae (Coleoptera: Brentidae) in Dominican amber

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#### Abstract

The following new species of Apioninae weevils (Coleoptera: Brentidae) are described from Dominican amber. *Toxorhynchus leptorhinus* n. sp., *Toxorhynchus robustus* n. sp., *Toxorhynchus amphioculus* n. sp., *Toxorhynchus atriartus* n. sp., *Toxorhynchus atriantenus* n. sp. and *Toxorhynchus hispanicus* n. sp. are members of the *Toxorhynchus decoloratum* species group. *Toxorhynchus microsomus* n. sp., *Toxorhynchus stenelytrus* n. sp., *Toxorhynchus dominicanus* n. sp., *Toxorhynchus convexus* n. sp., *Toxorhynchus fuscocorpus* n. sp., *Toxorhynchus hispidulus* n. sp. and *Toxorhynchus convexoculus* are members of the *Toxorhynchus sordidum* species group. Additional species are *Apionion homochronon* n. sp., *Apionion kallimosum* n. sp., *Apionion formosus* n. sp. and *Stenapion levigatum* n. sp. The dominate species of the genus *Toxorhynchus and* especially those in the *Toxorhynchus decoloratum* and *Toxorhynchus sordidum* species groups in Dominican amber are now absent from the West Indies. A systematic update of extant representatives of Apioninae in Hispaniola is provided.

**Key words**: Dominican amber, Coleoptera, Brentidae, Apioninae, new taxa, Tertiary weevils.

#### Introduction

The weevil family Brentidae is a globally dispersed group that first appears in the Early Cretaceous (Zherichin and Gratshev 2004; Legalov 2012). The family is presently subdivided into 5 subfamilies (Eurhynchinae, Apioninae, Brentinae, Nanophyinae and Microcerinae). The subfamily Apioninae is the most widespread of these but their small size and uniformity of color and shape make their classification difficult. They are all more or less pear-shaped and have 11 jointed, straight antennae inserted in fovae at the sides of the beak and a pointed club. The round to slightly elliptical, often convex eyes are relatively large and the elytra are usually striate (Blatchley and Leng 1916). The American fauna of this subfamily was thoroughly studied by Kissinger (1959, 1968, 1974, 1990a, 1990b, 1991, 1992, 1998, 1999a, 1999b, 2002a, 2002b), Alonso-Zarazaga (1991, 2004) and Wanat (2001).

The Apioninae fauna of the West Indies was treated separately by Kissinger (1974) who described 11 species in the genera *Trichapion*, *Toxorhynchus* and Apioninae

ins. sedis. A systematic update of the extant representatives in Hispaniola listed by

Perez-Gelabert (2007) is provided in Table 1. The present study describes new species of

the genera Toxorhynchus, Apionion, and Stenapion (Apioninae) in Dominican amber.

Materials and methods

The specimens were obtained from amber mines in the Cordillera Septentrional of the

Dominican Republic. Dating of Dominican amber is still controversial with the latest

purposed age of 20-15 mya based on foraminifera (Iturralde-Vinent and MacPhee 1996)

and the earliest as 45-30 mya based on coccoliths (Cêpek in Schlee 1990). In addition,

Dominican amber is secondarily deposited in sedimentary rocks, which makes a definite

age determination difficult (Poinar and Mastalerz 2000). A range of ages is possible since

the amber is associated with turbiditic sandstones of the Upper Eocene to Lower Miocene

Mamey Group (Draper et al. 1994). Dominican amber was produced by the leguminous

tree, Hymenaea protera Poinar, 1991 (Poinar 1991) and a re-construction of the

Dominican amber forest based on amber fossils indicated that the environment was

similar to that of a present day tropical moist forest (Poinar and Poinar 1999).

The majority of types are deposited in the PACO collection—Poinar amber collection

maintained at Oregon State University, Corvallis (USA: Oregon). One type is deposited

in the AMNH – American Museum of Natural History (USA: New York) collection.

**Descriptions** 

**Brentidae** Bilberg, 1820

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Apioninae Schoenherr, 1823

**Toxorhynchini** Scudder, 1893 (= Oxystomatini Alonso-Zarazaga, 1990)

**Toxorhynchina** Scudder, 1893 (= Trichapiina Alonso-Zarazaga, 1990; = Oxystomatina Alonso-Zarazaga, 1990)

*Toxorhynchus* Scudder, 1893 (= *Coelocephalapion* Wagner, 1912)

Remarks. This genus was previously known as Coelocephalapion Wagner, 1912 and consists of several species-groups (Kissinger 1968, 1974, 1992). Two species-groups were allocated as the independent genera Apionion Kissinger, 1998 and Sayapion Kissinger, 1999 (Kissinger 1998, 1999b). The genus Toxorhynchus differs from the closely related genus Trichapion Wagner, 1912 by having male tibiae with mucros and the tegmen with the prostegium fused to the free ring (majority of species only). The oldest representatives of the Toxorhynchus date from Upper Eocene-Oligocene Florissant deposits in North America (Scudder 1893; Legalov 2013).

Descriptions of the *Toxorhynchus decoloratum* species group in Dominican amber

Toxorhynchus leptorhinus Poinar et Legalov, n. sp. (Figs. 1, 2)

# Description

Length body, 1.5 mm; length rostrum, 0.5 mm. Body black, with sparse adjoining light setae; rostrum, antennae and legs reddish-brown.

Head. Rostrum elongate, thin, 7.4 times as long as wide in apex and middle, 4.7 times as long as wide at base, 1.4 times as long as pronotum, densely punctate, curved; forehead

weakly flattened and wide, 1.1 times as wide as rostrum base width, densely punctate; eyes large, convex, rounded, vertex flattened, punctate; temples short, 0.2 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate, 8.0 times as long as wide; desmomeres conical; 1st desmomere 3.5 times as long as wide, 0.4 times as long as scape; 5th-7th desmomeres almost equal in length and width; club compact, 1.9 times as long as wide.

*Pronotum.* Pronotum almost bell-shaped, width apex 1.2 times as long as length; in middle 0.8 times as long as length; at base 0.7 times as long as length; disk weakly flattened, with weak pronotal groove, greatest width at base, with dense, large punctures, without striae, with distinct basal flange; sides weakly convex, parallel at base; scutellum trapezoidal.

*Elytra*. Elytra apex trapezoidal, convex, 1.7 times as long as wide at base, 1.5 times as long as wide in middle; 3.1 times as long as wide at apical fourth, 3.4 times as long as pronotum; greatest width after middle; humeri distinctly convex; punctured striae regular and distinct; punctures oval, dense; intervals weakly convex, punctate, 2.5-3.0 times as wide as striae.

*Thorax*. Prothorax punctate, without postorbital lobes; pre- and postcoxal parts of prothorax short; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow, with setae; metathorax weakly convex, densely punctate, without median tubercle; metacoxal cavities widened.

*Abdomen*. Abdomen convex; 1st and 2nd ventrites elongate, almost of equal length; 3rd and 4th ventrites short, of equal length, orientated in different plane to 1st and 2nd ventrites; 5th ventrite elongate, weakly convex.

Legs. Legs long, reddish-brown; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length /

width = 3.2; mesofemora length / width = 3.4; metafemora length / width = 3.5; tibiae almost curved, without mucro; protibiae length / width = 6.4; tarsi long, with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; claws relatively large, free, with teeth.

*Type:* Holotype-female (accession # Cur- 152) deposited in PACO.

Type locality: Amber mine in the northern portion of the Dominican Republic.

*Etymology*: The specific epithet is from the Greek "leptos" = thin and the Greek "rhinos" = beak in reference to the thin rostrum.

*Diagnosis*. The new species is similar to *Toxorhynchus ignotum* (Kissinger, 1968) from Mexico but differs by the densely punctate pronotum, thin rostrum, and reddish-brown legs.

Toxorhynchus robustus Poinar et Legalov, n. sp. (Figs. 3,4)

# **Description**

Length body, 1.6 mm; length rostrum, 0.6 mm. Body brown, with very sparse adjoining light setae; rostrum, antennae and legs reddish-brown.

Head. Rostrum elongate, thin, 7.7 times as long as wide in apex and middle, 5.9 times as long as wide at base, 1.5 times as long as pronotum, punctate, curved; forehead weakly convex and wide, equal in wide to rostrum basal width, punctate; eyes large, convex, rounded; temples short, 0.3 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate; desmomeres conical; club compact.

*Pronotum.* Pronotum almost bell-shaped, width apex 1.4 times as long as length; in middle 1.0 times as long as length; at base 0.9 times as long as length; disk weakly flattened, with

weak pronotal groove, greatest width at base, with large punctures lacking striae; sides weakly convex; scutellum trapezoidal.

*Elytra*. Elytra dorsum trapezoidal, convex, 1.4 times as long as wide at base, 1.1 times as long as wide in middle; 2.0 times as long as wide at apical fourth, 2.2 times as long as pronotum; greatest width after middle; humeri distinctly convex; punctured striae regular and distinct; punctures oval, dense; intervals weakly convex, punctate, 1.0-1.3 times as wide as striae.

*Thorax*. Prothorax punctate, without postorbital lobes; pre- and postcoxal portions of prothorax short; pmetepisternum narrow, with setae; metathorax weakly convex, densely punctate, without median tubercle.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate, almost equal in length; 3rd and 4th ventrites short, of equal length, orientated in different plane to 1st and 2nd ventrites; 5th ventrite elongate, weakly convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; tibiae slightly curved, without mucro; tarsi long, with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; claws relatively large, free, with teeth.

Type: Holotype-female (accession # Cur- 138) deposited in PACO.

Type locality: Amber mine in the northern portion of the Dominican Republic.

*Etymology*: The specific epithet is from the Latin "robustus" in reference to the robust body.

*Diagnosis*. The new species is similar to *Toxorhynchus carinatum* (Smith, 1884) from Central and South America but differs by the wide pronotum, non-rugose elytral intervals, more convex eyes and narrower rostrum.

Toxorhynchus amphioculus Poinar et Legalov, n. sp. (Figs. 5,6)

# Description

Length body, 1.6 mm; length rostrum, 0.7 mm. Body brown, with sparse adjoining light setae; rostrum, antennae and legs light-brown.

Head. Rostrum elongate, thin, 6.8 times as long as wide in apex, 7.8 times as long as wide in middle, 7.8 times as long as wide at base, 1.6 times as long as pronotum, densely punctate, curved; forehead weakly flattened and wide, 1.6 times as wide as rostrum base width, densely punctate; eyes large, convex, rounded, vertex weakly flattened, punctate; temples short, 0.3 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate; desmomeres conical; 5th-7th desmomeres almost equal in length and width; club compact; 1st club article 1.2 times as long as wide, 2.0 times as long and 2.5 times as wide as 7th desmomere; 2nd club article almost equal to 1st club article; 3rd club article 1.8 times as long as wide, 1.2 times as long as and 0.8 times as wide as 2nd club article, tip distinctly acuminate.

*Pronotum.* Pronotum slightly bell-shaped, width apex 1.3 times as long as length; in middle 1.1 times as long as length; at base 1.0 times as long as length; disk weakly convex, with weak pronotal groove, greatest width at base, with dense, large punctures, without striae; sides straight; scutellum trapezoidal.

*Elytra*. Elytra dorsum trapezoidal, convex, 2.2 times as long as wide at base, 1.7 times as long as wide in middle; 2.8 times as long as wide at apical fourth, 3.8 times as long as pronotum; greatest width after middle; humeri distinctly convex; punctured striae regular and distinct; punctures oval, dense; intervals weakly convex, punctate, 2.7-3.3 times as wide as striae.

*Thorax*. Prothorax punctate, without postorbital lobes; pre- and postcoxal parts of prothorax short; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow, with setae; metathorax weakly convex, densely punctate, without median tubercle; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate, almost equal length; 3rd and 4th ventrites short, equal length, orientated in a different plane to the 1st and 2nd ventrites; 5th ventrite elongate, weak convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 4.2; mesofemora length / width = 4.2; metafemora length / width = 3.8; tibiae almost curved, without mucro; protibiae length / width = 7.3; tarsi long, with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; protarsi: 1st tarsomere 1.4 times as long as wide; 2nd tarsomere 1.0 times as long as wide, 0.9 times as long as and 1.2 times as wide as 1st tarsomere; 3rd tarsomere 1.0 times as long as wide, 1.2 times as long as and 1.2 times as wide as 2nd tarsomere; 5th tarsomere 4.0 times as long as wide, 1.4 times as long as 3rd tarsomere; mesotarsi: 1st tarsomere 1.2 times as long as wide; 2nd tarsomere 0.7 times as long as wide, 0.7 times as long as and 1.2 times as long as as long as wide, 0.7 times

wide, 1.3 times as long as and 1.5 times as wide as 2nd tarsomere; 5th tarsomere 3.3 times as long as wide, 2.0 times as long as 3rd tarsomere; claws relatively large, free, with teeth.

*Type:* Holotype-female (accession # Cur- 135) deposited in PACO.

Type locality: Amber mine in the northern portion of the Dominican Republic.

Etymology: The specific epithet is from the Latin "amphi" = large and the Latin "oculus" = eyes in reference to the large eyes.

*Diagnosis*. The new species is similar to *Toxorhynchus emaciipes* (Fall, 1898) from USA but differs by the narrow body and the longer thin rostrum lacking expanded antennal insertions.

Toxorhynchus atriartus Poinar et Legalov, n. sp. (Figs. 7, 8)

# **Description**

Length body, 1.5 mm; length rostrum, 0.5 mm. Body black, with sparse adjoining light setae.

Head. Rostrum elongate, thin, 8.4 times as long as wide at apex, 7.4 times as long as wide in middle, 6.6 times as long as wide at base, 1.5 times as long as pronotum, densely punctate, curved; forehead weakly flattened and quite wide, densely punctate; eyes large, convex, rounded, vertex weakly flattened, punctate; temples slightly long, 0.8 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate, 6.0 times as long as wide; desmomeres conical; 1st desmomere 2.4 times as long as wide, 0.4 times as long as scape; club compact, 0.3 times as long as funicle, 2.0 times as long as wide, tip distinctly acuminate.

*Pronotum.* Pronotum almost bell-shaped, width apex 1.3 times as long as length; in middle 1.1 times as long as length; at base 0.9 times as long as length, sides subparallel in basal half; disk weakly convex, with weak pronotal groove and distinct basal flange with greatest width at base, with dense, large punctures, without striae; sides straight; scutellum trapezoidal.

*Elytra*. Elytra dorum trapezoidal, convex, 1.7 times as long as wide at base, 1.3 times as long as wide in middle; 2.1 times as long as wide at apical fourth, 2.4 times as long as pronotum; greatest width after middle; humeri distinctly convex; punctured striae regular and distinct; punctures oval, dense; intervals weakly convex, punctate, 1.5-2.3 times as wide as striae.

*Thorax*. Prothorax punctate, without postorbital lobes; pre- and postcoxal parts of prothorax short;

precoxal part 1.3 times as long as postcoxal part; procoxal cavities contiguous, 1.4 times as long as precoxal part; mesocoxal cavities separated; metepisternum narrow, with setae; metathorax weak convex, densely punctuate, without median tubercle; metacoxal cavities widened.

*Abdomen*. Abdomen convex; 1st and 2nd ventrites elongate, almost equal in length; 3rd and 4th ventrites short, equal in length, orientated in different plane to 1st and 2nd ventrites; 5th ventrite elongate, weakly convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 4.0; metafemora length / width = 3.6; tibiae almost curved, without mucro; metatibiae length / width = 6.0; tarsi long, with pulvilli on underside; first and second tarsomeres conical;

third tarsomere bilobed; fifth tarsomere subconical and elongate; claws relatively large, free, with teeth.

*Type:* Holotype-female (accession # Cur- 133) deposited in PACO.

Type locality: Amber mine in the northern portion of the Dominican Republic.

Etymology: The specific epithet is from the Latin "atria" = dark and the Latin "artus" = limbs in reference to the black legs.

*Diagnosis*. The new species is similar to *Toxorhynchus decoloratum* (Smith, 1898) from North and Central America but differs by the narrower elytra, longer and thinner rostrum, and black antennae, tibiae, and tarsi.

Toxorhynchus atriantenus Poinar et Legalov, n. sp. (Fig. 9)

# **Description**

Length body, 1.3 mm; length rostrum, 0.4 mm. Body black with sparse adjoining light setae.

Head. Rostrum elongate, thin, 8.4 times as long as wide in apex and middle, 7.0 times as long as wide at base, 1.7 times as long as pronotum, slightly punctate at apex, curved; forehead flattened, little widened, 0.8 times as wide as rostrum base width, densely punctate; eyes large, convex, rounded; vertex weakly flattened, punctate; temples short, 0.3 times as long as eye length, punctate; antennae inserted in first quarter of rostrum, reaching beyond middle of pronotum; scape elongate, 5.0 times as long as wide; 1st desmomere 3.0 times as long as wide, 0.6 times as long as and 1.0 times as narrow as scape; 2nd desmomere 2.0 times as long as wide, 0.5 times as long as and 0.8 times as wide as 1st desmomere; 3rd-5th desmomeres almost equal to 2nd desmomere; 6th desmomere 1.5 times as long wide; 7th

desmomere almost equal to 6th desmomere; club compact; 1st club article 0.7 times as long as wide, 1.3 times as long and 2.8 times as wide as 7th desmomere; 2nd club article 0.9 times as long as wide, 1.3 times as long as and equal in width to 1st club article; 3rd club article 1.6 times as long as 2nd club article, tip distinctly acuminate.

*Pronotum.* Pronotum bell-shaped, width apex 1.1 times as long as length; in middle and at base 0.8 times as long as length; disk weakly flattened, with distinct pronotal groove, greatest width in middle and at base, with dense, large punctures, without striae; sides straight; scutellum trapezoidal,

finely and rarely punctate.

*Elytra*. Elytra dorsum trapezoidal, convex, 1.3 times as long as wide at base, 1.2 times as long as wide in middle; 2.1 times as long as wide at apical fourth, 3.0 times as long as pronotum; greatest width after middle; humeri distinctly convex; punctured striae regular and distinct; punctures oval, dense; intervals narrow, with row of points, 0.8-1.0 times as wide as striae.

Thorax. Prothorax densely punctate, without postorbital lobes; precoxal part of prothorax short, 0.4 times as long as precoxal cavity length; postcoxal part of prothorax slightly elongate, 1.5 times as long as precoxal part; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow, 8.3 times as long as wide; metathorax very convex, densely punctate, 1.9 times as long as mesocoxal cavity length; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate, equal in length; 3rd and 4th ventrites short, equal in length, orientated in different plane to 1st and 2nd ventrites; 3rd

ventrite 0.5 times as long as 2nd ventrite; 5th ventrite elongate, 2.2 times as long as 4th ventrite; weakly convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, densely punctate, without teeth; mesofemora length / width = 3.3; metafemora length / width = 2.7; tibiae almost straight, without mucro, with apical brown setose fringe; mesotibiae length / width = 9.0; metatibiae length / width = 5.8; tarsi long, unmodified, with pulvilli on underside; first tarsomere elongate conical; second tarsomere conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; protarsi: 1st tarsomere 2.3 times as long as wide; 2nd tarsomere 1.5 times as long as wide, 0.9 times as long as and 1.3 times as wide as 1st tarsomere; 3rd tarsomere 1.0 times as long as wide, equal in length and 1.5 times as wide as 2nd tarsomere; 5th tarsomere 4.0 times as long as wide, 1.3 times as long as 3rd tarsomere; metatarsi: 1st tarsomere 1.3 times as long as wide; 2nd tarsomere 1.2 times as long as wide, 1.2 times as long as and 1.3 times as wide as 1st tarsomere; 3rd tarsomere 0.8 times as long as wide, 0.8 times as long as and 1.2 times as wide as 2nd tarsomere; 5th tarsomere 3.0 times as long as wide, 1.2 times as long as 3rd tarsomere; claws relatively large, free, with teeth.

*Type:* Holotype-male (accession DR-8-431) deposited in AMNH.

Type locality: Amber mine in the northern portion of the Dominican Republic.

Etymology: The specific epithet is from the Latin "atria" = dark and the Latin "antenna" = antenna in reference to the black antennae.

*Diagnosis*. The new species is similar to *Toxorhynchus absonum* (Kissinger, 1968) from Central America but differs by the smaller body sizes, black antennae, tibiae and tarsi, short convex metathorax and narrower elytral intervals.

Toxorhynchus hispanicus Poinar et Legalov, n. sp. (Figs. 10,11)

# Description

Length body, 1.2 mm; length rostrum, 0.3 mm. Body black, with very sparse adjoining light setae; rostrum, antennae and legs light-brown.

Head. Rostrum quite elongate and thin, 6.0 times as long as width in apex and middle, 4.4 times as long as width at base, 1.3 times as long as pronotum, punctate, weakly curved; forehead weakly flattened and quite wide, largely punctate; eyes large, convex, rounded, vertex weakly flattened, punctate; temples weak elongate, 0.6 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate, 4.4 times as long as wide; desmomeres conical; 1st desmomere 1.7 times as long as wide, 0.5 times as long as scape; club compact, 2.5 times as long as wide, tip distinctly acuminate.

*Pronotum.* Pronotum slightly bell-shaped, width apex 1.6 times as long as length; in middle and at base 1.2 times as long as length; sides subparallel in basal half; disk weakly convex, with weak pronotal groove, distinct basal flange, greatest width at base, with dense, large punctures, without striae; sides straight; scutellum trapezoidal.

*Elytra*. Elytra dorsum trapezoidal, convex, 2.0 times as long as wide at base, 1.6 times as long as wide in middle; 2.8 times as long as wide at apical fourth, 2.4 times as long as pronotum; greatest width after middle; humeri distinctly convex; punctured striae regular

and distinct; punctures oval, dense; intervals weakly convex, punctate, 1.0-1.7 times as wide as striae.

Thorax. Prothorax punctate, without postorbital lobes; pre- and postcoxal parts of prothorax short; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow, 6.0 times as long as wide, with setae; metathorax weakly convex, densely punctuate, without median tubercle; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate, almost of equal length; 3rd and 4th ventrites short, of equal length, orientated in different plane to 1st and 2nd ventrites; 5th ventrite elongate, weakly convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 4.4; mesofemora length / width = 3.6; metafemora length / width = 3.8; tibiae slightly curved, without mucro; protibiae length / width = 8.4; metatibiae length / width = 8.2; tarsi long, with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; claws relatively large, free, with teeth; protarsi: 1st and 2nd tarsomeres almost equal in length; 3rd tarsomere 0.8 times as long as 2nd tarsomere; 5th tarsomere 1.7 times as long as 3rd tarsomere; mesotarsi: 1st tarsomere 1.8 times as long as wide, equal in length to 1st tarsomere; 3rd tarsomere 0.7 times as long as wide, 0.8 times as long as and 1.7 times as wide as 2nd tarsomere; 5th tarsomere 3.3 times as long as wide, 1.4 times as long as 3rd tarsomere; metatarsi: 2nd tarsomere 0.8 times as long as 1st tarsomere; 3rd tarsomere equal in length to 2nd tarsomere; 5th tarsomere 1.8 times as long as 3rd tarsomere.

*Type:* Holotype-female (accession # Cur- 151) deposited in PACO.

Type locality: Amber mine in the northern portion of the Dominican Republic.

Etymology: The specific epithet is based on the geographical location of the fossil.

Diagnosis. The new species is similar to Toxorhynchus absonum (Kissinger, 1968) from Central America but differs by its smaller body size, wider elytral striae, narrower pronotum and shorter rostrum.

Key to species of the *Toxorhynchus decoloratum* species group in Dominican amber

- 1. Rostrum short, 6.0 times as long as wide in apex and middle- *T. hispanicus* (Figs. 11,12)
- -. Rostrum elongate, 7.4-8.4 times as long as wide in apex and middle ----- 2
- 2. Elytra wide, 1.1 times as long as wide in middle. Body brown, somewhat robust- *T. robustus* (Figs. 3,4).
- -. Elytra elongate, 1.2-1.7 times as long as wide in middle. Body black, more slender -----3
- 3. Elytra narrower, 1.7 times as long as wide in middle- *T. amphioculus* (Figs. 5,6)
- -. Elytra wider, 1.2-1.5 times as long as wide in middle --- 4
- 4. Rostrum longish, 8.4 times as long as wide in apex and middle. Elytral intervals narrow, 0.8- 1.0 times as wide as striae ------ *T. atriantenus* (Fig. 9)
- -. Rostrum shorter, 7.4 times as long as width in apex and middle. Elytral intervals wider,
- 1.5-3.0 times as wide as striae ----- 5

-. Legs reddish-brown; elytra 1.5 times as long as wide in middle; pronotum in middle 0.8 times as long as length------ *T. leptorhinus* (Figs. 1,2).

Toxorhynchus sordidum species group

Toxorhynchus microsomus Poinar et Legalov, n. sp. (Figs. 12,13)

# Description

Length body, 1.3-1.5 mm; length rostrum, 0.4 mm. Body black-brown, with sparse adjoining light setae; rostrum, antennae and legs brown.

*Head.* Rostrum elongate, thin, 7.3-9.8 times as long as wide at apex, 7.3-7.8 times as long as wide in middle, 4.9 times as long as wide at base, 1.3-1.6 times as long as pronotum, punctate, curved; forehead flattened and wide, almost equal in width to rostrum base width, densely punctate; eyes large, convex, rounded; vertex weakly flattened, punctate; temples short, 0.5-0.6 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; desmomeres conical; club compact, quite wide, tip distinctly acuminate.

*Pronotum.* Pronotum bell-shaped, width apex 1.5 times as long as length; in middle 1.0-1.1 times as long as length; at base 1.0 times as long as length; disk weakly convex, with weak pronotal groove, greatest width at base, with dense, large punctures, without striae; sides weakly convex; scutellum trapezoidal.

*Elytra*. Elytra dorsum trapezoidal, convex, 1.5-2.0 times as long as wide at base, 1.4-1.6 times as long as wide in middle; 2.0-3.2 times as long as wide at apical fourth, 2.6-2.8 times

as long as pronotum; greatest width after middle; humeri distinctly and starkly convex; punctured striae regular and distinct; punctures oval, dense; intervals weakly convex, punctate, 1.8-2.7 times as wide as striae.

Thorax. Prothorax densely punctate, without postorbital lobes; precoxal part of prothorax short; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow, with setae; metathorax weakly convex, densely punctuate, with median tubercle; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate; 2nd ventrite 0.7 times as long as 1st ventrite; 3rd and 4th ventrites short, equal length, orientated in a different plane to the 1st and 2nd ventrites; 5th ventrite elongate, weak convex, 1.5 times as long as 4th ventrite.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 3.9-6.3; mesofemora length / width = 5.3-6.3; metafemora length / width = 3.7-6.8; tibiae almost curved, without mucro; protibiae length / width = 9.4; metatibiae length / width = 7.0-8.0; tarsi long, with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; mesotarsi: 1st tarsomere 1.2 times as long as wide; 2nd tarsomere almost equal to 1st tarsomere; 3rd tarsomere 0.6 times as long as wide, 1.2 times as long as and 2.2 times as wide as 2nd tarsomere; 5th tarsomere 3.7 times as long as wide, 1.6 times as long as 3rd tarsomere; claws relatively large, free, with teeth.

*Type:* Holotype-male (accession # Cur-129) deposited in PACO.

*Paratype*. Accession # Cur-150 in PACO.

*Type locality:* Amber mine in the northern portion of the Dominican Republic.

Etymology: The specific epithet is from the Greek "micro" = small and the Greek "soma" = body in reference to the small body.

*Diagnosis*. The new species is similar to *Toxorhynchus californicum* (Smith, 1884) from USA but differs by the small body, distinctly convex humeri, and weakly convex sides of the pronotum.

Toxorhynchus stenelytrus Poinar et Legalov, n. sp. (Figs. 14,15)

# **Description**

Length body, 1.3-1.5 mm; length rostrum, 0.5 mm. Body black-brown, with sparse adjoining light setae; rostrum, antennae and legs brown.

Head. Rostrum elongate, thin, 8.2-11.4 times as long as wide in apex, 8.2-9.5 times as long as wide in middle, 6.8-7.1 times as long as wide at base, 1.4-1.6 times as long as pronotum, densely punctate, curved; forehead flattened and wide, almost equal in width to rostrum base width, densely punctate; eyes large, convex, rounded, 1.1-1.5 times as long as wide; vertex weakly flattened, punctate; temples short, 0.7 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate, 0.3 times as long as funicle length; desmomeres conical; club compact, 0.3 times as long as funicle; 1st club article 1.5 times as long as wide; 2nd club article 1.3 times as long as wide, 0.8 times as long as and equal in width to 1st club article; 3rd club article 2.0 times as long as wide, 1.6 times as long as 2nd club article, tip distinctly acuminate.

*Pronotum.* Pronotum slightly bell-shaped, width apex 1.5 times as long as length; in middle 1.2 times as long as length; at base 1.1 times as long as length; disk weakly convex, with

weak pronotal groove, greatest width at base, with dense, large punctures, without striae; sides straight; scutellum trapezoidal.

*Elytra*. Elytra dorsum trapezoidal, convex, 2.4 times as long as wide at base, 1.6 times as long as wide in middle; 2.5 times as long as wide at apical fourth, 2.9 times as long as pronotum; greatest width after middle; humeri distinctly convex; punctured striae regular and distinct; punctures oval, dense; intervals weakly convex, punctate, 1.3-3.3 times as wide as striae.

*Thorax*. Prothorax densely punctate, without postorbital lobes; pre- and postcoxal parts of prothorax short, of equal length; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow, with setae; metathorax weak convex, densely punctate, with median tubercle; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate; 3rd and 4th ventrites short, equal in length, orientated in different plane to 1st and 2nd ventrites; 5th ventrite elongate, weakly convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 4.7; mesofemora length / width = 4.5; metafemora length / width = 3.9-5.9; tibiae slightly curved, without mucro; protibiae length / width = 5.9; metatibiae length / width = 7.0-8.3; tarsi long, with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; protarsi: 1st tarsomere 2.3 times as long as wide; 2nd tarsomere 1.8 times as long as wide, equal in length to and 1.3 times as wide as 1st tarsomere; 3rd tarsomere 0.8 times as long as wide, 0.7 times as long as and 1.5

times as wide as 2nd tarsomere; 5th tarsomere 3.0 times as long as wide, 1.8 times as long as 3rd tarsomere; claws relatively large, free, with teeth.

*Type:* Holotype-female (accession # Cur- 130) deposited in PACO.

Paratype. Accession # Cur- 147 in PACO.

Type locality: Amber mine in the northern portion of the Dominican Republic.

*Etymology*: The specific epithet is from the Greek "stenos" = narrow and the Greek "elytrus" = elytra in reference to the narrow wing covers.

*Diagnosis*. The new species is similar to *Toxorhynchus californicum* (Smith, 1884) from USA but differs by the small body size, larger punctate pronotum, stronger convex humeri, and narrower elytra.

*Toxorhynchus dominicanus* Poinar et Legalov, n. sp. (Figs. 16,17)

# **Description**

Length body, 1.4 mm; length rostrum, 0.5 mm. Body brown, with sparse adjoining light setae; rostrum, antennae and legs light-brown.

Head. Rostrum elongate, thin, 7.3 times as long as wide in apex, 7.3 times as long as wide in middle, 5.5 times as long as wide at base, 1.5 times as long as pronotum, densely punctate, curved; forehead weakly flattened and wide, densely punctate; eyes large, convex, rounded, vertex weakly flattened, punctate; temples short, 0.4 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate, 5.5 times as long as wide, 0.4 times as long as funicle length; desmomeres conical; 1st desmomere 2.0 times as long as wide, 0.4 times as long as and 0.8 times as narrow as scape; 5th-7th desmomeres almost

equal in length and width; club compact, 0.4 times as long as funicle, tip distinctly acuminate.

*Pronotum.* Pronotum somewhat bell-shaped dorsally, width apex 1.8 times as long as length; in middle 1.5 times as long as length; at base 1.3 times as long as length; disk weakly convex, with weak pronotal groove, greatest width at base, with dense, large punctures, without striae; sides weakly convex; scutellum trapezoidal.

*Elytra*. Elytra dorsum trapezoidal, convex, 2.3 times as long as wide at base, 1.9 times as long as wide in middle; 3.5 times as long as wide at apical fourth, 2.7 times as long as pronotum; greatest width after middle; humeri distinctly convex; punctured striae regular and distinct; punctures oval, dense; intervals weakly convex, punctate, 3.0-5.0 times as wide as striae.

Thorax. Prothorax punctate, without postorbital lobes; pre- and postcoxal parts of prothorax short; postcoxal part of prothorax 1.3 times as long as procoxal part, equal in length to procoxal cavity length; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow, with setae; metathorax weak convex, densely punctuate, with median tubercle; metacoxal cavities widened.

*Abdomen*. Abdomen convex; 1st and 2nd ventrites elongate, almost equal in length; 3rd and 4th ventrites short, of equal length, orientated in different plane to 1st and 2nd ventrites; 5th ventrite elongate, weakly convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 4.6; mesofemora length / width = 4.2; metafemora length / width = 4.3; tibiae almost curved, without mucro; protibiae length / width = 10.5; metatibiae length / width = 9.8; tarsi long,

with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; claws relatively large, free, with teeth.

*Type:* Holotype-female (accession # Cur- 131) deposited in PACO.

Type locality: Amber mine in the northern portion of the Dominican Republic.

Etymology: The specific epithet is based on the geographic location of the fossil.

*Diagnosis*. The new species is similar to *Toxorhynchus stenelytrus* but differs by the shorter and thicker rostrum (7.3 times as long as wide at apex and middle, 5.5 times as long as wide at base).

Toxorhynchus convexus Poinar et Legalov, n. sp. (Figs. 18,19)

# **Description**

Length body, 1.4 mm; length rostrum, 0.6 mm. Body black-brown; rostrum, antennae and legs red-brown.

Head. Rostrum elongate, thin, 7.0 times as long as wide in apex and middle, 5.3 times as long as wide at base, 1.3 times as long as pronotum, finely punctate, curved; forehead flattened and wide, punctate; eyes large, convex, rounded; vertex weakly flattened, punctate; temples short, 0.3 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate, 3.6 times as long as wide, 0.4 times as long as funicle length; desmomeres conical; club compact, 2.3 times as long as wide, 0.4 times as long as funicle.

Pronotum. Pronotum somewhat bell-shaped dorsally, width apex 1.0 times as long as length; in middle and at base 0.7 times as long as length; disk weakly convex, with weak pronotal groove, greatest width at base, with dense, large punctures, without striae; scutellum trapezoidal.

*Elytra*. Elytra dorsum trapezoidal, convex, 1.4 times as long as wide at base, 1.2 times as long as wide in middle; 2.0 times as long as wide at apical fourth, 3.0 times as long as pronotum; greatest width after middle; humeri distinctly convex; punctured striae regular and distinct; punctures oval, dense; intervals weakly convex, punctate, 2.0-2.3 times as wide as striae.

Thorax. Prothorax densely punctate, without postorbital lobes; pre- and postcoxal parts of prothorax short; postcoxal part 0.7 times as long as precoxal part; procoxal cavities contiguous, 1.2 times as long as precoxal part; mesocoxal cavities separated; metepisternum narrow, with setae; metathorax weak convex, densely punctate, with median tubercle; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate; 3rd and 4th ventrites short, equal length, orientated in a different plane to the 1st and 2nd ventrites; 5th ventrite elongate, weakly convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 4.6; mesofemora length / width = 4.0; metafemora length / width = 4.6; tibiae almost curved, without mucro; protibiae length / width = 10.0; mesotibiae length / width = 9.0; metatibiae length / width = 8.6; tarsi long, with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; metatarsi: 1st tarsomere 2.0 times as long as wide; 2nd tarsomere 2.0 times as long as wide, 1.3 times as long as and 1.3 times as wide as 1st tarsomere; 3rd tarsomere 1.0 times as long as wide, 0.8 times as long as and 1.5 times as wide as 2nd tarsomere; 5th tarsomere 3.0 times as long as wide; claws relatively large, free, with teeth.

*Type:* Holotype-female (accession # Cur- 126) deposited in PACO.

*Type locality:* Amber mine in the northern portion of the Dominican Republic.

*Etymology*: The specific epithet is taken from the Latin "convexus" = convex in reference to the expanded borders of the pronotum (in dorsal view).

*Diagnosis*. The new species is similar to *Toxorhynchus dilutum* (Kissinger, 1968) from USA but differs by the small body size, stronger convex humeri, and wider pronotum and elytra.

Toxorhynchus fuscocorpus Poinar et Legalov, n. sp. (Figs. 20,21)

# Description

Length body, 1.4 mm; length rostrum, 0.5 mm. Body black-brown; rostrum, antennae and legs red-brown.

Head. Rostrum elongate, 6.8 times as long as wide in apex and middle, 5.4 times as long as wide at base, 1.3 times as long as pronotum, finely punctate, weakly curved; forehead flattened and quite wide, punctate; eyes large, convex, rounded; vertex weakly flattened; temples short, 0.5 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate; desmomeres conical; club compact.

*Pronotum.* Pronotum somewhat bell-shaped dorsally, width 0.7 times as long as length; disk weakly flattened, with weak pronotal groove, with dense, large punctures, without striae; sides straight; scutellum trapezoidal.

*Elytra*. Elytra dorsum trapezoidal, convex, 1.7 times as long as wide at base, 1.4 times as long as wide in middle; 2.1 times as long as wide at apical fourth, 3.2 times as long as

pronotum; greatest width after middle; humeri distinctly convex; punctured striae regular and distinct; punctures oval, dense; intervals weakly convex, punctate, 1.3-2.0 times as wide as striae.

*Thorax*. Prothorax densely punctate, without postorbital lobes; pre- and postcoxal parts of prothorax short; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow, with setae; metathorax weakly convex, densely punctate, with median tubercle; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate; 2nd ventrite 0.9 times as long as 1st ventrite; 3rd and 4th ventrites short, equal length, orientated in different plane to 1st and 2nd ventrites; 5th ventrite elongate, weak convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 5.0; metafemora length / width = 3.9; tibiae almost curved, widened at apex, without mucro; protibiae length / width = 7.8; metatibiae length / width = 6.6; tarsi long, with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; mesotarsi: 3rd tarsomere 1.6 times as long as wide; 5th tarsomere 2.7 times as long as wide; claws relatively large, free, with teeth.

*Type:* Holotype-female (accession # Cur- 128) deposited in PACO.

*Type locality:* Amber mine in the northern portion of the Dominican Republic.

Etymology: The specific epithet is taken from the Latin "fuscus" = dark and the Latin "corpus" = body in reference to the nearly black body color.

*Diagnosis*. The new species is similar to *Toxorhynchus curcticorne* (Fall, 1898) from North and Central America but differs by the small body size, stronger convex humeri, thinner rostrum, and more convex eyes.

Toxorhynchus hispidulus Poinar et Legalov, n. sp. (Figs. 22,23)

# Description

Length body, 1.8 mm; length rostrum, 0.6 mm. Body black, with densely setae.

Head. Rostrum elongate, 7.0 times as long as wide in apex and middle, 5.6 times as long as wide at base, 1.3 times as long as pronotum, densely punctate, weakly curved; forehead weakly flattened and quite wide, densely punctate; eyes large, convex, rounded; vertex weakly flattened; temples short, 0.6 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate, 7.0 times as long as wide; desmomeres conical; 1st desmomere 2.0 times as long as wide, 0.4 times as long as and 1.5 times as wide as scape; 2nd desmomere 2.5 times as long as wide, 0.8 times as long as and 0.7 times as wide as 1st desmomere; 3rd desmomere equal to 2nd desmomere; club compact.

*Pronotum.* Pronotum somewhat bell-shaped, width apex 1.3 times as long as length; in middle 1.0 times as long as length; at base 0.9 times as long as length; disk weakly convex, with weak pronotal groove; greatest width at base, with dense, large punctures, without striae; intervals between points convex, 0.3-0.7 times as long as point diameter; scutellum trapezoidal.

*Elytra*. Elytra dorsum trapezoidal, convex, 1.5 times as long as wide at base, 1.1 times as long as wide in middle; 1.2 times as long as wide at apical fourth, 2.4 times as long as pronotum; greatest width after middle; humeri distinctly convex; punctured striae regular

and distinct; punctures oval, dense; intervals weakly convex, rarely punctuate, lustrous, 2.5-3.3 times as wide as striae.

*Thorax*. Prothorax densely punctate, without postorbital lobes; pre- and postcoxal parts of prothorax short; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow, with setae; metathorax weakly convex, densely punctate, with median tubercle; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate; 3rd and 4th ventrites short, almost equal in length, orientated in a different plane to the 1st and 2nd ventrites; 5th ventrite elongate, weakly convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 3.3; mesofemora length / width = 4.1; tibiae almost curved, widened at apex, without mucro; protibiae length / width = 7.5; mesotibiae length / width = 6.3; tarsi long, with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; claws relatively large, free, with teeth.

*Type:* Holotype-female (accession # Cur- 146) deposited in PACO.

Type locality: Amber mine in the northern portion of the Dominican Republic.

*Etymology*: The specific epithet is from the Latin "hispidus" = hairy in reference to the dense setae covering the body.

*Diagnosis*. The new species is similar to *Toxorhynchus germanium* (Sharp, 1890) from Central America but differs by the shorter elytra and wider pronotum with larger punctures.

Toxorhynchus convexoculus Poinar et Legalov, n. sp. (Figs. 24,25)

# Description

Length body, 1.4-1.6 mm; length rostrum, 0.3-0.5 mm. Body black, with dense setae.

Head. Rostrum elongate, 5.6-7.2 times as long as wide in apex and middle, 4.4-6.1 times as long as wide at base, 1.2-1.5 times as long as pronotum, with dense small punctures, weakly curved; forehead flattened and wide, densely punctate; eyes large, convex, rounded; vertex weakly flattened; temples short, 0.3-0.6 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate, 2.6-4.7 times as long as wide; desmomeres conical; 1st desmomere 1.4 times as long as wide, 0.5 times as long as and 1.7 times as wide as scape; 2nd desmomere 2.5 times as long as wide, 0.7 times as long as and 0.4 times as wide as 1st desmomere; 3rd desmomere equal to 2nd desmomere; 4th desmomere 2.0 times as long as wide, 0.8 times as long as and 1.0 times as wide as 3rd desmomere; 5th desmomere 1.5 times as long as wide, 0.8 times as long as and 1.0 times as wide as 4th desmomere; 6th desmomere 1.6 times as long as wide, 1.3 times as long as and 1.3 times as wide as 5th desmomere; 7th desmomere 1.3 times as long as wide, 1.0 times as long as and 1.2 times as wide as 6th desmomere; club compact, 1.8 times as long as wide, 0.6 times as long as funicle; 1st club article 1.0 times as long as wide, 1.8 times as long and 2.3 times as wide as 7th desmomere; 2nd club article 0.7 times as long as wide, 0.7 times as long as and equal in width to 1st club article; 3rd club article 1.2 times as long as wide, 1.2 times as long as 2nd club article, tip distinctly acuminate.

*Pronotum.* Pronotum somewhat bell-shaped, width at apex 1.0-1.2 times as long as length; in middle 0.7-0.9 times as long as length; at base 0.6-0.9 times as long as length; disk

weakly convex, with weak pronotal groove; greatest width at base, with dense, large punctures, without striae; sides scutellum trapezoidal, almost equal in length and width.

*Elytra*. Elytra dorsum trapezoidal, convex, 1.3-1.9 times as long as wide at base, 1.1-1.4 times as long as wide in middle; 1.6-2.2 times as long as wide at apical fourth, 2.5-3.3 times as long as pronotum; greatest width after middle; humeri distinctly convex; punctured striae regular and distinct; punctures oval, dense; intervals weakly convex, densely punctuate, weak lustrous, 0.8-2.7 times as wide as striae.

*Thorax*. Prothorax densely punctate, without postorbital lobes; pre- and postcoxal parts of prothorax short; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow, 5.6 times as long as wide, with setae; metathorax weakly convex, densely punctate, with median tubercle; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate; 2nd ventrite 0.7-1.0 times as long as 1st ventrite; 3rd and 4th ventrites short, equal in length, orientated in different plane to 1st and 2nd ventrites; 3rd ventrite 0.7 times as long as 2nd ventrite; 5th ventrite weak elongate and convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 4.0-5.0; mesofemora length / width = 4.0-5.6; metafemora length / width = 3.5-3.8; tibiae slightly curved, widened at apex, without mucro; protibiae length / width = 8.0-9.5; mesotibiae length / width = 7.0-8.2; metatibiae length / width = 5.7-8.8; tarsi long, with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; claws relatively large, free, with teeth; protarsi: 1st tarsomere 1.7 times as long as wide; 2nd tarsomere 1.3 times as long as wide, 0.8 times as long as

and 1.0 times as wide as 1st tarsomere; 3rd tarsomere 0.7 times as long as wide, 0.9 times as long as and 1.6 times as wide as 2nd tarsomere; 5th tarsomere 4.8 times as long as wide, 1.5 times as long as 3rd tarsomere; mesotarsi: 1st tarsomere 3.3 times as long as wide; 2nd tarsomere 1.3 times as long as wide, 0.8 times as long as and 2.0 times as wide as 1st tarsomere; 3rd tarsomere 0.8 times as long as wide, 0.9 times as long as and 1.5 times as wide as 2nd tarsomere; 5th tarsomere 3.7 times as long as wide, 1.6 times as long as 3rd tarsomere; metatarsi: 1st tarsomere 1.8 times as long as wide; 2nd tarsomere 1.1 times as long as wide, 0.9 times as long as and 1.4 times as wide as 1st tarsomere; 3rd tarsomere 0.7 times as long as wide, 1.0 times as long as and 1.6 times as wide as 2nd tarsomere; 5th tarsomere 1.3 times as long as 3rd tarsomere.

*Type:* Holotype-female (accession # Cur- 132) deposited in PACO.

Paratype. Accession #s Cur- 21, 127, 136, 137, 148, 149 in PACO.

*Type locality:* Amber mine in the northern portion of the Dominican Republic.

Etymology: The specific epithet is taken from the Latin "convexus" = convex" and the Latin "oculus" = eye in reference to the protruding convex eyes that are especially prominent in this species.

*Diagnosis*. The new species is similar to *Toxorhynchus sordidum* (Smith, 1884) from North and Central America but differs by the narrower elytra, wider pronotum, more convex eyes, and shorter rostrum.

Key to species of the *Toxorhynchus sordidum* species group in Dominican amber

- 1. Elytra elongate. Elytra 1.4-1.9 times as long as wide in middle- 2
- -. Elytra wide. Elytra 1.1-1.4 times as long as wide in middle- 4
- 2. Sides of pronotum weakly convex. Humeri starkly convex----- *T. microsomus* (Figs.12,13)
- -. Sides of pronotum almost straight. Humeri weakly convex---- 3
- -. Rostrum 7.3 times as long as wide at apex and in middle, 5.5 times as long as wide at base-- *T. dominicanus* (Figs. 16,17)
- 4. Body black, rarely setose. Antennae and legs brown----- 5
- -. Body black, more densely setose. Antennae and legs black or brownish----- 6
- 5. Elytra rather wide, 1.2 times as long as wide in middle. Pronotal and elytral sides convex- *T.* convexus (Figs. 18,19)
- -. Elytra rather narrow, 1.4 times as long as wide in middle. Pronotal and elytral sides straight- *T. fuscocorpus* (Figs. 20,21)
- 6. Body large (1.8 mm). Pronotum with large punctures. Elytral intervals rarely punctuate, lustrous------ *T. hispidulus* (Figs. 22,23)
- -. Body smaller (1.4-1.6 mm). Pronotum with small punctures. Elytral intervals densely punctuate, weakly lustrous------ *T. convexoculus* (Figs. 24,25)

# Apionion Kissinger, 1998

Remarks. This American genus, which is very close to the genus Toxorhynchus Scudder, 1893, is distributed in southern North America, Central America (the majority species) and South America (Apionion annulatum (Gerstaecker, 1854) (South America), A. bettyae (Kissinger, 1968) (Mexico), A. championi (Sharp, 1890) (Panama, Colombia), A. crassum (Fall, 1898) (USA), A. delion Kissinger, 1998 (Panama), A. derasum (Sharp, 1890) (Central America), A. dilatatum (Smith, 1884) (USA, Central America), A. eranion Kissinger, 1998 (Central America), A. fenyesi (Kissinger, 1968) (Central America), A. howdeni (Kissinger, 1968) (Mexico), A. humongum Kissinger, 1998 (Central America), A. inflatipenne (Sharp, 1891) (Central America), A. latipenne (Sharp, 1891) (Panama), A. latipes (Sharp, 1891) (Central America, Peru), A. lentum (Sharp, 1891) (Guatemala), A. neolentum (Kissinger, 1968) (Mexico), A. opetion Kissinger, 1999 (Mexico), A. sampson (Sharp, 1891) (Central America), A. sapphirum Kissinger, 1998 (Mexico), and A. subauratum Sharp, 1890 (Central America). However it is absent in the West Indies including the Dominican Republic (Kissinger, 1968, 1998, 1999a).

Apionion homochronon Poinar et Legalov, n. sp. (Figs. 26, 27)

# Description

Length body, 1.4 mm; length rostrum 0.5 mm. Body red with sparse adjoining light setae.

Head. Rostrum elongate, thin, 7.2 times as long as wide in apex and middle, 5.9 times as long as wide at base, 1.4 times as long as pronotum, rarely punctate, curved; forehead weakly broad, 1.1 times as wide as rostrum base width, rugose-punctate; eyes large, convex, rounded; vertex weakly flattened, punctate; temples short, 0.6 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape quite elongate; funicle with desmomeres conical-elongate; club compact.

*Pronotum.* Pronotum bell-shaped, width apex 1.4 times as long as length, in middle and at base 0.9 times as long as length; disk weakly convex, with distinct pronotal groove, greatest width in middle and at base, with dense, large punctures, without striae; sides weakly convex; scutellum trapezoidal,

2.0 times as long as wide.

*Elytra*. Elytra dorsum trapezoidal, weakly convex, 1.2 times as long as wide at base, 1.1 times as long as wide in middle; 2.7 times as long as wide at apical fourth, 3.0 times as long as pronotum; greatest width after middle; humeri slightly flattened; punctured striae regular and distinct; punctures oval, dense; intervals weakly convex, transversely rugose-punctate, 1.7-2.0 times as wide as striae.

Thorax. Prothorax densely punctate, without postorbital lobes; precoxal part of prothorax short, 0.2 times as long as procoxal cavities length; postcoxal part of prothorax weak elongate, 2.5 times as long as precoxal part, 0.6 times as long as procoxal cavities length; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow, 7.0 times as long as width; metathorax convex, densely punctate; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate, equal in length; 3rd and 4th ventrites short, orientated in different plane to 1st and 2nd ventrites; 5th ventrite elongate, convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; protrochanters 0.3 times as long as metafemora length; femora weakly clavate, without teeth; profemora length / width = 4.8; mesofemora length / width = 5.2; metafemora length / width = 4.2; tibiae almost curved, with mucro; mesotibiae length / width = 7.5; tarsi long, with pulvilli on underside; first tarsomere elongate conical; second tarsomere conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; claws relatively large, free, with teeth.

*Type:* Holotype-male (accession # Cur-124) deposited in PACO.

*Type locality:* Amber mine in the northern portion of the Dominican Republic.

Etymology: The specific epithet is from the Greek "homo" = same and the Greek "chroma" = color in reference to the uniform reddish color of the species.

*Diagnosis*. The new species is similar to *Apionion lentum* (Sharp, 1891) but differs by the monochromatic body color, smaller size and wider pronotum and elytra.

Apionion kallimosum Poinar et Legalov, n. sp. (Figs. 28,29)

## Description

Length body, 1.6 mm; length rostrum, 0.5 mm. Body red with sparse adjoining light setae.

Head. Rostrum elongate, thin, 7.0 times as long as wide at apex and middle, 4.2 times as long as wide at base, 1.2 times as long as pronotum, rarely punctate, curved; forehead

flattened, weakly broad, punctate; eyes large, convex, rounded; vertex weakly flattened, punctate; temples short, 0.5 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate, 7.3 times as long as wide, 0.5 times as long as funicle length; 1st desmomere 2.5 times as long as wide, 0.5 times as long as and 1.3 times as narrow as scape; 2nd desmomere 1.5 times as long as wide, 0.6 times as long as 1st desmomere; 2nd-5th desmomeres equal in width; 3rd-5th desmomeres equal in length and width; 6th desmomere 1.5 times as long and 1.5 times as wide as 5th desmomere; 6th and 7th desmomeres almost equal in length and width; club compact, 0.6 times as long as funicle; 1st club article 0.8 times as long as wide, 1.3 times as long as and 1.7 times as wide as 7th desmomere; 2nd club article 0.7 times as long as wide, 0.9 times as long as and equal in width to 1st club article; 3rd club article 1.1 times as long as wide, 1.4 times as long as 2nd club article, tip distinctly acuminate.

*Pronotum.* Pronotum bell-shaped, width apex 1.2 times as long as length; in middle 0.8 times as long as length; at base 0.7 times as long as length; disk weakly convex, with distinct pronotal groove, greatest width in middle and at base, with dense, large punctures, without striae; scutellum trapezoidal.

*Elytra*. Elytra dorsum trapezoidal, convex, 1.5 times as long as wide at base, 1.2 times as long as wide in middle; 1.5 times as long as wide at apical fourth, 2.4 times as long as pronotum; greatest width after middle; humeri slightly flattened; punctured striae regular and distinct; punctures oval, dense; intervals almost cariniform, punctate, 1.0-1.3 times as wide as striae.

*Thorax*. Prothorax densely punctate, without postorbital lobes; precoxal part of prothorax short; postcoxal part of prothorax weakly elongate; procoxal cavities contiguous; mesocoxal

cavities separated; metepisternum narrow, with dense setae; metathorax convex, densely punctate; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate; 3rd and 4th ventrites short, orientated in different plane to 1st and 2nd ventrites; 5th ventrite elongate, convex.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 4.4; mesofemora length / width = 4.2; metafemora length / width = 4.0; tibiae almost curved, without mucro; protibiae length / width = 7.8; mesotibiae length / width = 6.4; tarsi long, with pulvilli on underside; first tarsomere elongate conical; second tarsomere conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; protarsi: 1st tarsomere 2.0 times as long as wide; 2nd tarsomere 1.2 times as long as wide, 0.7 times as long as and 1.2 times as wide as 1st tarsomere; 3rd tarsomere 0.9 times as long as wide, 0.9 times as long as and 1.2 times as long as 3rd tarsomere; that tarsomere 1.2 times as long as wide; 2nd tarsomere 1.4 times as long as wide, 1.6 times as long as and 1.3 times as wide as 1st tarsomere; 3rd tarsomere 4.7 times as long as wide, 1.2 times as long as and 1.4 times as long as 2nd tarsomere; 5th tarsomere 4.7 times as long as wide, 1.2 times as long as 3rd tarsomere; claws relatively large, free, with teeth.

*Type:* Holotype-female (accession # Cur-145) deposited in PACO.

*Type locality:* Amber mine in the northern portion of the Dominican Republic.

*Etymology*: The specific epithet is from the Greek "kalos" = beautiful in reference to the grace of the fossil.

*Diagnosis*. The new species is similar to *Apionion opetion* Kissinger, 1999 but differs by the smaller size, red color, more convex elytral intervals and distinctly curved rostrum.

Apionion formoculus Poinar et Legalov, n. sp. (Figs. 30,31)

## **Description**

Length body, 1.6 mm; length rostrum, 0.5 mm. Body red with sparse adjoining light setae.

Head. Rostrum elongate, thin, 7.0 times as long as wide in apex and middle, 5.4 times as long as wide at base, 1.4 times as long as pronotum, rarely punctate, curved; forehead weakly flattened and wide, almost equal in wide to rostrum base width, punctate; eyes large, convex, rounded; vertex weakly flattened, punctate; temples short, 0.3 times as long as eye length, punctate; antennae inserted in first quarter of rostrum; scape elongate, 6.3 times as long as wide, 0.5 times as long as funicle length; 1st desmomere 2.3 times as long as wide, 0.4 times as long as and equal length to scape; 2nd desmomere 2.5 times as long as wide, 0.7 times as long as and 0.7 times as wide as 1st desmomere; 2nd-6th desmomeres equal width; 3rd desmomere equal to 2nd desmomere; 4th desmomere 2.0 times as long as wide, 0.8 times as long as 3rd desmomere; 5th desmomere equal to 4th desmomere; 6th desmomere 2.5 times as long as wide, 1.3 times as long as 5th desmomere; 7th desmomere 1.7 times as long as wide, equal length to and 1.5 times as wide as 6th desmomere; club compact, 0.4 times as long as funicle; 1st club article 1.5 times as long as wide, 1.8 times as long as and 2.0 times as wide as 7th desmomere; 2nd club article 1.2 times as long as wide, 0.6 times as long as and equal in width to 1st club article; 3rd club article 2.0 times as long as wide, 1.2 times as long as 2nd club article, tip distinctly acuminate.

*Pronotum.* Pronotum bell-shaped, width apices 1.0 times as long as length; in middle 0.7 times as long as length; at base 0.7 times as long as length; disk weakly convex, with distinct pronotal groove, greatest width in middle and at base, with dense, large punctures, without striae; scutellum trapezoidal.

*Elytra*. Elytra dorsum trapezoidal, strongly convex, 1.4 times as long as wide at base, 1.1 times as long as wide in middle; 2.3 times as long as wide at apical fourth, 2.6 times as long as pronotum; greatest width after middle; humeri slightly flattened; punctured striae regular and distinct; punctures oval, dense; intervals weakly convex, punctate, 2.0-2.3 times as wide as striae.

Thorax. Prothorax densely punctate, without postorbital lobes; precoxal part of prothorax short; postcoxal part of prothorax weakly elongate; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow, with dense setae; metathorax convex, densely punctate; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate; 2nd ventrite 0.8 times as long as 1st ventrite; 3rd and 4th ventrites short, almost equal in length, orientated in different plane to 1st and 2nd ventrites; 5th ventrite elongate, weakly convex, 2.9 times as long as 4th ventrite.

Legs. Legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 5.0; metafemora length / width = 3.5; tibiae almost curved, without mucro; protibiae length / width = 10.3; metatibiae length / width = 7.0; tarsi long, with pulvilli on underside; first tarsomere elongate conical; second tarsomere conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; protarsi: 1st tarsomere 1.8 times as long as wide; 2nd

tarsomere 1.1 times as long as wide, 0.7 times as long as and 1.1 times as wide as 1st tarsomere; 3rd tarsomere 0.7 times as long as wide, equal length to and 1.6 times as wide as 2nd tarsomere; 5th tarsomere 4.5 times as long as wide, 1.8 times as long as 3rd tarsomere; claws relatively large, free, with teeth.

*Type:* Holotype-female (accession # Cur-139) deposited in PACO.

*Type locality:* Amber mine in the northern portion of the Dominican Republic.

*Etymology*: The specific epithet is from the Latin "formosus" = beautiful and the Latin "oculus" = eye in reference to the beautifully formed eyes of the specimen.

*Diagnosis*. The new species is similar to *Apionion howdeni* (Kissinger, 1968) but differs by the smaller size, narrower elytra, wider pronotum, thicker rostrum, and barely extended rostrum at the antennal attachment.

Key to species of the genus *Apionion* in Dominican amber

- Body slim. Rostrum short, 1.2 times as long as pronotum. Elytral intervals almost cariniform, 1.0-1.3 times as wide as striae. Elytra 1.2 times as long as wide in middle-- A. kallimosum (Figs. 28, 29)
- Body robust. Rostrum long, 1.4 times as long as pronotum. Elytral intervals convex,
- 1.7-2.3 times as wide as striae. Elytra 1.1 times as long as wide in middle.-----2
- 2. Elytra strongly convex. Width apex of pronotum equal to length----------A.

  \*\*formoculus\*\* (Figs. 30,31)
- Elytra weakly convex. Width apex of pronotum 1.4 times as wide as long----A. homochron (Figs. 26,27).

## Stenapiina Poinar et Legalov, n. subtribe

Body narrowly elongate, tinted from brown to black, glabrous and lustrous, with or without setae; head elongate, with weak neck; rostrum more or less elongate, weakly curved; forehead flattened, quite narrow, almost smooth; eyes large, weakly convex, oval; vertex weakly impressed; temples quite elongate; antennae inserted in first third of rostrum; scape elongate; desmomeres almost conical; club compact; pronotum almost conical; disk weakly flattened; elytra back trapezoidal, weakly convex; greatest width after middle; humeri convex or distinctly smoothed; punctured striae regular but quite weak; intervals flattened or convex; specialized seta on 7th elytral interval located in apical third of elytra; prothorax without postorbital lobes; pre- and postcoxal parts of prothorax quite elongate; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow; metathorax weakly convex, punctate, without median tubercle; metacoxal cavities widened; abdomen convex; 1st and 2nd ventrites elongate, almost equal in length; 3rd and 4th ventrites short, almost equal in length, orientated in different plane to 1st and 2nd ventrites; 5th ventrite weakly elongate and convex; legs long; procoxae conical, elongate; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; tibiae slightly curved, widened at apex, with or without mucro; tarsi long, with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; claws relatively large, free, with teeth; pygidium of complete apioninae type; aedeagus with symmetrical armament of the endophallus; tegmen with prostegium fused to free ring and without macrosetae, separated in middle of tegminal plate.

Diagnosis

This new subtribe differs from the subtribe Toxorhynchina by the narrow elongate body

and the aedeagus with the symmetrical armament of the endophallus and tegminal plate

separated in the middle

Remarks

The subtribe Stenapiina belongs to the tribe Toxorhynchini Scudder, 1893

(=Oxystomatini Alonso-Zarazaga, 1990) by having the pygidium of the complete

apioninae type, specialized seta on the 7<sup>th</sup> elytral interval located in the apical third of the

elytra, metathorax weak but not very convex, mescoxal cavities separated and tegmen

without macrosetae.

Type genus

Stenapion Wagner, 1912

Stenapion Wagner, 1912

Stenapion levigatum Poinar et Legalov, n. sp. (Figs. 32,33)

**Description** 

Length body, 1.5 mm; length rostrum, 0.5 mm. Body reddish-brown, glabrous and

lustrous, without setae.

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Head. Head elongate, with weak neck; rostrum elongate, 4.9 times as long as wide in apex and middle, 4.5 times as long as wide at base, 1.1 times as long as pronotum, with scarce and fine punctures, weakly curved, slightly widened at apex and in middle, impressed before forehead; forehead flattened, quite narrow, 0.6 times as wide as rostrum base width, almost smooth; eyes large, weakly convex, oval, displaced to forehead; vertex weakly impressed; temples quite elongate, 0.5 times as long as eye length; antennae inserted in first third of rostrum; scape elongate, 3.6 times as long as wide; desmomeres almost conical; 1st desmomere 1.7 times as long as wide, 0.6 times as long as and 1.4 times as wide as scape; 2nd desmomere 1.8 times as long as wide, 0.7 times as long as and 0.7 times as wide as 1st desmomere; 3rd desmomere equal to 2nd desmomere; 4th desmomere 1.5 times as long as wide, 0.9 times as long as and 1.0 times as wide as 3rd desmomere; 5th desmomere 1.0 time as long as wide, 0.7 times as long as and 1.0 times as wide as 4th desmomere; 6th desmomere 1.2 times as long as wide, 1.5 times as long as and 1.3 times as wide as 5th desmomere; 7th desmomere 1.0 time as long as wide, 1.0 time as long as and 1.2 times as wide as 6th desmomere; club compact, 0.6 times as long as funicle; 1st club article 1.0 times as long as wide, 1.7 times as long as and 1.7 times as wide as 7th desmomere; 2nd club article 0.9 times as long as wide, 1.0 times as long as and 1.1 times as wide as 1st club article; 3rd club article 1.5 times as long as wide, 1.2 times as long as 2nd club article, tip distinctly acuminate.

*Pronotum.* Pronotum almost conical, width apices 2.4 times as long as length; in middle 1.7 times as long as length; at base 1.4 times as long as length; disk weakly flattened, glabrous, without pronotal groove; greatest width at base, without striae.

*Elytra*. Elytra dorsum trapezoidal, weakly convex, 2.9 times as long as wide at base, 2.0 times as long as wide in middle; 2.6 times as long as wide at apical fourth, 2.6 times as long as pronotum; greatest width after middle; humeri distinctly smooth; punctured striae regular but quite weak; intervals flattened, 4.0-5.0 times as wide as striae.

Thorax. Prothorax without postorbital lobes; pre- and postcoxal parts of prothorax quite elongate; precoxal part 0.8 times as long as procoxal cavity length; postcoxal part 0.8 times as long as precoxal part and 0.7 times as long as procoxal cavity length; procoxal cavities contiguous; mesocoxal cavities separated; metepisternum narrow; metathorax distinctly convex, punctate, without median tubercle; metacoxal cavities widened.

Abdomen. Abdomen convex; 1st and 2nd ventrites elongate, almost equal in length; 3rd and 4th ventrites short, almost equal in length, orientated in different plane to 1st and 2nd ventrites; 3rd ventrite 0.4 times as long as 2nd ventrite; 5th ventrite weakly elongate and convex, 1.6 times as long as 4th ventrite.

Legs. Legs long; procoxae conical, elongate, 1.3 times as long as wide; trochanters elongate, separating femora from coxae; femora weakly clavate, without teeth; profemora length / width = 4.1; mesofemora length / width = 4.6; metafemora length / width = 4.3; tibiae almost curved, widened at apex, without mucro; protibiae length / width = 6.8; mesotibiae length / width = 6.6; metatibiae length / width = 7.0; tarsi long, with pulvilli on underside; first and second tarsomeres conical; third tarsomere bilobed; fifth tarsomere subconical and elongate; claws relatively large, free, with teeth; protarsi: 1st tarsomere 2.3 times as long as wide; 2nd tarsomere 0.8 times as long as wide, 0.7 times as long as and 2.0 times as wide as 1st tarsomere; 3rd tarsomere 0.9 times as long as wide, 1.3 times as long as and 1.1 times as wide as 2nd tarsomere; 5th tarsomere 4.0 times as long as

wide, 1.3 times as long as 3rd tarsomere; mesotarsi: 1st tarsomere 1.2 times as long as wide; 2nd tarsomere 1.0 times as long as wide, 1.2 times as long as and 1.4 times as wide as 1st tarsomere; 3rd tarsomere 0.8 times as long as wide, 1.1 times as long as and 1.4 times as wide as 2nd tarsomere; 5th tarsomere 4.4 times as long as wide, 1.4 times as long as 3rd tarsomere; metatarsi: 1st tarsomere 2.7 times as long as wide; 2nd tarsomere 1.2 times as long as wide, 0.9 times as long as and 2.0 times as wide as 1st tarsomere; 3rd tarsomere 0.9 times as long as wide, 1.0 times as long as and 1.3 times as wide as 2nd tarsomere; 5th tarsomere 5.0 times as long as wide, 1.4 times as long as 3rd tarsomere.

*Type:* Holotype-female (accession # Cur- 23) deposited in PACO.

*Type locality:* Amber mine in the northern portion of the Dominican Republic.

*Etymology*: The specific epithet is from the Latin "levis" = smooth in reference to the smooth, polished body of the fossil.

*Diagnosis*. The new species is similar to *Stenapion constricticolle* (Sharp, 1890) but differs by the reddish-brown body color, narrower and longer pronotum, longer and weakly curved rostrum, wider pronotum and more convex eyes.

#### **Discussion**

The present work describes 6 new species in the *Toxorhynchus decoloratum* species group, 7 new species in the *Toxorhynchus sordidum* species group as well as 3 species of *Apionion* and one species of *Stenapion*. It is interesting that the dominate species of the genus *Toxorhynchus* and especially those in the *Toxorhynchus decoloratum* and *Toxorhynchus sordidum* species groups are now absent from the West Indies (Table 1).

Extant larvae of the Apioninae are mostly seed feeders, especially on legumes (Fig. 34). Due to this behavior, some species of extant Apioninae are used as biological control agents of noxious plants. For instance, the Scotch Broom seed weevil, *Exapion fuscerostre*, is now probably one of the most widely distributed members of this subfamily since it has introduced into other countries from the Old World to combat Scotch Broom, *Cytisus scoparius* (Fabaceae). The weevil larvae destroy the seeds during their development. The newly formed adults chew their way out of the consumed seeds (Fig. 34).

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### References

Alonso-Zarazaga MA. 1991. Revision of the supraspecific taxa in the Palaearctic Apionidae Schoenherr, 1823 (Coleoptera, Curculionoidea). 2. Subfamily Apioninae Schoenherr, 1823: introduction, keys and descriptions. Graellsia. 46:19-156.

Alonso-Zarazaga MA. 2004. Apionidae (Coleoptera). Pp. 691-699. En: Llorente-Bousquets JE, Morrone JJ, Yanez-Ordocez O, Vargas-Fernandez I. Biodiversidad,

- Taxonomia y Biogeografia de Artropodos de Mexico: Hacia una sintesis de su conocimiento. IV. Unam-Conabio. Mexico.
- Blatchley WS, Leng CW. 1916. Rhynchophora or weevils of Eastern North America. The Nature Publishing Company, Indianapolis, Indiana, 692 pp.
- Draper G, Mann P, Lewis JF. 1994. Hispaniola. In: Donovan S, Jackson TA, editors.

  Caribbean geology: an introduction. Kingston: The University of the West Indies

  Publishers' Association. p. 129 150.
- Iturralde-Vinent MA, MacPhee RDE. 1996. Age and Paleogeographic origin of Dominican amber. Science. 273:1850 –1852.
- Kissinger DG. 1959. A revision of the *Apion* subgenus *Trichapion* Wagner in the New World (Coleoptera: Curculionidae). Proc United States Nat Mus. 110:247-389.
- Kissinger DG. 1968. Curculionidae subfamily Apioninae of Northand CentralAmerica.

  Taxonomic Publications. South Lancaster. Mass. 559 pp.
- Kissinger DG. 1974. Apioninae occuring in the West Indies (Curculionidae, Coleoptera).

  Taxonomic Publ. Riverside. Ca. 57 pp.
- Kissinger DG. 1990a. Apionidae from North and Central America. Part 1. Notes on the classification of the *Apion* subgenus *Trichapion* Wagner with description of new species from the United States of America. (Coleoptera). Insecta Mundi. 3(4):271-287.
- Kissinger DG. 1990b. Apionidae from North and Central America. Part 2. Description of a new subgenus and two new species of *Apion* from Mexico (Coleoptera). Insecta Mundi. 4(1-4):33-40.

- Kissinger DG. 1991. Apionidae from North and Central America. Part 3. A new genus in the tribe Aplemonini Kissinger from Mexico (Coleoptera). Insecta Mundi. 5(1):19-23.
- Kissinger DG. 1992. Apionidae from North and Central America. Part 4. Generic classification and introduction to the genus *Coelocephalapion* Wagner, with new species from Mexico and Venezuela (Coleoptera). Insecta Mundi. 6(2):65-77.
- Kissinger DG. 1998. Apionidae from North and Central America. Part 5. Description of genus *Apionion* and 4 new species (Coleoptera). Insecta Mundi. 12(1-2):93-102.
- Kissinger DG. 1999a. Apionidae from North and Central America. Part 6. Description of new species of *Apionion* Kissinger, *Coelocephalapion* Wagner and *Trichapion* Wagner (Coleoptera). Insecta Mundi. 13(1-2):21-37.
- Kissinger DG. 1999b. Description of a new genus, *Sayapion*, from North and Central America (Coleoptera: Apionidae). Insecta Mundi. 13(1-2):72.
- Kissinger DG. 2002a. A new genus of Apionidae from Chile and Argentina. Coleopterists Bulletin. 56:315-316.
- Kissinger DG. 2002b. Review of *Noterapion* Kissinger from Chile and Argentina (Coleoptera: Apionidae). Insecta Mundi. 16(4):221-246.
- Legalov AA. 2012. Fossil history of Mesozoic weevils (Coleoptera: Curculionoidea).

  Insect Sci. 19(6):683–698.
- Legalov AA. 2013. New and little known weevils (Coleoptera: Curculionoidea) from the Paleogene and Neogene. Historical Biology. 25(1):59–80.
- Perez-Gelabert DE. 2007. Arthropods of Hispaniola (Dominican Republic and Haiti): A checklist and bibliography. Zootaxa 1831: 1-530.

- Poinar GO, Jr. 1991. *Hymenaea protera* sp.n. (Leguminosae, Caesalpinioideae) from Dominican amber has African affinities. Experientia. 47(10):1075 1082.
- Poinar GO, Jr, Mastalerz M. 2000. Taphonomy of fossilized resins: determining the biostratinomy of amber. Acta Geol Hisp. 35:171 182.
- Poinar GO, Jr, Poinar R. 1999. The Amber forest. Princeton, NJ: Princeton University Press. 239 pp.
- Schlee D. 1990. Das Bernstein-Kabinett. Stuttg Beitr Naturkunde (C). 28:1 100.
- Scudder SH. 1893. Tertiary Rhynchophorus Coleoptera of the United States. Monogr United Stat Geol Survey. 21:1 206.
- Wanat M. 2001. Genera of Australo-Pacific Rhadinocybinae and Myrmacicelinae with biogeography of the Apionidae (Coleoptera: Curculionoidea) and phylogeny of the Brentidae (s. lato). Mantis Olsztyn. 432 pp.
- Zherichin VV, Gratshev VG. 2004. Fossil Curculionid beetles (Coleoptera, Curculionoidea) from the Lower Cretaceous of Northeastern Brazil. Paleontological J. 5:528–537.

**Figures** 

Fig. 1. Lateral view of *Toxorhynchus leptorhinus* n. sp. in Dominican amber (POAC # 152). Scale bar =  $530 \ \mu m$ .



Fig. 2. Dorsal view of *Toxorhynchus leptorhinus* n. sp. in Dominican amber (POAC # 152). Scale bar =  $370 \ \mu m$ .



Fig. 3. Lateral view of *Toxorhynchus robustus* n. sp. in Dominican amber (POAC # 138). Scale bar =  $420 \ \mu m$ .



Fig. 4. Dorsal view of *Toxorhynchus robustus* n. sp. in Dominican amber (POAC # 138). Scale bar =  $450 \ \mu m$ .

