

REVISION OF THE NORTH AMERICAN SPECIES OF DIBOLIA LATR. (COLEOPTERA: CHRYSOMELIDAE; ALTICINAE)¹

Edward C. Mignot²

The genus *Dibolia* was erected by Latreille in 1830. *Dibolia* was one of the first five new genera created from the old "supergen" *Altica*. Consequently, the limits of this genus are quite wide, and it is doubtful that species from southeast Asia and Australia that have been placed in *Dibolia*, truly belong in the same genus as species from Europe and North America. However, it is not the purpose of this paper to redefine the limits of *Dibolia*, this will be done in a future paper.

Although there are approximately 50 valid species of *Dibolia*, only 4 previously described species occur in North America north of Mexico. There is, however, a possibility that some of the Mexican species of *Dibolia* may extend into southern Arizona. This paper deals only with those species that definitely occur in the United States and Canada.

KEY TO THE NORTH AMERICAN SPECIES OF DIBOLIA

- | | | |
|-------|---|---------------------------|
| 1. | Apices of elytra very deeply sinuous at apex | sinuata Horn |
| | Apices of elytra rounded, not sinuous at apex | 2 |
| 2(1). | Antennae red-testaceous or red-brown | 3 |
| | Antennae black | libonoti Horn |
| 3(2). | Pronotum black-bronze, copper-bronze, green-bronze, or blue-bronze, not reddish | 4 |
| | Pronotum orange or red-testaceous | 5 |
| 4(3). | Form more oblong; elytra with spaces between striae with very few punctures | borealis Chevrolat |

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²Department of Biology, St. Mary of the Plains College, Dodge City, Kansas 67801.

- Form more ovate; elytra with spaces between striae with numerous fine punctures
 **ovata** LeConte
- 5(3). Pronotum orange; antennae red-testaceous; elytra blue-black; pronotum width/
 length ratio greater than 2.0; antenna segment 4 much longer than 3, slightly
 longer than 5 **catherinia** NEW SPECIES
- Pronotum and antennae red-brown; elytra green-black; pronotum width/length
 ratio less than 2.0; antenna segment 4 subequal to 3, much shorter than 5
 **reyheria** NEW SPECIES

Dibolia catherinia NEW SPECIES

Type locality: Atascosa Canyon, Arizona [Holotype: female, August 20, 1949, on Penstemon leaf; ECMC].

DESCRIPTION OF HOLOTYPE.—Oblong oval, convex, shining; orange or red-testaceous except blue-black elytra and black along outer edge of metafemora; total length 3.5 mm, greatest width 1.7 mm.

HEAD: shining, orange; tubercles flattened, separated by black line; fovea small, deep, above each tubercle; punctation very fine, sparse; interocular distance 0.3 mm, $\frac{1}{2}$ width of head; antennae slender, red-testaceous, extending to anterior quarter of elytra, fourth segment twice length of third, slightly longer than fifth.

THORAX: orange, narrowly margined; length 0.55 mm, width 1.3 mm, width/length=2.6; punctation fine, evenly distributed; immaculate; smooth; prosternum red-testaceous. Scutellum triangular, blue-black, shining. Elytra shining, blue-black, oval, rounded apex; slight humeral prominences; punctation fine, arranged in striae, few fine punctures between striae; immaculate; length 2.8 mm, width 1.7 mm; meso- and metasterna red-testaceous.

LEGS: red-testaceous except outer edge of metafemora black; first metatarsal segment equal in length to 2+3; metatibial spur bifurcate, shallow between apices.

ABDOMEN: sterna red-testaceous.

DISTRIBUTION: This species is known only from the type locality in Arizona.

DISCUSSION.—This species is known only from the female holotype. It is, however, so different from any of the previously described species of *Dibolia* as to warrant it as being new.

Dibolia reyheria NEW SPECIES

Type locality: Cheyenne, Wyoming [Holotype: male, Cheyenne, Wyoming; ECMC].

DESCRIPTION OF HOLOTYPE.—Oblong oval, convex, shining; red-brown except elytra green-black and outer edge of metafemora black; total length 3.7 mm, greatest width 1.8 mm.

HEAD: red-brown, shining; tubercles slightly rounded, separated by black line; fovea large, lateral to tubercles; interocular distance 0.3 mm, less than $\frac{1}{2}$ width of head; antennae slender, extending to anterior third of elytra, third and fourth segments subequal, $\frac{1}{2}$ length of fifth.

THORAX: red-brown, shining, narrowly margined; length 0.7 mm, width 1.3 mm, width/length=1.9; punctation fine, evenly distributed; immaculate; smooth; prosternum red-brown. Scutellum triangular, green-black, shining. Elytra shining, green-black, oval, rounded apex; slight humeral prominences; punctation fine, arranged in striae; few fine punctures between striae; immaculate; length 2.8 mm, width 1.8 mm; meso- and metasterna red-brown.

LEGS: red-brown except black along outer edge of metafemora; first metatarsal segment equal in length to 2+3; metatibial spur bifurcate, shallow between apices.

ABDOMEN: sterna red-brown.

MALE GENITALIA: arched dorsoventrally, ventral tip of median lobe pointed, dorsal tip emarginate.

FEMALES.—The females are slightly larger than the males.

PARATYPES.—1 (male, Cheyenne, Wyoming, ECMC), 1 (male, Helena, Montana, ECMC), 1 (female, Helena, Montana, ECMC).

DISTRIBUTION: This species occurs in Montana and Wyoming.

DISCUSSION.—This species is more closely related to the other new species, *D. catherinia*, than it is to any of the previously described species of *Dibolia*.

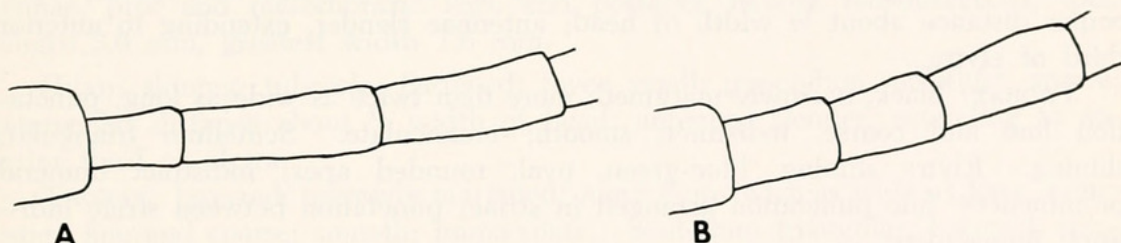


FIGURE 1. A. Antenna segments 3, 4, and 5 of *Dibolia catherinia*; B. Antenna segments 3, 4, and 5 of *Dibolia reyheria*.

Dibolia ovata LeConte

Dibolia ovata LeConte, 1859. Proc. Acad. Nat. Sci. (Philadelphia), 3:286. [Lectotype: male; MCZC].

Type locality: California and Nevada.

Dibolia borealis Jacoby (Not Chevrolat), 1885. Biol. Centrali-Americana Coleoptera, 4:358.

DESCRIPTION OF SPECIES.—Oval, convex, shining; black except antennae, pro- and mesothoracic legs, and posterior femora red-testaceous; total length 3.0 mm, greatest width 1.6 mm.

HEAD: shining; tubercles flattened; fovea small; punctation fine, sparse; interocular distance about $\frac{1}{2}$ width of head; antennae slender, extending to anterior quarter of elytra.

THORAX: black, narrowly margined; more than twice as wide as long; punctation fine and coarse; smooth; immaculate. Scutellum triangular, black, shining. Elytra shining, black, oval, rounded apex; moderate humeral prominences; moderate punctation arranged in striae; abundant fine punctation between striae; immaculate.

LEGS: pro- and mesothoacic legs and metafemora red testaceous, remainder black; first metatarsal segment equal in length to 2+3; metatibial spur bifurcate.

ABDOMEN: black.

FEMALES.—The females are slightly larger than the males.

Distribution: California and Nevada.

Dibolia libonoti Horn

Dibolia libonoti Horn, 1889. Trans. America Ent. Soc., 16:308 [Lectotype: male; ANSP].

Type locality: Arizona.

DESCRIPTION OF SPECIES.—Oval oblong, convex, shining; black except elytra blue-green and metafemora dark blue; total length 2.5 mm, greatest width 1.4 mm.

HEAD: shining; tubercles flattened; fovea small; punctation fine, sparse; interocular distance about $\frac{1}{2}$ width of head; antennae slender, extending to anterior third of elytra.

THORAX: black, narrowly margined; more than twice as wide as long; punctation fine and coarse, indistinct; smooth; immaculate. Scutellum triangular, shining. Elytra shining, blue-green, oval, rounded apex; indistinct humeral prominences; fine punctation arranged in striae; punctation between striae indistinct; immaculate.

LEGS: first metatarsal segment equal in length to 2+3; metatibial spur bifurcate.

FEMALES.—The females are slightly larger than the males.

Distribution: Arizona.

Dibolia sinuata Horn

Dibolia sinuata Horn, 1889. Trans. American Ent. Soc., 16:307 [Lectotype: male; Dallas, Texas; ANSP].

Type locality: Dallas, Texas.

DESCRIPTION OF SPECIES.—Oval, convex, shining; black except thorax bronze-black, elytra blue-green, antennae red-testaceous, and legs brown; total length 3.0 mm, greatest width 1.8 mm.

HEAD: shining; tubercles flattened; fovea small; punctation indistinct; inter-

ocular distance about $\frac{1}{2}$ width of head; antennae slender, extending to anterior quarter of elytra.

THORAX: bronze-black, narrowly margined; more than twice as wide as long; punctation moderate, indistinct; rough; immaculate. Scutellum triangular, shining. Elytra shining, blue-green, oval, rounded apex; slight humeral prominences; punctation coarse, arranged in striae; many fine and coarse punctations between striae; immaculate.

LEGS: brown; first metatarsal segment equal in length to 2+3; metatibial spur bifurcate.

ABDOMEN: black.

FEMALES.—The females are slightly larger than the males.

Distribution: Texas.

Dibolia borealis Chevrolat

Dibolia borealis Chevrolat, 1845. In Guer., Iconogr. Regne anim. Ins., :307 [Type: presumably lost].

Type locality.—North America.

Dibolia aerea Melsheimer, 1847. Proc. Acad. Nat. Sci. (Philadelphia), 3:167 [Lectotype: male; MCZC].

Type locality: Eastern United States.

DESCRIPTION OF SPECIES.—Oblong oval, convex, shining; bronze except antennae, pro- and mesothoracic legs, and posterior femora red-testaceous; total length 3.0 mm, greatest width 1.6 mm.

HEAD: shining; tubercles flattened; fovea small; punctation indistinct, sparse; interocular distance about $\frac{1}{2}$ width of head; antennae slender, extending to anterior third of elytra.

THORAX: bronzed, narrowly margined; more than twice as wide as long; punctation fine and coarse; smooth; immaculate. Scutellum triangular, bronzed, shining. Elytra shining, bronzed, oval, rounded apex; moderate humeral prominences; coarse punctation arranged in striae; few fine punctations between striae; immaculate.

LEGS: pro- and mesothoracic legs and metafemora red-testaceous, remainder bronzed; first metatarsal segment equal in length to 2+3; metatibial spur bifurcate.

ABDOMEN: bronzed.

FEMALES.—The females are slightly larger than the males.

Distribution: Eastern United States and Canada.

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ABSTRACT.—The genus *Dibolia* is revised for North America north of Mexico. Two new species, *Dibolia catherinia* from Arizona and *Dibolia reyheria* from Wyoming and Montana, are described.—EDWARD C. MIGNOT, *Department of Biology, St. Mary of the Plains College, Dodge City, KS 67801*.

DESCRIPTORS: Coleoptera; Chrysomelidae; Alticinae; *Dibolia*, new species; Arizona; Wyoming; Montana.



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