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THE CHRYSOMELID BEETLES OF THE GENUS  
STRABALA CHEVROLAT

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## Introduction

The first species of this chrysomelid genus was described by Illiger<sup>1</sup> in 1807 as *Haltica rufa* from Pennsylvania, Melsheimer collector. A year later, Olivier<sup>2</sup> described *Altica ferruginea* from Santo Domingo, Palisot de Beauvois collector, and *Altica scutellaris* from southern France. Of this latter locality von Harold<sup>3</sup> said that there was no *Altica* colored anything like this in southern France and that the locality was evidently an error. In 1837, in the Dejean catalogue, Chevrolat<sup>4</sup> listed under the new generic name *Strabala* (στράβαλα, having a form thick and contracted) six specific names of Dejean without descriptions or references. Four of them are pure nomina nuda; for the two others, *S. scutellata* Dejean and *S. dominicensis* Dejean, the names (*Altica*) *scutellaris*? Olivier and (*A.*) *ferruginea*? Olivier, respectively, are given as doubtful synonyms. The generic name is consequently not published here. Chevrolat changed the locality for *scutellata* to America Borealis. Of these six names only one has since been used; *S. intermedia*, whose locality in this catalogue was given as Cuba, was adopted by Jacquelin Du Val<sup>5</sup> in 1857 for a

<sup>1</sup> Illiger, Mag. Insekt., vol. 6, p. 152, 1807.<sup>2</sup> Olivier, Entomologie, . . . vol. 6, pp. 697, 699, 1808.<sup>3</sup> von Harold, Coleopterologische Hefte, vol. 14, p. 20, 1875.<sup>4</sup> Chevrolat, in Dejean, Catalogue de la collection de Coléoptères . . . ed. 3, p. 413, 1837.<sup>5</sup> Jacquelin Du Val, in Ramón de la Sagra, Historia . . . de la Isla de Cuba (Spanish ed.), vol. 7, p. 129, 1857.

Cuban species. In d'Orbigny's Dictionnaire, Chevrolat<sup>6</sup> in 1848 listed *scutellaris* and *ferruginea* under *Strabala* without the question marks, as well as the four nomina nuda he had given in 1837, thus establishing the genus.

In 1868 Suffrian<sup>7</sup> described *Haltica ambulans* from Cuba which he said belonged to Chevrolat's genus *Strabala*, a genus that Erichson<sup>8</sup> had earlier merged with *Lactica*. Suffrian was not convinced, however, that these specimens having so poorly developed a basal sulcus on the prothorax really belonged to the genus *Lactica*. He stated that although there was an ill-defined basal sulcus, the beetles were smaller than most species of *Altica* and proportionately broader, and that the color was not blue but a deep reddish brown. This Cuban species that he had did not entirely correspond in coloring to Olivier's description of *scutellaris* or to Jacquelin Du Val's *intermedia*, both of which were paler beneath than the dark colored undersurface of his beetles.

Boheman<sup>9</sup> described under the genus *Strabala*, two species, *nigriceps* from Buenos Aires and *languida* from Java, both of which have been referred to *Lactica*. Although I have not examined the types, the description of *nigriceps* as having the anterior angles of the prothorax truncate seems to exclude it from *Strabala*, and the description of *languida* is quite different from that of any of the group. Fall,<sup>10</sup> in describing *Altica testacea* from Texas, compared it with *rufa*, noting that "*rufa* is much broader and less convex and has black legs and antennae." Fall's species, also, does not belong in *Strabala*. It differs in general shape, the prothorax has quite different anterior angles, and the scutellum is small and inconspicuous.

Jacoby,<sup>11</sup> who had put *scutellaris* under *Lactica*, in the Supplement says of Horn, "Dr. Horn remarks that *Lactica scutellaris* would be better placed in the genus *Haltica* and that it is congeneric (and probably also specifically identical) with *Haltica rufa* Illiger." But Jacoby "could not agree with this opinion" and kept *scutellaris* under *Lactica*.

The British Museum (Natural History) specimens, therefore, are under *Lactica*, and in the U. S. National Museum, following Horn, they are under *Altica*. Henshaw<sup>12</sup> lists *rufa* under *Disonycha*. Gemminger and Harold<sup>13</sup> list *rufa* under *Disonycha* and *scutellaris* under *Lactica*. Heikertinger,<sup>14</sup> in the Junk catalogue, nicely balances

<sup>6</sup> Chevrolat, in d'Orbigny, Dictionnaire universel d'histoire naturelle, vol. 12, p. 52, 1848.

<sup>7</sup> Suffrian, Arch. Naturg., vol. 34, p. 182, 1868.

<sup>8</sup> Erichson, Arch. Naturg., vol. 13, p. 173, 1847.

<sup>9</sup> Boheman, Kongliga Svenska Fregatten *Eugenie's* Resa . . . , vol. 2, Zoologi, pt. 1, Insecta, pp. 189, 190, 1850.

<sup>10</sup> Fall, Trans. Amer. Ent. Soc., vol. 36, p. 157, 1910.

<sup>11</sup> Jacoby, Biologia Centrali-Americana, Coleoptera, vol. 6, pt. 1, p. 273, 1884; Supplement, p. 259, 1891.

<sup>12</sup> Henshaw, List of the Coleoptera of America, north of Mexico, p. 112, 1885.

<sup>13</sup> Gemminger and von Harold, Catalogus coleopterorum . . . , vol. 12, p. 3497, 1876.

<sup>14</sup> Heikertinger, Coleopterorum catalogus, pars 166, pp. 241, 259, 1939.

the dispute by synonymizing *scutellaris* and *ambulans* with *rufa* and placing them under *Haltica* and at the same time placing *ferruginea* and *intermedia* as separate species under *Lactica*. Mr. G. E. Bryant pointed out to me the specimens labeled *Lactica scutellaris* in the British Museum and said, "What are these doing here?" I agreed that it was high time to restore the original Chevrolat generic name *Strabala* for this group of very similarly colored species that no one has known exactly what to do with. On my return to America, after a considerable search for the specimens of this species that had long been removed from the regular collection, I found that H. S. Barber had also labeled them *Strabala*.

The species of this genus differ in color among themselves little more than do those of the genus *Altica*, but instead of being metallic blue they are a deep reddish or orange brown with dark or partly dark legs, dark scutellum (usually), dark antennae, and more or less dark under-surface. Like *Altica* they have no spots, vittae, or other markings; and the variation in the dark coloration is slight. In practically all the North American specimens from Massachusetts to Panamá, the amount of dark coloration is very much the same, that is, the under-surface and femora are only partly dark. Hence the tendency has been to follow Horn,<sup>15</sup> who wrote that "*Haltica rufa* occurs from Massachusetts to Illinois, Florida and Texas, extending through Mexico to South America." There are, however, slight differences in the extent of the dark coloration, in the punctation, and in the shape of the aedeagus. In Eastern United States from New Hampshire to the Gulf and west to the Mississippi, Louisiana, and northern Texas, the species known as *rufa* Illiger presents little variation. It is a conspicuously punctate, deep reddish brown species. In Florida occurs a race that, in dried specimens, at least, is always a pale yellow-brown, in contrast to the reddish color of *rufa*. It has also a distinctly alutaceous surface and is less distinctly punctate than *rufa*. In the specimens from Brownsville, Texas, to Panamá, which are shining and almost impunctate, in our limited collections are two groups with entirely differently shaped aedeagi—those that are narrowed at the tip and those with a wide, rounded tip. From the external appearance I cannot distinguish the beetles at all. H. S. Barber has labeled one lot, with round-tipped aedeagi, as a new species and the other as *scutellaris*. It seems to me that the name *scutellaris* cannot be applied to any species of *Strabala* with any certainty. To begin with, Olivier's locality of southern France, apparently erroneous, leaves us without any type locality in the western hemisphere. Species corresponding in coloration to Olivier's description occur in Cuba and Central America as well as North America. Therefore I propose to drop the name

<sup>15</sup> Horn, Trans. Am. Ent. Soc., vol. 16, p. 232, 1889.



*scutellaris* entirely, as retaining it would only promote confusion. Among the specimens from Central America with the aedeagus narrowed at the tip there is a wide variation in the acuteness and in the width of the tip. I think there are probably a number of species, but since the coloring is so nearly uniform and the variation in the aedeagi only a matter of degree, I hesitate to give them specific names and am calling them only subspecies.

In the Bowditch collection at the Museum of Comparative Zoology (MCZ) are seven specimens from South America (two from Venezuela and the rest from Colombia) that are uniformly somewhat larger than the others of the genus and, unlike the North and Central American specimens, are dark beneath, as in the majority of the West Indian specimens. In the British Museum is a series from Trinidad, collected by G. E. Bryant, also dark beneath but smaller, paler, and with a more rounded tip to the aedeagus.

In the West Indies the prevailing color of the legs and undersurface of the specimens is entirely dark, but in one species, at least, the posterior femora are partly reddish, as in the continental species. In another species from Hispaniola, the scutellum is not black but reddish like the elytra, the only one so colored that I have examined. Jacoby wrote of specimens with a red scutellum from Juquila, México, of which he had three. One specimen from Juquila in his collection is a yellow *Lactica* with a pronounced basal sulcus on the prothorax, typical of *Lactica*, and a pale scutellum. This may not be the one to which he referred. These slight differences in coloration of the specimens from the different islands of the West Indies are accompanied by a slightly different aedeagus. Still, as in the case of the Central American specimens, I hesitate to give them specific names and am calling them only subspecies. Much more work should be done on the group and many more specimens should be studied. Here I attempt to assemble the species that in the catalogues are divided among two or three genera and to call attention to their points of difference.

The group is closer to *Disonycha* than to either *Altica* or *Lactica*. The head, while similar to *Disonycha*, has the circle of punctures nearer to the tubercles and the carina shorter and broader than in most species of *Disonycha*. The antennal joints are similar in being robust and rather short, but differ in having the third joint a little longer than the fourth, instead of the fourth longer than the third. The prothorax is much like that of *Disonycha* except that below the apical angle there is a tiny V-shaped notch which does not occur in *Disonycha*. The basal depression over the scutellum, often found in *Disonycha* too, is longer and more pronounced in *Strabala*. The elytra are distinctive in being more convex and oval than in *Lactica*, *Altica*, or *Disonycha*.



FIGURE 17.—Species of *Strabala* Chevrolat: *a*, *rufa* (Illiger); *b*, *rufa floridana*, new subspecies; *c*, *acuminata*, new species; *d*, *rotunda*, new species; *e*, *acuminata teapensis*, new subspecies *f*, *acuminata costaricensis*, new subspecies; *g*, *ambulans* (Suffrian); *h*, *ambulans jamaicensis*, new subspecies; *i*, *ferruginea* (Olivier); *j*, *ambulans puertoricensis*, new subspecies; *k*, *columbiana*, new species; *l*, *intermedia* Jacquelin Du Val; *m*, *trinitatis*, new species.

### Genus *Strabala* Chevrolat

*Description.*—Between 3.5 and 6 mm. in length, oval, deep yellowish or orange brown or reddish brown, with antennae dark, legs and under-surface more or less dark, and scutellum usually conspicuously dark; moderately shining, most species very minutely and confusedly punctate, only the North American species, *S. rufa* (Illiger), very distinctly punctate.

Head, except for mouth parts that are usually a little darker, deep yellowish or reddish, eyes entire and widely separated, the interocular space being more than half the width of the head; occiput smoothly rounded down to tubercles, with scattered and not very dense or coarse punctures; at the base of occiput, not visible except when the head is a little protruded, a groove running from behind one eye to the other; on either side above the frontal tubercles and near the eye a depression consisting of a large fovea, or more frequently a circle of punctures; frontal tubercles plainly marked, a broadly rounded and somewhat produced area between antennal sockets that extends and widens down the front nearly to the labrum, area under sockets a little depressed and on sides below eyes the cheeks rounded out and densely punctate. Antennae rather stout, not quite reaching the middle of the elytra, first two joints swollen, usually paler, remainder piceous, third joint a little longer than fourth, fourth and fifth about equal. Prothorax not quite twice as wide as long, with rounded sides and narrow margin, the apical angle resembling that of *Disonycha* except that it is separated from the rest of the margin by a distinct though tiny V-shaped indentation, basal angle with a small tooth and obliquely cut, disk smooth and rather flat, with more or less of a depression along base and not distinctly limited at the ends as in *Lactica*. Scutellum large, usually conspicuously dark, contrasting with the reddish elytra. Elytra broader than prothorax, moderately convex, with small humeri and narrow margin, not depressed; surface usually smooth, not distinctly punctate except in *S. rufa*, entirely yellowish or reddish brown. Epipleura broad, gradually diminishing and not quite reaching the apex. Body beneath variable in color, the prosternum reddish, the breast and abdomen and legs in West Indian species usually but not always dark, in North American species the breast dark on the sides, the femora pale except in apical half or sometimes entirely pale, the tibiae and tarsi dark, the sides and apex of the abdomen sometimes also dark; in Trinidad and South American species, the coloring beneath dark as in the West Indian specimens. Anterior coxal cavities open, front coxae narrowly separated, legs rather short, hind femora moderately thickened, the tibiae as in *Disonycha* with a slight ridge, a spur at the end of posterior tibiae, claws appendiculate.



Aedeagus a simple, curved structure with the tip varying in shape from acute to truncate and broadly rounded.

*Genotype*.—*Strabala ferruginea* (Olivier), present designation.

Key to the species of *Strabala*

1. Scutellum reddish (Hispaniola).....*ferruginea* (Olivier)  
Scutellum dark brown or piceous..... 2
2. Species from the West Indies exclusive of Trinidad..... 3  
Species from North America..... 5  
Species from South America and Trinidad..... 9
3. Body beneath more or less ferruginous, hind femora ferruginous at base,  
dark at apex (Cuba).....*intermedia* Jacquelin Du Val  
Body beneath except prosternum more or less dark, hind femora entirely  
dark..... 4
4. Aedeagus tapering gradually to a rounded tip (Cuba)....*ambulans* (Suffrian)  
Aedeagus tapering gradually to a more acute but still rounded tip (Jamaica).  
*ambulans jamaicensis*, new subspecies  
Aedeagus distinctly truncate at tip (Puerto Rico).  
*ambulans puertoricensis*, new subspecies
5. Elytra punctate or alutaceous or both (North of México)..... 6  
Elytra not distinctly punctate or alutaceous (Texas and southward)..... 7
6. Elytra deep reddish brown, distinctly punctate (New Hampshire south and  
westward to the Mississippi, Louisiana, Texas, and along the Gulf to Florida).  
*rufa* (Illiger)  
Elytra (in dried specimens) yellow, less distinctly punctate, alutaceous  
(Florida).....*rufa floridana*, new subspecies
7. Aedeagus well rounded at tip and with a slight constriction behind the tip  
(México to Panamá).....*rotunda*, new species  
Aedeagus gradually narrowing towards the tip, not constricted behind the  
tip..... 8
8. Aedeagus narrowed to a rounded tip, hind femora dark at apex (Texas).  
*acuminata*, new species  
Aedeagus narrowed to a truncate tip, hind femora entirely reddish brown  
(México).....*acuminata teapensis*, new subspecies  
Aedeagus narrowed to a broader truncate tip, hind femora varying from  
entirely reddish to reddish with a dark apex (Guatemala, Costa Rica).  
*acuminata costaricensis*, new subspecies
9. Large, 5 to 6 mm., aedeagus with an acute tip (Colombia, Venezuela).  
*colombiana*, new species  
Smaller, 4 to 5 mm., aedeagus with a somewhat truncate tip (Trinidad).  
*trinitatis*, new species

*Strabala rufa* (Illiger)

FIGURE 17, a

*Haltica rufa* Illiger, Mag. Insekt., vol. 6, p. 152, 1807.

Illiger's description of the thickly punctate elytra distinguishes this species from the others of the genus. The coloration is usually

deep reddish brown above, with entirely dark antennae, dark scutellum, often entirely dark anterior legs, dark apical end of the posterior femora, dark breast, and sometimes also dark abdomen. Throughout its range over the country east of the Mississippi and in Louisiana and Texas, there seems to be very little variation except for the paler, less distinctly punctate race that occurs in Florida. The type locality is Pennsylvania, collected by Melsheimer.

*Distribution.*—New Hampshire: Hampton, S. A. Shaw. Massachusetts: Holyoke, Chicopee, F. Knab. Connecticut: Hartford, F. Knab. Rhode Island: Watch Hill, W. Robinson. New York: West Point, W. Robinson. New Jersey: Boynton. Illinois: C. Thomas. Michigan: Detroit, Hubbard and Schwarz. Maryland: Washington, D. C. Virginia: Fredericksburg, Clifton, J. C. Bridwell; Nelson County, W. Robinson; Stone Creek, Lee County, Hubbard and Schwarz; Vienna, J. C. Bridwell; West Falls Church, E. A. Chapin. West Virginia: Aurora. Kentucky: H. Soltau. Tennessee: Memphis, H. Soltau. North Carolina: Graybeard Mountain. South Carolina: Florence. Georgia: Savannah. Alabama: Coleta, H. M. Smith. Mississippi: Greenwood, T. H. Parks. Louisiana: Baton Rouge, T. H. Jones; Port Allen, J. L. Lauderdale; New Orleans, H. Soltau. Texas: Liberty, R. A. Vickery. Two specimens, both females, USNM (Brooklyn Museum collection), labeled simply "Mexico," are apparently this species.

*Strabala rufa floridana*, new subspecies

FIGURE 17, b

This race differs from the reddish brown one found elsewhere in eastern United States by being (in dried specimens) pale yellow-brown with the dark markings as in typical *rufa*. The elytra are less distinctly punctate than in *rufa* and distinctly alutaceous.

*Type.*—Holotype male and 7 paratypes, USNM 61202, labeled simply "Fla.," collector F. Knab.

*Distribution.*—Florida: Lake Ashby, Capron, Indian River, all collected by Hubbard and Schwarz; Lake Wales, Lakeland, E. M. Craighead; Jacksonville, Ashmead; Sanford, Van Duzee; St. Petersburg (on sweet corn); Ft. Myers (on sweet and white potato); Oneco (on spinach); Homestead (on string beans); West Palm Beach (on sweet potato and lima beans).

*Strabala acuminata*, new species

FIGURE 17, c

From 4.5 to 5.5 mm. in length, oval, shining, orange-brown, with dark antennae, dark scutellum, darkened sides to breast, and dark anterior legs and apical part of posterior femora, tibiae, and tarsi.



Head shiny, only a few scattered punctures over occiput besides the fovea or circle of depressed punctures near the eye; mouth parts frequently edged with deeper brown. Antennae deep brown, with the three basal joints frequently paler. Prothorax shiny, almost impunctate, only under high magnification are very fine punctures visible; basal sulcus usually not very long or pronounced, but somewhat variable in different specimens, as is usual in the genus. Scutellum dark. Elytra mirror smooth, shining, impunctate, sometimes very indistinctly alutaceous. Body beneath with sides of breast, anterior legs, apical part of posterior femora, tibiae, and tarsi dark. Length 4.4 to 5.5 mm.; width 2.4 to 3 mm.

*Type*.—Holotype male and 2 paratypes, USNM 61203 (Brooklyn Museum collection), collected at the Esperanza Ranch, Brownsville, Texas, August 18 (no year given).

*Other localities*.—Texas: Brownsville, R. A. Vickery; another specimen, from same locality (on string bean leaves); San Benito (on bean foliage); Hidalgo (on black-eyed-pea leaf).

*Remarks*.—The shiny, almost impunctate surface with little evidence of alutaceous dullness at once differentiates this from *Strabala rufa* (Illiger). There are no records of it farther north than the Brownsville region.

*Strabala acuminata teapensis*, new subspecies

FIGURE 17, e

*Lactica scutellaris* Olivier, Jacoby (part), *Biologia Centrali-Americana*, vol. 6, pt. 1, p. 273, 1884.

This differs from the Brownsville, Texas, race in having less dark coloring, the femora all being deep reddish, the tibiae and tarsi only dark, and the sides of the breast not so dark. The upper surface is a shining deep reddish brown. The aedeagus has a somewhat truncate tip.

*Type*.—Holotype male, in the British Museum (Natural History), from the *Biologia Centrali-Americana* material, labeled by Jacoby *Lactica scutellatis* Olivier, from Teapa, Tabasco, México, collected in March by H. H. Smith; 1 paratype in U. S. National Museum, USNM 61204; and 2 paratypes in Museum of Comparative Zoology from same series.

*Strabala acuminata costaricensis*, new subspecies

FIGURE 17, f

*Lactica scutellaris* Olivier, Jacoby (part), *Biologia Centrali-Americana*, vol. 6, pt. 1, p. 273, 1884.

This differs from the Brownsville, Texas, and Teapa, México, races by having a still wider truncate tip to the aedeagus. In coloring, it

is somewhat deeper red than the Brownsville specimens and differs from the Teapa specimens in having the anterior femora and apical part of the posterior femora as well as the sides of the breast dark.

*Type*.—Holotype male and 1 paratype, USNM 61205, collected at Vara Blanca, Costa Rica, 1,700 meters, July 7, 1928, by F. Nevermann; 1 paratype in British Museum (Natural History).

*Other localities*.—Costa Rica: San José, 1,000–2,000 meters, Aug. 25, 1928, F. Nevermann. Guatemala: Yepocapa, August 1948, H. T. Dalmat; Cobán, Alta Vera Paz, May 1926, J. M. Aldrich; Purula, Champion

*Strabala rotunda*, new species

FIGURE 17, d

*Lactica scutellaris* Olivier, Jacoby (part), *Biologia Centrali-Americana*, vol. 6, pt. 1, p. 273, 1884.

From 4 to 5.5 mm. in length, oval, shining although faintly alutaceous, very finely punctate, yellowish or reddish brown with dark antennae, dark apex to femora, dark tibiae and tarsi, and the breast and abdomen often darkened on the sides, varying to entirely dark (rare).

Head reddish, with the mouth parts usually deeper brown; finely punctate over occiput, with the usual fovea or circle of depressed punctures. Prothorax shiny and very finely punctate with a sulcus along the base well developed. Scutellum dark. Elytra faintly alutaceous and finely punctate. Body beneath varying in color from having the sides of breast and abdomen deeper brown to being entirely dark, the latter rare; femora with apical half dark, tibiae and tarsi dark. Length 4 to 5.4 mm.; width 2.6 to 3 mm.

*Type*.—Holotype male, USNM 61206, and 3 paratypes in British Museum (Natural History) collected at Volcán de Chiriquí, Panamá, by Champion.

*Other localities*.—Panamá: Panamá, Aug. 13, 1946, by N. L. H. Krauss; Almirante, Sept. 4, 1938, H. Dybas; Bella Vista, Aug. 7, 1924, N. Banks; Mindi Dairy (on para grass), Mindi, Canal Zone, July 1918, H. F. Dietz and J. Zetek; Plantation Borracho, Canal Zone (swept from grass under papaya trees), July 1918, H. F. Dietz and J. Zetek; Bugaba, Champion (in British Museum). Guatemala: Trece Aguas, Alta Vera Paz, May (date not given), H. S. Barber and E. A. Schwarz. México: In bananas from México taken at Mobile, Alabama, July 19, 1929; with orchids from Guerrero (State), taken at Laredo, Texas, Feb. 28, 1940; with orchids from Tamazunchale, San Luis Potosí, taken at Laredo, Texas, Feb. 28, 1940; with tomatoes from El Mante, Tamaulipas, taken at El Paso, Aug. 1, 1947; Colima,

Höge and Conradt; Jalapa, Höge; on green peppers from Manuel, Tamaulipas, taken at Laredo, Texas, Jan. 7, 1935.

*Remarks.*—H. S. Barber has attached a specific name from the Mexican localities to this species, but since the range is as far south as Panamá, his name would be somewhat misleading. The rounding of the tip of the aedeagus varies considerably but the slight constriction behind the tip is always present, and sets the species apart from the rest. The only other species with a similar aedeagus tip in the group is *Strabala intermedia* Jacquelin Du Val, from Cuba. In all, 15 specimens of *S. rotunda* have been taken on orchids from México at the port of entry to this country.

*Strabala ambulans* (Suffrian)

FIGURE 17, *g*

*Haltica ambulans* Suffrian, Arch. Naturg., vol. 34, p. 182, 1868.

Specimens from Cuba agree with Suffrian's detailed description of his Cuban *H. ambulans*. The upper surface is faintly alutaceous and finely punctate, in color a deep reddish brown with dark scutellum and dark legs, breast, and abdomen.

*Distribution.*—Cuba: Cayamas, E. A. Schwarz; Central Jaronú, L. C. Scaramuzza; Baragua, L. C. Scaramuzza, L. D. Christenson (MCZ); upper Yara Valley, Oct. 18, 1928, L. C. Scaramuzza (MCZ); Soledad, Cienfuegos, Nov. 7, 1926, P. J. Darlington (MCZ); Aguada (MCZ); Mountains north of Imias, eastern Oriente Province, July 25–28, 3–4,000 feet, P. J. Darlington (MCZ).

*Strabala ambulans jamaicensis*, new subspecies

FIGURE 17, *h*

Between 3.5 and 4.5 mm. in length, oval, faintly shining, indistinctly alutaceous, very finely punctate, reddish brown, the mouth parts, antennae, legs, breast, and abdomen dark.

Head with scattered punctures, the usual fovea or circle of punctures between eye and frontal tubercle on each side. Antennae with the basal joints a little paler. Prothorax having a distinct sulcus along the base. Scutellum dark. Elytra very faintly punctate. Body beneath with breast, abdomen, and legs dark. Length 3.5 to 4.5 mm.; width 2 to 2.3 mm.

*Type.*—Holotype male and 10 paratypes, USNM 61207, collected at Manchioneal, Jamaica, Jan. 30, 1939, by E. A. Chapin and R. E. Blackwelder.

*Other localities.*—Jamaica: Roaring River Falls, St. Ann's Parish, Sept. 13, 1917, H. Morrison; Fern Gully, St. Ann's Parish, Sept. 14,



1917, H. Morrison; Mandeville, Van Duzee, A. E. Wight (MCZ); Montego Bay, Mar. 2, 1911; Balaclava (MCZ).

*Remarks.*—This subspecies differs only slightly from the Cuban race in having a more acute though still rounded tip to the aedeagus.

*Strabala ambulans puertoricensis*, new subspecies

FIGURE 17, j

Between 4.5 and 5 mm. in length, oval, shiny, elytra not alutaceous, very indistinctly punctate, reddish brown, antennae, mouth parts, legs, breast and abdomen dark.

Head with scattered punctures and a fovea or circle of punctures near the eyes. Antennae with paler basal joints. Prothorax not at all clearly depressed along the base. Scutellum dark. Elytra quite shiny, not alutaceous, very finely and indistinctly punctate. Body beneath dark except the prosternum. Length 4.5 to 5 mm.; width 2.5 to 3 mm.

*Type.*—Holotype male and 1 paratype, USNM 61208; 1 paratype in Museum of Comparative Zoology, taken at Adjuntas, Puerto Rico, Nov. 1, 1932, by R. G. Oakley.

*Other localities.*—Puerto Rico: Lares, September 1921, G. N. Wolcott; Arecibo, June 17, 1932 (on eggplant leaf), Anderson and Mills; Mayagüez, January 1899, A. Busck; Villalba, June 18, 1934, C. M. Matos (MCZ); Mayagüez, December 1932, V. Alexandrina (MCZ).

*Remarks.*—The shiny, not alutaceous elytra, the larger size, and the broad, almost truncate tip of the aedeagus are unlike the Cuban and Jamaican races of the species.

*Strabala ferruginea* (Olivier)

FIGURE 17, i

*Altica ferruginea* Olivier, Entomologie . . . , vol. 6, p. 697, 1808.

*Strabala ferruginea* Chevrolat, in d'Orbigny, Dictionnaire universel d'histoire naturelle, vol. 12, p. 52, 1848.

Olivier's description of the scutellum of this species as ferrugineous would differentiate it from the rest of the West Indian species even if he had not given the type locality as Santo Domingo. He described the color of the undersurface as black and this agrees with many of the specimens, but there is a certain variation in the coloring, some specimens being entirely ferrugineous beneath, others with dark legs and reddish breast and abdomen, others with dark legs, breast, and abdomen. Moreover the pronotum and elytra are finely and a little more distinctly punctate than in Cuban and Jamaican species and not at all alutaceous. The aedeagus, having a truncate tip, resembles the Puerto Rican specimens more than the Cuban or Jamaican.

*Distribution.*—Haiti: La Vanneau, June 1920, Bizotan, Nov. 3, 1925, Diguini, Apr. 14, 1925, all collected by W. A. Hoffman; Grande Rivière, W. M. Mann; Ile de la Tortue, April 1929, E. C. and G. M. Leonard; Port-au-Prince and vicinity, October 1934, P. J. Darlington (MCZ); Miragoâne, October, November, P. J. Darlington (MCZ); Carrefour, May 1–3, 1908, M. Cameron (British Museum). Dominican Republic: August Busck; Macoris, Mar. 26, 1913, P. G. Russell; Puerto Plata, Hurst (MCZ); Santiago, 1938, P. J. Darlington (MCZ) Sánchez, July 1938, P. J. Darlington (MCZ).

*Strabala intermedia* Jacquelin Du Val

FIGURE 17, l

*Strabala intermedia* Jacquelin Du Val, in Ramón de la Sagra, Historia . . . de la Isla de Cuba (Spanish ed.), vol. 7, p. 129, 1857.

In coloring, three old specimens in the Museum of Comparative Zoology labeled "Cuba" resemble Jacquelin Du Val's short description. They are deep yellowish brown with dark antennae, dark scutellum, dark tibiae and tarsi; the anterior femora and the apex of the posterior femora are dark. In size they are slightly larger than the measurements given for *S. intermedia*; instead of being  $3\frac{3}{4}$  mm. they are 4.5 to 5.5 mm. in length. In two, both females, the basal thoracic sulcus is pronounced, almost like that of a true *Lactica*, but in the third specimen, a male, the depression along the base is less marked. The surface is faintly alutaceous and finely punctate. In all three specimens the head is rather densely punctate in addition to the circle of depressed punctures near the eye. The coloring of these specimens is more like that of the North American species. The aedeagus, although essentially the same as in all the others, is distinctive in being slightly constricted behind the tip as in the Mexican and Central American species *S. rotunda*, but differs in having a more acute tip.

*Strabala colombiana*, new species

FIGURE 17, k

From 5 to 6 mm. in length, oblong oval, deep reddish brown, the antennae, breast, abdomen, and legs dark, shining, not alutaceous, very finely, and the elytra rather densely, punctate.

Head usually entirely deep reddish brown, shining, with scattered fine punctures over occiput and the usual depressed circle of punctures or fovea near eye. Antennae short, dark, the two basal joints paler. Prothorax shiny, finely punctate, a depressed line near base. Scutellum dark. Elytra shiny, very finely and indistinctly punctate. Body beneath with breast and abdomen deep piceous, legs dark. Length 5 to 6 mm.; width 2.8 to 3.2 mm.

*Type*.—Holotype male, in Museum of Comparative Zoology, and 1 paratype, USNM 61209, from Bogotá, Colombia, from the Bowditch collection, Jacoby's second collection.

*Other localities*.—Colombia; Nueva Granada; Venezuela; and Caracas; all in the Bowditch collection, Jacoby's second collection.

*Remarks*.—Among the material presented to the U. S. National Museum from the Bowditch collection is a single old specimen of *Strabala* sp. with the label "*Lactica=Strabala haematina* Dej" from "Nov. Granad." This may be one of the specimens listed in the Dejean Catalogue from Cartagena since it bears the old Dejean Catalogue name. The aedeagus of this old specimen has a rounded tip quite unlike the one from Bogotá with its acute tip, and is probably not the same species.

*Strabala trinitatis*, new species

FIGURE 17, *m*

From 4 to 4.9 mm. in length, oval, shiny, not alutaceous, finely but distinctly punctate, yellowish or reddish brown with darker antennae, scutellum, legs, breast and abdomen.

Head entirely reddish, shiny, finely punctate over occiput. Antennae dark, with the first two or three joints paler. Prothorax shiny, finely punctate, with a moderately developed sulcus over the scutellum. Elytra distinctly and rather densely punctate, shiny, not at all alutaceous. Body beneath with breast, abdomen, and legs deep reddish brown. Length 4 to 4.9 mm.; width 2.5 to 2.7 mm.

*Type*.—Holotype and 4 paratypes, British Museum, and 1 paratype, USNM 61210, collected in Trinidad in 1903 by G. E. Bryant.

*Other localities*.—Two specimens (USNM) collected by A. Busck on June 12 at Montserrat, Trinidad.

*Remarks*.—The specimens in this series, although of the coloration of the ones from Colombia and Venezuela, are smaller, more oval, and distinctly though finely punctate. The tip of the aedeagus is truncate and not at all acute as in the single male specimen from Bogotá.