

NEW SPECIES OF GALERUCINAE AND ALTICINAE WITH NOTES ON OTHER SPECIES

(COLEOPTERA: CHRYSOMELIDAE)

JOHN A. WILCOX

New York State Museum, Albany, New York

The following notes and descriptions were prepared while the writer was attempting to classify undetermined leaf beetles in the collection of The Ohio State University. Four new species of Chrysomelidae are described and corrections in synonymy and generic disposition are made.

Euryscopa longicollis Jacoby

Euryscopa longicollis Jacoby is a valid species. Its pubescent scutellum will separate it from *E. lecontei* Crotch. *E. pusilla* Horn and *E. vittata* Lec. also have the scutellum pubescent but in these two species the pronotum is broader than long while in *E. longicollis* the pronotum is much longer than broad. *E. longicollis* has been found in Tucson and Hualpai Mts., Arizona.

Cryptocephalus mucoreus Lec.

Figure 4

Cryptocephalus mucoreus LeConte (1859, *Smithson. Contrib. Knowl.* vol. 11, p. 23) is a valid species. Jacoby, 1880, and later writers have listed it as a synonym of *C. basalis* Suff. (fig. 5). It differs from *basalis* in its more parallel form, finer pronotal and elytral punctation and different color pattern.

C. basalis is quite robust, widest across base of elytra which become narrower toward apex. Elytral punctures are large and deep, their diameter greater than half the width of the interspaces. The interspaces are convex. Apical third of elytra is black, except for round spots at apex, and the suture rather narrowly black. The sutural dark area does not reach scutellum as it does in *mucoreus*. Usually the humeral callus is distinctly darkened also. The color is quite constant in the series which the writer has seen from Texas and Arizona.

C. mucoreus is more cylindrical, the sides of elytra parallel. Elytral punctures are very small, their diameter about one-fourth the width of interspaces. The interspaces are flat. Elytra are black except for apical spots and a rather narrow L-shaped red area along basal and lateral margins. The humeral callus is not dark. *C. mucoreus* was described from Kansas and Texas and Blatchley records it from southern Indiana.

Metachroma angustulum Crotch

Metachroma parallellum Horn, 1892, is a synonym of *M. angustulum* Crotch, 1873. In this species the female (typical *angustulum*) is colored pale yellowish brown and the male (*parallellum*) black with pale legs.

Triarius santarosarum n. sp.

Figures 1, 2

Elongate, sides parallel. Elytra wider than prothorax at base. Upper surface yellow; elytra with sutural and discal stripes black, lateral and apical margins narrowly black; ventral surface black. Antennae with basal three segments yellow, outer segments dark brown or black.

Head smooth, shining, a little darker than pronotum. Inter-ocular distance two-thirds the width of head. Frontal tubercles prominent, not strongly swollen. Inter-antennal carina flat, short, not extending beyond antennal insertions. Second and third antennal segments short, third a little longer than second, together as long as fourth. Prothorax slightly wider than long, widest at apical third, lateral margins sinuate. Surface not strongly convex, except near lateral margins; shining; very minutely, closely punctulate. Median line slightly depressed, smooth.

Scutellum black, smooth, shining. Elytra elongate, sides and apex usually curled under. Surface alutaceous, very minutely punctulate; yellow with suture, narrow discal stripe and sides in apical half black. Epipleura reaching nearly to apical angle. A few very short hairs on surface near apex.

Body beneath black except head and prothorax; abdomen and sometimes mesosternum of female yellow, meso- and metathorax densely clothed with rather long white hairs. Prosternum does not extend entirely between front coxae. Last ventral segment of male deeply incised each side of middle, leaving a broad rectangular, median lobe; of female evenly rounded. Legs yellow, apex of posterior femora and outer side of tibiae black. Tibiae densely pubescent, femora moderately so. Each tibia with a strong spur on apex situated in emargination before the tarsus. Claws bifid.

Length 5.8 mm, width 2 mm.

Holotype ♂, allotype ♀, paratypes 7 ♂♂, 40 ♀♀, Santa Rosa Mts., California, May 27, 1946, D. J. and J. N. Knull collectors. Other paratypes: 1 ♀, Jacumba, California, May 18, 1941; 1 ♂, Hualpai Mts., Arizona, July 4, 1937; 1 ♂, Globe, Arizona, May 25, 1924. Holotype, allotype and paratypes are deposited in the Ohio State University collection. Paratypes also in the collections of the California Academy of Sciences, New York State Museum and the writer.

There is considerable variation in the size of the opening of the anterior coxal cavities. In some specimens the cavities appear to be completely closed, in others widely open. In some females the discal stripe is very narrow and occasionally broken. In many specimens punctation is lacking on elytra. The length varies from 4.5 mm to 7 mm.

T. santarosarum is very closely related to *T. trivittatus* Horn. It differs from that species in lacking the short median, basal elytral stripe; in possessing slightly more evident elytral and pronotal punctation, and in having apex of aedeagus narrower, more deflexed and more evenly rounded (figs. 2, 3).

Exora californica n. sp.

Figures 14, 15

Oblong, parallel. Dull reddish brown; head, legs, antennae, scutellum, meso- and metasternum black. Head smooth, shining, pubescent, a few punctures near the eyes. Occiput black to the tubercles; front entirely pale; tubercles well marked with transverse sinuate groove between the eyes. A rather strong depression at center. Antennae short, extending little beyond base of thorax; shining black or dark brown; segments short, broader than long, triangular. Pronotum one-half wider than long, little narrowed at apex, lateral margins regularly arcuate. Posterior angles obtuse, anterior angles thickened, rounded. Pronotum evenly convex, shining, minutely punctate, punctation a little more evident at sides. Elytra alutaceous, finely, closely punctate, punctures shallow, irregular; sparsely pubescent; humeri prominent; epipleura extending a little beyond the middle. Apex of elytra darkened.

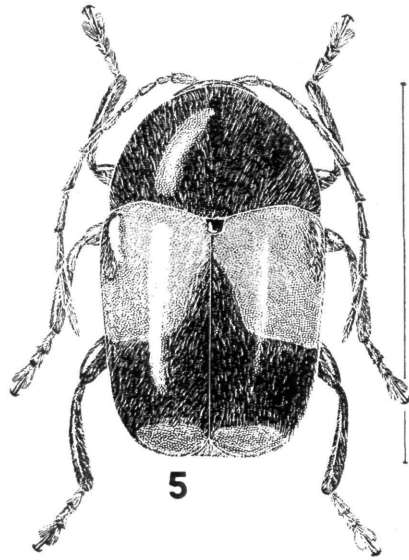
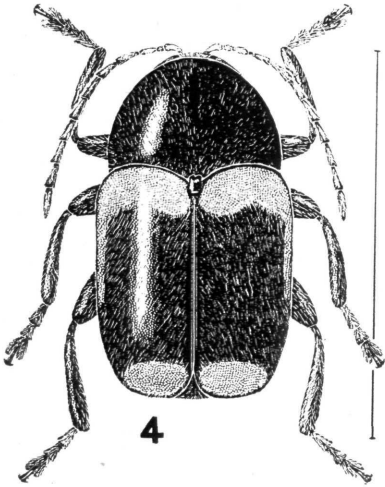
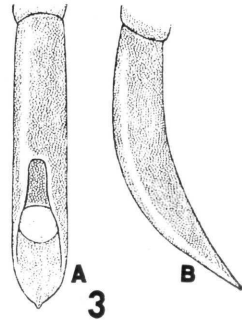
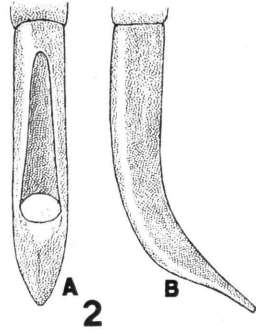
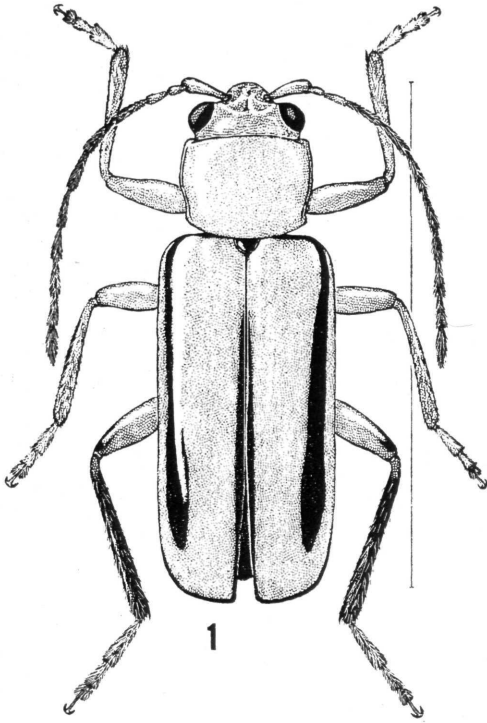
Underside shining, pubescent, side pieces of metasternum strigosely sculptured. Prosternum convex, visible between the coxae. Front coxal cavities open. Legs black, bases of femora paler. All tibiae with spurs. Claws with basal lobe. Last ventral segment of male with a very short, truncate, depressed lobe at middle, aedeagus with long slender tip, sides of tip parallel.

Length 5 mm, width 2.2 mm.

Holotype ♂, allotype ♀, paratypes 10 ♂♂ and 29 ♀♀, Santa Rosa Mts., California, May 27, 1946, collected by D. J. and J. N. Knull. Holotype, allotype and paratypes in the Ohio State University collection. Paratypes also in the New York Museum and the writer's collection.

DESCRIPTION OF FIGURES IN PLATE I

1. *Triarius santarosarum* n. sp., ♂.
 2. Aedeagus of *Triarius santarosarum* n. sp.: A, dorsal view; B, lateral view.
 3. Aedeagus of *Triarius trivittatus* Horn: A, dorsal view; B, lateral view.
 4. *Cryptocephalus mucoreus* Lec., ♀.
 5. *Cryptocephalus basalis* Suff., ♂.
- Line equals 5 mm.



J.A.W.

This insect is very closely related to *Exora brevicornis* (Jacoby). External differences are very poorly defined. In general, in the California form, the punctuation of the pronotum is more evident and the elytra have a more alutaceous surface, the pubescence is longer and more dense, and the elytral punctures not as well defined as in *E. brevicornis*. The only sure way to separate them is by the character of the aedeagus (figs. 13, 14). In the series at hand from California there is very little variation in color.

While the original description of *E. brevicornis* does not contain any characters which distinguish these two, the locality does give a good indication. *E. brevicornis* was described from Monclova, Mexico which is near Texas.

In addition to the type series, the writer has seen a series from the Hualpai Mountains, Arizona, which agrees with *E. californica* in the form of the aedeagus. This series is probably *californica* but differs from the type series in color. It is black except for pronotum and clypeal region and it has slightly stronger elytral punctuation.

Luperaltica Crotch

The species of the genus *Luperaltica* have caused more than their share of confusion. Horn (1893) gave a fairly adequate definition of the two eastern species. The taxonomic history of the species is interesting. Say described *senilis* as an *Altica*. Leconte (1859) described *nigripalpis* in the genus *Longitarsus*. Six years later he described both of these species again (as *M. tincta* and *M. fuscula* respectively) in the genus *Malacosoma*. Crotch (1873) described the genus *Luperaltica* to contain *A. senilis* and *M. fuscula*. Horn (1889) suggested dropping the name *Luperaltica* because neither species fit the description. He placed *A. senilis* in *Systema*. Four years later Horn redescribed *Luperaltica* to avoid confusion and replaced both *senilis* and *fuscula*. He stated that *nigripalpis* is doubtless a synonym of the latter and lists *tincta* as a synonym of *senilis*. Fall (1907) described the third species as a *Luperodes*. Blatchley and Duckett reproduce Horn's descriptions nearly verbatim.

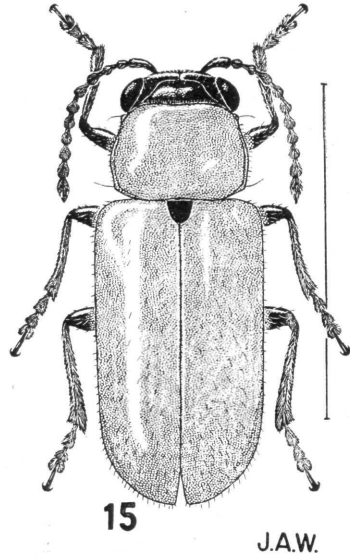
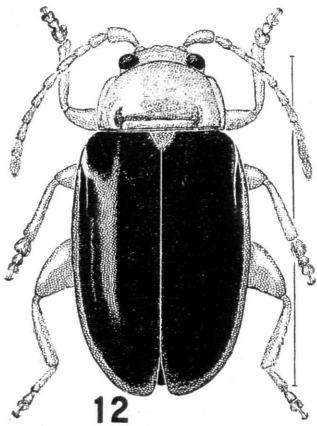
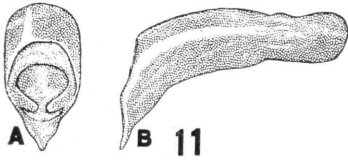
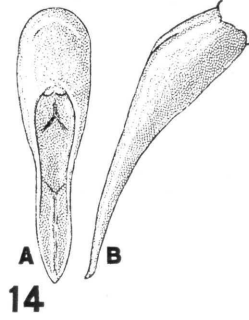
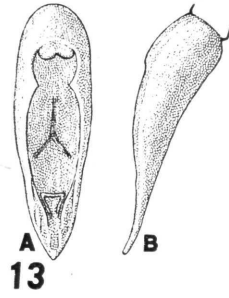
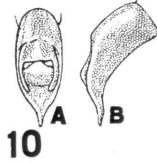
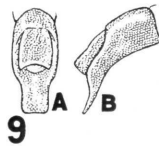
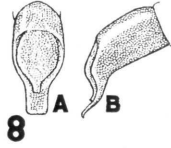
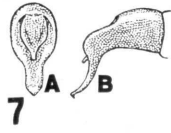
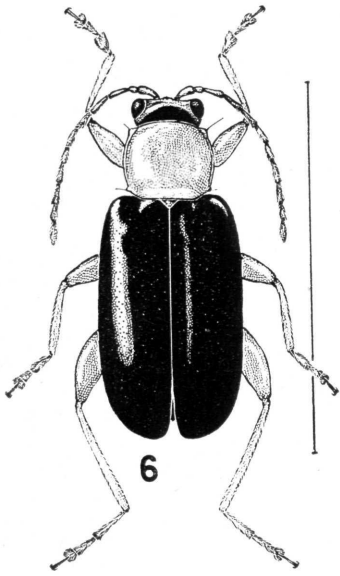
Luperaltica undoubtedly belongs in the Alticinae. The posterior femora of *L. senilis* are somewhat swollen, less noticeably so in other species. *L. nigripalpis* does have the habit of jumping. Both of these species are erroneously described as lacking spurs on the apex of hind tibiae, for each hind tibia does have a slender, slightly curved spur at the apex. The front coxae of *L. nigripalpis* may or may not be contiguous. This is a variable character which is of little value in identifying the species.

In nearly all males which I have seen, the tip of the aedeagus was visible without dissection. Because of this the aedeagus has been mentioned in previous descriptions as a short process at the middle of the apex of the last ventral segment. The transverse, antebasal groove of the pronotum is never very deep nor definitely limited. In some specimens, particularly of the new species here described, it is barely evident.

Luperaltica will, according to most keys to genera, be placed near *Palaeothona* Jacoby or *Aphthona* Foudras. It differs from these and *Longitarsus* Latr., which it resembles, in the greater length of the third antennal segment. In *Luperaltica* this segment is about twice as long as the second while in the other genera mentioned it is not or is only slightly longer than the second.

DESCRIPTION OF FIGURES IN PLATE II

6. *Luperaltica nitida* n. sp., ♂.
 7. Aedeagus of *Luperaltica nitida* n. sp.; A, apical view; B, lateral view.
 8. Aedeagus of *Luperaltica semiflava* (Fall): A, apical view; B, lateral view.
 9. Aedeagus of *Luperaltica nigripalpis* (Lec.): A, apical view; B, lateral view.
 10. Aedeagus of *Luperaltica senilis* (Say): A, apical view; B, lateral view.
 11. Aedeagus of *Monomacra opaca* n. sp.: A, apical view; B, lateral view.
 12. *Monomacra opaca* n. sp., ♂.
 13. Aedeagus of *Exora brevicornis* Jacoby: A, dorsal view; B, lateral view.
 14. Aedeagus of *Exora californica* n. sp.: A, dorsal view; B, lateral view.
 15. *Exora californica* n. sp., ♂.
- Line equals 4 mm.



From *Systema* Clark, which has a similar, though more depressed form, it is easily distinguished by its open front coxal cavities. In some specimens the pronotum may have as distinct a transverse impression as certain species of *Altica* Geoff. From these *Luperaltica* may be distinguished by its narrower form, longer, more slender posterior femora, enlarged first segment of front tarsus of male and cylindrical aedeagus.

Altica senilis Say is hereby designated the type species of *Luperaltica* Crotch.

The following is a catalog of species in *Luperaltica* Crotch.

Luperaltica Crotch

Luperaltica Crotch, 1873, Proc. Acad. N. S. Phila. 25: 70. Horn, 1893, Trans. Amer. Ent.

Soc. 20: 135. Blatchley, 1910, Coleop. Ind. p. 1203. Duckett, 1920, Md. Ag. Exp.

Sta. Bull. 241: 140. Heikertinger, 1925, Koleop. Rund. 11: 57.

Genotype: *Altica senilis* Say (present designation)

Luperaltica senilis (Say) N. Y. Ga., Mo. *Eupatorium ageratoides*

Altica senilis Say, 1824, Jour. Acad. N. S. Phila. 4: 87.

Malacosoma tincta Leconte, 1865, Proc. Acad. N. S. Phila. 17: 206.

Systema senilis Say, Horn, 1889, Trans. Amer. Ent. Soc. 16: 271.

Luperaltica senilis Say, Crotch, 1873, Proc. Acad. N. S. Phila. 25: 70. Horn, 1893, Trans.

Amer. Ent. Soc. 20: 136. Blatchley, 1910, Coleop. Ind. p. 1203. Blatchley, 1921,

Jour. N. Y. Ent. Soc. 29: 25.

Luperaltica nigripalpis (Leconte) Pa., S. C., Iowa, Kans.

Longitarsus nigripalpis Leconte, 1859, Smithson. Cont. Knowl. 11: 26.

Malacosoma fuscula Leconte, 1865, Proc. Acad. N. S. Phila. 17: 206.

Luperaltica fuscula Leconte, Crotch, 1873, Proc. Acad. N. S. Phila. 25: 70. Horn, 1893,

Trans. Amer. Ent. Soc. 20: 135. Duckett, 1920, Md. Ag. Exp. Sta. Bull. 241: 141.

Luperaltica fuscula var. *novellus* Crotch (Zimm.), 1873, Proc. Acad. N. S. Phila. 25: 70.

Luperaltica nitida n. sp. Texas

Luperaltica semiflava (Fall) Texas, N. Mex. *Gutierrezia microcephala*.

Luperodes semiflavus Fall, 1907, Trans. Amer. Ent. Soc. 33: 252.

KEY TO THE SPECIES OF LUPERALTICA CROTCH

1. Pronotum alutaceous; Eastern United States..... 2
Pronotum shining; Texas..... 3
2. Elytra very indistinctly punctate, alutaceous; color varying from testaceous to black, elytra occasionally dull blue; aedeagus with broad apex (figure 9).... *nigripalpis* (Lec.)
Elytra evidently, closely punctate, usually shining metallic blue-green; aedeagus with apex pointed, apex not deflexed (figure 10)..... *senilis* (Say)
3. Aedeagus pointed at apex, apex deflexed (figure 7); elytra shining blue-green, very finely punctate..... *nitida* n. sp.
Aedeagus broad at apex (figure 8); elytra shining blue-green, punctation indistinct..... *semiflava* (Fall)

Luperaltica nitida n. sp.

Figures 6, 7

Elongate oval, elytra much broader at base than prothorax. Color reddish yellow; occiput, vertex, metasternum and abdomen brown; elytra metallic blue-green. Surface strongly shining. Posterior femora long, reaching beyond end of abdomen.

Head shining brown above tubercles; tubercles and lower areas of face testaceous; labrum brown. Vertex with a few scattered punctures near eyes. Tubercles strongly delimited, transverse. Inter-ocular groove deep. Inter-antennal carina short, convex. Clypeus flat, it and labrum beset with long pale hairs. Antennae reaching middle of elytra, testaceous, slightly darker toward apex. Segments three, four and five equal, longer than 6-10, nearly as long as eleventh. Pronotum one-fourth wider than long, sides curved, widest at apical third. Anterior angle prominent, rounded, posterior angle acute, prominent. Surface evenly convex, shining, with

scattered very minute punctures. Antebasal, transverse groove very weakly evident. Scutellum triangular, brown, alutaceous. Elytra four times as long as wide, moderately convex, sides nearly parallel. Humeri prominent, a definite basal callus present, limited behind by a vague transverse depression at basal fourth. Surface shining, finely irregularly punctate. Epipleura testaceous, broad at base, suddenly narrowing at basal fourth, continuing to apical angle. Ventral surface testaceous, alutaceous, pubescent; metasternum and sides of abdomen darker brown. Prosternum extending narrowly but distinctly between front coxae. Front coxal cavities open behind. Mesosternum tuberculate between middle coxae. First abdominal segment swollen between hind coxae. Last ventral with a very narrow median groove, apex with short, broad lobe deflexed into body cavity. Posterior femora long, not greatly swollen. Posterior tibia with apical spur. First segment of front tarsus broad, wider than tibia at apex. First segment of middle tarsus broad, about as wide as tibia. First segment of hind tarsus slender, about one-third the length of tibia. Tarsal claws appendiculate, divergent. Aedeagus at apex narrowed to an irregularly rounded point, tip strongly deflexed, sides produced into thin lobes.

First abdominal segment of female not swollen between posterior coxae. Last abdominal segment straight across apex, median groove feebly indicated. First segments of front and middle tarsi normal.

Length 3.2 mm, width 1.5 mm.

Holotype ♂, allotype ♀, paratypes 3 ♂♂ and 6 ♀♀, Chisos Mts., Texas, July 17, 1946, D. J. and J. N. Knull collectors, also, 16 ♂♂ and 8 ♀♀, Chisos Mts., July 16 to 26, H. A. Wenzel collector. Holotype, allotype and paratypes in the Ohio State University collection. Paratypes also in collections of the writer and the New York State Museum.

There is some variation in color of head and epipleura in the paratypes. In some the head is entirely testaceous and the epipleura may be dark.

This species, because of its punctate elytra and separated coxae seems to be more closely related to *L. senilis*. However, it may easily be separated from that species and *L. nigripalpis* by its smooth, shining pronotum.

***Luperaltica semiflava* (Fall), new combination**

Figure 8

Luperodes semiflavus Fall belongs in the genus *Luperaltica* rather than *Luperodes*. Externally this species is nearly identical with *L. nitida*. The pronotum is very slightly broader and less convex than in *nitida*. Elytral punctation is obsolete. The aedeagus, however, is quite different from that of *nitida*. It has a broad, truncate apex; apical margin deflexed; orificial plate broader than in *nitida*; and the sides moderately developed. *L. nitida* is so similar to *L. semiflava* that I had some hesitation in describing it as a distinct species. Perhaps it is only a subspecies or genetic variant of *semiflava*, but the great difference in aedeagi leads me to consider it distinct.

Besides the type in the Museum of Comparative Zoology, I have seen a specimen collected by John L. Ward in the Chisos Mts., Texas, August 1, 1949, on *Gutierrezia microcephala*.

***Monomacra opaca* n. sp.**

Figures 11, 12

Oblong, depressed. Body entirely reddish brown; elytra dull metallic blue-green; lateral and apical margins fading to brown. Head finely alutaceous, a depression above each eye with coarse punctures. Eyes small, distance between them more than half the width of the head. A short median depression extends back from between tubercles. Frontal tubercles very indistinctly bounded. Frontal carina broad, not convex, alutaceous, a row of short hairs on each side. Tips of mandibles black. Antennae half the length of body, stout, thickly pubescent. Segments two, three and four gradually longer. Fourth nearly twice as long as second and longer than segments five to ten. Pronotum alutaceous, not punctate except for one or two deep punctures at sides. Slightly narrower in front, three-fifths as long as wide. Sides broadly margined, evenly arcuate. Anterior angles obtuse, posterior angles rectangular. Transverse

basal impression deep, limited at each side by a very deep, nearly circular depression. Scutellum brown, alutaceous. Elytra little wider at base than prothorax. Each elytron four times as long as wide. Lateral margins explanate, arcuate, more or less translucent, brownish. Surface alutaceous, finely, closely punctate. Female with one or two low, irregular, longitudinal carinae extending back from humerus. Male evenly convex. Epipleura broad, reaching apical angles. Ventral surface alutaceous, finely punctate, with moderately dense, evenly distributed pubescence. Last ventral segment of male with broad emargination at apex, of female evenly rounded. Prosternum widely separating front coxae. Front coxal cavities open. Posterior femora strongly swollen. Each tibia with sharp carina on outer margin. Apex of posterior tibia with a stout spur. First segment of front and middle tarsus of male greatly expanded, broadly oval, wider than tibia at apex. Tarsal claws appendiculate. Aedeagus short, cylindrical, apex acute.

Length 4.6 mm, width 1.8 mm.

Holotype ♂, allotype ♀, paratypes 9 ♂♂ and 13 ♀♀, Chiricahua Mts., Arizona, July 14, 1936, D. J. and J. N. Knull collectors. Holotype, allotype and paratypes in the Ohio State University collection, paratypes also in the writer's collection.

M. opaca differs from *Monomacra iris* (Oliv.) in being less shiny, more elongate and less convex. The elytra of *iris* are purple-blue and the legs, abdomen and outer segments of antennae are black.

***Epitrix nitens* (Horn), new combination**

Crepidodera nitens Horn, 1888, should be placed in the genus *Epitrix* Foudras. Horn stated that "the form and facies suggest *Epitrix*" but since he did not observe elytral pubescence he found "it necessary to place it for the time in *Crepidodera*." I have seen several specimens from Ohio which do have scattered elytral hairs, thus requiring the transfer to *Epitrix*.

***Hornaltica atriventris* (Melsh.), new combination**

Crepidodera atriventris Melsh., 1847, because it has open coxal cavities must be removed from the *Crepidoderini*. It is very similar in form to *Hornaltica bicolorata* (Horn) so I propose its transfer to the genus *Hornaltica* Barber. Judging from the description, I suspect that *Crepidodera solani* Blatchley also belongs in *Hornaltica*.
