

New and Little Known Species of Malthodes

(Coleoptera: Cantharidae)

KENNETH M. FENDER¹

Linfield Research Institute

McMinnville, Oregon

WHEN THE revision of the Malthini of North America was published in 1951 it was hoped it would be a comparatively lasting contribution. Now the group could be set aside and, if not forgotten, at least more or less mislaid for a time. Very shortly thereafter, the fallacy of this line of reasoning became apparent. Novelties that required description continued to show up. It was again hoped that the completion of the author's portion on the Cantharidae for Dr. M. H. Hatch's: *Beetles of the Pacific Northwest*, Vol. III, in which three new species of *Malthodes* were described, would cover at least the species of this area for a long time. It was with mixed emotions that it was discovered that, in a single day of collecting, three undescribed species of *Malthodes* were collected in the Pacific Northwest; this only a few months after the appearance of Dr. Hatch's volume.

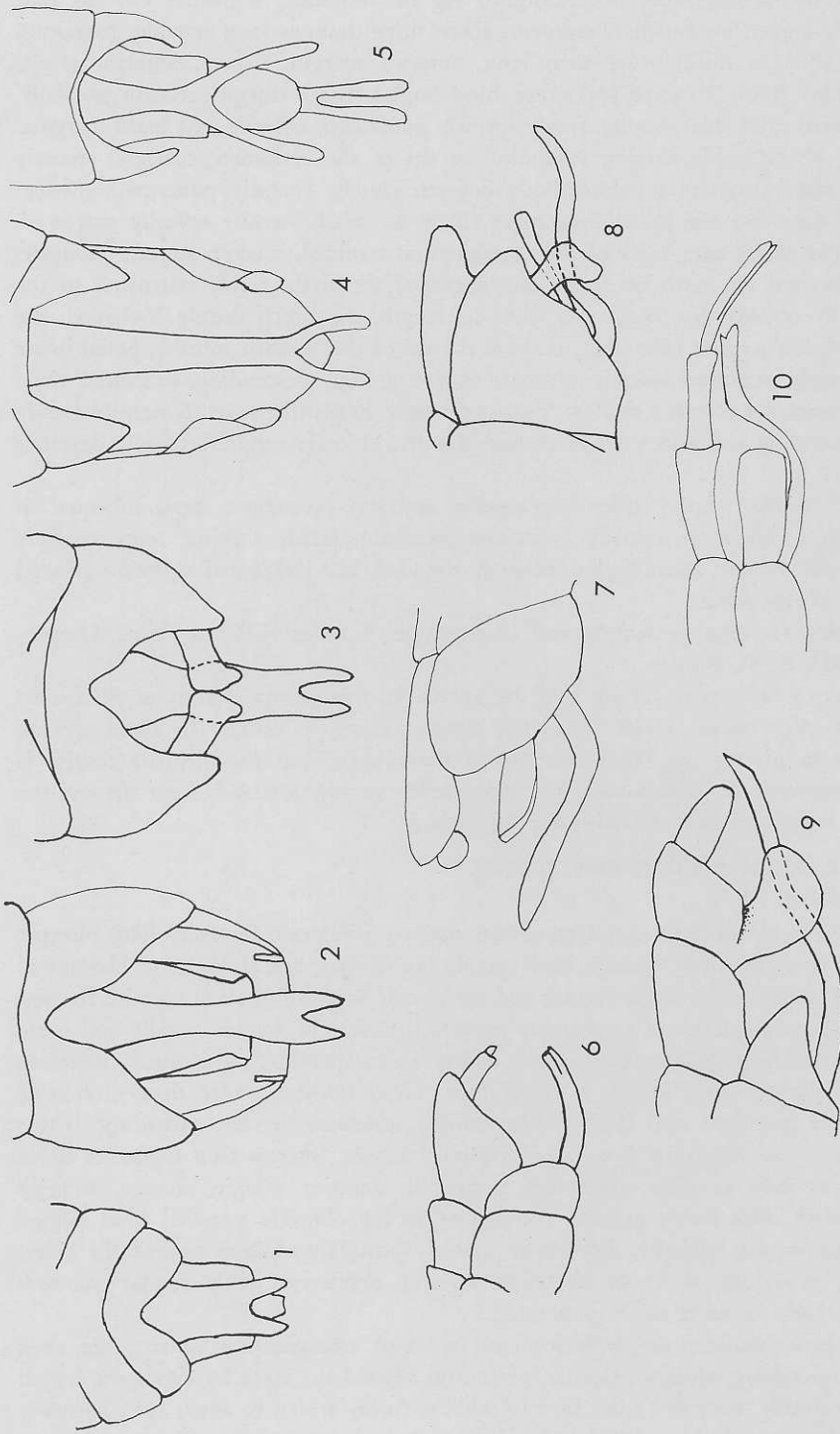
A much more significant capture was a single male of an undescribed *Malthodes* in Newfoundland by Dr. C. P. Alexander. This species is much more closely allied to some of the more intricately derived Palaearctic species than to any of the Nearctic. It, however, fits none of the Palaearctic species as far as the author can ascertain, and the literature and determined materials have shown nothing quite resembling it.

These recent collections and descriptions, along with the other post-revisional studies, have prompted the suggestion by several that a revision of the revision should be forthcoming shortly. It would appear that the anticipated monumental study of 1951 may have been a very temporal work.

Malthodes siskiyouensis Fender, new species (Figures 1 and 6)

Male: Piceous, mandibles pale basally, basal antennal segment pale exteriorly, basal margin of pronotum narrowly pale, pronotal epipleurae testaceous, basal 3 or 4 abdominal segments testaceous at apical angles; pubescence cinereous, fine, sparse, somewhat depressed. Length 2.5 to 3 mm. Head shining, wider than pronotum, smooth in front of antennae, finely, sparsely pustulate behind and on neck, eyes large and prominent,

¹This study was supported by National Science Foundation Grant G15881. Specimens upon which this study was based will be retained for the time being in the author's collection. Ultimately they will be deposited in the collection of the California Academy of Sciences.



Male terminal abdominal segments of Malthodes. Figures 1-5 (ventral aspect) 1. *M. siskiyouensis* Fender, 2. *M. latini* Fender, 3. *M. fuscus* LeConte, 4. *M. selmaensis* Fender, 5. *M. terranova* Fender. Figures 6-10 (lateral aspect) 6. *M. siskiyouensis* Fender, 7. *M. latini* Fender, 8. *M. fuscus* LeConte, 9. *M. selmaensis* Fender, 10. *M. terranova* Fender.

antennae comparatively stout, extending to tip of abdomen, segments two to four progressively longer, intermediate segments about three times as long as wide; pronotum transverse, about a third wider than long, anterior margin arcuate, anterior angles rounded, sides feebly concave to obtuse hind angles, basal margin arcuate medially, oblique toward sides, disc shining, finely sparsely punctured, anterior and basal marginal beads fine; elytra feebly shining extending to tip of the abdomen, coarsely, sparsely punctured, rather vaguely rugulose; body beneath closely, coarsely punctured, median portions of the meso and metathorax more finely so. Sixth sternite apically narrowed, widely, deeply emarginate, apex of the emargination rounded, seventh sternite elongate, extending beyond the sixth by about the length of the sixth, feebly narrowed to the apex, apically notched for about one third its length, the notch deeply V-shaped, the tips rounded, last tergites extending to about the tip of the seventh sternite, penultimate tergite arcuately narrowed apically, ultimate tergite strongly descending, in caudal view, feebly narrowed, apex with a shallow V-shaped notch; in profile, seventh sternite evenly arcuately ascending and somewhat thickened apically, ultimate tergite arcuately descending.

Female: Similar to the male, eyes smaller and less prominent, head subequal to pronotum in width, more coarsely punctate, pronotum feebly shining, more coarsely punctured, side arcuate, basal angles obliquely rounded, last abdominal segments normal for females of the genus.

Holotype male, allotype female, and 10 paratypes, 5 miles N.W. of Selma, Oregon, May 18, 1962, K. M. Fender.

This species belongs in Group I of the genus. In this group, it runs to *M. basalis* Fall and *M. pictithorax* Fender. It is not closely related to either. In these species, the seventh sternite is angulately bent up at the middle, and the ultimate tergite is short and truncate. *M. siskiyouensis* has the seventh sternite arcuately bent up and the last tergite longer, narrow and with the tip incised.

***Malthodes lattini* Fender, new species**
(Figures 2 and 7)

Male: Head black, clypeus and mandibles fuscous, pronotum flavous, elytra piceous, feebly paler medially, body beneath black, prothorax flavous, apical angles of abdominal sternites 1-4 testaceous, seventh sternite and apical half or more of sixth sternite flavous, legs piceous, coxal apices and trochanters testaceous, apices of femora widely and bases of tibiae narrowly piceo-testaceous, more widely so on prolegs, pubescence cinereous, fine, sparse and suberect, length 3 to 3.5 mm. Head shining, wider than pronotum, finely sparsely pustulate, eyes large and prominent, antennae slender, extending to tips of wings in repose, segments 2 to 4 progressively longer, intermediate segments about four times as long as wide; pronotum transverse, anterior margin arcuate, anterior angles rounded, sides feebly arcuate, convergent to the obtusely rounded hind angles, basal margin arcuate medially, disc finely sparsely pustulate oblique toward the sides; elytra long, extending to tip of abdomen, apically dehiscent, finely rugose punctate throughout; body beneath finely punctured.

Sixth sternite broadly deeply emarginate, sides of emargination sinuate, the apex acute; seventh sternite elongate slender, extending beyond the sixth by about the length of the sixth, feebly narrowed from base to middle, feebly widen to apex, apex narrowly rather deeply triangularly notched, the tips rounded above and toward each side, an

(on edge) elongate plate extending a little beyond middle of seventh in profile; seventh sternite slender, sinuately ascending apically, tip acute, ultimate tergite slightly produced caudally, a small sublateral ovate process originating beneath and just inside the lateral edge and projected downward, on each, a large elongate subquadrate plate projected caudally from inside sixth sternite and medially between seventh sternite and sides of ultimate tergite.

Female: Similar to male, eyes smaller and less prominent, head narrower than pronotum, antennae extending to base of third sternite, intermediate segments about two and a half times as long as wide, elytra extending to base of fifth sternite, length 2.5-3 mm.

Holotype male, allotype female, and 16 paratypes, 1 mile S.W. of Selma, Oregon, May 18, 1962, K. M. Fender.

This species belongs in Group V (last tergites normally produced, six sternite not strongly inflated, seventh sternite terete apically forked, but not deeply channeled). It would key to *M. tularensis* Fall, which I have never seen, but it appears different from that species in that the seventh sternite of *M. tularensis* is said by Fall to be abruptly sinuately ascending beyond the basal half and, according to Fall's illustration, the apical notch of the seventh sternite is nearly V-shaped.

This species is named for Mr. Jack Lattin, who has so often invited me on his entomology class annual field trip. It was on the 1962 trip that these new species were collected.

At the time of my revision of the genus, I had not seen specimens of *Malthodes fuscus* LeConte and depended on sketches of the type by Dr. Floyd Werner and the meager descriptions of LeConte and Fall for an understanding of this species. Since then, an excellent series, collected May 19, 1961, W. of Novato, Marin Co., California by D. C. Rentz, has been sent me. From this series, a redescription of this species and sketches of the terminal abdominal segments, with minor alterations, have been made.

Malthodes fuscus LeConte (Figures 3 and 8)

Male: Head black with mandibles testaceous, pronotum brunneous, with margins narrowly testaceous and a large testaceous spot on each side, varying to pronotum testaceous with a broad transverse subapical black spot and a large ovate subbasal black spot, elytra piceous, the apices olivaceous, body beneath piceous black, fifth sternite with apex flavous medially, sixth flavous medially, seventh sternite, ultimate tergite and processes of penultimate tergite flavous, pubescence cinereous fine sparse and decumbant, length 3 to 3.5 mm.

Shining, head wider than pronotum, very finely sparsely punctured, eyes prominent, antennae slender, extending to tips of wings in repose, segments two to four progressively longer, intermediate segments about four times as long as wide, pronotum transverse, anterior margin arcuate, the marginal bead fine, anterior angles rounded and laterally reflexed, sides feebly sinuate, converging slightly to the feebly prominent and obtusely rounded hind angles, basal margin more strongly arched than anterior, the bead coarse; disc finely sparsely punctured, but more closely coarsely so than head, median longitudinal line elevated in basal half and guttered in apical half, two or three orbicular elevations on each side; elytra more coarsely punctured basally, finely rugose medially, the apices feebly tumid and finely punctured, thorax beneath very finely sparsely

punctured abdominal sternites finely punctured and microreticulate.

Sixth sternite somewhat prolonged, widely, deeply arcuately emarginate, seventh sternite elongate, moderately slender, extending beyond sixth for about a third of its length, feebly narrowed medially, apex with a deep U-shaped notch, the tines parallel to feebly convergent apically, the tips rounded, in profile, sides of sixth sternite prolonged, seventh sternite slender, bisinuate, the tips sharply rounded, sides of penultimate tergite produced downward and inward as ovate process more or less enveloping seventh sternite near apical third, main body of penultimate tergite produced to match production of sixth sternite, ultimate tergite short, transverse.

Malthodes selmaensis Fender, new species
(Figures 4 and 9)

Male: Black, clypeus and mandibles obscurely paler, pronotum flavous, lateral margins black, more widely so at anterior angles; elytra piceous; legs black, trochanters, apices of coxae, and bases and apices of femora narrowly and bases of tibiae widely paler; apices of sternites two to four narrowly testaceous, seventh sternite and apical third or more of sixth sternite flavotestaceous, penultimate tergite and basal half or more of ultimate tergite flavotestaceous, apical half of ultimate tergite brunneous, pubescence cinereous, fine, short and inconspicuous. Length 3 mm.

Head wider than pronotum, shining, finely sparsely punctured, eyes large and prominent separated by about their combined widths, antennae long and slender, extending to about the tips of wings in repose, segments two to four progressively longer, intermediate segments five times as long as wide; pronotum transverse, anterior margin nearly straight and finely beaded, anterior angles obliquely rounded, broadly reflexed toward lateral margins, sides sinuate to rounded hind angles, base more strongly rounded than apical margin, the bead thick, disc shining, finely punctured and microreticulate, an elongate transverse elevation medially on each lateral half; elytra long, extending to base of antepenultimate tergite, coarsely sparsely punctured basally becoming finely rugose medially, tips finely punctured, not tumid; body beneath, finely sparsely punctured, abdomen more coarsely so, fifth sternite widely shallowly emarginate, sixth sternite widely deeply emarginate, apex of emargination truncate, sides of emargination and sides of segment concave, forming acute sublateral apices of the segment, seventh sternite elongate, slender, extending beyond apices of sixth by about twice the length of the sixth, narrowest at about apical two fifths, apically forked for about one fifth of its length, apex of the furcation rounded, the forks arcuate, the tips rounded, apex of ultimate tergite with a shallow V-shaped notch, received between forks of seventh sternite, in profile side of sixth sternite subtriangular, apex feebly produced and sharply rounded, seventh sternite slender, feebly bisinuate, tips beveled beneath, apex of sixth tergite, oblique; penultimate tergite obliquely transverse, side produced downward as large suboval discs, ultimate tergite elongate subdigitate.

Female: Similar to the male, head as wide as pronotum, eyes smaller and less prominent, antennae shorter, extending to about the base of the fourth sternite, intermediate segments about two and a half times as long as wide, pronotum with sides less widely black; elytra extending to base of fifth sternite, apical sternite semi-circular, apex with a median U-shaped notch.

Holotype male, allotype female, and 8 paratypes. Five miles N.W. of Selma, Oregon, May 18, 1962, K. M. Fender.

This species belongs in Group X of the genus (side pieces of penultimate tergite produced ventral and variously modified, seventh sternite not or not strongly bisinuate in profile). In this group it keys to couplet 26, occupied by *M. intricatus* Fend. and *M. idaboensis* Fend. In these species the seventh sternite is simply sinuate and stout before the furcation, forked for two fifths or more of its length. The penultimate tergite is short and strongly oblique in *M. intricatus*, narrow and elongate in *M. idaboensis*.

Malthodes terranovaë Fender, new species
(Figures 5 and 10)

Male: Black, mandibles and basal two or three antennal segments fusco-piceous, apical antennal segments piceous, pronotum fusco-piceous, apical and basal margins paler, elytra fusco-piceous, the tips testaceous, abdomen fusco-piceous, apices of sternites three-five narrowly and bases of segments four and five widely testaceous, seventh sternite feebly paler apically, pubescence cinereous, fine and sparse. Length 2 mm.

Head shining, wider than pronotum, finely sparsely punctured, eyes moderately large and prominent, antennae extending to about the apex of the third sternite, segments two and three equal, fourth segment half again as long as either, intermediate segments about two and a half times as long as wide; pronotum transverse, anterior margin straight and broadly reflexed, anterior angles obliquely subtruncate, laterally produced and strongly abruptly reflexed, sides bisinuate subparallel to obtusely rounded hind angles, basal margin arcuate, disc finely sparsely punctured throughout with a transverse series of four large punctures near the reflexed anterior margin, a large semicircular depression subbasally; elytra finely rugulose punctate basally, the apices tumid and finely punctured, thorax beneath shining and finely punctured, abdominal sternites longitudinally wrinkled, sixth sternite broadly deeply emarginate, the emargination evenly rounded, seventh sternite extending beyond the sixth to about the length of the sixth, slender, narrowed from base to a little beyond middle then widely deeply forked, apex of the furcation rounded, tines arcuately divergent, tips rounded, penultimate tergite narrower than penultimate and produced, apically arcuate, ultimate tergite forked for two thirds its length, the forks narrowly separated with the tips rounded; in profile, sixth sternite narrowly subtriangular, apex rounded, seventh sternite strongly evenly sinuate, tips rounded, the forks receiving the produced penultimate tergite, penultimate tergite produced nearly to tips of seventh sternite, ultimate tergite slender, feebly arcuately descending apically.

Holotype male. Terra Nova National Park, Newfoundland, July 8, 1961, coll. by C. P. Alexander.

The collection of this species makes the revision of the key to groups essential to include this novelty. The separation occurs in couplet 8 of the key.

- | | | |
|-----|---|------------|
| 8. | Last two or three tergites prolonged medially and narrowed | 9 |
| | Last two or three tergites normal medially, side pieces of penultimate tergite produced caudal, ventral or both | 10 |
| 9. | Ultimate tergite with a median keel beneath, tip not received in the fork of the seventh sternite | Group VII |
| | Ultimate tergite not keeled beneath, tip usually received in the fork of the seventh sternite | 9A |
| 9A. | Ultimate tergite entire or feebly emarginate apically | Group VIII |
| | Ultimate tergite cleft nearly to base | Group XIII |

Literature Cited

- Fall, H. C. 1919. The California species of Malthodes. *Ann. Ent. Soc. Am.*, XII: 31-42, Pl.
- Fender, K. M. 1951. The Malthini of North America (Coleoptera-Cantharidae). *Am. Midl. Nat.*, LVII (3): 513-629, 17 plates.
- . 1961. In Hatch, M. H. *The beetles of the Pacific Northwest*, III. Univ. Wash. Press, pp. 61-68, Plates XVII-XIX.