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WEEVILS OF THE GENUS MAEMACTES

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*Maemactes* is a small weevil of the subfamily Cryptorhynchinae whose members are known from southwestern United States, Mexico, Guatemala, and Peru. The biology of the species is unknown, and individuals of the genus are rare in collections; 30 specimens were available to the author for study. This paper presents a key to the species, describes two new forms, and indicates a new synonymy.

The taxonomy of the genera of this subfamily is very difficult. Some characters that will aid in distinguishing *Maemactes* from other cryptorhynchine genera are: pygidium somewhat exposed ventrally in both sexes when abdomen is in a normal position; metepisternum narrow and imperfectly separated from metasternum; sternal crypt extending into mesosternum; sternite 2 longer than sternite 3; claws simple, free; funiculus of antenna seven-segmented; elytra truncate at base and with tenth stria abbreviated; scutellum minute; functional wings lacking; outer margin of tibia at most slightly carinate and not crenulate or toothed.

### Genus *Maemactes* Schoenherr

- Maemactes* Schoenherr, Genera et species curculionidum, vol. 4, p. 276, 1837.—  
 Champion, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 4, p. 529,  
 1905. Type of genus: *Maemactes ruficornis* Boheman, by monotypy.
- Baropsis* LeConte, Proc. Amer. Philos. Soc., vol. 15, no. 96, p. 258, 1876.—  
 Champion, Biologia Centrali-Americana, Coleoptera, vol. 4, pt. 4, p. 529,  
 1905. New synonymy. Type of genus: *Baropsis cribratus* LeConte, by  
 monotypy.

Champion (1905) questioned the validity of *Baropsis* LeConte but did not synonymize it with *Maemactes*. Comparison of *B. cribratus* LeConte, the type of *Baropsis* by monotypy, with available species of *Maemactes* reveals no significant difference between the genera; in fact it is with some difficulty that *cribratus* is distinguished from some species of *Maemactes*.

*M. vestitus* Kirsch, from Peru, is included in the following key on the basis of the original description; I have not seen specimens of this species.

#### Key to Species of *Maemactes*

1. Elytra clothed in part with both erect setae and decumbent scales . . . . 2  
 Elytra lacking broad scales . . . . . 3
2. Elytral intervals convex, with black erect setae; suture between sternites 1 and 2 curved at the middle . . . . . **perforatus** Champion  
 Elytral intervals flat, with white erect setae; suture between sternites 1 and 2 straight . . . . . **vestitus** Kirsch
3. In dorsal view rostrum at widest point less than three times as wide as frons at narrowest point . . . . . 4  
 In dorsal view rostrum at widest point four or more times as wide as frons at narrowest point . . . . . **cribratus** (LeConte)
4. Punctures of dorsal surface of prothorax coarse, more than 0.12 mm. in diameter, containing a small seta-bearing puncture on one side which has its inner rim projecting into the large puncture; interspaces on prothorax polished and with numerous minute punctures . . . . . **punctatus**, new species  
 Punctures on dorsal surface of prothorax smaller, setae arising centrally from bottom of punctures; interspaces on prothorax microreticulate and lacking minute punctures . . . . . 5
5. Frons wide, in dorsal view rostrum at widest point about one-tenth wider than frons; elytra with obvious (at  $\times 15$ ) erect setae, intervals narrow and convex, striae obvious and complete . . . . . **pilosus** Champion  
 In dorsal view rostrum at widest point one-fifth or more wider than frons; elytra lacking obvious erect setae, intervals flat or irregular, striae in part incomplete . . . . . 6
6. Elytral intervals more or less flat throughout, dull, with dark setae less than 0.06 mm. long; striae punctures evenly spaced; sternite 2 distinctly longer than sternite 5; median lobe of aedeagus of male 0.50 mm. in length (basal struts excluded) . . . . . **ruficornis** Boheman  
 Elytral intervals in part convex, polished and shining, with yellowish setae 0.06 to 0.10 mm. long; striae punctures irregularly placed; sternite 2 as long as sternite 5 (in male); median lobe of aedeagus of male 1.25 mm. long (basal struts excluded) . . . . . **imitator**, new species

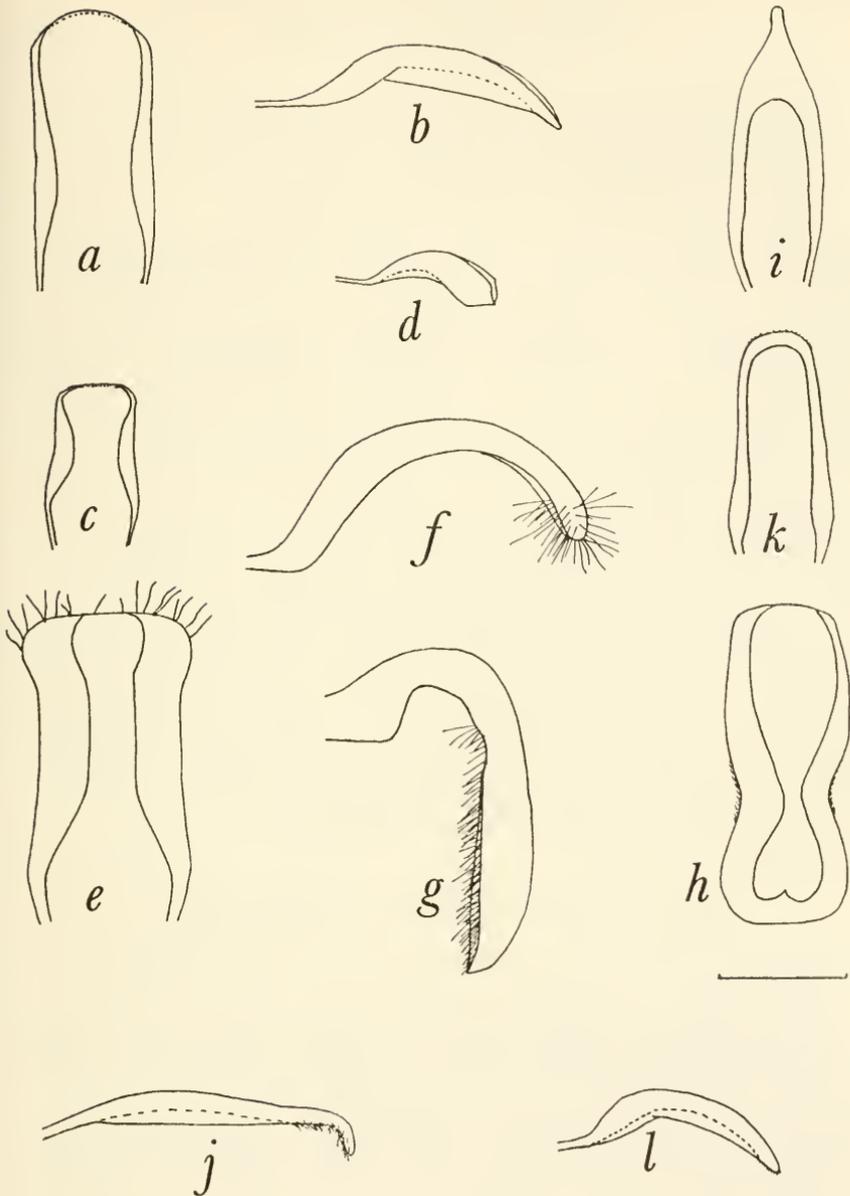


FIGURE 1.—*a-d*, *Maemactes perforatus* Champion: *a*, *c*, dorsal view of median lobe of the aedeagus of the male; *b*, *d*, lateral view of same; *c*, *d*, based on dissection of paratype of *subfasciatus* Champion. *e*, *f*, *M. ruficornis* Boheman: *e*, dorsal view of median lobe of the aedeagus of the male; *f*, lateral view of same. *g*, *h*, *M. imitator*, new species: *g*, lateral view of the median lobe of the aedeagus of the male; *h*, posterior view of same (apex of aedeagus to top of figure). *i*, *j*, *M. punctatus*, new species: *i*, dorsal view of median lobe of the aedeagus of the male; *j*, lateral view of same. *k*, *l*, *M. pilosus* Champion: *k*, dorsal view of median lobe of the aedeagus of the male; *l*, lateral view of same. Line equals 0.50 mm. in all drawings except *e* and *f* where it represents 0.25 mm.

*Maemactes perforatus* Champion

FIGURE 1, a-d

*Maemactes perforatus* Champion, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 4, p. 529, 1905.

*Maemactes subfasciatus* Champion, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 4, p. 530, pl. 26, figs. 12, 12a, 1905. New synonymy.

Thanks to the kindness of Mr. J. Balfour-Browne, of the British Museum (Natural History), I have seen one abraded specimen of *perforatus* and two of *subfasciatus*, all determined by Champion. On the basis of external structure there is little question regarding the above synonymy. Apparently Champion separated the two forms because *perforatus* has eyes which are close together while *subfasciatus* has eyes more widely separated. The frons of *perforatus* is 0.18 mm. wide, the frons of a male *subfasciatus* is 0.18 mm. wide, and the frons of a female *subfasciatus* is 0.36 mm. wide; thus sexual dimorphism probably accounts for the observed difference. On the basis of the male genitalia the synonymy is not so certain. As illustrated by figure 1, a-d there is a slight difference in the shape of the median lobe of the aedeagus of the two forms. That of *subfasciatus* (fig. 1, c, d) is comparatively shorter and blunter than the median lobe of the aedeagus of *perforatus* (fig. 1, a, b). The exact significance of this difference is not known at present and can be determined only when a series of dissections is available for study. The forms are sympatric, both having been found at Calderas and at Dueñas, Guatemala. Length, 4.7 to 6.5 mm.; width, 2.2 to 2.7 mm.

Distribution: Guatemala: Calderas, Dueñas, Quiché Mountains, and Zapote.

*Maemactes cribratus* (LeConte), new combination

*Baropsis cribratus* LeConte, Proc. Amer. Philos. Soc., vol. 25, p. 259, 1876.

This species was originally described from "Kansas and Texas." I have seen material from Victoria, Tex., labeled "March 1913, under cowchips, J. D. Mitchell" and also material labeled "South West Texas" and "Mexico, tomato fruit, 12-4-52," the latter taken in quarantine at the United States border at an unspecified station. The median lobe of the aedeagus of the male is similar to that figured for *M. perforatus* (fig. 1, a, b) with the exception that it is not quite as stout in lateral view. Length, 3.7 to 4.5 mm.; width, 1.6 to 2.1 mm.

*Maemactes punctatus*, new species

FIGURE 1, i, j

Length, 4.75 to 5.06 mm.; width, 2.18 to 2.43 mm. Rather broadly oblong-ovate; slightly depressed dorsally. Shining black; tarsi and

antennae piceous. Sparsely clothed with suberect, fairly coarse, somewhat yellowish setae. Rostrum stout, shorter than prothorax, depressed throughout, coarsely densely punctate basad of insertion of antennae, distad of this point with sparse fine elongate punctures; in dorsal view ratio of width of frons to widest point at base as 2:5, ratio of width of frons to width of rostrum at antennal insertion as 2:3; in lateral view frons slightly flattened between base of rostrum and head so that rostrum does not merge smoothly with head; head with rather small, deep, moderately close punctures; eye acutely oval, 0.56 mm. from top to bottom, 0.25 mm. wide. Prothorax about as long as wide at base, sides expanding from base to widest point near middle, there nearly one-fifth wider than base, rounded to slightly constricted apex; punctures very deep, very coarse, from 0.12 to 0.18 mm. in diameter, each puncture with a seta arising from its side from a separate small puncture which has its inner wall projecting into the cavity of the large puncture and its outer wall shared with the large puncture; interspaces polished and shining, with sparse minute shallow punctures, interspaces varying in size from cariniform to quite wide, flat areas; no indication of median impunctate area; postocular lobes feebly developed. Elytra 1.7 times as long as prothorax as 12:7; at widest point elytra nearly one-fifth wider than prothorax at widest point as 19:16; widest a little behind basal third; intervals narrow, equal to or slightly wider than striae, all more or less convex, intervals 3 and 5 more prominent, each with a single row of rather large punctures bearing suberect setae, each seta about 0.12 mm. long and mostly linear but a few clavate; punctures separated by about the length of a seta; striae complete, broad, with large deep quadrate punctures and usually with a single row of setae generally smaller than those on intervals, also an irregular lateral row located where stria merges with interval, this row composed of usually narrow to (rarely) quite broad, scalelike setae. Middle femur with a small tooth; hind femur with a distinctly larger tooth; hind tibia mucronate on inner apical angle. Sternites deeply, rather coarsely, and moderately closely punctured; male with sternite 1 broadly shallowly concave medially toward apical margin, with suture between sternites 1 and 2 deep and straight medially, sternite 2 distinctly shorter than sternite 5 when measured medially; female with sternite 1 more convex toward apex, with suture between sternites 1 and 2 shallow and arched medially, sternite 2 equal in length to 5 when measured medially. Median lobe of aedeagus of male as figured.

Holotype male, Finca El Real, Ocosingo Valley, Chiapas, Mexico, July 1-7, 1950, Goodnights and Stannard, from *Andropogon* clump, USNM Type 65803. Allotype, same data as holotype, in author's collection.

This species can be recognized by the peculiar punctuation of the prothorax, the narrow frons, the suberect setae, and the distinctive median lobe of the male.

***Maemactes pilosus* Champion**

FIGURE 1, *k, l*

*Maemactes pilosus* Champion, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 4, p. 529.

This species was originally described from two specimens from Cuernavaca, Mexico. A small series in the California Academy of Sciences is labeled "Maria Madre Island, village, Tres Marias Islands, May 14, 1925, H. H. Keifer"; the islands are located off the coast of Nayarit, Mexico. Mr. R. T. Thompson, of the British Museum (Natural History), kindly compared several specimens with the type. He states that *pilosus* has the surface of the prothorax smooth, with a flat median line; the specimens from Maria Madre Islands have the surface of the prothorax microreticulate and the median line slightly raised. At present I prefer to use one name for both populations.

Length, 5.2 to 6.0 mm.; width, 2.2 to 2.6 mm.

***Maemactes ruficornis* Boheman**

FIGURE 1, *e, f*

*Maemactes ruficornis* Boheman, in Schoenherr, *Genera et species euculionidum*, vol. 4, p. 277, 1837.—Champion, *Biologia Centrali-Americana*, Coleoptera, vol. 4, pt. 4, p. 529, pl. 26, figs. 11, 11a, 1905.

Known to occur only in Mexico: Capulalpam, Cerro de Plumas, Matamoros, Izucar, Mexico City, "Mineral del Oro," Oaxaca, Puebla, Salazar, Sierra de Durango, Toluca, and Tula.

See discussion of *Maemactes imitator* for characters separating that species from *M. ruficornis*.

Length, 4.7 to 6.5 mm.; width, 2.1 to 2.7 mm.

***Maemactes imitator*, new species**

FIGURE 1, *g, h*

Length, 5.43 mm.; width, 2.25 mm. Elongate oval, dark piceous, sparsely clothed with short yellowish setae. Rostrum stout, shorter than prothorax, depressed throughout, basad of insertion of antennae punctures irregular, deep, moderately coarse; distad of same point with moderately dense, elongate, deep punctures; in dorsal view ratio of width of frons to width of rostrum at widest point at base as 1:2, ratio of width of frons to width of rostrum at insertion of antennae as 5:6; in lateral view rostrum evenly merging with head; head with rather small, deep, moderately close punctures; eye acutely oval,

0.42 mm. from top to bottom, 0.25 mm. wide. Prothorax a trifle longer than wide at base as 12:12.5, sides expanding from base to widest point at middle, there one-fifth wider than base; punctures deep, coarse, about 0.06 mm. in diameter, each puncture with seta arising centrally from bottom; interspaces mostly slightly narrower than diameter of punctures, flat, impunctate, with strong microreticulation and with short median line present at center; postocular lobes feebly developed. Elytra 2.3 times as long as prothorax as 30:13, widest in middle third, here about one-fifth wider than prothorax at widest point as 6:5; intervals in part somewhat convex, irregular, mostly wider (except at base) than punctures marking striae, with one or two irregular rows of rather large, deep punctures, about 0.04 to 0.06 mm. in diameter, punctures bearing decumbent setae ranging from 0.06 to 0.10 mm. long; apex of seta may extend past base of next seta, surface of intervals with obscure microreticulation, polished, shining; striae mostly incomplete except at base, with deep coarse punctures irregularly placed, generally closer together in basal and apical quarters, there generally separated by a distance subequal to diameter of punctures; two or three closely adjacent strial punctures may be connected by a short section of a completed stria; toward central region of disc strial punctures much more widely separated by flat intervals on the same level and connected to the adjacent elytral intervals. Middle femur with a small tooth, hind femur with a distinctly larger tooth; hind tibia mucronate on inner apical angle. Sternites deeply, rather coarsely, moderately densely punctured; male with sternites 1 and 2 broadly, shallowly concave medially, suture between sternites 1 and 2 shallow and arched medially, sternite 2 as long as sternite 5 when measured medially. Median lobe of aedeagus of male as figured.

Holotype male, Chilpancingo, Guerrero, Mexico, intercepted in quarantine Aug. 5, 1946, on orchid plants from Chilpancingo at Laredo, Tex., USNM Type 65804.

This species is readily distinguished, on the basis of external characters, from all the species of *Maemactes*, except *ruficornis*, by its lack of both broad scales and suberect setae on the elytra and by the width of the frons. The median lobe of the aedeagus of *imitator*, in both size and shape, differs widely from those of all the other species of *Maemactes*, including *ruficornis*.

The following external characters distinguish *imitator* from *ruficornis*: *imitator* with elytral intervals in part somewhat convex; intervals more or less polished and shining with vague microreticulation and with punctures about 0.04 to 0.06 mm. in diameter, bearing setae 0.06 to 0.10 mm. long, setae yellowish in color and quite obvious in contrast to dark background; strial punctures irregularly placed,

some close together and others widely separated; sternite 2 as long as sternite 5; *ruficornis* with elytral intervals more or less flat throughout (hint of fine striae at extreme base), somewhat "wavy" in appearance but with no definitely raised, convex ridges; intervals with distinct microreticulation and dull, with fine punctures about 0.02 to 0.04 mm. in diameter, bearing setae generally less than 0.06 mm. long, setae dark in color; striae punctures more or less evenly spaced; sternite 2 distinctly longer than sternite 5.

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