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## On some Scaphidiinae (Coleoptera, Staphylinidae) from Mexico and continental Central America

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Mexican and Central American species Scaphidiinae previously placed in *Baeocera* are redescribed. *Baeocera wheeleri* sp.n. from Mexico is described. *Baeocera erichsoni* is transferred to *Scaphisoma*.

Keywords: Coleoptera, Staphylinidae, Scaphidiinae, Mexico, Guatemala, systematics.

### INTRODUCTION.

*Baeocera* is one of the most speciose genera of scaphidiine beetles. A revision of the Nearctic species, based on a study of approximately 4000 specimens (LÖBL & STEPHAN, in preparation), distinguished 38 species. Most of that material has been collected recently, by means of modern techniques such as flight intercept traps, sieving, berlese funnels. *Baeocera* is underrepresented in collections made by other means, and, thus, poorly represented in ancient collections and inadequately treated in older studies. This is true also for studies relating to Mexican and Central American faunas, from where only few species of *Baeocera* have been described (MATTHEWS, 1888; REITTER, 1880). One of them, *Baeocera irregularis* CHAMPION from Mexico and Arizona, was redescribed in LÖBL, 1976. The aim of this study is to redefine the remaining Mexican and Central American species, and to describe a peculiar new species.

The mensurations are made as in LÖBL, 1992.

### *Baeocera mexicana* REITTER

*Baeocera mexicana* REITTER, 1880:45.

Length 1.10 mm, width 0.77 mm. Body uniformly dark reddish-brown. Antennomere 2 about as long as 3 and 4 combined, 3 very short, much shorter than 4. Lateral contours of pronotum and elytron continuously arcuate in dorsal view. Pronotal microsculpture distinct at 90x magnification; punctation very fine, visible at 90x magnification. Scutellum exposed. Elytron gradually narrowed apically, with broadly interrupted basal stria. Discal punctation uniformly very fine, visible at 24x magnification. Mesocoxal line parabolic, with row of marginal pits round, not extended laterally. Mesocoxal area 0.06 mm long. Mesepimeral ridge about 2x as long as interval between its tip and mesocoxa. Lateral portion of metasternum extremely finely punctate. Metepisternum wide, in level with metasternum, with straight, impunctate suture. First visible abdominal ventrite extremely finely punctate, with moderately elongate basal pits.

Material. Lectotype, female, labelled "mexicana m. Mexico Bilinek" (MNHN) - by present designation.

Discussion. This species shares most of the relevant external characters with the North American members of the *picea* group. It may be distinguished by the short antennomere 3.

*Baeocera gyrinoides* REITTER

*Baeocera gyrinoides* REITTER, 1880: 46.

Length 1.10 mm, width 0.72 mm. Body blackish-brown, apex of elytra, abdomen and legs reddish-brown. Antennomere 2 about as long as 3 and 4 combined, antennomere 3 much shorter than 4. Lateral contours of pronotum and elytra continuously arcuate in dorsal view. Pronotal microsculpture obsolete; punctation extremely fine, hardly visible at 90x magnification. Scutellum exposed. Elytra gradually narrowed apically, with basal stria broadly interrupted; punctation extremely fine on basal third, fine (distinct at 24x magnification) beyond basal third, on centre coarser than near apex. Mesocoxal line parallel, with marginal pits round, extended laterally to mesepimeral ridge. Latter about 2x as long as interval between its tip and mesocoxa. Mesocoxal area 0.02 mm long. Lateral portion of metasternum very finely punctured. Metepisternum wide, weakly widened apically, with weakly arcuate, impunctate suture, in level with metasternum. First visible abdominal ventrite very finely punctured; basal pits elongate, extended apically by striae up to 0.06 mm long.

Material. Lectotype, female, labelled "gyrinoides Chop. i litt Teapa Chls" (MNHN) - by present designation.

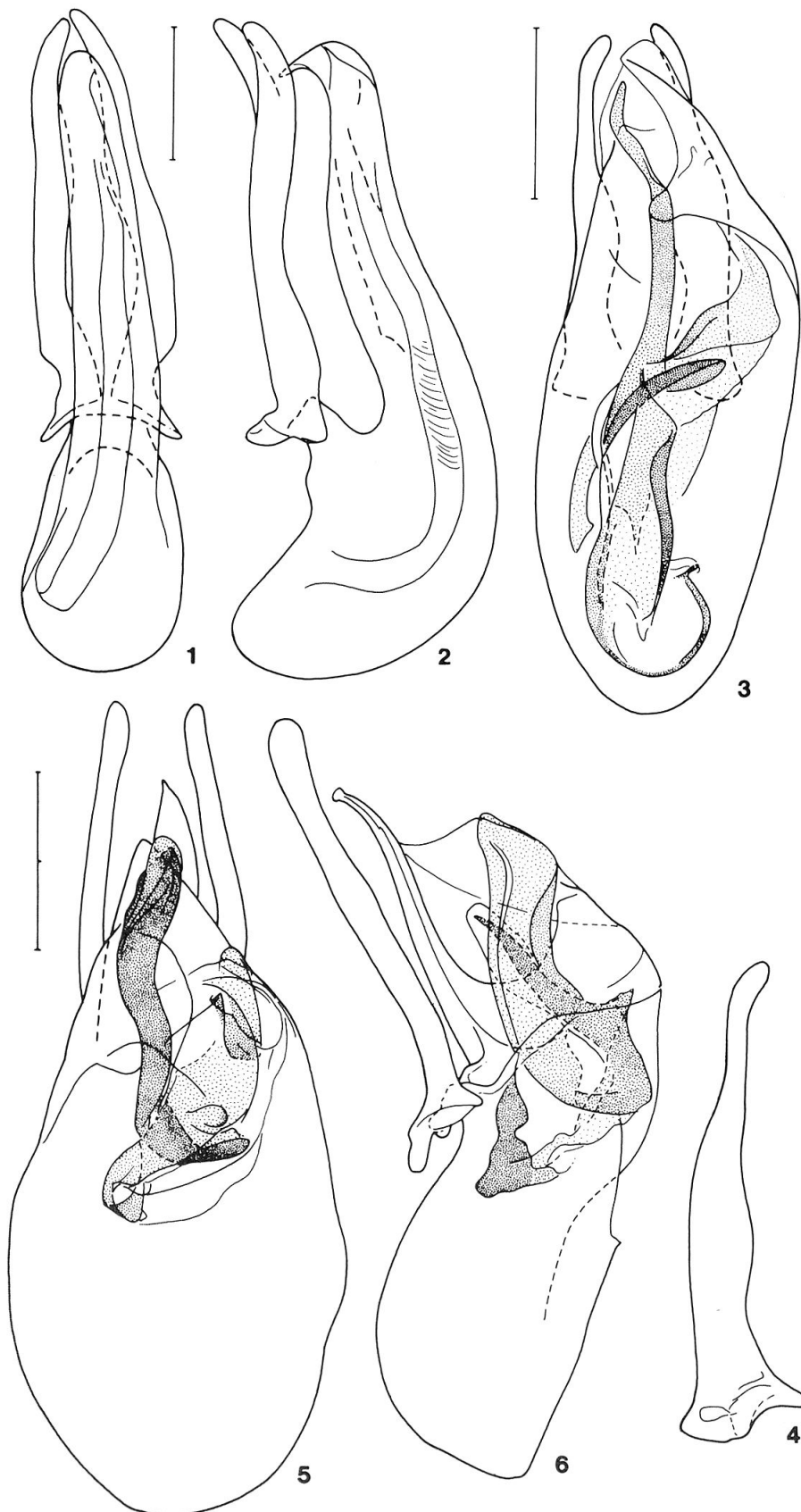
Discussion. *Baeocera gyrinoides* may be readily distinguished from other Central and North American species by the combination of external characters. Only two undescribed species from Texas and Arizona have the elytron with broadly interrupted basal stria, in combination with the exposed scutellum and the basal pits of the 1st ventrite extended by striae. These two species are notably larger, and may be separated also by their colour pattern and by elytral punctation.

*Baeocera punctipennis* MATTHEWS

*Baeocera punctipennis* MATTHEWS, 1888: 170.

*Scaphisoma punctipennis*; CHAMPION, 1913: 70.

Length 1.65 mm, width 1.10 mm. Body and legs pale reddish-brown, head darker than body, antennae pale brown. Antennomere 2 about as long as 3 and 4 combined, 3 much shorter than 4. Lateral contours of pronotum and elytra separately arcuate in dorsal view. Pronotal microsculpture obsolete; punctation extremely fine, hardly visible at 50x magnification. Scutellum exposed. Elytron with basal stria abruptly interrupted at midwidth of elytral base, discal punctation fine, dense, consisting of strongly delimited punctures on most of elytral surface, except on very finely punctured basal fourth of elytron. Mesocoxal line parallel, with marginal pits moderately coarse, round, extended laterally along metasternal margin almost to metepisternum. Mesepimeral ridge more than 2x as long as interval between its tip and mesocoxa. Lateral portion of metasternum impunctate. Metepisternum in level with metasternum, conspicuously widened apically, near apical margin 3x as wide as near anterior margin. First visible abdominal ventrite very finely punctured; basal pits not elongate, contiguous in middle of ventrite. Male with barely widened tarsomeres 1 to 3. Aedeagus (Figs 1 and 2) 0.48 mm long. Median lobe with protruding ventral tubercle, long distal portion with ventral wall sinuate (lateral view), tip



Figs 1 - 6. Aedeagi in *Baeocera*; 1 - 2: *B. punctipennis* MATTHEWS, scale-bar = 0.1 mm; 3 - 4: *B. major* MATTHEWS, paramere (4) in ventral view, scale-bar = 0.3 mm; 5 - 6: *B. wheeleri* sp.n., scale-bar = 0.2 mm.

incurved and pointed. Internal sac with simple flagellum incurved basally, additional sclerites absent. Parameres sinuate in lateral and dorsal views.

Material. Lectotype, male, labelled "Chontales Janson" (BMNH) - by present designation.

Discussion. *Baeocera punctipennis* is possibly closely related with members of the *apicalis* group with which it shares most of the aedeagal characters. It differs from the species of the *apicalis* group by the flagellum which is not circular basally, and by the flagellar guide-sclerite which is absent. The external diagnostic characters are as in species of the *picea* group.

### *Baeocera major* MATTHEWS

*Baeocera major* MATTHEWS, 1888: 169.

Length 2.2 mm, width 1.42 mm. Head and pronotum blackish, elytra, abdomen, legs and antennae ochreous to yellowish. Antennomeres 2, 3, and 4 of about equal length. Lateral contours of pronotum and elytra separately arcuate in dorsal view. Pronotal microsculpture visible at 90x magnification; punctuation very fine, hardly visible at 25x magnification. Scutellum exposed. Middle portion of elytra parallel-sided, basal stria broadly interrupted; discal punctuation obsolete. Mesocoxal line parallel, with row of marginal pits round, extended laterally. Mesocoxal area 0.04 mm long. Mesepimeral ridge 2.5x as long as interval between its tip and mesocoxa. Lateral portion of metasternum extremely finely punctured. Metepisternum relatively narrow (0.07 - 0.08 mm), parallel-sided, with straight, impunctate suture. First visible abdominal ventrite extremely finely punctured, microsculpture obsolete; basal pits elongate, up to 0.06 mm long, in middle broadly interrupted. Male with strongly widened protarsomeres 1 to 3 and mesotarsomeres 1 and 2. Aedeagus (Figs 3 and 4) 1.18 mm long. Median lobe asymmetrical, with ventral wall of distal portion sinuate (lateral view); right valve lobed. Internal sac with flagella guide-sclerite wide, strongly incurved basally.

Material. Lectotype, male, labelled "Zapote Guatemala, G. C. Champion" (BMNH) - by present designation. Paralectotype, female, labelled "Jalapa, Mexico. Hoega." (BMNH) - by present designation.

Discussion. The paralectotype, with elytra blackish, as dark as the pronotum, is possibly not conspecific with the lectotype. *B. major* is closely related to *B. deflexa* CASEY, *B. flagellata* (LÖBL) and *B. valida* (LÖBL). It may be easily distinguished from them by the obsolete elytral punctuation and by the aedeagal characters.

### *Baeocera wheeleri* sp.n.

Length 1.75 mm, width 1.15 mm. Body reddish-brown, elytra and abdomen paler apically. Antennomere 3 longer than 2, hardly longer than 4. Contours of pronotum and elytra separately arcuate in dorsal view. Pronotal microsculpture distinct; punctuation hardly visible at 50x magnification. Scutellum completely covered by pronotal lobe. Elytron with complete, uninterrupted basal stria; middle portion of lateral margin straight; punctuation very fine (similar to pronotal) near base, fairly coarse but irregular beyond basal area up to apical half of elytron, almost obsolete on apical half of elytron. Mesocoxal line moderately rounded, with marginal pits round, extended laterally to level of mesepimeral ridge. Lateral portion of metasternum impunctate. Metepisternum wide, parallel-sided, with straight, punctured suture. First visible ventrite impunctate; basal pits coarse, weakly elongate, inter-

rupted in middle. Male with segments 1 to 3 of pro- and mesotarsi strongly widened. Aedeagus (Figs 5 and 6) 0.43 mm long. Median lobe asymmetrical

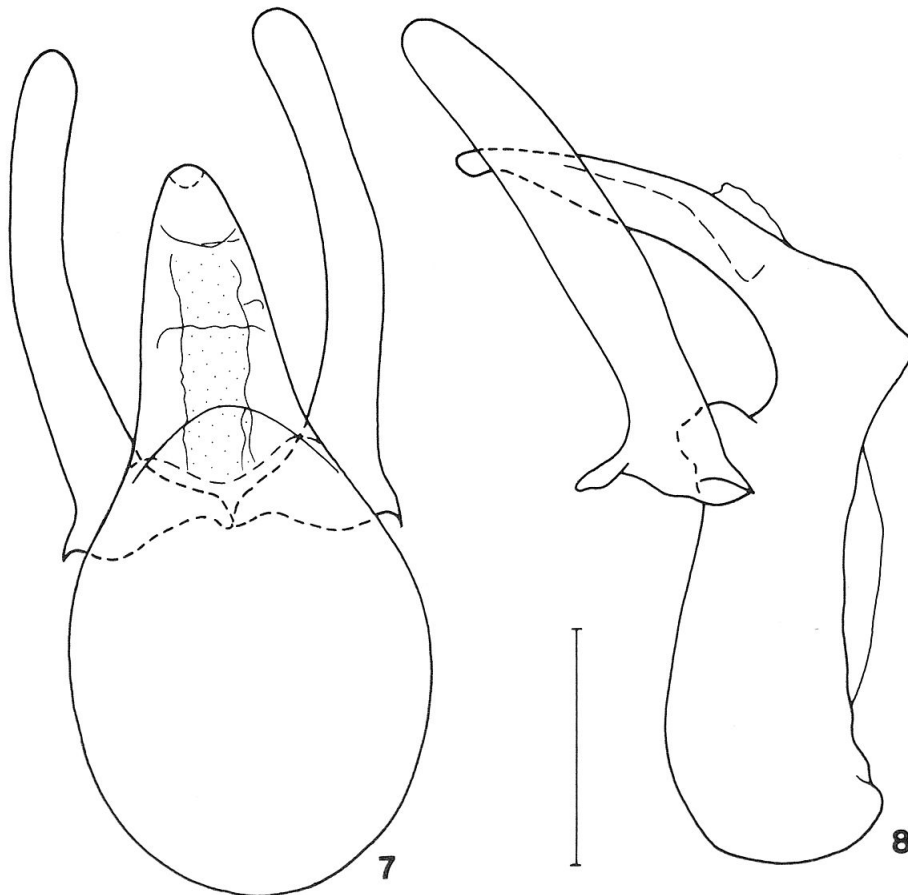
Material. Holotype, male: Mexico: Mor., 7 mi E Cuernavaca, 6.VII.1975, Q.D. WHEELER (CUIC).

Discussion. *Baeocera wheeleri* is closely related with *B. irregularis* CHAMPION, with which it shares most of the external and aedeagal characters. It may be distinguished by the smaller body, the relatively longer antennomere 3, the elytron with coarse punctures starting beyond a narrow, very finely punctured basal area, and by the shape of the tip of the median lobe of the aedeagus and of the sclerites of the internal sac.

*Scaphisoma erichsoni* (MATTHEWS) comb.nov.

*Baeocera erichsoni* MATTHEWS, 1888: 169.

Length 1.65 mm, width 1.20 mm. Pronotum blackish-brown, elytra reddish-brown, gradually paler apically, ventral surface of body dark reddish-brown, legs, antennae and apical abdominal segments paler. Relative length of antennomeres as follows: III 6, IV 8, V 12, VI 15, VII 21, VIII 13, IX 20, X 20, XI 32. Segments IV to VIII each about 2x as long as wide, XI 3x as long as wide. Pronotum with rounded lateral margins, lateral keels visible in dorsal view, microsculpture hardly visible at



Figs 7 - 8. Aedeagus of *Scaphisoma erichsoni* (MATTHEWS), scale-bar = 0.1 mm.

90x magnification; punctation dense and fine, punctures strongly delimited, distinct at 15x magnification. Tip of scutellum exposed. Elytron with rounded lateral margin, lateral keel visible near base in dorsal view; inner apical angle situated beyond level of outer apical angle; sutural margin not raised; sutural area flat; sutural stria deep, diverging from apex to middle of sutural length, then parallel with suture, curved near base and extended laterally to mid-width of base; punctation similar to that of pronotum but less dense on most of surface, more dense near apex. Hypomeron impressed near lateral edge. Mesepimeral ridge shorter than interval between it and mesocoxa. Mesocoxal line convex, with very fine marginal pits. Mesocoxal area 0.06 mm long. Metasternum fairly densely but very finely punctured, without microsculpture, centre flat and lacking impression. Metepisternum gradually narrowed anteriorly, somewhat vaulted, very finely punctured, with straight suture. First to fifth visible abdominal ventrites with microsculpture consisting of punctures; 1st ventrite entirely very finely and densely punctured; postcoxal area microsculptured, 0.10 mm long, postcoxal line almost semicircular. Pro-, meso- and metatibiae curved. Aedeagus (Figs 7 and 8) 0.39 mm long. Median lobe symmetrical, with strongly incurved distal portion and robust ventral process. Internal sac simple, membranous. Parameres fairly wide, almost evenly curved in dorsal view, almost straight in lateral view.

Material. Lectotype, male, labelled "Pinos Alton, Chihuahua Mexico Buchan - Hepburn" (BMNH) - by present designation.

Discussion. The aedeagus of *S. erichsoni* resembles that of *S. pusillum* CASEY (LESCHEN *et al.*, 1990) but the shape of the parameres is significantly different.

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