

On the Scaphidiidae (Coleoptera) of Chile

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Abstract

The Chilean Scaphidiidae are reviewed. Eight species, all belonging to the genus *Baeocera* Erichson, are recognized. Two species, *B. cekalovici* and *B. nonguense*, are described as new and two additional new species are left unnamed. *Baeocera germaini* Pic, which figured as a variety of *B. chilensis* Reitter, is upgraded to a distinct species. *Toxidium chilense* Pic is reassigned to the genus *Baeocera*; it is renamed *B. valdiviana* because of the homonymy with *B. chilensis* Reitter.

The present paper is based on study of relevant types and other available material. Eight species are recognized, all members of the genus *Baeocera* Erichson. Two of them represented each by a single female remain unnamed as solely male genitalia provide sure diagnostic characters. The following inadequately described taxa have been reported from Chile at present: *Baeocera chilensis* Reitter with the variety *germaini* Pic (the latter is in fact a distinct species), *Baeocera atricollis* Pic, and *Toxidium chilense* Pic which proved to be congeneric with *B. chilense*. The scaphidiid fauna of Chile appears to be depauperate, especially due to the absence of the genera *Scaphisoma* Leach, *Toxidium* LeConte, and *Cyparium* Erichson, which are all widely distributed in the Neotropical region.

The Chilean species exhibit several concord characters suggesting their monophyly: body conspicuously slender; elytra unusually long, at sutural margin distinctly longer than their combined width, and about two times longer than pronotum; lateral keels of pronotum and of elytra not visible in dorsal view due to strongly convex dorsal surface; eyes large; antennal segments III to VI slender, V and VI only feebly larger than III or IV, V longer than IV or VI; segment VII at least somewhat narrower than VIII; punctation of dorsal surface, mesepisterna, lateral portions of metasternum and of abdomen very fine to evanescent, except for basal punctures of first visible sternite; visible portion of mesepimeron large, about two to three times longer than interval between it and mesocoxa; plates behind mesocoxal cavities well developed; visible portion of metepisternum not or feebly narrowed anteriorad, with deeply impressed inner suture; base of first visible sternite not rugose, basal punctures not or slightly elongate; legs slender; aedoeagus with slender parameres similar to those of the species of *lenta* group.

Note. The length of each species is measured from the middle of the apical pronotal margin of the inner apical angle of the elytra. The measurements of metepisterna refer to their exposed portions.

Key to Chilean species of *Baeocera*

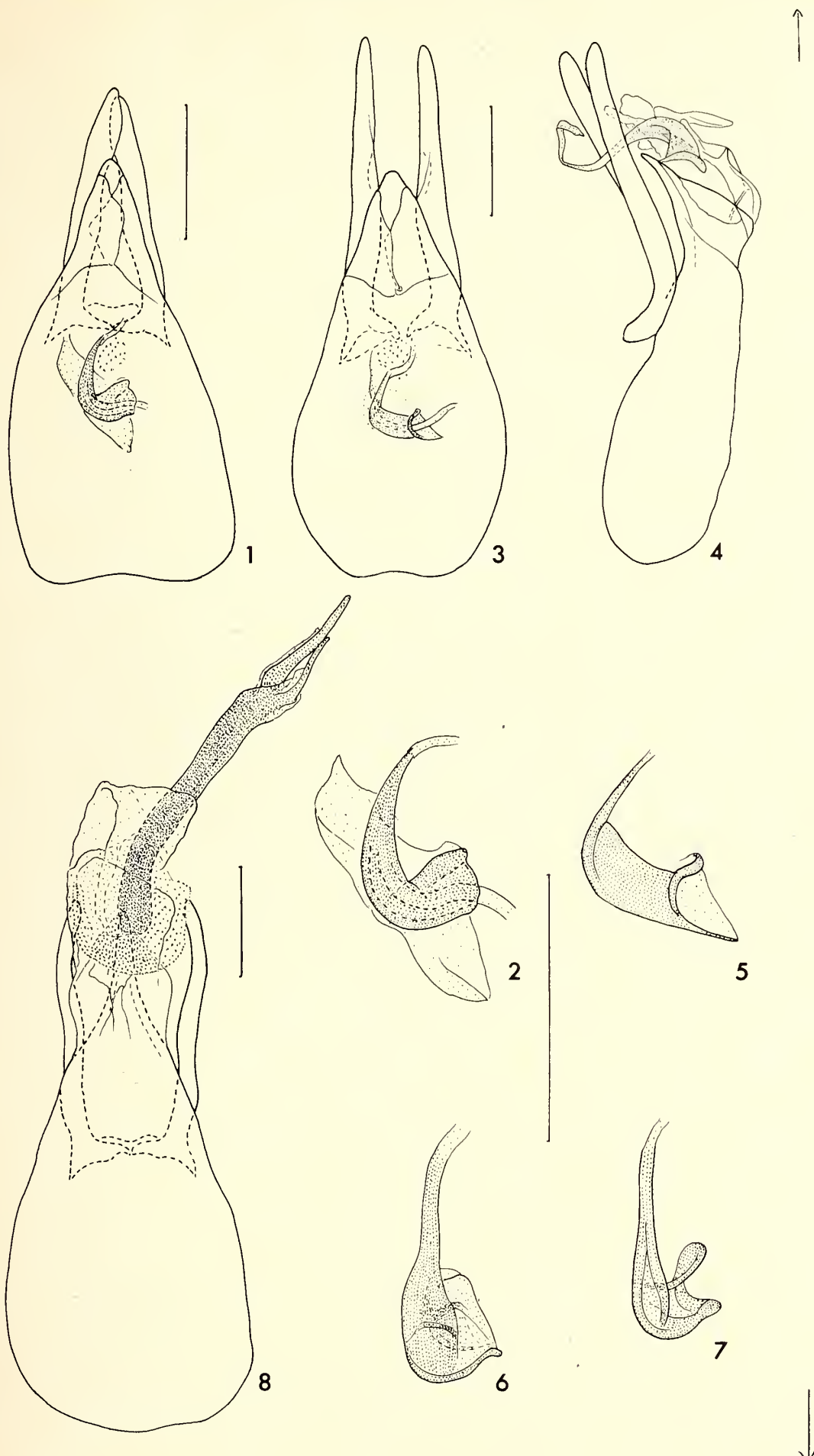
- | | | |
|----|--|-------------------|
| 1. | Sutural striae of elytra short, disappearing behind apex of scutellum | 2 |
| – | Sutural striae long, extending onto basal elytral margin | 5 |
| 2 | Dorsal surface of body ochreous or reddish brown, apical fourth to third of elytra markedly paler | <i>nonguensis</i> |
| – | Body usually dark reddish brown to black, pale apical portion of elytra shorter | 3 |
| 3 | First visible abdominal sternite without microsculpture | 4 |
| – | Lateral portions of first visible abdominal sternite with conspicuous microsculpture | <i>chilensis</i> |
| 4 | Antennal segment VIII markedly shorter than VII. Outer margin of plates behind mesocoxal cavities straight | <i>valdiviana</i> |
| – | Antennal segment VIII only somewhat shorter than VII. Outer margin of plates behind mesocoxal cavities concave | <i>cekalovici</i> |
| 5 | Dorsal surface of body very dark brown to black, except for paler apical margin of elytra; sutural striae either disappearing on elytral base close to pronotal lobe or joined to lateral elytral striae | 6 |
| – | Elytra much paler than pronotum and head; sutural striae extending along basal elytral margin to about outer third | <i>atricollis</i> |
| 6 | Sutural striae of elytra disappearing on elytral base close to pronotal lobe | 7 |
| – | Sutural striae joined to lateral elytral striae | species A |
| 7 | Punctuation of elytra distinct. Median portion of metasternum without coarse and dense punctures. Length 1.30–1.55 mm | <i>germaini</i> |
| – | Punctuation of elytra almost evanescent. Median portion of metasternum with two coarsely and densely punctate apical impressions. Length 1.8 mm. | species B |

Baeocera chilensis Reitter

Baeocera chilensis Reitter 1880: 45! Lectotype ♂, CHILI (MNHP), here designated.

Material examined: 14 specimens; type (see above); 3 ♂, 2 ♀, «Chili» (MNHP, MHNG, BMNH); 1 ♂, 5 ♀, Concepción, Estero Nonguen, 21. IV. 1976, leg. T. Cekalovic (MHNG); 1 ♂, 1 ♀, Valparaíso, Gomez Carreño, 4. X. 1969, leg. P. Baez (UCV).

Diagnostic characters: Length 1,2–1,5 mm. Body very dark blackish brown to black. Antennal segment VIII distinctly less than twice as long as wide, notably shorter than VII; segment XI relatively short and wide, about 1,7× as long as wide. Punctuation of pronotum extremely fine but distinct, that of elytra still finer to evanescent. Sutural striae



Figs 1-8. Aedeagi of *Baeocera*; 1 and 2, *chilensis* Reitter; 3 to 7, *germaini* Pic; 8, *cekalovici* sp. n.; sclerotized part of internal sac under higher magnification (2, 5, 6, 7). Scale = 0,1 mm.

abbreviated, disappearing about 0,10–0,20 mm behind apex of scutellum; intervals between sutural margin and sutural striae elevated. Median portion of metasternum without any coarser punctures. Plates behind mesocoxal cavities 0,08–0,10 mm long, apically rounded, each with outer margin oblique only near cavities, and then parallel to median axis of metasternum. Metepisterna 0,04–0,05 mm wide. Lateral portions of metasternum with obsolete microsculpture; lateral portions of first visible sternite covered by well marked microsculpture. Tibiae becoming distinctly stouter apically. Aedoeagus (Figs 1 and 2) 0,38–0,39 mm long.

***Baeocera germaini* Pic, stat. n.**

Baeocera chilensis var. *germaini* Pic, 1920: 4. Lectotype ♀ and 2 ♀ Paralectotypes: CHILI (MNHP), here designated.

Material examined: 64 specimens; types (see above); 13, Santiago, El Arrayan, Andes near Santiago 4. VIII. 1963, leg. H. Franz (FRANZ, MHNG); 2, Nuble, Cordillera de Chillán, Termas de Chillán, 20. IX. 1969, leg. T. Cekalovic (MHNG); 2, Concepción, Penco, 30. VI. 1978, leg. T. Cekalovic (MHNG); 19, Malleco, Andes near Malalcahuello, road east of Puerto los Aranales, env. 1500 m, 24. XI. 1968, leg. H. Franz (FRANZ, MHNG); 1, Magallanes, Rio Blanco, 1. I. 1963, leg. T. Cekalovic (MHNG); 24, Magallanes, Cueva del Milodon, 10. XII. 1960 and 1. IV. 1962, leg. T. Cekalovic (MHNG).

Diagnostic characters. Length 1,3–1,55 mm. Dorsal surface of body dark brown to black. Antennal segment VIII notably shorter than VII, about twice as long as wide, segment XI 1,6 to not quite twice as long as wide. Punctuation of pronotum very fine, that of elytra usually somewhat more distinct. Sutural striae not abbreviated, disappearing on elytral base laterad of pronotal lobe; intervals between sutural margin and sutural striae not or feebly vaulted. Median portion of metasternum with fine and sparse punctuation. Lateral portions of metasternum and those of first visible sternite covered by microsculpture consisting of points. Plates behind mesocoxae 0,06–0,08 mm long, each with outer margin feebly concave to straight. Apical half of tibia decidedly stouter than its base. Aedoeagus (Figs 3 to 7) 0,42–0,49 mm long. Seeming differences in shape of internal sac (Figs. 5 to 7) are caused by its variable position in median lobe.

***Baeocera cekalovici* sp. n.**

Holotype ♂: Chile, Concepción, Pinares, 17. IV. 1977, leg. T. Cekalovic (MHNG).

Paratypes: 1 ♀ as holotype; 1 ♀ Concepción, Estero Nonguen, 29. IV. 1978, leg. T. Cekalovic; 1 ♂, 3 ♀, Concepción, Penco, 30. XII. 1978, leg. T. Cekalovic, 1 ♂, Cautin, Lago Caburgua, 1. XII. 1978, leg. T. Cekalovic (all MHNG).

Length 1,3–1,5 mm. Colour variable, body reddish brown to almost blackish with apex of elytra paler. In paler specimens pronotum and femora paler than elytra; in dark

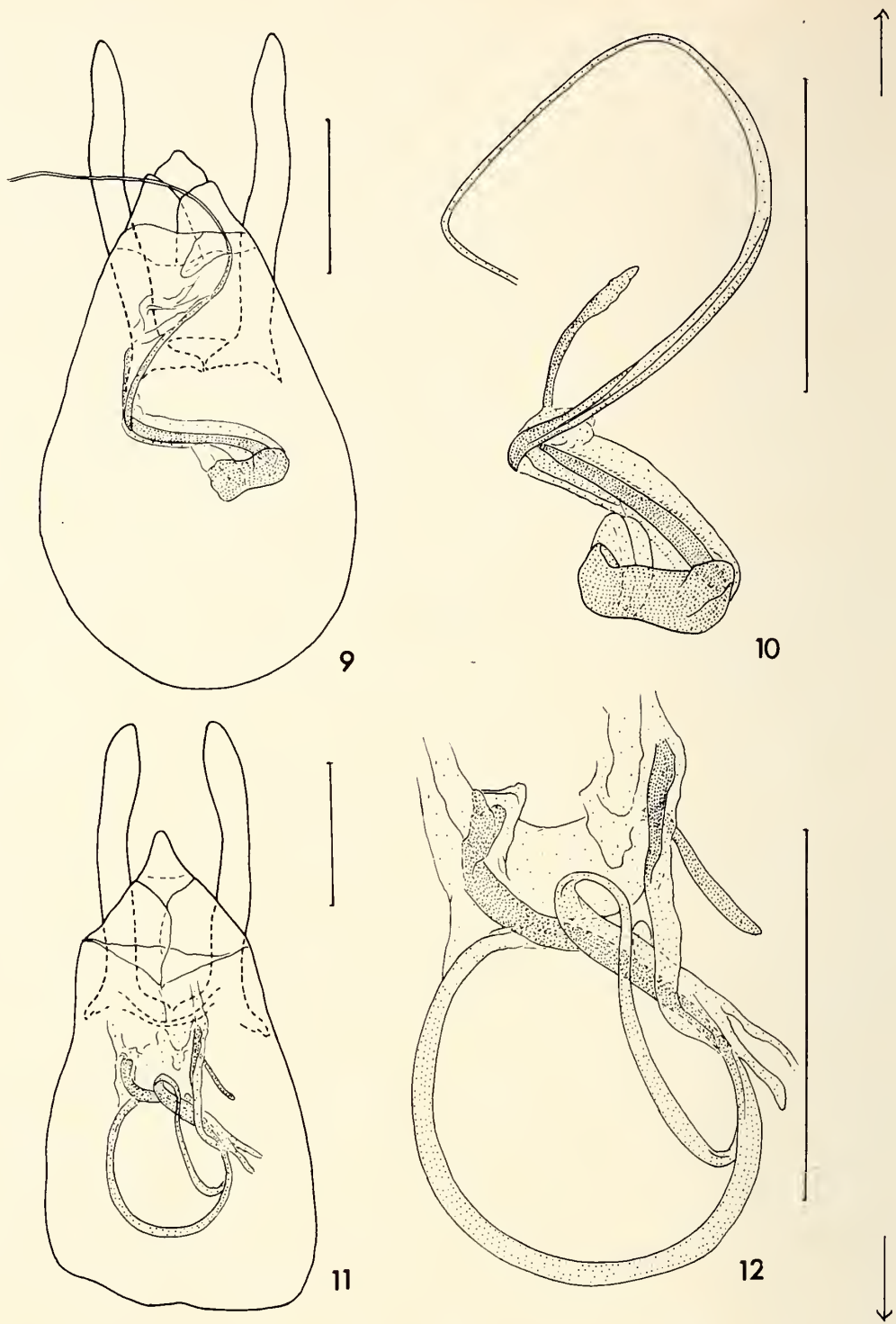
specimens pronotum, elytra (except for their apex) and femora almost unicoloured. Tibiae and tarsi ochreous to yellowish; antennae brown, with pale basal segments. Relative length of antennal segments: III 10, IV 12, V 15, VI 12, VII 13, VIII 12, IX 13, X 15, XI 19 (holotype); Segment VIII 2,5–3,0 as long as wide, XI somewhat more than 2 times as long as wide. Pronotum at base 0,73–0,86 mm wide; punctation sparse and very fine, not or barely visible at magnification 24 times. Only extreme apex of scutellum exposed. Sutural length of elytra 0,86–1,06 mm, maximum length 0,95–1,17 mm, combined width of elytra 0,81–0,96 mm. Sutural elytral striae abbreviated, disappearing 0,15–0,20 mm behind apex of scutellum; interval between sutural margin and sutural stria flat; punctation of elytra about as fine as that of pronotum but sparser. Metasternum densely and rather coarsely punctate laterad and posteriad of smooth middle; its lateral portions sparsely and very finely punctate. Plates behind mesocoxal cavities 0,08–0,10 mm long, rounded apically; with inner margin almost straight to feebly convex and outer margin conspicuously concave; marginal punctures distinct. Metepisterna 0,04–0,05 mm wide. First visible sternite without microsculpture. Tibia slender in basal third and then becoming markedly stouter. Protibia and mesotibia straight, metatibia somewhat curved. Male: protarsus with segment I to III feebly enlarged. Aedoeagus (Fig. 8) 0,47 mm long.

***Baeocera nonguensis* sp. n.**

Holotype ♂: Chile, Concepción, Estero Nonguen, 21. IV. 76, leg. T. Cekalovic (MHNG).

Paratypes: 14 ♂, 11 ♀ as holotype (MHNG); 1 ♀, Chubut, El Hoyo, 3. X. 1961, leg. A. Kovacs (BMNH); 3 ♂, Valparaíso, Gomez Carreño, 4. XI. 1969, leg. P. Baez (UCV); 2, „Chili“ (RNHL, MHNG).

Length 1,4–1,75 mm. Dorsal surface of body ochreous or pale reddish brown to dark reddish brown. Elytra paler in apical fourth to third and usually also at base. Apical abdominal segments pale brown to yellowish. Mesosternum and metasternum with their epimera and episterna usually much darker than dorsal surface. Femora ochreous or reddish brown, tibiae and tarsi pale ochreous to yellowish, antennae brown with pale basal segments. Relative lengths of antennal segments: III 11, IV 13, V 15, VI 14, VII 15, VIII 12, IX 14, X 14, XI 19 (holotype); segment VIII slightly more than twice as long as wide, distinctly larger than VII; XI less than twice as long as wide. Pronotum at base 0,74–0,94 mm wide; punctation sparse and very fine, barely visible at magnification 24 times. Apex of scutellum exposed. Sutural length of elytra 0,96–1,26 mm, maximum length 1,03–1,34 mm, combined width of elytra 0,83–1,03 mm; sutural elytral striae abbreviated, disappearing about 0,15–0,20 mm behind apex of scutellum; interval between sutural margin and sutural stria elevated; punctation of elytra evanescent. Punctation of metasternum sparse and very fine, except for dense U-shaped row of rather coarse punctures on medioapical portion. Plates behind mesocoxal cavities 0,07–0,09 mm long, rounded apically; with inner margin straight and outer margin barely concave; marginal punctures rather coarse. Metepisterna very narrow, their visible portion only 0,02–0,03 mm wide. First visible sternite without microsculpture. Protibia straight,



Figs 9–12. Aedeagi of *Baeocera*; 9 and 10, *nonguensis* sp. n.; 11 and 12, *atricollis* Pic; internal sac under higher magnification (10, 12). Scale = 0,1 mm.

slender in basal third and then becoming stouter. Mesotibia almost straight, slender in basal third, apically markedly stouter. Metabibia feebly curved, slender in basal half, and becoming stouter apically. Male: Segments I–III of protarsus distinctly enlarged. Aedeagus (Figs 9 and 10) 0,38–0,44 mm long.

Baeocera atricollis Pic

Baeocera atricollis Pic, 1920: 3. Lectotype ♂, CHILI (MNHP), here designated.

Material examined: 2 ♂ labelled "Chili" (MNHP – lectotype, and MHNG); 1 ♂, Santiago, Playas, VI. 1960, leg. P. Ramirez (UCV).

Diagnostic characters: Length 1,7 mm. Head and pronotum almost blackish, elytra pale ochreous with narrow basal area dark. Antennal segments VIII and XI each more than two times as long as wide. Punctuation of pronotum extremely fine, barely visible at magnification 50 times, that of elytra evanescent. Sutural striae of elytra long, curved along basal elytral margin and reaching to about its external third. Median portion of metasternum with dense and rather fine punctuation around smooth middle. Plates behind mesocoxal cavities 0,07 mm long, each with distinctly concave outer margin. Metepisterna about 0,06 mm wide. First visible sternite without microsculpture. Apices of all tibiae only feebly stouter than bases. Aedoeagus (Figs. 11 and 12) 0,42 mm long.

Baeocera valdiviana nom. n.

Toxidium chilense Pic, 1915: 5. Lectotype ♀: CHILI, Valdivia (MNHP), here designated.

Material examined: Lectotype. There is no reason for placing this species in *Toxidium* LeC. The new name is proposed because of secondary homonymy.

Diagnostic characters: Length 1,3 mm. Almost black dorsally, base of both pronotum and elytra, and elytra along sutural margin reddish, apical margin of elytra brown. Antennal segment VIII much shorter than VII, well twice as long as wide, segment XI more than twice as long as wide. Punctuation of pronotum and elytra very fine, but distinct at magnification 100 times. Sutural striae of elytra abbreviated, disappearing about 0,15 mm behind apex of scutellum; interval between sutural margin and sutural stria elevated. Median portion of metasternum, except for smooth middle, rather densely punctate, punctuation coarser than that on lateral portions. Plates behind mesocoxal cavities 0,07 mm long, each with outer margin oblique near cavity and then parallel to median axis of metasternum. Metepisterna 0,05 mm wide. First visible sternite without microsculpture. All tibiae in apical half distinctly stouter than at base.

Achard (1921) misidentified **B. nonguensis** as **Toxidium chilense** Pic.

Baeocera species A

Material examined: 1 ♀, Chiloé I., leg. C. Darwin (BMNH).

Diagnostic characters: Length 1,65 mm. Body black, with apex of elytra and last abdominal segments paler. Antennal segment VIII not quite twice as long as wide, distinctly shorter than VII; segment XI twice as long as wide. Punctuation of pronotum and of elytra very fine but distinct, that of elytra somewhat less fine than the pronotal one. Sutural striae of elytra curved externally along basal margin and extending to declined lateral por-

tion where joint with lateral striae; intervals between sutural margin and sutural striae not vaulted. Median portion of metasternum with rather densely and coarsely punctate U-shaped area. Plates behind mesocoxal cavities 0,10 mm long, each with outer margin scarcely concave. Metepisterna 0,04 mm wide. Metasternum and first visible sternite without microsculpture. Tibiae at apex only barely stouter than at their base.

Baeocera species B

Material examined: 1 ♀, Malleco, Andes near Malalcahuello, road east of Puerto de los Arenales, via Longimay, env. 1500 m, 29. XI. 1968, leg. H. Franz (MHNG).

Diagnostic characters: Length 1,8 mm. Body blackish, apical margin of elytra and apex of abdomen paler. Antennal segment VIII notably shorter than VII, twice as long as wide; segment XI twice as long as wide. Punctuation of pronotum extremely fine, but distinct at magnification 50 times, that of elytra almost evanescent. Sutural striae not abbreviated, disappearing on elytral base lateral of pronotal lobe. Interval between sutural margin and sutural stria not elevated. Apical half of median portion of metasternum with two rather densely and coarsely punctate impressions. Plates behind mesocoxal cavities 0,10 mm long, each with outer margin concave. Metepisterna 0,04 mm wide. Metasternum and first visible sternite without microsculpture. Tibiae not stouter apically.

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