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Pseudorobitis gibbus REDTENBACHER, 1868 redescribed and transferred from Curculionidae to Apionidae (Coleoptera: Apionidae)

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Abstract

Pseudorobitis gibbus REDTENBACHER, 1868, originally ascribed to Curculionidae Ceutorhynchinae and then moved to Curculionidae Ithyporinae, is transferred to Apionidae Nanophyinae. The single male of this species so far known is designated as lectotype and is redescribed. The systematic position of *Pseudorobitis* among Nanophyinae is briefly discussed and the following new synonymy is proposed: *Temnalysis* ALONSO-ZARAZAGA, 1989 = *Pseudorobitis* REDTENBACHER, 1868.

Key words: Curculionidae, Apionidae, *Pseudorobitis gibbus*, *Temnalysis*, nomenclature

The study of the type specimen of *Pseudorobitis gibbus* REDTENBACHER, 1868 deposited in the Naturhistorisches Museum (Wien), gave me the possibility to verify that this species does not belong to Curculionidae Ceutorhynchinae THOMSON, 1859 to which it was originally attributed, nor to Curculionidae Ithyporinae LACORDAIRE, 1866 to which the genus was later moved (sub Cryptorrhynchinae Ithyporini) by HUSTACHE (1936). The morphological characters of *Pseudorobitis gibbus* allow to transfer it to Apionidae Nanophyinae (comb. nov.) and to propose the following synonymy: *Temnalysis* ALONSO-ZARAZAGA, 1989 = *Pseudorobitis* REDTENBACHER, 1868 (syn. nov.).

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Pseudorobitis gibbus REDTENBACHER, 1868

Pseudorobitis gibbus REDTENBACHER, 1868: 163. - GEMMINGER & HAROLD, 1871: 2549. - WINKLER, 1932: 1618. - HUSTACHE, 1936: 56.

Type-material: A single male specimen in the Redtenbacher collection bears the following labels: 1) "Novara, 1857-59, Reise"; 2) "*Pseudorobitis, gibbus* Redtb., Typ.."; 3) "*Gibbus* Redt, Schanghai"; 4) "Typus" (red); 5) "*Gibbus*, Schanghai Rdt.". This specimen is here designated lectotype of *Pseudorobitis gibbus*.

Redescription of the lectotype: Terms applied to the rostrum follow ALONSO-ZARAZAGA (1989a) and those to the genitalia follow ALONSO-ZARAZAGA (1991). The following abbreviations (in alphabetical order) are used in the measurements: Le = length of elytra from anterior margin to apex, in dorsal view; Lmtr = length of metarostrum in lateral view; Lp = length of pronotum from front margin to base along midline, in dorsal view; Lpr = length of prorostrum in lateral view; Lr = length of rostrum from apex (excluding mandibles) to fore margin of eye in lateral view; Wap = width of pronotal apex; Wbp = width of pronotal base; We = width of elytra at their widest point; Wf = width of frons at its narrowest point; Wmr = width of mesorostrum at antennal insertion; Wmtr = width of metarostrum at base; Wpr = width of prorostrum at apex.

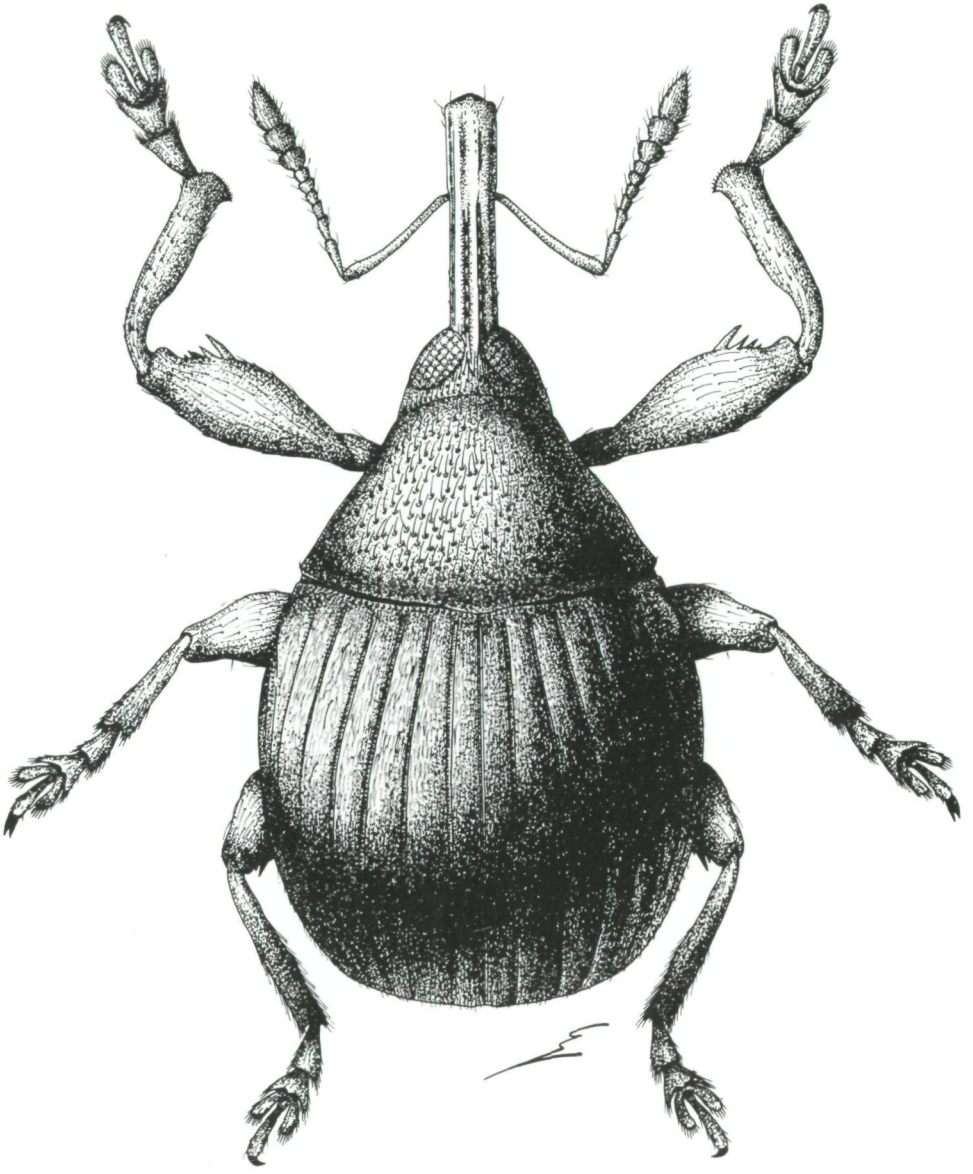


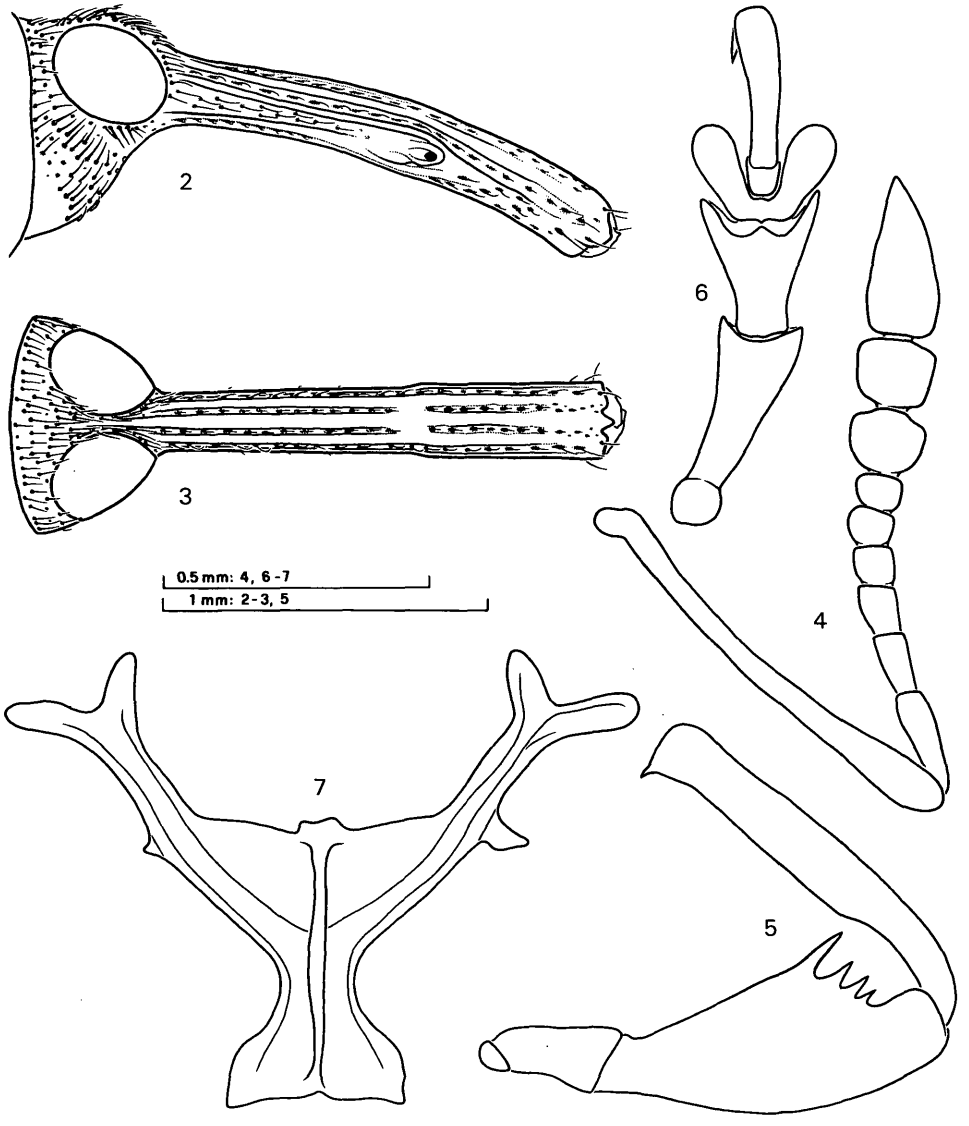
Fig. 1: Habitus of *Pseudorobitis gibbus* REDTENBACHER, 1868 (lectotype).

Length of specimen (Le + Lp): 3,57 mm. Body strongly convex. Integumental colour black, scape and 1st funicle segment testaceous, segments 2-6 of funicle, club and claws piceous brown to black, rostrum, tibiae and tarsi brownish-black. Vestiture formed by slightly arcuate piliform scales, which are white and recumbent on base and apex of elytra, on venter (denser on sides of mesosternum, metasernum and pleurites) and on legs (tarsi with brownish setae). Dorsal surface of head, pronotum and elytra with vestiture less recumbent, consisting of brownish thiner hairlike scales, which are intermingled on pronotum with white hairlike scales. Specialized setae on head,

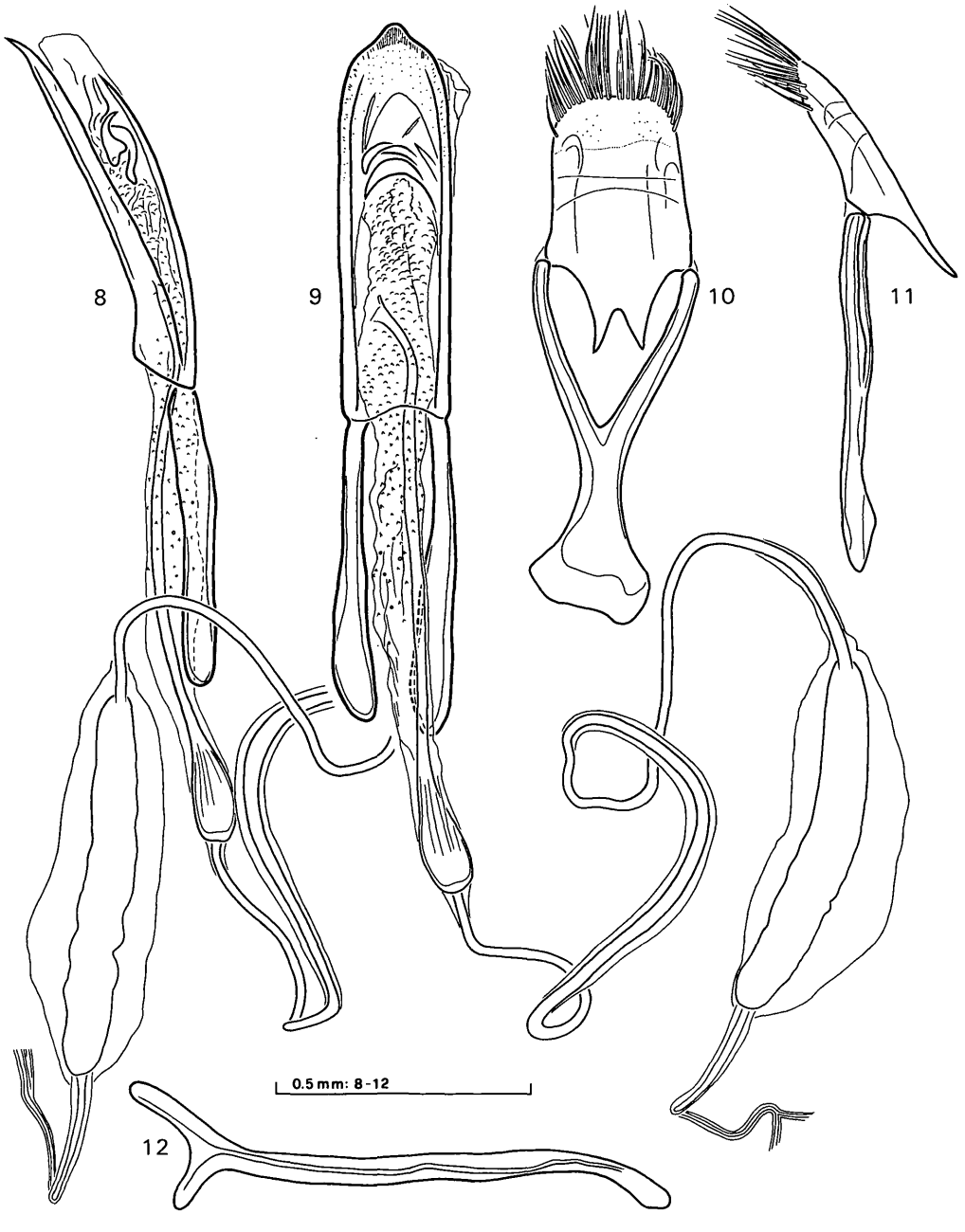
pronotum, odd elytral interstriae and legs. Rostrum (figs. 2-3) slightly and uniformly curved from base to apex, almost at the same level as frons; in dorsal view uniformly widened from base to apex; with five longitudinal carinae: lateral carinae evident from base to apex, median carina a little shorter and interrupted at level of antennal insertion; sulci between carinae punctate, each point bearing a minute hairlike scale; measurements of rostrum: Lr: 1,44 mm, Lpr: 0,61 mm, Lmtr: 0,83 mm, Wpr: 0,23 mm, Wmr: 0,22 mm, Wmtr: 0,21 mm, Le + Lp/Lr: 2,48, Lr/Lp: 1,35; Antennae (fig. 4) inserted in the basal 0,58 of rostrum. Scape elongate, apically clubbed, 1,38 times longer than funicle and 1,52 times than club. First funicle segmen 3,58 times as long as wide and 1,83 times longer than 2nd, 2nd 1,96 times as long as wide and hardly shorter than 3rd, this slightly longer than wide, 4th isodiametric, 5th asymmetrical, a little wider than long, 6th hardly shorter than 5th. Club 3,93 times as long as wide, 3-segmented, 0,90 times as long as funicle and 0,66 as long as scape, 1st segment hardly wider than long, 2nd almost isodiametric, 3rd 2,21 times as long as wide and 1,18 times longer than 1st and 2nd together. Hairlike scales of funicle and club long and hispid. Head conical; eyes large, almost flat; frons narrow (Wf: 0,06 mm), with a thin short carina; vertex densely and shallowly punctate. Pronotum conical, densely and shallowly punctate; lateral puntures thicker and deeper than those of disc; sides almost straight; base rounded; basal flange present, although moderately developed; basal crenulation formed by minute teeth hardly visible and partly fused with a thin basal keel which bears on sides a row of small brownish spines; measurements of pronotum: Lp: 1,07 mm, Wap: 0,72 mm, Wbp: 1,55 mm, Lp/Wbp: 0,69. Scutellum absent. Elytra widest shortly behind humeral calli; basal crenulation of elytra formed by teeth coarser than those of basal crenulation of pronotum; crenulation of 8th interstria absent on humeral callus and composed by 2 basal and 8 distal denticles; measurements of elytra: Le: 2,50 mm, We: 1,91 mm, Le/We: 1,31. Elytra 10-striate; striae well marked, narrow, about 0,25 times as wide as interstriae, feebly punctate; near the apex striae join in the following way: 1+10, 2+9, 3+8, 4+5, 6+7; 10th striae reduced to a row of minute separate punctures in the apical third. Interstriae flat or hardly convex. Humeral calli well developed. Metacoxae separated by 1,20 times the intermesocoxal distance. Metasternum with punctures only just finer and shallower than those of abdomen. First two sternites of abdomen very short; suture I almost absent, reduced to a very fine and superficial groove visible only on side; suture IV complete; small lateral foveae on each side of 3rd, 4th and 5th sternites, these last with long hairlike scales. Pygidium coarsely punctured. Legs (fig. 5) robust; femora incrassate, all femora with 4 teeth except the left profemur which bears 5 teeth (one little tooth leans toward the 3rd) and the left metafemur which exhibits 3 teeth. Tibiae almost straight, bisinuate on internal margin and mucronate apically. Protarsi long (fig. 6), 1st protarsomere apically feebly notched, 2,10 times as long as wide and 1,22 times longer than 2nd, this 1,15 times as long as wide, strongly notched, 3rd 0,75 times as long as wide, bilobed, onychium 4,41 times as long as wide. Claw fused, equal. Meso and metatarsi similar to protarsi but a little shorter. Penis (figs. 8-9) with tube flattened, apex in side view curved, widened from apex to base; in ventral view sides parallel from base to apex then trisinuate, rounded. Temones a little shorter than tube. Internal sac apically with two hook-shaped frena surrounded by sclerotized areas, medially with sparse denticles, basally with a long clubbed flagellum. Tegmen (figs. 10-11) with sclerotized parameroid lobes not separated; lobes with 15 - 17 apical macrochetae and 9 - 10 sensilla; fenestrae hardly visible, medially fused; linea arcuata hardly visible; prostegium well developed with a deep median notch; Manubrium very dilated apically. Spiculum gastrale (fig. 12) asymmetrical, with long curved manubrium and unwinged arms. Metendosternite as in fig. 7.

Discussion: As pointed out by ALONSO-ZARAZAGA (1989 b) only four genera of Nanophyniae with 6 segments in the antennal funicle are so far known. *Pseudorobitis* differs from *Shiva* PAJNI & BHATEJA, 1982 (6 Indian and 1 Sumatran species) and *Hexatmetus* MARSHALL, 1927 (3 African species) by the crenulation of the 8th interstria. *Ctenomerus* SCHOENHERR, 1843 (8 African, 1 Indian and 1 Japanese species) differs from *Pseudorobitis* having the 8th interstria completely crenulate along the basal third (even on humeral callus), the intermesocoxal distance equal or

wider than intermetacoxal one, the vestiture bicolorous and the elytra fasciate. The same crenulation of the 8th interstria, the intermesocoxal distance being narrower than the intermetacoxal, the similar habitus and the shape of the genitalia indicate the following new synonymy: *Temnalysis* ALONSO-ZARAZAGA, 1989 = *Pseudorobitis* REDTENBACHER, 1868. *Pseudorobitis axeli* (ALONSO-ZARAZAGA, 1989) (comb. nov.), known from Formosa: Tainan (= Taiwan) and the Ryu-Kyu Archipelago: Amami-oshima and Kaohsiung, differs from *Pseudorobitis gibbus* by the smaller size (Le + Lp: 2,75 mm, Lp: 0,87 mm, Le: 1,88 mm, Wap: 0,62 mm, Wbp: 1,35 mm, We: 1,63 mm) and the slightly shorter rostrum (Lr: 1,42 mm, Le + Lp/Lr: 1,94, Lr/Lp: 1,63). The biology of *Pseudorobitis* is unknown.



Figs 2 - 7: *Pseudorobitis gibbus* REDTENBACHER, 1868 (lectotype); 2) head and rostrum, lateral view; 3) same, dorsal view; 4) right antenna; 5) right profemur and protibia; 6) right protarsus; 7) Metendosternite.



Figs 8 - 12: *Pseudorobitis gibbus* REDTENBACHER, 1868 (lectotype); 8) penis, lateral view; 9) penis, ventral view; 10) tegmen, ventral view; 11) tegmen, lateral view; 12) spiculum gastrale.

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