

**The Zoological Results of Gy. Topál's Collectings
in South Argentina. 22.
Notes on the Neotropical Species
of the Subgenus *Gymnochthebius* d'Orchymont,
1943, of *Ochthebius* Leach. (Coleoptera: Hydraenidae).**

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As characterised by D'ORCHYMONT [1943, Mem. Mus. roy. Hist. nat. Belg., (II) 28: 38] this subgenus is recognisable by the more or less forked, bifurcate, apex of the aedeagus with the mobile terminal piece more or less concealed at the base of the bifurcation. The species *Ochthebius nitidus* LECONTE, 1850, was named as the type species of the subgenus.

I am able to confirm that *O. parvulus* SHARP (Mexico) belongs, as suggested by D'ORCHYMONT, to this subgenus and I would add that, very probably, *O. crassipes* SHARP (Guatemala) also belongs here; the type and paratype, being females, do not permit of a firm decision.

***Ochthebius* (G.) *germaini* ZAITZEV, 1908**

Ochthebius aeneus GERMAIN 1855, Anal. Univ. Chile 1855: 390 (nec Stephens 1835)
Ochthebius sulcicollis GERMAIN 1901, Anal. Univ. Chile 109: 530, pl. 1, fig. 2, pls. 2-3, fig. 2 a, f. (nec STURM 1836).
Ochthebius germaini ZAITZEV 1908, Horae Soc. ent. Ross. 38: 343.

I am fortunate to have before me, through the kindness of Dr. G. KUSCHEL, GERMAIN's own material from the Museum of the University of Chile, Santiago. This material comprises 28 specimens in all from the following localities:

- 1 pin ... 1 ♀ Quillota
- 1 pin ... 2 ♂, 1 ♀ Vina del Mar, 11. 1897.
- 1 pin ... 2 ♀ Vina del Mar, 9. 1895.
- 1 pin ... 2 ♂ Aculco.
- 3 pins ... *5 ♂, 6 ♀ "Chile central"
- 1 pin ... 3 ♂, 3 ♀ Pemehue, 1. 1896.
- 1 pin ... 1 ♂, 2 ♀ Malleco: Mininco.

The single female from Quillota must be the monotype, this being the only named locality in the original description.

D'ORCHYMONT (1929, Rev. chil. Hist. nat. 33: 100-101, Fig. 24) discusses material studied by him from Pemehue and Vina del Mar in the Hamburg Museum. He there states that two forms occur, differing principally in the shape of the pro-

* 1 ♂, 2 ♀ on one pin also bear GERMAIN's own label "352. *sulcicollis* P. G."

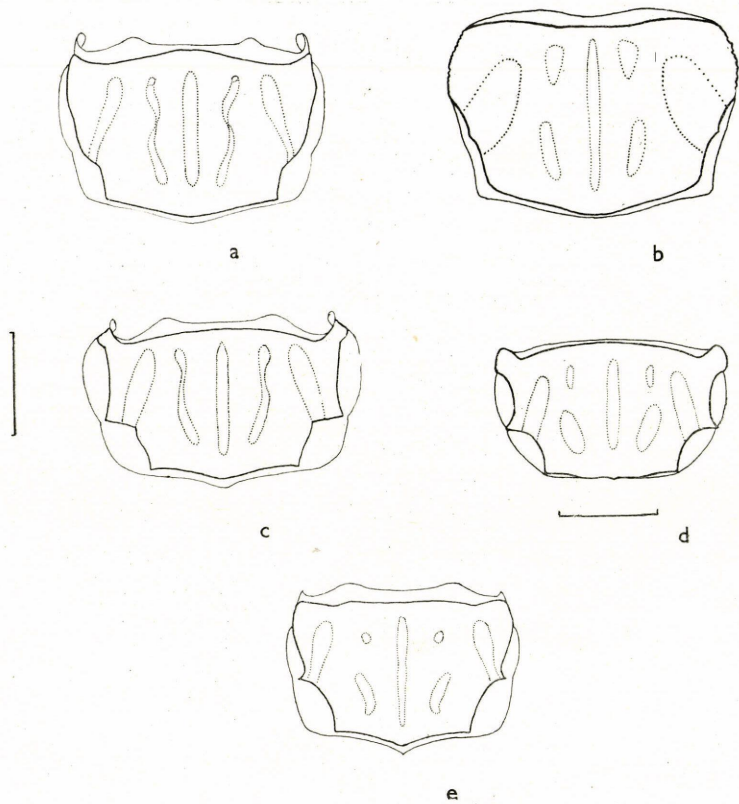


Figure 1. Pronotum of (a) *O. germaini* ZAITZ. (b) *O. jensenhaarupi* KNISCH. (c) *O. chilenus* sp. nov. (d) *O. topali* sp. nov. (e) *peruvianus* sp. nov. (scale = 0.2 mm.)

notum, which he concludes represent the two sexes of the same species. The material before me displays the pronotal differences described and figured by D'ORCHYMONT but, following on close examination and dissections it is clearly demonstrated that these pronotal differences are not of a sexual, but of a specific value. The Hamburg material was destroyed during the 1939—1945 war. It is, therefore, extremely fortunate that the GERMAIN material contains 2 males and 3 females from Vina del Mar and 3 males and 3 females from Pemehue, both localities named from the material studied by D'ORCHYMONT. The presence of the Holotype (monotype) female from Quillota is also fortunate in that it enables a firm decision to be made as to which of the two forms is the true *germaini* ZAITZEV.

Figure 1a, drawn from a male from Vina del Mar, corresponds perfectly with the reputed male pronotum in figure 24 of D'ORCHYMONT's paper; figure c, drawn from a male from Pemehue, corresponds equally perfectly with the reputed female pronotum of D'ORCHYMONT's paper. A study of the pronota of females from Vina del Mar and Pemehue shows no sexual pronotal differences from the males from the respective localities.

The female specimens from Vina del Mar agree perfectly with the holotype from Quillota and are therefore the true *O. germaini* ZAITZEV. The presence of

males in company with a female from Vina del Mar on the same pin allows the preparation of Fig. 2a, which shows the form of the aedeagus.

The 28 specimens of GERMAIN's collection are to be apportioned to *germaini* ZAITZEV and to a new species, *chilenus*, as follow:

germaini ZAITZEV: 1 ♀ Quillota; 2 ♂, 1 ♀ Vina del Mar, 11. 1897; 1 ♀ Chile central; 2 ♀ Vina del Mar, 9. 1895; 2 ♂ Aculco;
chilenus sp. nov.: 5 ♂, 5 ♀, Chile central; 3 ♂, 3 ♀ Pemehue, 1. 1896; 1 ♂, 2 ♀, Malleco: Mininco.

This species would seem to be very uncommon in collections. Apart from the specimens from GERMAIN's collection before me I have only seen 1 ♂, Chile: Chilo Island, Chepu, 13. X. 1958 (G. KUSCHEL leg.; Royal Society Expedition to Southern Chile, 1958) and 1 ♀, Argentine: Chubut, El Hoyo, Stn. 36, "foot of Mt. Pirque, 280 m., 3. IX. 1961, sifted from under stones in Lobos pasture", (G. TOPÁL leg.) The presence of this species from the Chilean Pacific littoral zone in the foothills on the other side of the Andean range is wholly unexpected. I have no hesitation in making this last identification on the basis of a single female, so exact is the comparison with the holotype.

Oechthebius (G.) *chilenus* sp. nov.

As has been shewn above D'ORCHYMONT failed to recognise that the material from Pemehue is really specifically distinct from the true *germaini* from Quillota and Vina del Mar. The presence on one and the same pin, among the material from "Chile central" of 1 female of true *germaini* and 1 male and 1 female of this new species (the pin bearing GERMAIN's own label "352 *sulcicollis* P. G.") suggests that this author had also failed to recognise that two species are involved. The extended spanish description of GERMAIN, for all its detail, (GERMAIN 1901, Anal. Univ. Chile 109: 526—531) is of little value but, referring to the pronotum, clearly applies much more to the present species than to *germaini* in speaking of the sides "closer to the base than to the apex bearing a strongly triangular and very acute projection". However GERMAIN had expressly stated that the name *sulcicollis* was proposed as a replacement name for the preoccupied name *aeneus* proposed by himself 46 years previously; one must therefore disregard the fact that the name label *sulcicollis* is affixed to a pin bearing two specimens of a distinct species.

The specific distinctions are best appreciated by a direct tabular comparison:

germaini

Clypeus reticulate, subnitid. Pronotum with dorsal sulci shallowly impressed, reliefs distinctly punctate, the punctures separated by one and one-half times their diameter; sides slightly behind middle roundly or obtusely produced; transparent side fringe narrow. Elytra with serial punctures separated by less than half their own diameter on disc and weakly striate impressed; at middle on disc interseries not wider than serial punctures; epipleurae with distinct white setae; Aedeagus: branches of distal fork unequal (Fig. 2a).

chilenus

Clypeus not reticulate, shining. Pronotum with dorsal sulci deeply impressed, reliefs very sparsely punctate, the punctures separated by two to four times their diameter; sides slightly behind middle strongly angulately produced, the apex acute; transparent side fringe wide. Elytra with serial punctures separated by about their own diameter on disc and barely at all striate impressed; at middle on disc interseries evidently wider than serial punctures; epipleurae glabrous. Aedeagus: branches of distal fork equal (Fig. 2d).

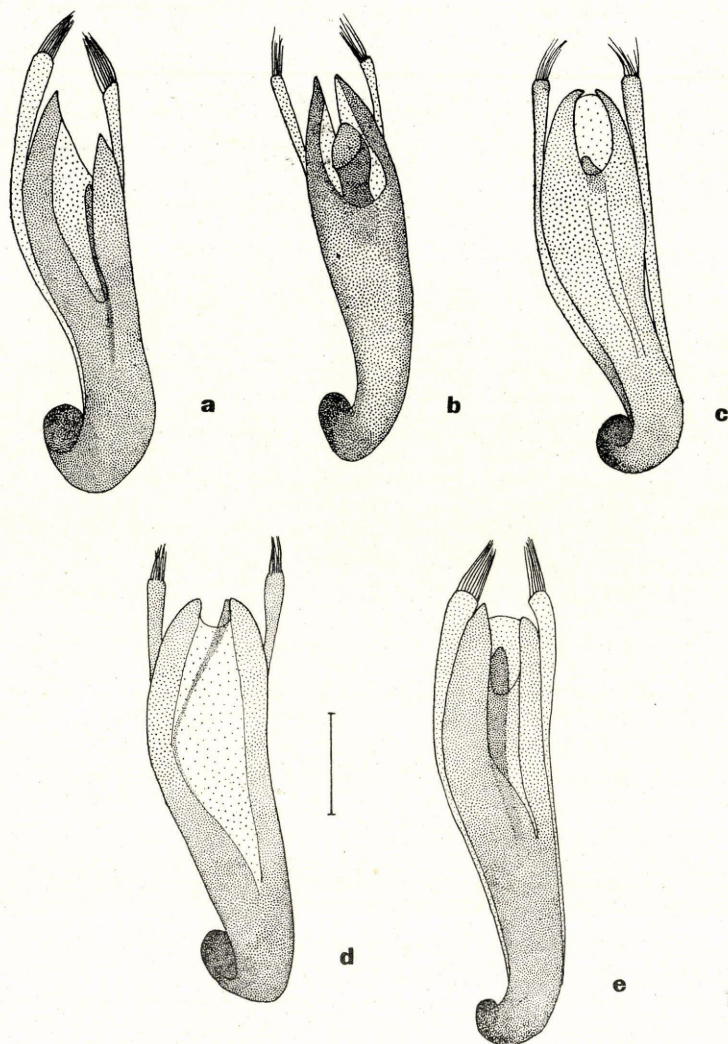


Figure 2. Genitalia of (a) *O. germani* ZAITZ. (Vina del Mar). (b) *O. jensenhaarupi* KNISCH (G. TOPAL leg., Stn. 37). (c) *O. topali* sp. nov. (Holotype). (d) *O. chilenus* sp. nov. (Holotype). (e) *O. peruvianus* sp. nov. (Holotype). (scale = 0.1 mm.)

Holotype ♂, Chile: Malleco, Mininco, 1.93 × 0.84 mm.
 Paratypes: 2 ♀, same data as holotype; Chile: Pemehue, 1. 1896, 3 ♂, 3 ♀; Chile: "Central", 10 specimens.

Ochthebius (G.) *jensenhaarupi* KNISCH.

Ochthebius jensen-haarupi KNISCH 1924, Wien. ent. Ztg. 41: 114.

A series of 37 specimens is attributed here on the basis of the figure of the aedeagus provided by D'ORCHAMONT (1943, Mem. Mus. roy. Hist. nat. Belg.,

(II) 23: 38, Fig. 3c). I have provided a further figure (Fig. 2b) based on a specimen from Dr. G. TOPAL's collecting station 37 for comparison. The specimens agree fairly well with KNISCH's description except that the elytra are clearly striate-punctate whereas the description calls for elytra which are "confusedly punctate, clearly irregularly seriate only at the apex". However, so close is the agreement of the genitalia with D'ORCHYMONT's figure that I hesitate to treat these specimens as representing a new species without a direct comparison with KNISCH's type. KNISCH described the species from Mendoza province to the north of Rio Negro province; BRUCH (1927, *Physis* 3: 549) records it from Mendoza, Catamarca and Jujuy provinces.

This is the only Neotropical species known to me in which the metasternum is entirely clothed with hydrofuge pubescence; a previously unreported fact. The original description is silent on this point.

The sexes of this species are easily distinguishable in that the elytra of the female are very clearly, in the male only very narrowly laterally explanate. The head, in the series before me, is very clearly reticulate on the frons and clypeus and the pronotal foveae and oreillettes are also clearly reticulate, the pronotal reliefs somewhat obsoletely so.

Argentina: Rio Negro; El Bolson, Stn. 637, "Lome del Medio, 350 m., from water in pool in inundated area of Rio Quemquemtrei", 18. X. 1961 (G. TOPAL leg). 14 ♂, 22 ♀. El Bolson, Stn. 621, "from under stones and from mud near stagnant water of Rio Quemquemtrei", 13. X. 1961 (G. TOPAL leg). 1 ♂.

Ochthebius (G.) *topali* sp. nov.

Black, somewhat aeneous; reliefs of frons and pronotum microreticulate, dull; elytra strongly seriate-punctate, internal series striate-impressed towards base; labrum roundly emarginate at middle in both sexes; four basal ventrites and basal half of fifth ventrite hydrofuge pubescent.

Head black, aeneous; labrum roundly emarginate at middle of free edge, shining, sparingly very finely punctulate laterally; clypeus shining with some microreticulation at posterior angles, irregularly sparingly finely punctulate; frons with two admedian foveae joined posteriorly by a U-shaped impression, median and lateral reliefs dull, microreticulate; median relief with 6–10 quite coarse deep punctures of about size of an eye-facet. *Pronotum* (Fig. 1d) with median longitudinal sulcus and a small admedian anterior and elongate posterior fovea and with deep oblique fovea delimiting a rather narrow oreillette; reliefs more or less evidently microreticulate, the disc more obsoletely so and with some irregularly scattered quite coarse deep punctures; translucent lateral chitin fringe divided by a sharp angulate projection of the normal pronotum. *Elytra* ovate, longer than greatest width (8.5:6.3), widest at about middle, clearly 10-seriate punctate, inner 3–4 series distinctly striate-impressed basally; strial punctures about twice as large as an eye-facet and separated from its neighbours by much less than diameter of puncture even at apex; interseries flat or feebly convex, not wider than serial punctures, obsoletely reticulate, subnitid; sides explanate, scarcely wider in the female than in male. *Venter* piceous, mentum sparingly punctate at sides, shining; pro-, meso- and metasternum finely hydrofuge pubescent but latter at middle posteriorly with large glabrous patch, strongly shining and with some quite fine irregular punctures; ventrites 1–4 wholly, ventrite 5 in basal half hydrofuge

pubescent, ventrite 5 in apical half and ventrite 6 glabrous, microreticulate; ventrite 6 with transverse band of piliferous punctures at middle. *Legs* piceotestaceous, tarsi about half length of their tibiae. *Aedeagus* (Fig. 2c).

Holotype ♂, Argentina: Rio Negro: El Bolson, Stn. 621, "singled from under stones and from mud near stagnant water of Rio Quemquemtrei", 13. X. 1961, (G. TOPÁL leg.) 2.07 × 0.84 mm.

Paratypes: 149 specimens, same data as holotype; 16 specimens, same locality but Stn. 627, "singled from under stones and from muddy water near Rio Quemquemtrei", 15. X. 1961, (G. TOPÁL leg.).

This new species, alone in the genus with *jensen-haarupi* KNISCH has the labrum in the female emarginate, in *topali* roundly, in *jensen-haarupi* angulately. The form of the pronotum is, however, nearer to that of *parvulus* SHARP or *nitidus* LECONTE (vide D'ORCHYMONT 1943, loc. cit.: 42, Fig. 4b) in which the post-median lateral tooth of pronotum is angulate and attains the edge of the translucent chitinous fringe, whereas in *chilensis* sp. nov., *germaini* ZAITZEV and in *francki* BRUCH the post-median lateral pronotal tooth is obtuse and only feebly projecting into the chitinous fringe. This species may be readily separated from *parvulus* SHARP and from *crassipes* SHARP in which the pronotum is highly shining.

Separation of the sexes is difficult; the sides of the antero-median emargination of the labrum are more sharply upturned in the male; the anterior tarsi of the male have the basal segments almost without sucker hairs; the only wholly reliable character is the form of the 7th ventrite which is of characteristic dimorphic form in all *Ochthebius*.

Ochthebius (G.) *peruvianus* sp. nov.

Head black, pronotum and elytra pale brown, somewhat aeneous, shining, not at all reticulate; elytral series clearly and strongly striate-impressed; labrum truncate or very feebly emarginate at middle of free edge in both sexes; four-basal ventrites and basal half of fifth ventrite hydrofuge pubescent.

Head black, somewhat aeneous; labrum truncate or very feebly emarginate at middle of anterior edge; shining, finely punctulate; clypeus shining, irregularly, coarsely and strongly punctate, punctures rather larger than an eye-facet; frons with two strong admedian foveae joined posteriorly by a deep U-shaped impression, sparingly coarsely punctate as on clypeus. *Pronotum* (Fig. 1e) pale brown, disc more or less infuscate; with median sulcus, small anterior and elongate posterior admedian foveae and a strong deep oblique lateral fovea delimiting a small oreillette; reliefs strongly shining, irregularly strongly punctate, punctures as on clypeus; translucent chitinous fringe narrow and divided at middle by an acute angular projection of the normal pronotum. *Elytra* ovate, about one-quarter longer than greatest width (8.3:6.1), widest at middle; evidently 10-seriate punctate, series evidently striate-impressed almost to apex, striae punctures strong and deeply impressed, nearly twice as large as pronotal punctures and separated only very narrowly from its neighbours on disc but near apex by about diameter of punctures; interseries flatly convex, shining, impunctate; sides evidently explanate, more so in male than in female. *Venter* piceous-brown, hydrofuge pubescent except for a large median posterior patch on metasternum and for distal half of fifth and all sixth ventrites; epipleurae flavo-testaceous, glabrous,

shining. *Legs* flavous; tarsi slightly less than half length of their tibiae; basal segment of anterior tarsi of male almost without sucker hairs. *Aedeagus* (Fig. 2e).

Holotype ♂, Peru: Villa (cerca Lima), 10. XI. 1950, (coll. BLANCAS). 1.85×0.87 mm.

Paratypes: 4 ♂, 2 ♀, same data as holotype.

In size and colour very similar to *O. chilenus* sp. nov. but slightly shorter and broader with the punctation of the head and pronotum much coarser and stronger and with the elytral series very evidently striate-impressed, the pronotum less transverse, the posterior lateral emargination of the pronotum much shallower and less angulate. The sexes are fairly easily distinguished by the explanate sides of the elytra being broader in the male than in the female, the reverse of what is normally the case in species of this genus.

Ochthebius (G.), *nitiduloides* d'ORCHYMONT

Ochthebius (*Gymnochthebius*) *nitiduloides* D'ORCHYMONT 1943, Mem. Mus. roy. Hist. nat. Belg., (II) 28: 43, Fig. 3b, 4a.

Described from Brazil: Pernambuco and recorded also by D'ORCHYMONT from Cuba and Porto Rico, the species also occurs in Jamaica: Moneague, 31. VII. 1929 (F. BALFOUR—BROWNE leg.) and in Haiti: Cul de Sac, 1. V. 1908. (M. CAMERON leg.)

It must be very close to *O. parvulus* SHARP from Mexico but the type and the two paratypes of that species are all, unfortunately, females so that a decision as to their separate status must await the examination of males from Mexico.

Acknowledgment

I am very much indebted to Dr. KASZAB, of the Hungarian Natural History Museum, Budapest, for an opportunity to study this most interesting material from Dr. G. TOPÁL's expedition to the Argentine foothills of the Andes.

The location of the types is as follows: *O. germaini* ZAITZ. and *O. chilenus* sp. nov., all GERMAIN's material is in the University Museum, Santiago. *O. topali* sp. nov., Holotype and Paratypes in the Hungarian Natural History Museum, Budapest; 10 paratypes in the British Museum (Natural History), London; 2 paratypes in the author's collection. *O. peruvianus* sp. nov., Holotype and 2 ♂, 1 ♀ paratypes in the British Museum (Natural History), London, 1 ♂ paratype in the Hungarian Natural History Museum, Budapest, 1 ♂, 1 ♀ paratypes in the author's collection.

