

A new genus, *Soesilius*, and a new species of Hydrochidae (Coleoptera) from America

Новый род *Soesilius* и новый вид жуков семейства Hydrochidae (Coleoptera) из Америки

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KEY WORDS: Coleoptera, Hydrochidae, *Soesilius* gen.n., *Hydrochus*, new species.

КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Hydrochidae, *Soesilius* gen.n., *Hydrochus*, новые виды.

ABSTRACT: A new genus and a new species of Hydrochidae are described: *Soesilius* gen.n., from South America, and *Hydrochus roomylae* n. sp. from America. New combinations for *Soesilius dewnaraini* (Makhan, 1992) comb.n., and *Soesilius pietersenae* (Makhan, 1993) comb.n. are presented. *Soesilius dewnaraini* (Makhan, 1992) is synonymized with *Hydrochus cristatus* Oliva, 1996 syn.n. as a senior synonym. 12 figures are provided.

РЕЗЮМЕ: В семействе Hydrochidae описаны новый род и новый вид: *Soesilius* gen.n. из Южной Америки и *Hydrochus roomylae* sp.n. из Америки. Одним из основных отличительных признаков рода *Soesilius* является более длинный и тонкий эдегус, который занимает в длину пять стернитов брюшка, тогда как у представителей родов *Hydrochus* Leach, *Kiransus* Makhan, *Amrishius* Makhan, *Deepakius* Makhan и *Rishwanus* Makhan эдегус не настолько длинный и тонкий, и занимает в длину только три стернита брюшка. *H. roomylae* sp.n. близок к виду *Hydrochus schereri* Makhan, 1995 из Америки, но отличается более крупным эдегусом (у *H. schereri* эдегус маленький с сильно выпуклыми сбоку параметрами). Представлены новые комбинации: *Soesilius dewnaraini* (Makhan, 1992) comb.n., и *Soesilius pietersenae* (Makhan, 1993) comb.n. для видов, относившихся ранее к роду *Hydrochus*. Вид *Soesilius dewnaraini* (Makhan, 1992) синонимизирован в качестве старшего синонима с видом *Hydrochus cristatus* Oliva, 1996 syn.n. Приведены 12 рисунков гениталий, апикальных стернитов обсуждаемых в работе видов, а также габитус вида рода *Soesilius*.

Introduction

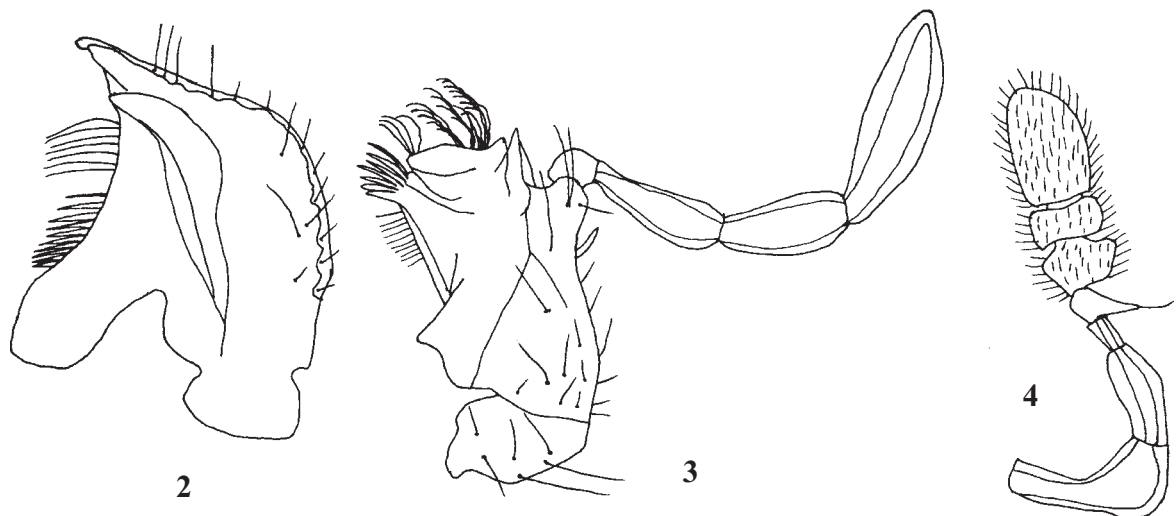
Dr. Stuart Hine of the Natural History Museum, London, England, kindly sent me a few specimens of Hydrochidae for identification. Amongst these beetles a new species of *Hydrochus* Leach, 1817 was found.

In this paper also a new genus and two new combinations are reported. Studying the material on *Hydrochus* I have found a group of species having extremely long and slender aedeagus and specific spines of outer sides of tibiae and the apical sternites. Complex of these structures is very specific and can be considered as a character of a new taxon. This fact allows to regard this group of species as a new genus, which is named *Soesilius*, gen.n. Excepting *Soesilius dewnaraini* (Makhan), which is established as type species of a new genus, another one, *Soesilius pietersenae* (Makhan), is includ-



Fig. 1. *Soesilius dewnaraini* (Makhan), paratype ♂, habitus. Total length is 2.7 mm.

Рис. 1. *Soesilius dewnaraini* (Makhan), паратип ♂, габитус. Полная длина — 2,7 мм.



Figs. 2–4. *Soesilius dewnaraini* (Makhan), paratype, ♂: 2 — right mandible; 3 — right maxilla; 4 — right antenna. Scale = 0.25 mm.
Рис. 2–4. *Soesilius dewnaraini* (Makhan), паратип, ♂: 2 — правая мандибула; 3 — правая максилла; 4 — правая антенна. Масштаб 0,25 мм.

ed in this genus. Both species were transferred from the genus *Hydrochus*, new combinations are providing for this purpose.

All materials studied are housed in the following museums and collections: KBINB — Koninklijk Belgisch Instituut voor Natuurwetenschappen, Brussels, Belgium; MNHB — Musei Nationalis Hungarici, Budapest, Hungary; TNHML — The Natural History Museum, London, England.

Soesilius Makhan, **gen.n.**

Figs. 1–10.

Type species *Hydrochus dewnaraini* Makhan, 1992: 99.

DESCRIPTION. Body elongate, oval. Antenna 7-segmented (Fig. 4), with 3-segmented club, the club is wider than the cupule. Maxillary palps 3-segmented (Fig. 3), and longer than the antenna. Mandibles (Fig. 2) with 2 apical teeth, possess more than 10 setae. Head with coarse punctures, frons swollen. Pronotum longer than wide, with 5 depressions on disc; 3 depressions are disposed in the middle and 2 of them on the posterior part.

Elytra striate, interstriae convex, with striae punctured and pubescent.

Legs swollen, outer sides of tibiae possess series of very long spines, which are short in *Hydrochus* Leach, *Kiransus* Makhan, *Amrishi* Makhan, *Deepakius* Makhan and *Rishwanius* Makhan. Tarsi 5-segmented (Fig. 5).

Last sternite with double spines: short and long (Fig. 6), spines are not arranged in straight row as it is in *Hydrochus* Leach, *Kiransus* Makhan, *Amrishi* Makhan, *Deepakius* Makhan and *Rishwanius* Makhan.

Male genital segments: Basal part is longer than parameres and median lobe, the sternum (Figs. 7, 10, stippled) are very long and slender, the sternum of *Hydrochus* Leach are short and very wide (see sternum of *Hydrochus elongatus* (Schaller, 1783) from Europe in fig. 11). Last abdominal sternite (Fig. 6) with short and long spines. All spines irregularly arranged on sternite, not in a straight row.

DIAGNOSIS. The phallus in *Soesilius* is very long and slender, its length is equal to the length of the five abdominal

sternites taken together, contra in *Hydrochus* Leach, *Kiransus* Makhan, *Amrishi* Makhan, *Deepakius* Makhan and *Rishwanius* Makhan this structure is not so long and slender, and stretched on the 3 sternites of abdomen.

ETYMOLOGY. This genus is named after my wife Soesila Makhan.

Soesilius dewnaraini (Makhan, 1992) **comb.n.**

Figs. 1–6, 8–10.

Hydrochus dewnaraini Makhan, 1992: 99.

Hydrochus cristatus Oliva, 1996: 319 **syn.n.**

MATERIAL. Holotype, ♀, Suriname, District Commewijne, 5.08.1984, D. Makhan (KBINB).

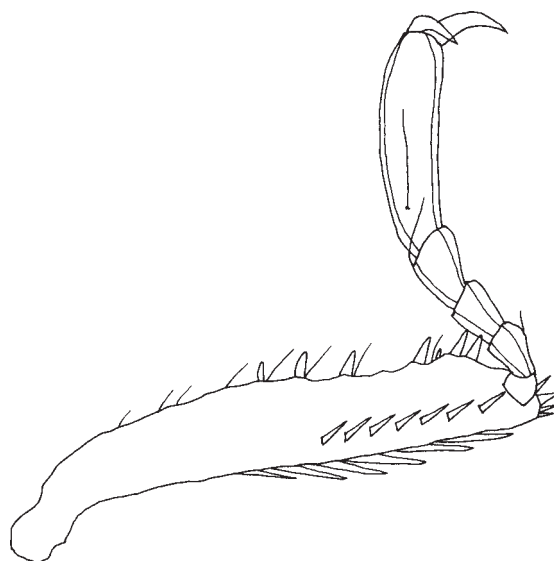


Fig. 5. *Soesilius dewnaraini* (Makhan) paratype, right anterior leg. Scale = 0.25 mm.

Рис. 5. *Soesilius dewnaraini* (Makhan) паратип, правая передняя нога. Масштаб 0,25 мм.

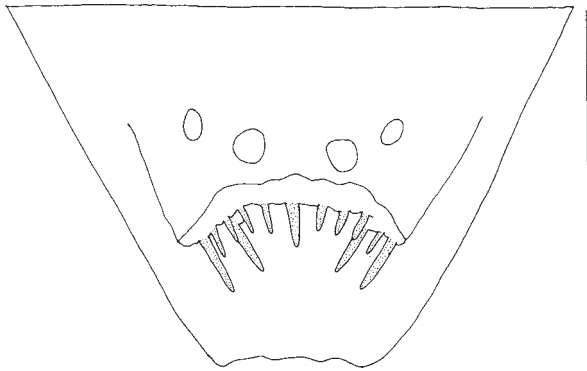


Fig. 6. *Soesilius dewnaraini* (Makhan) paratype, apical sternite with spines. Scale = 0.25 mm.

Рис. 6. *Soesilius dewnaraini* (Макхан) паратип, апикальный стернит с шипами. Масштаб 0,25 мм.

DISTRIBUTION. Suriname and Brasil.

DIAGNOSIS. This species is similar to *Soesilius pieterseni* Makhan, 1993 from Bolivia, but differs by the shape of elytra, which are wider in *Soesilius dewnaraini* in comparison with *S. pieterseni*.

DESCRIPTION. Paratype, male. Body elongate, 2.7 mm in length, 1.1 mm in width. Colour of head, pronotum, scutellum and elytra black, with a blue-green metallic luster. Head coarsely punctured. Pronotum longer than wide, with smooth lateral area.

Elytra 1.7 mm in length, being widest at the middle, the lateral area smooth, striate. Interstriae wider than the diameter of punctures on striae; 3rd, 5th, 7th and 9th interstriae convex, apical hole absent. Apices of elytra rounded.

Male genitalia (Figs 8–10). The aedeagus is large and slender, its basal part elongate, median lobe longer than the length of the parameres. Sternum (Fig. 10 stippled) long and slender. Last abdominal sternite (Fig. 6, stippled) with short and long spines.

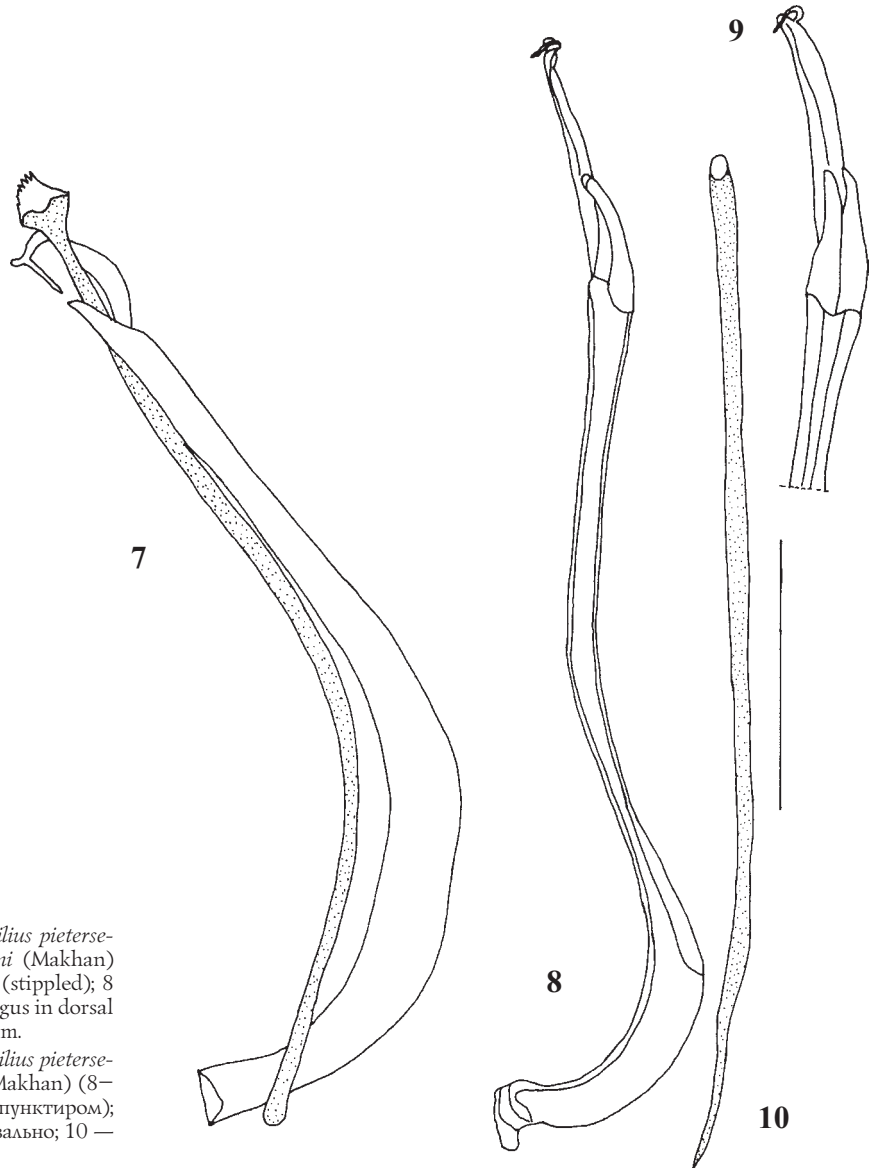
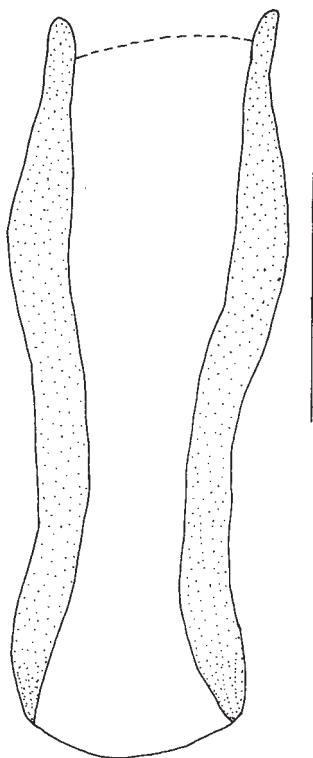


Fig. 7–10. Male genitalia of *Soesilius pieterseni* (Makhan) (7) and *S. dewnaraini* (Makhan) (8–10): 7 — aedeagus with sternum (stippled); 8 — aedeagus in lateral view; 9 — aedeagus in dorsal view; 10 — sternum. Scale = 0.25 mm.

Рис. 7–10. Гениталии самца *Soesilius pieterseni* (Макхан) (7) и *S. dewnaraini* (Макхан) (8–10): 7 — эдеагус и стернум (показано пунктиром); 8 — эдеагус, сбоку; 9 — эдеагус, дорзально; 10 — стернум. Масштаб 0,25 мм.



Figs 11. Male genitalia of *Hydrochus elongatus* (Schaller): sternum. Scale = 0.25 mm.

Рис. 11. Гениталии самца *Hydrochus elongatus* (Schaller): стернум. Масштаб 0,25 мм.

REMARKS. The shape of body of *Hydrochus cristatus* Oliva, 1996 is identical to the same structure of *Soesilius dewnaraini*, for exact determination only male genitalia should be studied. Type material of *Hydrochus cristatus* is consist of females only, and can not be diffirentitate from *Soesilius dewnaraini*.

Soesilius pietersenae (Makhan, 1993) **comb.n.**

Fig. 7.

Hydrochus pieterseni Makhan, 1993: 68.

MATERIAL. Holotype, Bolivia, Guayazamerin (Beni) outskirts of town, 27.1966, Soil Zoological Exp. No 428, beaten from vegetation, Balogh, Mahunka, Ziczi (MNHB).

DISTRIBUTION. Bolivia.

DIAGNOSIS. This species is similar to *Soesilius dewnaraini* Makhan, 1992 from Suriname, and differs by the shape of aedeagus, which is wide in *S. dewnaraini*, and narrow in *S. pietersenae*.

DESCRIPTION. Male. Body elongate, 2.7 mm in length, 1.0 mm in width. Head, pronotum, scutellum and elytra black, with blue-green metallic luster; surface of head with coarse punctures.

Pronotum longer than wide, lateral area smooth.

Length of elytra is 1.8 mm, the widest part is at the middle, lateral area smooth, surface striate; the diameter of punctures on striae is wider than interstriae; 3rd, 5th, 7th and 9th interstriae convex, apical hole absent. Elytra rounded at the apices.

Male genital segments as in Fig. 7. Basal part of phallus long, median lobe and parameres claw-shaped, the sternum

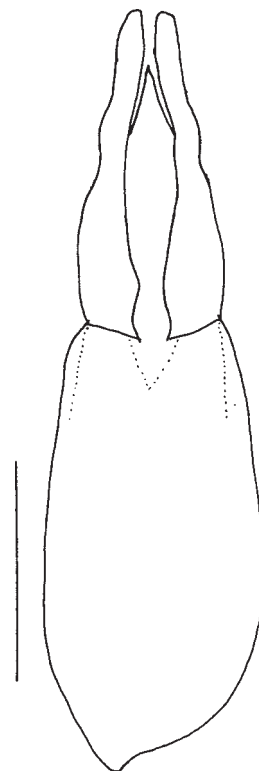


Fig. 12. Aedeagus of *Hydrochus roomylae* Makhan sp.n. (holotype). Scale = 0.25 mm.

Рис. 12. Эдеагус *Hydrochus roomylae* Makhan sp.n. (голотип). Масштаб 0,25 мм.

(stippled) is long and slender. Last abdominal sternite with short and long spines (Fig. 6).

Hydrochus roomylae Makhan **sp.n.**

Fig. 12.

MATERIAL. Holotype, ♂. America, FLA. Alachua Co. 12.X.1939, F.N. Young (TNHML).

DESCRIPTION. Holotype. Body elongate, 3.2 mm in length, 1.1 mm in width. Coloration of head, pronotum, scutellum and elytra coppery, with blue-green metallic luster. Surface of head coarsely punctured. Pronotum longitudinal, with smooth lateral area, and five large deep depressions on disc, of which three situated in the middle, and two on posterior margin.

Elytra 1.9 mm in length, being widest just near the posterior third, lateral area smooth; surface striate, interstriae convex, being wider than the diameter of striae punctures, apical hole absent. Apices of elytra rounded.

Male genitalia is shown in Fig. 12. Basal part long, parameres longer than median lobe.

ETYMOLOGY. This species is named after my niece Roomyla Choenni.

DIAGNOSIS. This species is very similar to *Hydrochus schereri* Makhan, 1995 from America, but aedeagus of *H. roomylae* is very large, (in *H. schereri* it is small with lateral side of parameres strongly convex in *H. schereri*).

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