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Revision of the tribes Quediini and Atanygnathini Part II. The Himalayan Region

Supplement 1. The genus *Strouhalium* SCHEERPELTZ, 1962 (Coleoptera: Staphylinidae)

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Abstract

The occurrence of the genus *Strouhalium* SCHEERPELTZ, 1962 in the Himalaya of Pakistan and Nepal is recorded. The specimens studied were compared with the holotype of the nominal species *Strouhalium gracilicorne* SCHEERPELTZ, 1962 and were tentatively associated with this species based on some minor differences that are discussed and illustrated. The original description of *S. gracilicorne* is supplemented by both the female and male sexual characters that are also illustrated. The key to the Himalayan genera of the tribe Quediini (SMETANA 1988: 179) is modified to include the genus *Strouhalium*.

Key words: Staphylinidae, *Strouhalium gracilicorne*, Himalayan region, new records

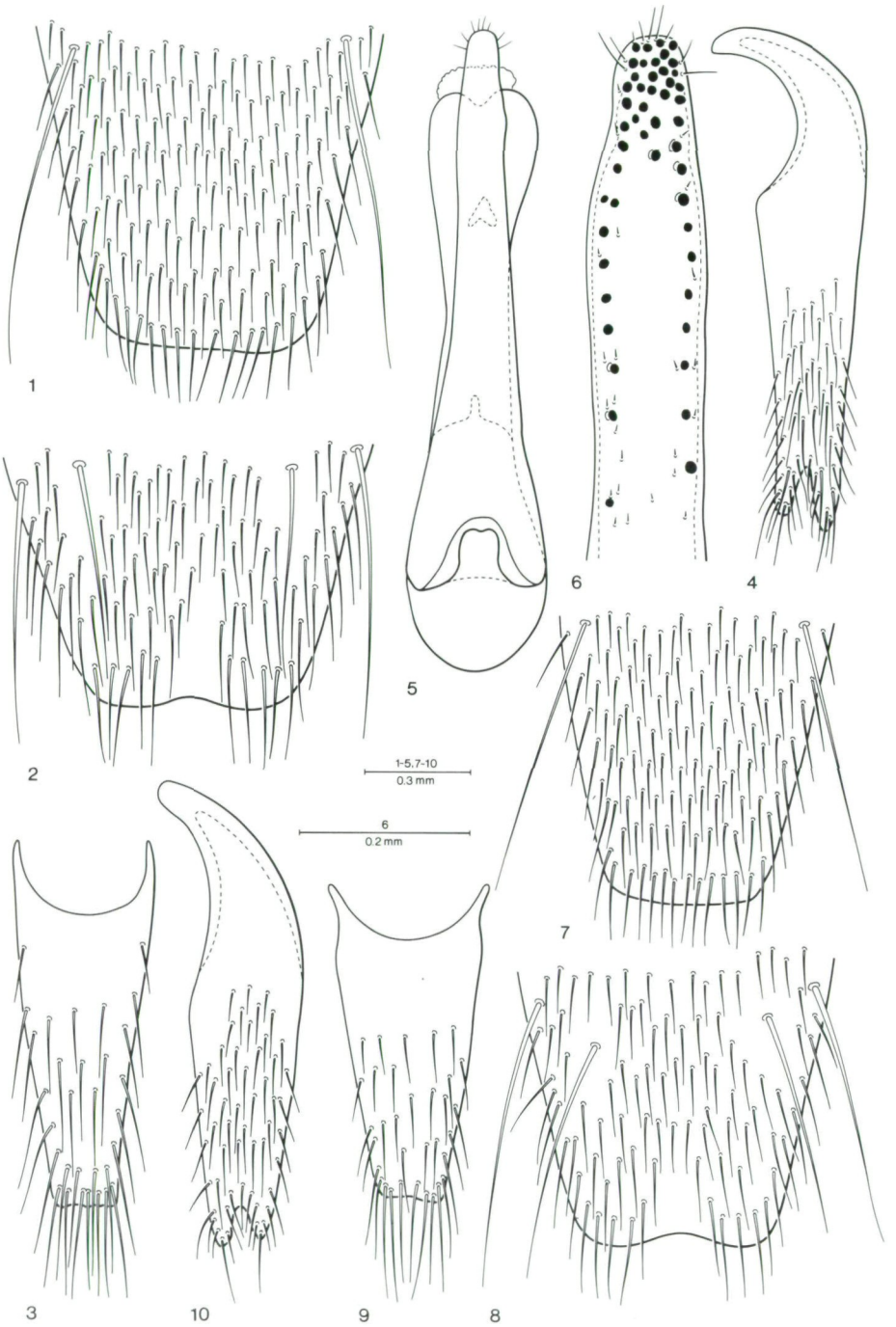
The genus *Strouhalium* was erected by SCHEERPELTZ (1962: 259) to include a single new species, *S. gracilicorne*, described from a single male of doubtful origin but believed to come from Tibet. Because of the uncertain provenance, I did not include the genus in my revision of the Himalayan Quediini (SMETANA 1988). Recently, several quediine specimens of a peculiar habitus were discovered among the unnamed material of Staphylininae in the Muséum d'Histoire naturelle, Geneva, Switzerland. They were collected at two widely distant Himalayan localities, in Pakistan and in Nepal. The specimens proved to belong to the genus *Strouhalium* and were tentatively associated with the nominal species of this genus, *S. gracilicorne*, based on some minor differences when compared to the holotype of the species. The purpose of this paper is to provide the pertinent data on *Strouhalium* comparable to those given for other genera in my monograph (SMETANA 1988) and to modify the key to the Himalayan genera of Quediini in the same publication to include the genus *Strouhalium* that is now undoubtedly a member of the Himalayan fauna of the group.

The specimens treated in this paper are deposited either in the Muséum d'Histoire naturelle, Geneva, Switzerland (MHNG), or in the Smetana collection, Ottawa, Canada (ASCC). The holotype of *Strouhalium gracilicorne* was made available by H. Schillhammer, Naturhistorisches Museum, Wien, Austria. His assistance was appreciated. The comments of my colleagues, E.C. Becker and L. LeSage at the Biological Resources Division of the Centre for Land and Biological Resources Research, Ottawa, eventually led to the improvement of the manuscript and were greatly appreciated.

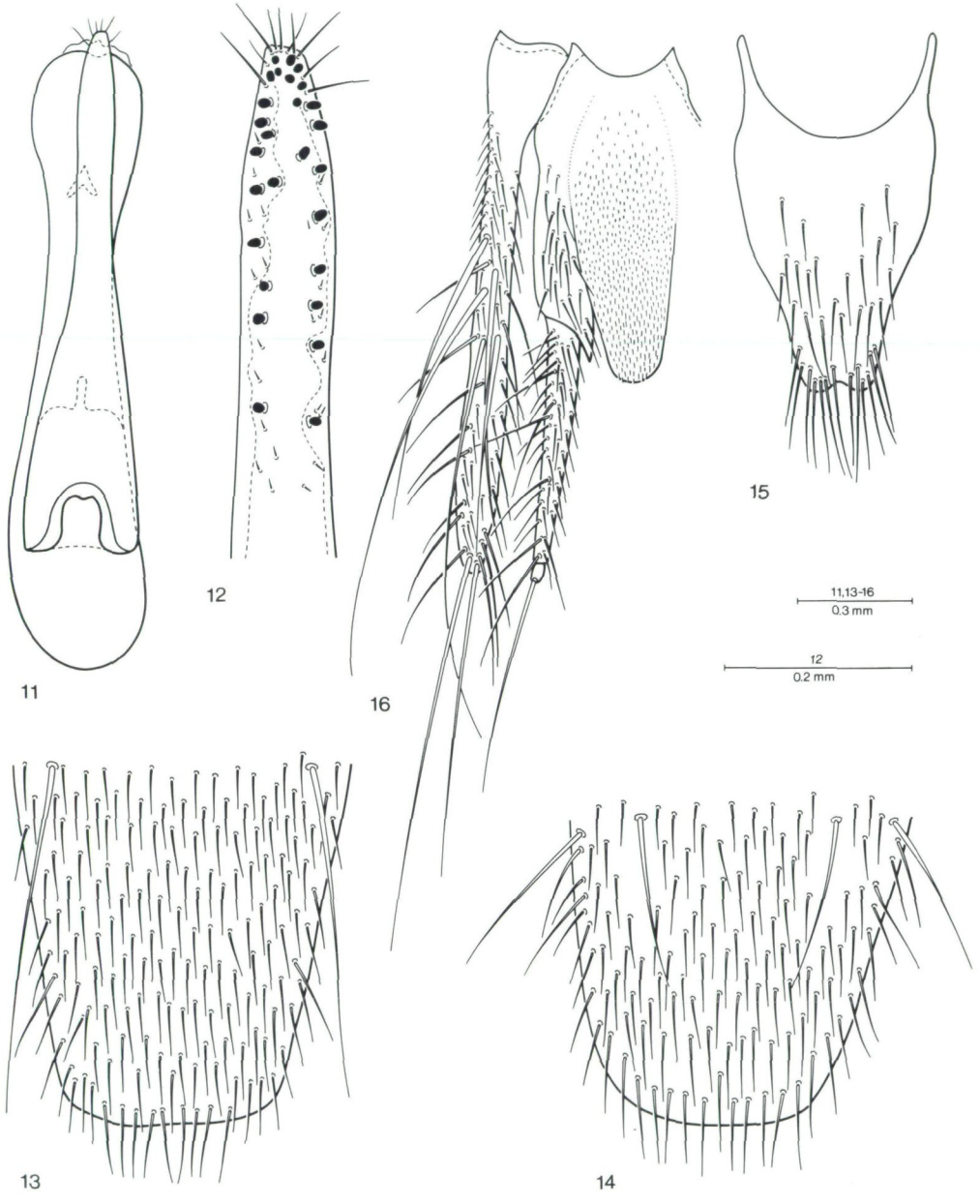
Strouhalium SCHEERPELTZ

Strouhalium SCHEERPELTZ, 1962: 259, 267.

Type species: *Strouhalium gracilicorne* SCHEERPELTZ, 1962, by original designation and monotypy.



Figs. 1 - 10: *Strouhalium gracilicorne* (1-6 holotype; 7-10 male from Pakistan): 1, 7) male tergite 8; 2, 8) male sternite 8; 3, 9) tergite 10 of male genital segment; 4, 10) sternite 9 of male genital segment; 5) aedoeagus; 6) apical portion of paramere, underside with sensory peg setae.



Figs. 11 - 16: *Strouhalium gracilicorne* (11, 12 male from Pakistan; 13-16 female from Nepal): 11) aedoeagus; 12) apical portion of paramere, underside with sensory peg setae; 13) female tergite 8; 14) female sternite 8; 15) tergite 10 of female genital segment; 16) female genital segment (tergite 10 removed).

The genus was described in detail by SCHEERPELTZ (1962: 259). I therefore present under the specific description, only the male and female sexual characters that were not, or only partially,

mentioned by SCHEERPELTZ (1962).

The aedoeagus rests in the abdomen with the ventral side (where the proximal opening and the paramere are) facing ventrally, i.e. in the same position as e.g. in the genus *Acylophorus* NORDMAN, 1837, whereas in most other Himalayan genera of Quediini the aedoeagus rests in the abdomen on its right side, that is, with the proximal opening and the paramere on left side (see SMETANA 1988: 179 for more details).

Couplet 5 in my key to the genera of the Himalayan Quediini (SMETANA 1988: 179) should be modified as follows to include *Strouhalium*:

5 (4') Two or three setiferous punctures between anterior and posterior frontal punctures situated directly at median margin of eye (Fig. 400). Dorsal surface of head and pronotum without microsculpture (microsculpture rarely present in lateral pronotal groove). Dorsal rows of pronotum each with two punctures ..... *Indoquedius* CAMERON

5' No setiferous punctures between anterior and posterior frontal punctures (Fig. 379); if, rarely, punctures present, then separated from median margin of eye by distance at least equal to diameter of puncture. Dorsal surface of head and pronotum with distinct microsculpture and dorsal rows of pronotum each with at least three punctures; if, rarely, dorsal surface of head and pronotum without microsculpture, then dorsal rows of punctures on pronotum absent 5a

5a (5') Antenna extremely long, filiform, not widened toward apex, reaching about middle of elytra when reclined, all segments considerably longer than wide; dorsal rows of pronotum each with four punctures; two additional punctures between anterior frontal punctures.....
..... 1a. Genus *Strouhalium* SCHEERPELTZ

5b Antenna moderately long, not filiform, variably widened toward apex, all segments never considerably longer than wide; dorsal rows of pronotum each with no more than three punctures; if, rarely, four punctures present, then no additional punctures between anterior frontal punctures
..... 1. Genus *Quedius* STEPHENS

Strouhalium gracilicorne SCHEERPELTZ (Figs. 1 - 16)

Strouhalium gracilicorne SCHEERPELTZ, 1962: 268

Type material. The holotype, deposited in the Scheerpeltz collection at the Naturhistorisches Museum, Wien, is labelled as follows:"♂" / "VII b" / "Tibet" (Scheerpeltz's handwriting) / "ex coll. Scheerpeltz" / "TYPUS Strouhalium gracilicorne O. Scheerpeltz" / "II. Dolan Expedition Westchina / Tibet lg. E. Schäfer 1934 / 36" (label in Scheerpeltz's handwriting, attached to the pin upside down). The specimen was dissected, the abdominal segment 8, the genital segment and the aedoeagus were mounted in Canada balsam on a transparent plate.

The species was described in detail by SCHEERPELTZ (1962: 268). Therefore only the sexual characters, particularly those on male and female genital segments, and some comments are given here.

Male. First three segments of front tarsus strongly dilated, sub-bilobed, each densely covered with modified pale setae ventrally; segment two slightly wider than apex of tibia (ratio 1.12); segment four moderately dilated, distinctly narrower than preceding segments, not sub-bilobed. Tergite 8 subtruncate or feebly arcuate apically (Figs. 1, 7); sternite 8 slightly to moderately, arcuately emarginate apically, narrow area before emargination subdepressed, devoid of pubescence (Figs. 2, 8).

Genital segment with tergite 10 more or less narrow, narrowed toward truncate apex, with numerous apical setae (Figs. 3, 9); sternite 9 narrow, elongate; basal portion strongly curved; apex moderately to deeply, more or less unequally, emarginate; apical half moderately densely setose, without any prominent, long and strong setae (Figs. 4, 10). Aedoeagus (Figs. 5, 6, 11, 12) narrow and elongate, in general habitus resembling those of some Nearctic species of *Acylophorus* NORDMAN, 1837; median lobe distinctly, somewhat asymmetrically, spoon-like dilated anteriorly, with apical margin variably, arcuately emarginate medially; paramere narrow,

elongate, attached to median lobe somewhat asymmetrically, therefore covering most of right lateral outline of median lobe, with subarcuate or subtruncate apex distinctly exceeding apex of median lobe; sensory peg setae on underside of paramere numerous, total number varying considerably (from 27 to 49), peg setae forming variable apical field and from there extended as irregular longitudinal row along each lateral margin toward base of paramere; nine to ten variably developed setae on apical portion of paramere; numerous minute setae on underside of paramere situated as in Figs. 6 and 12; internal sac simple, membranous, with small bifid structure.

Female. First four segments of front tarsus similar to those of male, but somewhat less dilated, segment two as wide as apex of tibia. Tergite 8 truncate apically (Fig. 13), sternite 8 subarcuate apically (Fig. 14). Genital segment with styli of tergite 9 very long, narrow, each bearing two long, strong apical and several similar setae originating on middle portion of stylus (Fig. 16); gonocoxites elongate, second gonocoxite narrow and very long, with minute stylus bearing one long seta (Fig. 16); tergite 10 concavely narrowed toward slightly emarginate apex, with numerous long apical setae (Fig. 15).

Length 9.5 -12.5 mm.

Distribution. *Strouhalium gracilicorne* seems to be widely distributed in the Himalaya; it is at present known from two distant localities, one in Pakistan and one in Nepal; the holotype comes doubtfully from Tibet (possibly the Tibetan side of the Himalaya), but this has to be confirmed by reliable records. The records from Pakistan actually are west of the Indus river and therefore, strictly interpreted, outside the Himalaya proper. However, based on the record from Nepal, *Strouhalium gracilicorne* very likely occurs also in the western ranges of the Himalaya.

Material studied: 5 specimens. NEPAL: eastern Nepal, Induwa Khola valley, 17.IV.84, 2100 m, Löbl and Smetana (MHNG), 1 ♀. PAKISTAN: Swat, s/Miandam, 2300 m, 10.V.83, Besuchet and Löbl (MHNG), 1 ♂; Swat, s/Utrot, 2500-2600 m, 14.V.83, Besuchet and Löbl (ASCC), 1 ♂, 1 ♀. TIBET: see Type material (record doubtful).

Bionomics. No bionomical data are available for the holotype. The specimen from Nepal was taken by sifting wet debris and vegetation on a talus slope with a small seepage. The specimens from Pakistan were collected by sifting rotten *Abies*-wood, under bark of dead *Abies*, and under rocks along a stream near snow. The habitat data are quite inconsistent and do not seemingly make much sense. However, based on the general habitus of the species with very long appendages, it is possible to speculate that the wet habitats near water, particularly rocky edges of mountain streams are the real habitat. The two specimens associated with dead *Abies* trees might have been taken either from their hibernation sites or from habitats used by the larvae for pupation.

This would be consistent with the well-known fact, that hygrophilous species hibernate regularly on higher ground away from water and their larvae also pupate away from water. Also, the speculation that the real biotope of *Strouhalium* are the wet habitats near water (see above), is supported by the habitual similarity of *Strouhalium* to the Nearctic genus *Beeria* HATCH, 1957, or the Palaearctic genus *Heinzia* KORGE, 1971, members of which live in such habitats.

Discussion. The specimens from Pakistan and Nepal differ to some extent from the holotype. The differences are as follows: size smaller (9.5 - 11.0 mm, compared to 12.5 mm), form slightly narrower. Male tergite 8 feebly arcuate (subtruncate in holotype, Figs. 1, 7); male sternite 8 moderately emarginate apically (slightly emarginate in holotype, Figs. 2, 8); tergite 10 of male genital segment shorter, with less numerous and in general shorter setae (Figs. 3, 9); sternite 9 of male genital segment shorter, with apical emargination less deep (Figs. 4, 10). Aedoeagus (Figs. 5, 6, 11, 12) slightly smaller and narrower, medio-apical emargination of median lobe smaller, shallower; paramere narrower, exceeding apex of median lobe to lesser extent; sensory peg setae on underside of paramere less numerous (about 27 compared to almost 49), forming less distinct apical field; apical setae of paramere longer, more numerous (10 or 11, compared to 9). Despite these differences, I prefer to consider all specimens studied as conspecific, at least for present time. The material at hand is not sufficient and the differences described may therefore fall within

the variability of the species.

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