

A remarkable collection of aquatic and riparian beetles from Xiachayu, Zayü County, southeastern Tibet (Coleoptera: Gyrinidae, Noteridae, Dytiscidae, Spercheidae, Hydrophilidae, Heteroceridae, Limmichidae)

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Abstract

Forty-one species of aquatic and riparian beetles (Coleoptera: Dytiscidae, Gyrinidae, Heteroceridae, Hydrophilidae, Limmichidae, Noteridae, Spercheidae) collected at Xiachayu, Zayü County, southeastern Tibet are listed. Three families, Noteridae, Limmichidae and Spercheidae, are recorded from Tibet for the first time. Seven species are recorded from China (resp. Mainland China) for the first time, 21 species are new for Tibet. One species at least has been confirmed as new for science.

Key words: Coleoptera, Gyrinidae, Noteridae, Dytiscidae, Hydrophilidae, Spercheidae, Hydrophilidae, Heteroceridae, Limmichidae, new records, faunistics, Tibet, China.

Introduction

Southeastern Tibet is very rarely visited by entomologists. The specimens listed below represent the first noteworthy collection of water beetles from Zayü County (Tibet, China) in the tri-border region China (Tibet) – India (Arunachal Pradesh) – Burma.

The subtropical climate in this very remote area accounts for a very diverse Oriental fauna, which deviates considerably from typical Tibetan species communities.

Consequently, the percentage of species hitherto unrecorded from Tibet is unusually high.

Material & Methods

A total of 170 specimens belonging to seven families of aquatic and riparian beetle families was collected by Liu Yun in a light trap (bucket of water under light), July 5–11, 2011. This light trap was placed in a forest near the village of Xiachayu on the right bank of the Gangri Karpo-chu (River), a right tributary of Dzayül Chu, or Zayü River (= Lohit River, tributary of Brahmaputra River) at an elevation of 1500 m a.s.l. Coordinates: 28°29'44"N 97°01'26"E.

The specimens were identified by the following specialists: Gyrinidae by G. Gustafson and the first author, Dytiscidae and Noteridae by G. Wewalka, Spercheidae and Limmichidae by the first author, Hydrophilidae by A. Komarek and H. Nasserzadeh, Heteroceridae by A. Skalický.

The material is deposited in the Vienna Natural History Museum.

Records concerning China and Tibet are based on HANSEN (1999), MAZZOLDI (2003), NILSSON (2003a, b), and SKALICKÝ (2006).



Fig. 1: Valley of Gangri Karpo-chu at Xiachayu, Zayü County, southeastern Tibet, China.

Results

GYRINIDAE:

Dineutus mellyi RÉGIMBART, 6 exs. First record for Tibet.

Dineutus orientalis DEGEER, 9 exs. First record for Tibet.

Porrorhynchus sp., 1 ex.

Porrorhynchus marginatus CASTELNAU, 1 ex. First record for China.

NOTERIDAE (First record for Tibet):

Canthydrus ritsemae (RÉGIMBART), 9 exs. First record for Tibet.

Neohydrocoptus distinctus (WEHNCKE), 3 exs. First record for China.

DYTISCIDAE:

Cybister limbatus F., 2 exs. First record for Tibet.

Cybister sugillatus ERICHSON, 1 ex.

Cybister tripunctatus lateralis F., 1 ex.

Eretes griseus F., 1 ex. First record for Tibet.

Hydaticus fabricii (MACLEAY), 8 exs. First record for Tibet.

Hydaticus satoi WEWALKA, 1 ex. First record for Tibet.

Hydaticus tibetanus SHAVERDO, WEWALKA & LI, 2 exs. – new species.

Hydroglyphus flammulatus (SHARP), 18 exs. First record for Tibet.

Hydroglyphus inconstans (RÉGIMBART), 2 exs. First record for Mainland China.

Hydroglyphus orientalis (CLARK), 8 exs. First record for Tibet.

Hydroglyphus sp., 7 exs.

Hydrovatus acuminatus MOTSCHULSKY, 16 exs. First record for Tibet.

Hydrovatus castaneus MOTSCHULSKY, 1 ex. First record for China.

Hydrovatus picipennis MOTSCHULSKY, 1 ex. First record for China.

Hydrovatus subtilis SHARP, 2 exs. First record for Tibet.

Hyphydrus lyratus SWARTZ, 4 exs. First record for Tibet.

Laccophilus chinensis BOHEMAN, 2 exs. First record for Tibet.

Laccophilus ellipticus RÉGIMBART, 4 exs. First record for Tibet.

Laccophilus parvulus obtusus SHARP, 15 exs. First record for Tibet.

Rhantus suturalis MACLEAY, 1 ex.

Sandracottus hunteri (CROTCH) [= *S. mixtus* BLANCHARD], 1 ex. First record for China.

SPERCHEIDAE (First record for Tibet):

Spercheus stangli SCHWARZ & BARBER, 2 exs. First record for China.

HYDROPHILIDAE:

Berosus chinensis KNISCH, 3 exs. First record for Tibet.

Berosus pulchellus MACLEAY, 1 ♂. First record for Tibet.

Coelostoma (s.str.) sp., 3 exs.

Enochrus (*Methydrus*) sp., 1 ♀.

Helochaeres (*Hydrobaticus*) sp., 5 exs.

Helochaeres (s.str.) *pallens* (MACLEAY), 1 ex. First record for Tibet.

Hydrobiomorpha spinicollis (ESCHSCHOLTZ), 1 ex. First record for Tibet.

Hydrophilus sp., 3 exs.

Sternolophus rufipes (FABRICIUS), 17 exs.

Sternolophus inconspicuus (NIETNER), 2 exs. First record for Tibet.

HETEROCERIDAE:

Augyles luciae (MASCAGNI), 2 exs. First record for China.

Heterocerus fenestratus THUNBERG, 1 ex. First record for Tibet.

LIMNICHIDAE (First record for Tibet):

Pelochares sp., 1 ex.

Discussion

A total of 41 species, belonging to seven aquatic and riparian beetle families, are listed.

Three families, Noteridae, Spercheidae and Limnichidae, are new for Tibet. Seven species are recorded from China (resp. Mainland China) for the first time, 21 species are new for Tibet. Only four (!) of the 34 identified species have in fact been recorded from Tibet before: *Cybister sugillatus*, *C. tripunctatus*, *Rhantus suturalis*, *Sternolophus rufipes*.

Five unidentified species (*Coelostoma* sp., *Enochrus* sp., *Helochares* sp., *Pelochares* sp., *Hydrophilus* sp.) could not be determined, because they are represented either by single females or because they belong to genera, which still need taxonomic revision. Two other unidentified species, *Porrorhynchus* sp. and *Hydroglyphus* sp., are very probably new for science. Further studies are required to confirm their status as new species. One species, *Hydaticus tibetanus*, has already been confirmed as new. It was described by SHAVERDO et al. (2012).

It can be assumed that this light trap material represents only a small fraction of the species of water beetles actually occurring in Zayü County. Thus we may assume that this area still hosts a larger number of undescribed taxa as well as numerous species hitherto not recorded from Tibet and/or China.

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