

# COLEOPTERA OF THE SIJU CAVE, GARO HILLS, ASSAM.

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## I. CARABIDAE.

*By H. E. ANDREWES.*

It is many years now since the caves and grottoes of Europe, and especially those of the Alps, were subjected to a more or less exhaustive zoological exploration, resulting in the discovery of a number of species of Carabidae, many of them without or with only rudimentary eyes, chiefly belonging to the genera *Pristonychus* and *Trechus*, or their close allies. We should have looked therefore for species of these genera in the caverns of the Himalayas, and when these are examined systematically such species will possibly be discovered. The small collection, however from the Siju cave, which I have been asked to examine, contains no representative of these genera, but consists of twenty-eight examples, belonging to four different genera, none of which has hitherto been recognized as cavernicolous. All the specimens have well developed eyes, and three of the species are certainly found in other habitats, so that they would appear to be intruders, which have found a convenient home in the cavern, rather than true cave-dwellers. It may be noted that with a single exception all the specimens were found within 500 feet of the entrance.

The genera in question are *Tachys*, *Abacetus*, *Anchista*, and *Anaulacus*. Of these *Tachys* is a cosmopolitan genus, living on the banks of lakes and streams, and *Abacetus* is widely spread in the more southerly portions of the old world: both the species are new and are described below, but, while the *Tachys* occurs commonly elsewhere in the Himalayan region, the *Abacetus* is not known at present from any other locality. The other two genera are confined to the oriental region, and, as nothing is yet known of their life-history, it is interesting to put on record this unusual habitat.

All the specimens were taken by Dr. S. W. Kemp and Mr. B. Chopra.

### ***Tachys micraulax*, sp. nov.**

*Length*: 2.7-3.2 mm.

Black, shiny, and slightly iridescent, underside more or less piceous; joints 1-4 of antennae (rest fuscous), palpi, neck, legs, apical border of elytra and two spots on each testaceous, the spots covering intervals 3-8, the front one extending obliquely inwards from shoulder, hind one rounded.

*Head* with duplicated rather shallow furrows, inner ones extending more or less on to clypeus and diverging a little behind, mentum without pores, eyes moderately prominent, antennae distinctly thickened towards apex, joint 2 a little shorter than 3. *Prothorax* wider than head, but much narrower than elytra, transverse, cordate, and moderately convex, base truncate, sides gently rounded in front and slightly sinuate behind, the angles very sharp and a little acute, with a slight carina; median line and basal sulcus moderately deep, latter finely crenulate, interrupted in middle, where the end of the median line widens to form a slight elongate pore. *Elytra* ovate, convex, border simple, rounding shoulder sharply and ending at base of stria 5, opposite hind angles of prothorax; fully striate, striae moderately deep and all (including 9) finely punctate, outer ones not quite reaching base, 2-7 disappearing behind at about apical fourth, striole of medium length, curved, ending on middle of elytron, the pore half way along it; dorsal pores on stria 3 at a little before a third and two thirds respectively. Microsculpture very clear, elytra with fine transverse lines, disk of prothorax and head with nearly isodiametric reticulation. Prosternum slightly channelled, metasternal process widely bordered, the surface depressed behind border, ventral surface minutely punctulate, last ventral segment of ♀ with the four pores nearly in line and not far from margin, ♂ protarsi with two slightly dilated joints.

In some respects not unlike *T. tetraspilus* Solsky, and coloured in nearly the same way. The head and prothorax nearly similar and about the same size, frontal furrows more divergent, hind angles of prothorax sharper, basal sulcus distinctly interrupted at middle; elytra much wider and larger, more convex, and a little more pointed at apex, fully striate, with the border terminating opposite hind angles of prothorax. The microsculpture is also very clearly visible.

ASSAM: Garo Hills, Siju Cave, 300-400 feet from entrance (*S. W. Kemp* and *B. Chopra*,—*Ind. Mus.*, 15 ex. SIKKIM: Gopaïdhara (*H. Stevens*), many ex. KUMAON: Chakrata Dist., Chulli Khud, 6500 feet (*S. N. Chatterjee*—*Forest Res. Ins.*), 1 ex. The type is in my collection.

### **Abacetus lucifugus, sp. nov.**

Length: 6.0-6.5 mm. Width: 2.4-2.6 mm.

*Colour* black, shiny: palpi, joints 1-3 of antennae, and legs testaceous, labrum, margin of prothorax and ventral surface dark red, joints 4-11 of antennae brown.

*Head* convex, smooth and highly polished, frontal grooves short and oblique, but not curved, a second short, deep groove on each side between the frontal groove and the narrow channel bounding the side border; eyes prominent, antennae reaching basal third of elytra. *Prothorax* cordate, moderately convex, smooth and polished, though with some very faint cross-striation, half as wide again as head, about a fourth as wide again as long, sides finely bordered, moderately rounded in front, sinuate rather before base, margin moderately explanate, rather more widely behind, front seta well within the border at a third from apex, hind one on the border just in front of hind angles, which are right

and sharply defined, where the pore from which it springs forms a distinct though slight emargination; median line clear, but not deeply impressed, basal grooves elongate and fairly deep, converging in front, basal border entirely wanting. *Elytra* convex, sides parallel, distinctly pointed at apex, shoulders square, not quite half as wide again as prothorax, and not quite two-thirds as long again as wide; the striae deep, impunctate, intervals convex and smooth, the puncture on 3 at about two-fifths from apex. Underside smooth, metepisterna twice as long as wide. *Legs*: front femora ♂ without tooth, front tibial spurs simple, meso- and metatarsi sulcate on outer surface only.

In the striation of the elytra similar to *A. quadrinotatus* Chaud., but a little larger, and without spots. Head with frontal grooves oblique but nearly straight, not curving abruptly to eye, a depression on each side near front angles; prothorax wider, the margins explanate, basal grooves longer, the space between them smooth, the base unbordered, a notch before hind angles; elytral striae slightly deeper.

4 examples taken at 100-350 feet from entrance under stones in moist places or at the edge of the stream that runs through the cave: one example, however, was taken at 3,550 feet from the entrance. The type is in the Indian Museum.

### **Anaulacus fasciatus** Schm. Goeb.

*Anaulacus fasciatus*, Schm. Goeb., *Faun. Col. Birm.* 1846, 89; Schaum, *Berl. Ent. Zeitschr.* 1863, 78; Chaud., *Etude monographique des Mésoréides*, etc. *Bull. Mosc.* 1876, iii, 25; Bates, *Ann. Mus. Civ. Gen.* 1892, 405; Andr., *Trans. Ent. Soc. Lond.* 1919, 159.

1 example at 500 feet from entrance, "under stone in earth heavily manured with bat-guano."

I happen to have the type of the species before me, and have therefore been able to compare this example with it. I have records from India, Ceylon, Burma, Andaman Islands and Indo-China. Mr. H. L. Andrewes took the species in the Nilgiri Hills at about 3,500 feet "in heavy jungle in dead tree-trunks."

### **Anchista binotata** Dejean.

*Anchista binotata*, Dejean, *Spec. Gen.* i, 1825, 252; Chaud., *Bull. Mosc.* 1877, ii, 236; Bates, *Trans. Ent. Soc. Lond.* 1883, 208; *id.*, *Ann. Soc. Ent. Fr.* 1889, 284; *id.*, *Ann. Mus. Civ. Gen.* 1889, 111; *id.*, *Ann. Mus. Civ. Gen.* 1892, 423; Lesne, *Mission Pavie, Hist. Nat.*, 1904, 81.  
*Callida discophora*, Chaud. *Bull. Mosc.* 1852, i, 48.  
*Paraphaea signifera*, Bates., *Trans. Ent. Soc. Lond.* 1873, 312; *id.*, *Trans. Ent. Soc. Lond.* 1876, t. i, f. 5.

8 examples at 400-500 feet from entrance, "in crevices on the walls and on boulders, or under stones in earth heavily manured with bat-guano."

I have seen all the three types. That of Dejean came from the Marianne Is., Chaudoir's from North India, Bates' from Japan, and the species seems to be spread all over S.E. Asia, including the Malay Archipelago.