

*Heterocerus tibesticola*, spec. nov.  
[*Coleoptera Heteroceridae*]  
from Chad and Yemen

by REINHOLD CHARPENTIER.

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Mr. Ph. DE MIRÉ has kindly allowed me to study the material of *Heteroceridae* brought together by him in Chad : Tibesti during 1956-1959. The material consists of one species. This is, however, new to Science. The same species is also represented in the collections from Chad : Tibesti made by K. GUICHARD in 1953, and in the collections from Yemen made by H. SCOTT and E. B. BRITTON on the British Museum Expedition to S. W. Arabia in 1938.

*Heterocerus tibesticola*, n. sp. (fig. 1, 2).

The species is closely related and similar to *vulpes* GROUVELLE (only known from Madagascar and South Africa) and to the Pan-african species *elongatus* GROUVELLE and *thebaicus* GROUVELLE. From the two last-mentioned species it is easily distinguished by the outer edge of the meso- and metatibiae which is darker than that of the femora. From *vulpes* it is best separated by the U-like post-humeral spot, the inner leg of which reaches half way or less than half way to the base of the elytra in *tibesticola*, but more than half way in *vulpes*. Male genital characters are also different.

DESCRIPTION.

Length : ♂ 2.7-4.0 mm, ♀ 3.1-3.7 mm. — Breadth : ♂ 1.05-1.45 mm, ♀ 1.15-1.43 mm.

Head brownish to black, dorsal surface finely granulated, rugose, clothed with brownish pubescence of varying length, shorter and thinner at base of labrum and base of frons ; frons only slightly convex ; male clypeus with two horns at front margin.

Shape of labrum varying, usually rather elongate, apex not protruding, concave or slightly notched. Male mandibulae somewhat projecting, with a lateral horn and sometimes with a latero-dorsal lobe (fig. 2 A). Female mandibulae less projecting, with a node laterally. Antennae 11-jointed with 7-segmented club, basally brownish-yellow, the following segments more or less darker.

Pronotum black-brown to black, usually with distinctly light-coloured sides; base and posterior angles yellowish to brownish below the straight, complete, elevated basal line; disc sometimes diffusely lighter medianly at base. 1.7-1.9 times broader than long, longitudinally and also transversally rather flattened in ♂, slightly convex in ♀ (a good sexual difference); side margins somewhat convex (more so in ♂) and slightly converging anteriorly (more so in ♀). Surface densely and minutely punctate; size of punctures varying, at most a fourth to third of that of eye facets; all punctures separated by about their own width; interspaces larger transversally than longitudinally, slightly bulbous. Dorsal pubescence pale brownish and dense, especially that which is short and recumbent; semi-erect pubescence varying in length but at most twice as long.

Elytra parallel, somewhat flattened or slightly convex (more convex in ♂), in both sexes the posterior elytral half is arched transversally over its whole width, so that the suture is somewhat elevated. Humeral depression very shallow, extending obliquely backwards towards middle of disc or slightly in front of it, sometimes prolonged along base from shoulders towards scutellum; side depression fairly weak, but distinct; discal depression exceedingly shallow or absent; disc not substriate, or very indistinctly so. Shoulders even. Surface densely and shallowly punctate, punctures

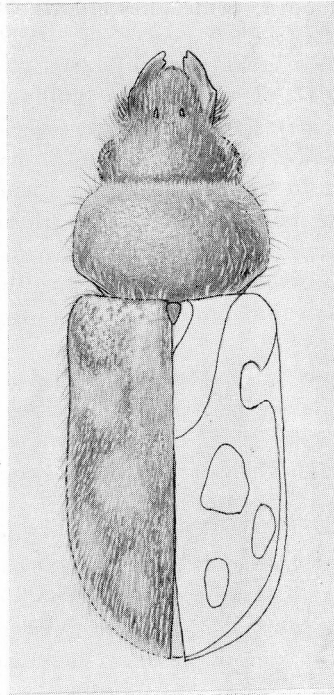


FIG. 1. — *Heterocerus tibesticola*, n. sp.,  
♂ paratype.

of two sizes ; large punctures almost equal to size of eye facets, irregularly rounded, often slightly oblong longitudinally, separated by a half to one diameter ; small punctures between the large ones, more numerous and scarcely visible (Mag X 150) ; interspaces smooth, sometimes slightly bulbous. Pubescence yellowish, fine

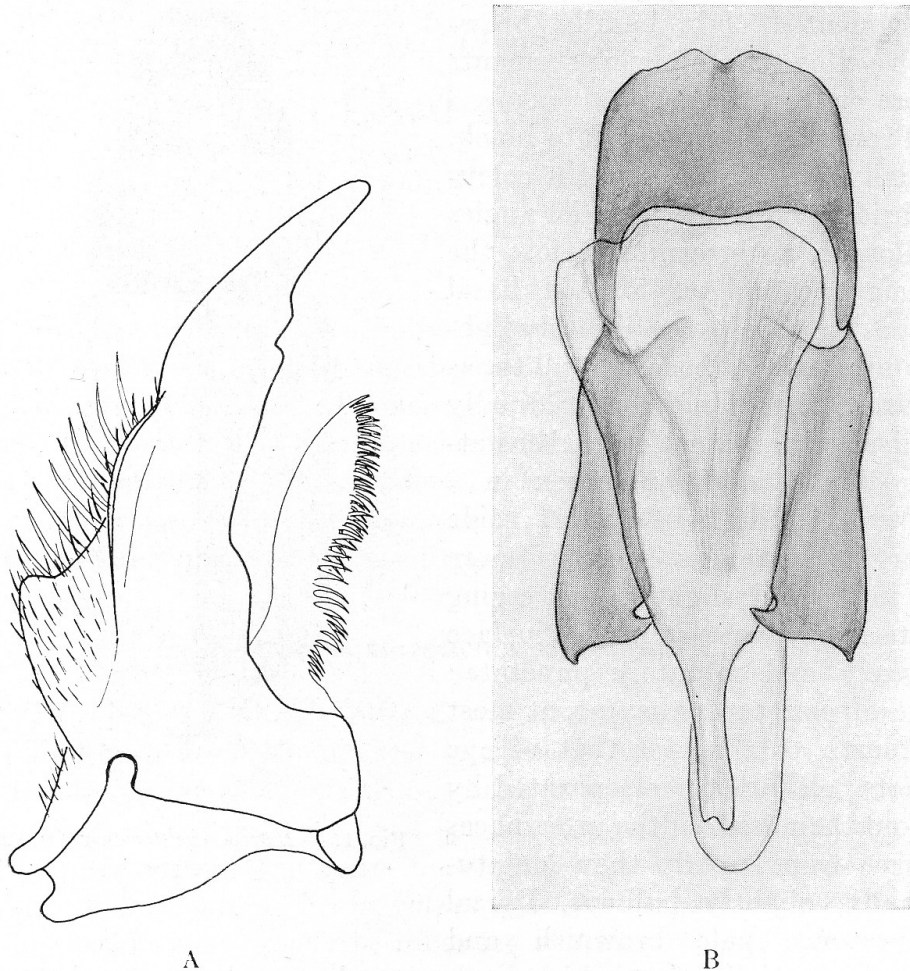


FIG. 2. — *Heterocerus tibesticola*, n. sp., ♂ paratype.

A : left mandible. Total length 0,75 mm.

B : dorsal aspect of aedeagus. Total length 0,73 mm.

and double, and variable ; recumbent hairs short, rather straight and slender, semi-erect hairs three to six times longer, usually less dense. Colour brownish to black, usually with distinct spots and bands (fig. 1) : *a*) one band close to entire side margin (marginal band) ; *b*) one narrow juxta-sutural band, complete or restricted

to anterior half of elytra ; *c*) one scutellar spot close to basal inner half of elytron, prolonged rearwards to middle or slightly in front of it, narrow and at some distance from suture except at its posterior end where it is usually confluent with juxta-sutural band ; *d*) one post-humeral mark at side, usually combined with the marginal band, extending obliquely inwards towards the end of the humeral depression where it is usually curved like a *U* and continues forwards in the depression, reaching half way or less than half way to base of elytra ; *e*) one large spot (discal spot), more or less triangular, in the middle, isolated or only narrowly associated with *f*) another large spot in the posterior lateral region of the elytra which is sometimes combined with marginal band, and with *g*) one elongate, apical spot near suture, usually large and almost separate. Epipleura yellowish, rarely brownish, their base without ridge. Scutellum slightly below elytral plane, not rounded at apex, somewhat elevated in anterior half.

Ventral surface reddish-brown to black-brown, sides of sternites broader yellowish, last three sternites (or — sometimes — all of them) quite yellowish or with light hind margins ; fairly sparsely clothed with pale hairs of varying length ; the pubescence increasing in density towards apex. Metasternum and abdominal ventral surface densely granulate, sternites rugose ; sculpture of first three sternites transverse ; apical two sternites sometimes with small, rounded punctures, much smaller than eye facets, separated by a half to one diameter ; interspaces bulbous. Metasternum without elevated post-mesocoxal line, sometimes an obscure, shallow furrow is present. Ridges of first sternite incomplete.

Legs light brownish or yellowish, femora light yellow (basally sometimes slightly darker), all the tibiae usually brownish to black-brown, anterior tibiae at their outer edge with 7-10 rather slender spurs.

Aedeagus (fig. 2 B) with parameres and basal piece equally-sized and not coalescent ; rather weakly sclerotized ; parameres both fairly completely coalescent ; median lobe without process ; length c. 0.67 mm.

#### GEOGRAPHICAL DISTRIBUTION.

CHAD (Tibesti) : Guelta Morso, IV-V-1953, 2 ♂♂ + 3 ♀♀, (*K. Guichard*). — Zouarké, S. W. Lisière, 23-X-1956, 2 ♂♂ ; 5-XI-1956, 1 ♀ ; 9-XI-1957, 3 ♂♂ + 1 ♀ (*P. de Miré*). — Guelta Zouré, 24-XI-1957, 1 ♂ + 1 ♀ (*P. de Miré*). — Guelta Mossi, 700 m, 21-IX-1958,

1 ♂ + 3 ♀♀ (*P. de Miré*). — Onnour, 1-I-1959, 2 ♂♂ (*P. de Miré*). — Korrom, 5-6-I-1959, 4 ♂♂; 30-VIII-1959, 1 ♀ (*P. de Miré*). — Totous, 8-I-1959, 5 ♂♂ (including holotype) + 3 ♀♀ (including allotype) (*P. de Miré*). — Yuduragarao, 1 450 m, 16-VIII-1959, 1 ♀; 22-IX-1959, 2 ♂♂ (*P. de Miré*).

YEMEN : Wadi Siham, S. E. of 'Obal, c. 2 000 ft, 11-III-1938, 2 ♂♂ + 3 ♀♀ (*H. Scott & E. B. Britton*), coll. Brit. Mus. (Nat. Hist.) 1938-246. — Wadi Ghailama, tributary of Wadi Siham, c. 2 200 ft, 11-III-1938, 1 ♀ (*H. Scott & E. B. Britton*), coll. Brit. Mus. (Nat. Hist.) 1938-246.

#### TYPE MATERIAL.

Holotype (♂) and allotype from CHAD : Tibesti, Totous in Muséum d'Histoire Naturelle, Paris; 40 paratypes in the Paris Museum, in British Museum (Nat. Hist.), London, and in the Zoological Institute, Lund.

*H. tibesticola* belongs to a probably very ancient type of *Heterocerus*. This is among other things indicated by its relationship to *vulpes*. In Tibesti it is found in localities where the temperature and the amount of water are so extremely varying, that hydrophytes and riparicol vegetation are entirely absent as well as every fine grains. This unique resistance to climatic changes may possibly have contributed to the fact that the ancient *tibesticola* has been able to survive.

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