

## BOMBUS AND VOLUCELLA IN THE HIMALAYAS.

BY O. W. RICHARDS, M.A., F.E.S.

Mr. H. G. Champion, on his trip in N. Kumaon, India, in 1924, caught a *Volucella*, superficially very like our common *Bombus-commensal*, *V. bombylans* L. The fly was taken in company with the workers of a humble-bee much resembling it in colour. Prof. Dr. P. Sack, to whom I sent the *Volucella*, finds that it is a new species, and in an appendix to this note I give a translation of the description he was kind enough to draw up for me. The *Bombus* was also a new colour-variety of the common Indian hill species, *B. rufofasciatus* Smith. This bee is allied to *B. lapidarius* L., the males having quite distinct genitalia of the same general plan.

*B. rufofasciatus* Smith, var. *championi* n. var.

The colour pattern of this new variety is as follows:—The hairs are black; a fairly broad collar to a little below the anterior thoracic spiracle, where the collar becomes broader, scutellum in part, postscutellum, and the first abdominal tergite, snow white; second tergite bright yellow, except for the apical third and for a small discal patch; a narrow band at the base of the third tergite black, the remainder of it vermilion; the fourth and fifth tergites white; the short hairs of the sixth, black. Hairs rather long and uneven.

In the typical form the second tergite is entirely black. The type specimen of the variety is a female in the collection of the British Museum and has the label 'Kashmir, 8-9000 ft., June 1901, Lt.-Col. C. G. Nurse.' Other specimens in the collection of the Brit. Mus. are the following: 1 worker, Gulmarg, Kashmir, summer 1913, Lt.-Col. F. W. Thomson; 15 workers and 1 male, Gyantse, Tibet, 13000 ft., June 1904, H. J. Walton, Tibet Expedition; 2 workers, Khamba Jong, Sikkim, 15-16000 ft., 15-30 June 1903, Tibet Expedition; 7 workers, Phari, Tibet, 16000 ft., 21 July 1924, Major R. W. G. Hingston; 1 worker, Gautsa, Tibet, 11500 ft., 21 July 1924, Major Hingston; 1 worker, Shekkar, Tibet, 14000 ft., 9 July 1924, Major Hingston (whose specimens were all captured on the second Mt. Everest expedition). Further, 1 worker, Sangcha, N. Kumaon, India, 14000 ft., H. G. Champion, in my collection. The male specimen differs from the female in having the hairs of the clypeus and vertex white, of the fourth tergite red, of the fifth to the seventh white, much black mixed on the sixth and seventh.

APPENDIX, BY PROF. DR. P. SACK.

*Volucella flavoscutellata* Sack, n. sp.

The species strongly resembles the red-haired form of *Volucella bombylans* L., but is sharply separated by having a row long black bristles on the hindmargin of the entirely pale yellow scutellum and in having the face entirely black, with short white hairs.

Female. Vertex black-brown, with three clear furrows, about half as broad as an eye, with long outstanding yellowish faun-coloured hairs. Antennae black-brown; the third joint in structure like that of *V. bombylans*, plumed with long black bristles. Eyes with long, thick black hairs. Face shaped like that of the Linnaean species, black-brown with rather short white hairs, scarcely hiding the ground colour. Dorsum of the thorax and the pleura shining black, with outstanding black hairs, mixed on the disc of the thorax with shorter blackish faun-coloured hairs, the latter predominating just before the scutellum. On the brown posterior thoracic callae the hairs are bristle-like. Scutellum light yellow, dull, with moderately long and dense yellowish fawn-coloured hairs. Legs black, with black-brown knees and with very long black hairs on the coxae, the trochanters and the underside of the femora. Wings somewhat brownish tinged, with a black-brown costa and a brown central cloud, forming a band half traversing the wings at the cross veins. The veins are entirely black-brown. The squamae are brown, clouded with black-brown; the halteres also brown. Abdomen brown, somewhat shining; at the base and apex with yellow-white, in the middle with fox-red, hairs. The shining black venter is black-haired basally, red-haired on the apical half. Length 13 mm.

One female, Sangcha, N. Kumaon, Himalaya (H. G. Champion). The type is in the collection of the British Museum.

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April 11th, 1928.

OCURRENCE OF THE BAT-BUG, *LOXASPIS MIRANDUS*, IN PORTUGUESE EAST AFRICA, AND NOTE ON THE ASSOCIATION OF SOME COLEOPTERA WITH BATS.

BY HUGH SCOTT, M.A., SC.D.

The remarkable Cimicid genus *Loxaspis* was erected by the late Hon. N. C. Rothschild in 1912 (Bull. Ent. Res. II, part 4, p. 363) to include a single species, *L. mirandus*. In this insect all the tibiae have a pseudo-joint. The presence of pseudo-joints in the legs (either in femora or tibiae or both) is a character shared by the Hemipterous bat-parasites of the family Polycetenidae and the Dipterous bat-parasites of the family Nycteribiidae. But, at the time when *Loxaspis* was described, no other Cimicid exhibiting this feature was known, since not even the species of *Cimex* which parasitise bats have pseudo-joints. Later in the same year (1912), however, another Cimicid with pseudo-joints in the middle and hind (though not in the front) tibiae was described, namely *Aphrania barys* Rothschild and Jordan (Novit. Zool. xix, p. 353) from Basutoland. The host of this bug was not stated.

*Loxaspis mirandus* was originally found at Kilindini, near Mombasa, in a house the roof of which contained many bats of a species determined as probably *Taphozous hildegardeae*. The bug does not appear to have since been recorded from any other place or host, but Mr. Hugh B. Cott recently handed me some examples