

XXIII HYMENOPTERA, IV: ICHNEUMONIDAE

By CLAUDE MORLEY, F.Z.S., F.E.S., &c., Author of "Fauna of India—Ichneumonidae."

Microgaster luteus, Cam.

Manch. Mem., 1899, p. 199, ♂.

The ♀ is undescribed. It differs from the ♂ in its much stouter antennæ and hind legs, of which the former are apically subclavate; in its cultriform hypopygium extending to the anus; in its stout terebra, which is as long as the whole body; and in having the alar apices more determinately infumate, with a distinct cloud below the broader stigma. Three small males of 6–7 mm. at Sadiya on 27th and 28th November, and a single female of 7 mm. at Kobo, 400 feet, on 3rd December, 1911.

Epirhyssa flavobalteata, Cam.

Manch. Mem., 1899, p. 129.

One small ♂ of only 10 mm. at Rotung, 1400 feet, between 6th and 13th March, 1912.

Xanthopimpla punctata, Fab.

Spp. Ins., 1781, p. 437.

Two males at Sadiya on 27th November, and one female at Dibrugarh between the 17th and 19th of the same month.

Xanthopimpla nursei, Cam.

Fourn. Bombay Nat. Hist. Soc., 1907, p. 592.

A single male at Dibrugarh between the 17th and 19th November, 1911.

Apophua carinata, Morl.

Faun. Brit. India, Ichn., 1913, p. 215.

One ♀ at Sadiya on 27th November, 1911. The undescribed hind legs are testaceous, with both extremities of the tibiæ, apices of femora, and the whole tarsi, black.

Stictolissonota foveata, Cam.

The ♂ is undescribed and the ♀ unknown to me. A single male, found at Sadiya on 23rd November, 1911, differs from the female description (*Tijds. v. Ent.* 1907, p. 107) in having the face

entirely pale; the tenth to seventeenth flagellar joints white, with the remaining twelve apical ones very short and exactly filiform; the metathoracic spot, unplaced by Cameron, is here represented by a large metapleural mark and the whole petiolar area, except the centre of its apex, flavous; apices of all the segments pale and genitalia exerted; the hind legs red with trochanters, extreme base of both the white tarsi and white tibiæ, with apices of the last broadly and of their femora narrowly, and the onyches, deep black. The position of this genus with its single species in the Lissonotides rests solely upon the typical petiolar structure, for the areolet is subquadrate and parallel-sided as in the Mesostenides, though emitting its recurrent nervure from its centre; the unicalcarate front tibiæ and indiscreted clypeus are good features.

Metopius rufus, Cam.

Zeits. Hym.-Dip., 1905, p. 281.

A single female at Dibrugarh between 17th and 19th November, 1911.

Ædematopsis aborensis, Morl., sp. n.

Black with the whole legs, thorax except discally and head except vertically, stramineous; mesonotum rosy; scutellum pale. Head strongly buccate behind, though less elongate than in *Æ. apollo*s, Morl. (*Faun. India*, Ichn. 50), and stramineous with only the vertex from scrobes to occiput, including stemmaticum and excluding orbits, deep black. Antennæ fractae, infuscate with scape whitish beneath. Thorax with pleuræ finely punctate, mesonotum glabrous and strongly glittering, rosy (as in *Æ. ops*, Morl. (*Ichn. Britannica*, iii, 273), its lateral sutures and pronotal disc black; metanotum scabrous with areola strongly elongate, emitting strong and short costulae; basal area short and entire, petiolar area nearly as long as areola and transstrigose. Scutellum and postscutellum flavous, the former finely punctate and laterally margined nearly to its apex. Abdomen parallel-sided and very slender, punctate-rugose with the basal segment roughly aciculate and its spiracles far before the centre; ventral valvulae large, black and exerted. Legs slender, with the somewhat stout hind tibiae hardly infuscate apically and before their base. Wings normal, with the stigma and nervures stramineous. Length, 5 mm. ♂ only.

A single ♂ was captured at Sadiya in north-east Assam by Mr. S. W. Kemp of the Abor Expedition on 28th November, 1911. Type in the Indian Museum. No. $\frac{2146}{20}$.

Allocamptus sinuatus, Morl.

Revis. Ichn. Brit. Mus., 1912, p. 24.

One female was captured at artificial light below Dosing at 1400 feet on 29th January, 1912.

Trichomma decorum, Cam

Anomalon decorum, Cam., *Manch. Mem.*, 1897, p. 24, ♀.

The ♂ has not previously been found; it differs from the ♀ in having the flagellum infusate-testaceous towards the base, the eyes apically rather less convergent, the scutellum discally less distinctly transcarinate, and the hind trochanters with their femoral and tibial base not at all black but the first tarsal joint, though distinctly spatuliform, is similarly pale. Length, ♂ 10, ♀ 12 mm.

This male was taken at Dibrugarh between 17th and 19th November, 1911; a single female is from Sadiya on 28th of the same month. I was recently enabled finally to assign this species to *Trichomma* upon the examination of another female, captured by the late Col Bingham at Kyau Klebin in Upper Burma in Nov. 1900, and now in the Berlin Museum.

Anomalon ? binghami, Cam.

Ann. Nat. Hist., xx, 1907, p. 14, ♂.

One broken and consequently doubtful male was found at Sadiya on 25th Nov. 1911. I have recently examined two of the undescribed female of this species in the Berlin Museum, which were captured in Sikkim by Bingham; it differs from the ♂ in having the inner orbits but obsoletely pale, the terebra fully half as long as the basal segment, with a length of only 18 mm. It is correctly ascribed to the present genus.

Campoplex tyrannus, Cam.

Manch. Mem., 1899, p. 116.

A single small female of 9 mm. was found at Dibrugarh between 17th and 19th November, 1911.

Diocetes apostata, Grav.

Ichn. Europ., iii, p. 510.

Kobo at 400 feet on 9th December, 1911. One female.

Angitia sp.

An indeterminable male was found at Sadiya on 23rd November, 1911.

Tarytia flavidorbitalis, Cam.

Journ. Bombay Nat. Hist. Soc., 1907, p. 589.

With the above *Angitia* was taken a female of this common species.

Thymaris clotho, Morl.

Faun. Brit. India, Ichn., 1913, p. 53.

The second known specimen of this Ceylonese species was captured at Dibrugarh between the 17th and 19th November, 1911. This ♀ differs from the type only in having the two basal segments black with the second only basally rufescent, and the third basally flavidous. The figure in Fauna India is very poor, showing the abdomen too stout, terebra too thick, wings too broad and flagellum much too short; the last is, in fact, a millimetre longer than the whole body.

Diaparsis sp.

One female belonging to this genus was met with at Dibrugarh between the 17th and 19th November, 1911. It is certainly distinct from the only known Indian kind, my *D. caudata*; but its condition precludes description.

Cnemocryptus epistomatus, Morl., sp. n.

A black and shining species with the scutellum and abdominal base white, the legs and abdominal centre red. Head transverse and as broad as thorax, obsoletely punctate with the frons glabrous and excarinate; palpi white; mandibles rufescent with the upper tooth a little the longer and clypeus apically truncate; face closely punctate and centrally tuberculiformly elevated. Antennae stout and black with a broad central white band; of ♂ subattenuate at both extremities with scape white, and flagellar base rufescent, beneath; of ♀ strongly dilato-compressed beyond their centre. Thorax convex and finely punctate, with strong notauli; pronotum and a callosity beneath radices white; mesopleurae sulcate below; metathorax subglabrous with all the areae clearly defined and petiolar area discreted; areola longer than broad, hexagonal, emitting costulae before its centre; spiracles longer than broad, apophyses wanting. Scutellum and postscutellum white, the former glabrous and convex. Abdomen subfusiform, black and slightly pilose with the sixth and following segments white; petiole also white with postpetiole and part of second segment bright red; terebra nearly as long as first segment. Legs red with the anterior of ♂ paler; hind femora and tibiae more or less infusate or black with base of latter rufescent, and the second to fourth tarsal joints with apex of the first pure white. Wings ample and hyaline; radix white, areolet large and parallel-sided, emitting the recurrent nervure from its centre; basal nervure continuous, nervellus geniculate at its lower third. Length, 6-8 mm. ♂ ♀

A single pair was captured at Sadiya on 27th November, 1911, by Mr. S. W. Kemp and is in the Indian Museum. No. $\frac{2157}{20}$.

Camptolynx striatus, Cam.

Berl. Ent. Zeit., iv, 1910, p. 254.

One ♀ of this common species occurred at Sadiya on 23rd November, 1911.

Camptolynx fuscipennis, Cam.

Berl. Ent. Zeit., iv, 1910, p. 253.

A male at Dibrugarh between 17th and 19th November, 1911.

Goryphus maculiceps, Cam.

Melcha maculiceps, Cam., *Spolia Zeylanica*, 1905, p. 110.

Sadiya on 27th November, 1911. One female, with unusually large apophyses.

Goryphus fuscinervis, Cam.

Ancaria fuscinervis, Cam., *Ann. Nat. Hist.*, ix, 1902, p. 205.

Two females were taken at Dibrugarh about the 18th Nov., and at Rotung at 1400 feet on 25th December, 1911; three males occurred at Sadiya on 27th and 28th Nov., and at Dibrugarh about the 18th of the same month.

Silsila fulvipes, Cam.

Manch. Mem., 1903, no. 14, p. 2.

A variety of the ♀, with face black and didymate marks on the clypeus, was taken at Dibrugarh between 17th and 19th November, 1911.

Mesostenoides erythropus, Cam.

Fenenias erythropus, Cam., *Spolia Zeyl.*, 1905, p. 112, pl. A, fig. 14.

One female at Dibrugarh on the same date as the last species

Mesostenoides albomaculatus, Cam. (*nec* Cress.).

Fenenias albomaculatus, Cam., *Ann. Nat. Hist.*, ix, 1902, p. 212.

One female was captured along with the last species.

Friona curvicarinata, Cam.

Trans. Ent. Soc., 1904, p. 109.

Under a leaf-stem of plantain at Upper Rotung on 8th January, 1912, was found a female of this species agreeing with others in the Berlin Museum from Sikkim and the Mepli valley during December, 1893, and in my own collection from 4000 feet at Thandaung in Tenasserim during April, 1898. All these differ from the typical form in having the whole head and thorax entirely brick-

red, which renders it superficially distinct, though close examination shows no structural modifications and it must be treated as a mere colour variety, which I here term var. *rufescens*, var. nov.

***Friona didymata*, Morl., sp. n.**

In the Abor collection I find a ♂ of this species, which I have had for some time described in MS. and now bring forward from an examination of a dozen ♀ ♀ and one ♂, taken in Dehra Dun and near Bhowali, Kumaon, on grass and on the wing in garden, between 26th April and 26th June, 1912, in the United Provinces; and of the above ♂, taken at Dibrugarh about 18th November, 1911.

A black species with stramineous markings and the black hind tarsi centrally white. Extremely like *F. rufipes*, differing in little but size and colouration: face and clypeus black with two dots on the latter, and two dots below scrobes and the central orbits linearly of the former, stramineous; outer and genal orbits not at all pale, or ♂ with a narrow genal line stramineous; ♂ with base of both face and clypeus irregularly and transversely stramineous throughout; anteradical callosities black before tegulæ; mesopleuræ immaculate black, and metapleural pale marks of ♀ very small; hind trochanters of ♀, and coxæ of both sexes, not infusate; hind tarsi black with second and third joints of ♀, and centre of first to base of fifth in ♂, pure white. Length, 9–11 mm. This differs from all Cameron's seven species of the present genus in having the face at most centrally binotated with stramineous in ♀ and apically entirely black in ♂. I have seen one ♀ with the face and clypeus immaculate black, in another the clypeus alone was immaculate and in a third the base of the face, as in the ♂, was subcontinuously stramineous.

There are also examples from Monghyr in Bihar, Mergui in Lower Burma, Calcutta and Trevandrum, in the Indian Museum.

***Friona variipes*, Cam.**

Trans. Ent. Soc., 1904, p. 107.

A female at Kobo, 400 feet, on 3rd December, 1911.

***Cryptus filicornis*, Cam.**

Hedycryptus filicornis, Cam., *Zeits. Hym.-Dip.*, 1903, p. 299; *C. himalayensis*, Cam., *Tr. Ent. Soc.*, 1904, p. 106.

With the last species, a female of this common one occurred at Kobo. It is a true *Cryptus* (sensu Thoms.).

