

STUDIES ON INDIAN ICHNEUMONIDÆ
(HYMENOPTERA)

Part I. Sub-Family PLECTISCINÆ

Part II. Sub-Family COLLYRIINÆ

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Received December 1, 1956

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INTRODUCTION

IN a previous paper* the importance of the parasite family of Ichneumonidæ (Hymenoptera) has been stressed from the point of view of its applied importance in the biological control of insect pests. No work has been done in India in the sub-family Plectiscinæ. Morley (1913) did not mention the sub-family Plectiscinæ at all. This sub-family has now been created according to recent trends in the taxonomic work of this family. All the available references to the various species have been verified and the recent views of the specialists on the synonymy of this group have been adopted.

ZOOLOGICAL NOMENCLATURE

International rules on Zoological nomenclature as supplemented by opinions have formed the basis for this systematic work. All the super-generic names are based on the oldest included genus.

* Studies on Indian Ichneumonidæ, Sub-family Banchinæ Part I, Tribe Glyptini, *Proc. Ind. Acad. Sci.*, 1954, 40, 38.

ACKNOWLEDGEMENT

Taxonomic work of this sub-family has been carried out in the Division of Entomology, Indian Agricultural Research Institute, New Delhi. We are indebted to Prof. Townes, author of *Catalogue and Reclassification of Nearctic Ichneumonidae* for his valuable suggestions and comments. We wish to thank Dr. B. P. Pal, Director, Indian Agricultural Research Institute, for the keen interest he has taken in this research work.

ARRANGEMENT

Superspecific classification and 'Trivial names' have been adopted from Muesebeck and others (1951) and described accordingly.

POSITION OF INDIAN PLECTISCINÆ

Ashmead (1900) placed this sub-family as tribe of Ophioninæ. But this is not new. *Plectiscus* Forst. was placed next before the genus *Porizon* by Marshal in his 1872 catalogue. Besides this Morley considered this sub-family only as a tribe of Ophioninæ and included *Megastylus* Schiödte as one of the genera in *Ichn. Brit.*, 5: 3, (1913). But he placed *Megastylus* Schiödte, *Hyperacmus* Holm. and *Seticornuta* Morley in Tryphoninæ in *Fauna Brit. India, Hymen.*, 3, (1913). Ashmead (1900) said, "This tribe, as at present defined, is scarcely a natural minor group since it comprises several discordant genera, with affinities allying them to genera in the Cryptinæ, the Tryphoninæ, and the Pimplinæ. Davis without stating his reasons for so doing, placed the group with Tryphoninæ. This is clearly an unnatural position for the majority of the genera." Even by placing this in Ophioninæ Ashmead said, "The true position of the tribe Plectiscini which as at present constituted is evidently an unnatural group, is still doubtful. It has affinities allying it with the Tryphoninæ, Cryptinæ and other of the sub-families." Cushman and Rohwar (1920) while dealing with Holarctic tribes of Ichneumon flies said, "The Plectiscini, Banchini and Paniscini are notable as bones of contention."

So far no work has been done on Indian Plectiscinæ. The genus *Megastylus* Schiödte placed in tribe Tryphonides and the genera *Hyperacmus* Holm. and *Seticornuta* Morley placed under tribe Exochides by Morley (1913) have been withdrawn on account of their different host relationship and adult characters. All these three genera have now been placed under this sub-family.

The members of this sub-family are recognised by the following characters:

Head usually small; clypeus always strongly discreted and invariably strongly convex with its sides generally compressed; front wing with stigma large broadly triangular, or broadly ovate; metathorax not produced into a neck at the apex; Spiracles small and circular; second recurrent vein joining the cubitus behind the transverse cubitus or interstitial with it; the cubital nerve in hind wing distinct; hind tibia a little incrassate and usually more or less constricted at the base; the tarsi always slender with claws simple not pectinate rarely large and curved.

We have almost no information on the economy of this sub-family. Fungivoridæ are believed to be its usual hosts as given by Muesebeck and others (1951). Its members are also said to prey exclusively upon Diptera mainly of the Nematoceros families Mycetophilidæ and Tipulidæ Morley (1913).

Systematically Arranged Catalogue of Indian Species

Hyperacmus Holmgren

Hyperacmus Holmgren, *Svenska. Vet. Akad. Handl.*, **1**: 322, (1855), (type of the genus: *Exochus crassicornis* Grav.). Dalla Torre, *Cat. Hymen.*, **3**: 222, (1901-02). Morley, *Fauna Brit. India, Hymen.*, **3**: 308, (1913).¹ Townes, *Mem. Amer. ent. Soc.*, **11** (2): 545, (1945). Muesebeck, Krombein, Townes and others, *U.S. Dep. Agric. Monograph*, **2**: 345, (1951).

¹Range. North & Central Europe, Himalayas, Connecticut.

Nothaima Cameron, *J. Bom. Nat. Hist. Soc.*, p. 428, (1902).

crassicornis (Gravenhorst)

Exochus crassicornis Gravenhorst, *Ich. Eur.*, **2**: 347, (1829).

¹Punjab: Simla, United Provinces: Mussoori, Europe.

Hyperacmus crassicornis Holmgren., *Sevenska. Vet. Akad. Handl.*, **1**: 322, (1855). Brischke, *Schr. Phys. öken. Ges. Königsb.* p. 410, (1871); *Schr. Nat. Ges. Danz.*, p. 108, (1878). Thomson, *Deut. Ent. Zeit.*, p. 199, (1887). Dalla Torre, *Cat. Hymen.*, **3**: 222, (1901-02). Morley, *Fauna Brit. India, Hymen.*, **3**: 309, (1913), ♂, ♀¹. Townes, *Mem. Amer. ent. Soc.*, **11** (1), 545, (1945).

Seticornuta Morley

Seticornuta Morley, *Fauna Brit. India, Hymen.*,
3: 310, (1913),¹ (type of genus: *S. albical-*
car Morley).

¹Range. Burma &
Ceylon.

albicalcar Morley

Seticornuta albicalcar Morley *Fauna Brit.*
India, Hymen., 3: 310, (1913). ♀¹.

¹Tenasserim: Mergui;
Ceylon: Kandy.

Megastylus Schiödte

Megastylus Schiödte, *Rev. Zool. (Soc. Cuv.)*,
1: 139, (1838); *Guer. Mug. Zool. Ins.*, pl. 6,
(1839), (type of genus: *M. Cruentator* Schiödte).
Dalla Torre, *Cat. Hymen.*, 3: 15, (1901-
1902). Morley, *Ich. Brit.*, 5: 17, (1913);
Fauna Brit. India, Hymen., 3: 341, (1913).¹
Townes, *Mem. Amer. ent. Soc.*, 11 (2): 540,
(1945). Muesebeck, Krombein, Townes
and others, *U.S. Dept. Agric. Monograph*,
2: 343, (1951).

¹Range. Palæarctic
& Nearctic regions.

Brephoctonus Forster, *Verh. Naturh Ver. Preuss.*
Rheinl., 25: 159, (1868).

longicoxis (Cameron)

Letosha longicoxis Cameron, *J. Bom. Nat.*
Hist. Soc., p. 785, (1909). ♀ as ♂.

Megastylus longicoxis Morley, *Fauna Brit.*
India, Hymen., 3: 341, (1913). ♂¹.

¹Punjab: Simla.

Sub-Family COLLYRIINÆ

Collyria Schiödte put under the tribe Acæni-
tini of the sub-family Pimiplinæ by Mor-
ley (1913) in *Fauna Brit. India, Hymen.*, 3,
was found to be an anomalous genus of
uncertain affinities. It is not very correct
with our recent knowledge in taxonomic
research to place it in Acænitini as has
been done by Morley (1913). This sub-
family was put on record for the first time
in India which contains the only genus
Collyria Schiödte.

Collyriinæ Muesebeck, Krombein, Townes and others, *U.S. Dept. Agric. Monograph*, **2**: 341, (1951).

Collyria Schiödte

Pachymerus Gravenhorst, *Ich. Eur.*, **3**: 721, (1929) Preocc.

Collyria Schiödte, *Mag. Zool.*, (Ser. 2) **1**: 10, pl. 6-10 (1839), (type of genus: *Pachymerus calcitrator* Grav.). Morley, *Ich. Brit.*, **3**: 261, (1907); *Fauna Brit. India, Hymen.*, **3**: 45, (1913).¹ Muesebeck, Krombein, Townes and others, *U.S. Dept. Agric. Monograph*, **2**, 341, (1951).

¹Range. Europe, North Africa, China & Ceylon.

gracilipes (Mots.)

Pachymerus gracilipes Motschulsky, *Bull. Soc. Imp. Nat. Moscon*, p. 30, (1863).

Collyria gracilipes Morley, *Fauna Brit. India, Hymen.*, **3**: 47, (1913).¹

¹Ceylon: summit of Mount Patannos.

unifasciatus (Mot.)

Pachymerus unifasciatus Motschulsky, *Bull. Soc. Imp. Nat. Moscon*, p. 30, (1863).

Collyria unifasciatus Morley, *Fauna Brit. India, Hymen.*, **3**: 46, (1913).¹

¹Ceylon: Nuwara Eliya.