TWO NEW SPECIES OF ENCLISIS TOWNES FROM INDIA (Hymenoptera: Ichneumonidae)

J. K. JONATHAN

Zoological Survey of India, M-Block, New Alipore, Calcutta 700 053

INTRODUCTION

The genus *Enclisis* Townes belongs to the tribe Ischnini of the subfamily Mesosteninae, family Ichneumonidae. It contains small to medium species, measuring 7-8 mm in length. This is a small genus previously known from Palaearctic region (Townes, 1970: 169).

In Palaearctic region this species is represented by three species viz., *Enclisis macilentus* (Gravenhorst), *Enclisis alpicola* Habermehl, and *Enclisis vindex* Tschek. This genus is recorded here for the first time from India. Two new species are described here from Himachal Pradesh in India.

SYSTEMATIC ACCOUNT

Genus Enclisis Townes

1970. Enclisis Townes, Mem. Amer. Ent. Inst., 12: 169. Type: Cryptus macilentus Gravenhorst. Original designation.

Body moderately slender. Clypeus of moderate size, about 2.3x as wide as long, moderately convex, its apex with a weak median tooth or blunt angulation (Fig. 1, b). Malarspace about 0.7 to 1.0x as long as basal width of mandible. Mandible short with equal teeth. Apical 0.3 of female flagellm not enlarge, not flattened below, blunt and truncate at the end. Mesoscutum polished or weakly mat, its punctures small and fine. Notaulus moderately strong, reaching slightly beyond the center of mesoscutum. Propodeal spiracle circular. Propodeum a little elongate, its apical transverse carina complete, a little stronger sublaterally forming weak crest. Base of hind coxa deep, with a weak basal impression on outer side below its attachment but without a distinct groove. Venation as shown in the figure 1, a; areolet small to large and pentagonal, the second recurrent vein distinctly inclivous. First tergite moderately slender, without a lateral projection at base, the spiracle only slightly behind the middle, its ventrolateral carina sharp and complete, dorsolateral carina sharp to rather blunt (complete or almost so), and median dorsal carinae distinct on petiole, becoming obsolescent near center of postpetiole. Second tergite mat with fine, dense weak punctures. Ovipositor sheath about 0.9 to 1.4 times as long as hind tibia. Ovipositor compressed, its tip heavy, upper valve evenly arched with a distinct nodus, lower valve with 8-10 teeth (Fig. 1, c).

Length: Q: 7.5-8 mm; fore wing 6-6.5 mm; ovipositor sheath 2.5-2.8 mm.

Type-species: Cryptus macilentus Gravenhorst.

This genus is close to *Dihelus* Townes in having spiracle of first tergite only slightly behind the middle; ovipositor tip compressed, its ridges subvertical. It is also close to *Cyclaulus* Townes, in having lower tooth of mandible of the same length as upper tooth; center of apical margin of clypeus with a single tubercle or tooth. However, it can be easily distinguished by having hind end of sternaulus curved weakly downward toward base of middle coxa.

The Indian species can be identified by the following key:

Key to the species of Enclisis

- 1. Body largely black; seventh to nineth flagellar segments, face with small lateral spots, clypeus with a median spot and pronotal collar above, whitish. Legs with fore and middle coxae and trochanters, dark reddish-brown. Hind coxa and trochanter, black. Body mat, dull, densely punctate, puncture running into striations or wrinkles. Areolet in fore wing large, wider than high, second recurrent vein close to first intercubitus 1. nigricoxis, sp. nov.

1. Enclisis nigricoxis, sp. nov.

This species can be recognized by having largely black body, especially all the coxae and trochanters black. Body densely punctate, punctures running into striations; areolet moderately large, wider than high; second recurrent vein close to first intercubitus.

Female: Body largely mat and subpolished. Face with fine dense punctures, punctures running into fine striations or wrinkles. Clypeus subpolished with sparse moderate sized punctures. Malarspace strongly granulose, 0.75x the basal width of mandible. Mandible except the teeth moderately strongly rugoso-punctate. Frons and vertex strongly mat and densely punctate, punctures forming wrinkles, area just behind antennal sockets smooth and shiny. Temple subpolished, with moderately large closely placed punctures. Pronotum and mesoscutum strongly mat, finely wrinkled with weak indistinct punctures, epomia very short. Scutellum shiny, with sparse small sized punctures, its lateral carina more or less confined to its base. Metascutullum smooth and shiny. Mesopleurum densely punctate, punctures fine and running into fine wrinkles, below sternaulus subpolished, with fine dense punctures, speculum largely smooth or polished except above with coarse deep close punctures, prepectal carina extending 0.7x the height of mesopleurum. Metapleurum moderately strongly puncto-wrinkled, juxtacoxal carina weak. Propodeum subpolished, mat, between basal carina and apex finely wrinkled, basad of basal carina granulose with coarse, sparse, shallow punctures, spiracles small, oval. First abdominal tergite subpolished, with sparse, shallow moderate sized punctures, tergites subapically with longitudinally depressed area, basally smooth. Second, third and also fourth tergites mat with dense, fine

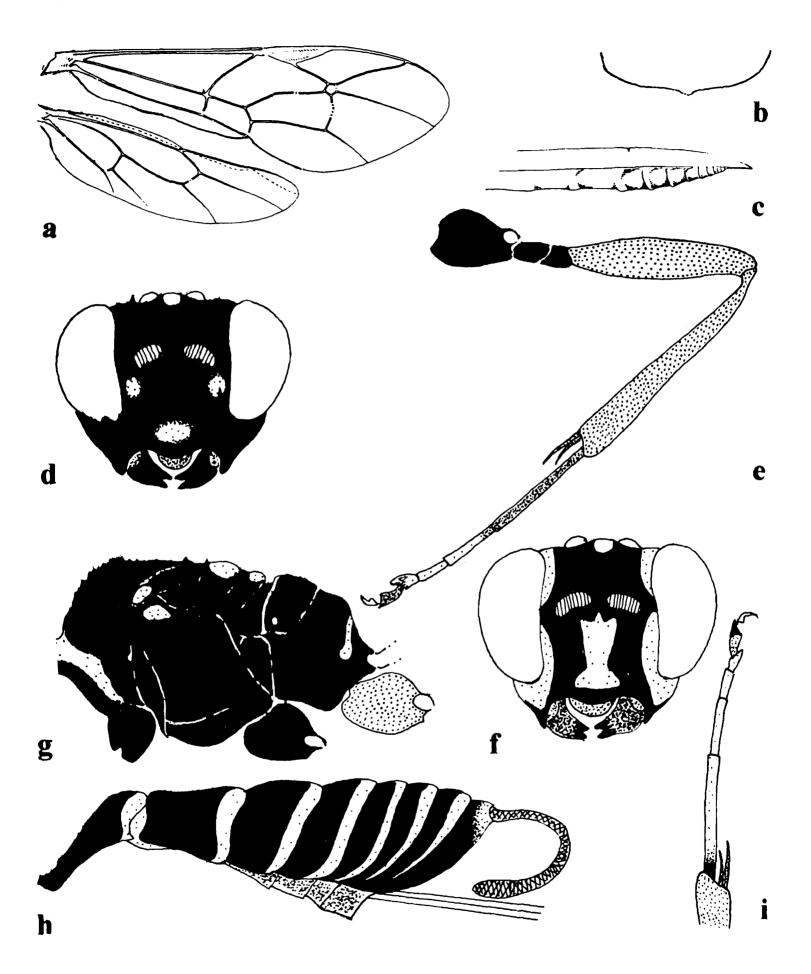


Fig. 1 Enclisis Townes: a, wing venation of fore and hind wings; b, clypeus showing median tooth; c, ovipositor tip. E. nigricoxis: colour pattern: d, head front view; e, hind leg. E. ruficoxis: colour pattern: f, head front view, g, thorax side view; h, abdomen side view; i, hind tarsus.

punctures, following tergites mat and subpolished. Fore wing with areolet moderately large, penatagonal, about 1.5x as high as the portion of second recurrent vein above bulla. Nervellus intercepted at its basal 0.4. Ovipositor sheath about 1.1x as long as hind tibia.

Black. Antennae with 7th to 9th segments white above. Face with two small lateral spots and clypeus with median basal spot, white (Fig. 1, d). Head black, except face and temple with reddish hue. Thorax black, except pronotal collar behind neck whitish. Abdomen dark reddish-brown, fore and middle coxae and trochanters dark reddish-brown, their femora and tibiae yellowish-brown and tarsus brown to blackish-brown. Hind coxa and trochanter black, femur and tibia reddish, except tibia clouded with dark brown, tarsus dark brown except for a white band on second to fourth tarsal segments (Fig. 1, e). Wings clear hyaline.

Male: Unknown.

Length: Q, 7.5 mm. Fore wing 6.0 mm. Ovipositor shealh 2.5 mm.

Holotype Q, India: Himachal Pradesh: Rahla, 2743 m, in N-W. Himalaya, 5.vi.1970, Coll. T. Chand, No. K. 268 (Z.S.I., Calcutta).

Distribution: India: Himachal Pradesh.

2. Enclisis ruficoxis, sp. nov.

This species is characterized by having all coxae and trochanters red. Body largely rugoso-punctate. Areolet small, higher than wide, second recurrent vein close to second intercubitus.

Female: Body largely subpolished. Face with dense, shallow moderate size punctures, punctures tending to be sparse and indistinct towards the eye margin. Clypeus with sparse, small and weak punctures, apically smooth and shiny. Mandibles except the teeth longitudinally striate with punctures inbetween the striae. Malarspace granulose, 0.7x the basal width of mandible. Frons above with dense and moderately deep small punctures, punctures running into fine rugosities, towards the antennal sockets smooth and shiny, along the eye margin largely smooth except for a few minute shallow punctures. Vertex minutely and closely punctate. Temple minutely and sparsely punctate, shiny. Pronotum in the middle coarsely wrinkled, upper margin with dense, moderate sized punctures, pronotal collar shiny, weakly and finely striato-punctate, epomia short. Scutellum with sparse, shallow and fine punctures, lateral carina more or less confined to its base. Metascutellum shiny, with a few indistinct punctures. Mesopleurum largely rugoso-wrinkled, mesopleurum above and near speculum with large, deep and close punctures, below sternaulus and prepectus with dense, small sized punctures, at places punctures running into rugosities. Prepectral carina extending almost up to the base of subtegular ridge; speculum smooth and polished; subtegular ridge shiny, indistinctly punctate. Metapleurum finely rugoso-punctate, juxtacoxal carina not well defined. Propodeum between basal carina and apex finely wrinkled, at some places appears to be reticulo-punctate, basad of basal carina finely reticulo-punctate, basal carina with a median longitudinal fairly broad ridge. First tergite medially ruguloso-punctate, towards base and apex rugulose with a few shallow punctures, extreme apex and base subpolished, with sparse to close, shallow punctures. Second and third tergites mat with dense fine shallow

punctures, following tergites mat and subpolished. Fore wing with areolet oblong, sides strongly convergent, about 1.0x as high as the portion of second recurrent vein above bulla. Second recurrent close to second intercuitus. Nervelllus in hind wing intercepted at its basal 0.35. Ovipositor sheath about 1.1x as long as hind tibia.

Black. Antennae with 5th to 9th segments above white; scape in front yellowish-brown. The following are yellow: Face with a triangular mark in the middle and along the eye margin, clypeus, frons and vertex along the eye margin, temple and malarspace with a continuous mark along eye margin (Fig. 1, f), pronotal collar, scutellum, metascutellum, tegula, subtegular ridge, bow-shaped mark on propodeum (Fig. 1, g), apices of all the abdominal tergites (Fig. 1, h). Legs in general deep red, their femora, tibiae and tarsi tending to be reddish-brown, except hind tarsus whitish (Fig. 1, i) with the extreme base of first segment and extreme apex of fifth segment blackish. Wings clear hyaline.

Male: Unknown.

Length: Q, 8 mm. Fore wing 6.5 mm. Ovipositor sheath 2.8 mm.

Holotype: Q, India: Himachal Pradesh: Narkanda, 2700 m, 20.vi.1972, Girish Chandra, No. G. 17 (Z.S.I., Calcutta).

Distribution: India: Himachal Pradesh.

SUMMARY

This paper deals with two new species of *Enclisis* Townes viz., *Enclisis nigricoxis* and *Enclisis ruficoxis* from India.

The genus *Enclisis* Townes has been recorded from Palaearctic region. This is the first record of this genus from India.

ACKNOWLEDGEMENTS

I am grateful to Prof. (Dr.) V K. Gupta, Department of Entomology, University of Florida, U.S.A., this study would not have been possible without his encouragement and guidance. I am thankful to Dr. J. R. B. Alfred, Director, Zoological Survey of India, Calcutta for providing me all necessary facilities to carryout this research work.

REFERENCES

Townes, H. 1970. Genera of Ichneumonidae, Part 2. Mem. Amer. Ent. Inst. 12: 1-537.