

NOTES ON SOME HITHERTO UNKNOWN INDIAN HYMENOPTERA.

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When I was working in the Entomological Section of the Zoological Survey of India, Mr. S. Ribeiro, the Entomological Assistant, drew my attention to the fact that certain Hymenopterous insects have been recorded from one sex only by Bingham in the Fauna of British India, Hymenoptera, Volume I (1887). Since the publication of this work examples of the unknown sex have been obtained in India and are now in the collections of the Indian Museum. I record below the occurrence of the unknown sex of such insects, adding short notes on their structure.

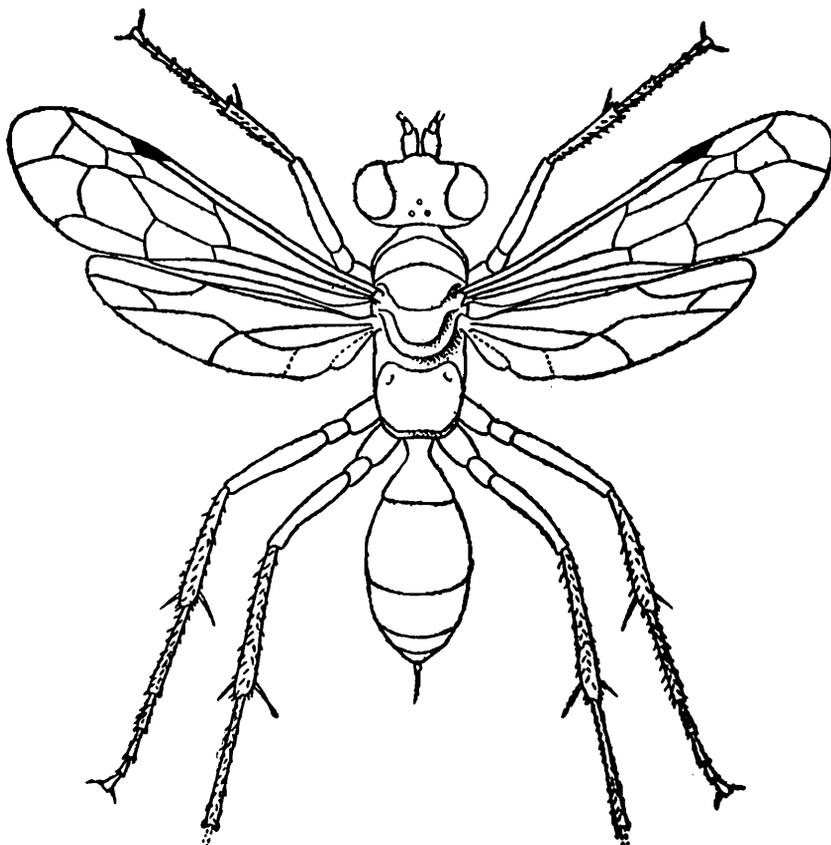
Family POMPILIDAE.

Genus **Pseudagenia** Kohl.

Pseudagenia bipennis Sauss.

1887. *Pseudagenia bipennis*, Bingham, *Fauna of British India*, Hymenoptera, p. 116; the male only.

♀. The female is stouter and larger than the male. The second abdominal segment is twice as long as the third, while in the male the



TEXT-FIG. 1.—*Pseudagenia bipennis*, ♀ × 5.

second abdominal segment is only slightly longer than the third. The clypeus and the sides of the face in front (the genae) are white; the wings, as in the male, are hyaline. The ovipositor is visible externally and is about 2 mm. in length; it is thicker at the base and tapers in the distal region.

Length 12 mm. Collected by Bingham in August, 1898 in Tenasserim, Lower Burma. There is only one specimen in the collection of the Indian Museum.

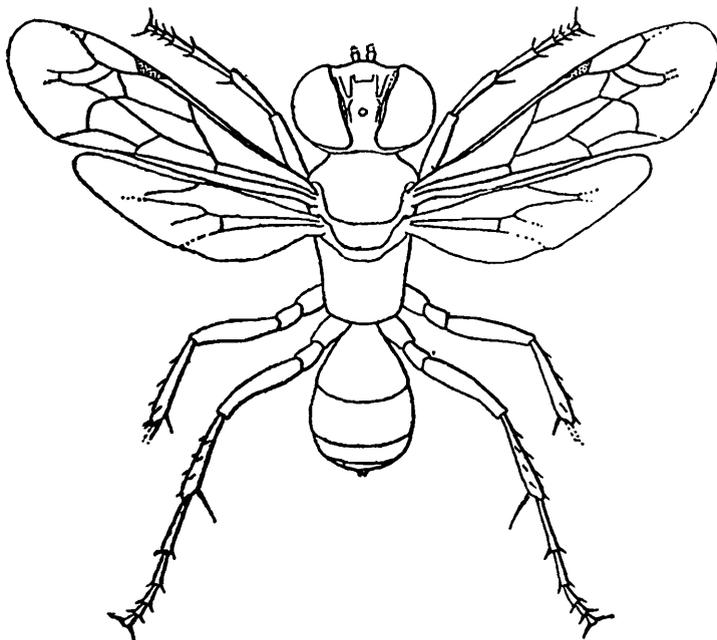
Family SPHEGIDAE.

Genus *Larra* Latr.

Larra tisiphone Smith.

1887. *Larra tisiphone*, Bingham, *Fauna of British India*, Hymenoptera, p. 198; the female only.

♂. There is very little difference between the two sexes. In the male the abdomen is narrow and shorter than the head and thorax together.



TEXT-FIG. 2.—*Larra tisiphone*, ♂ × 5.

Length 9 mm. Collected by Bingham in December, 1897 in Tenasserim, Lower Burma. One specimen in the collection of the Indian Museum.

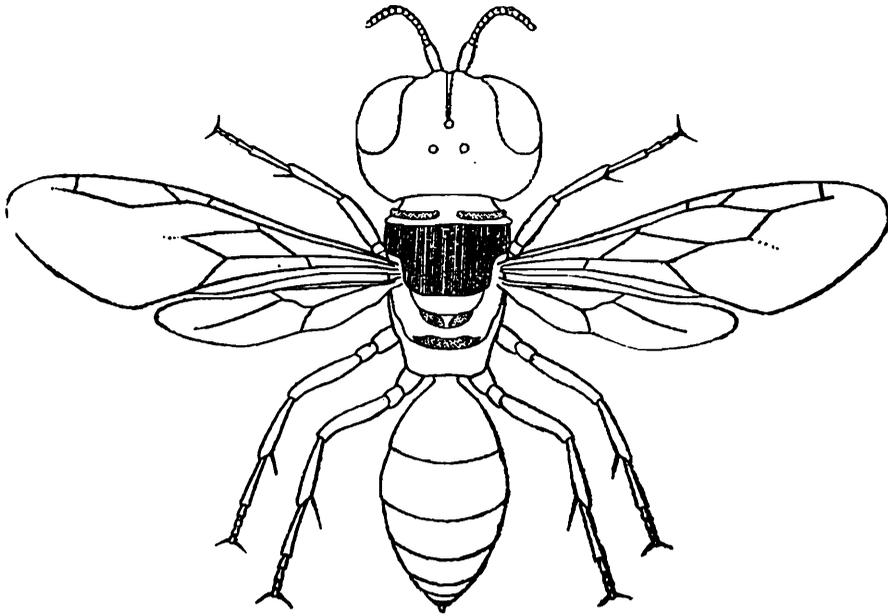
Genus *Crabro* Fabr.

Crabro palitans Bingham.

1887. *Crabro palitans*, Bingham, *Fauna of British India*, Hymenoptera, p. 329; the female only.

♂. The male is much smaller than the female. The abdomen is much smaller than the head and thorax together, whereas in the female the abdomen is as long as the head and thorax. Another striking difference between the two sexes is that in the male there are no lateral spots on any of the abdominal segments.

Length 7 mm. Collected by Bingham in October, 1898 at Moulmein in Burma. Two specimens in the collection of the Indian Museum.



TEXT-FIG. 3.—*Crabro palitans*, ♂ × 5.

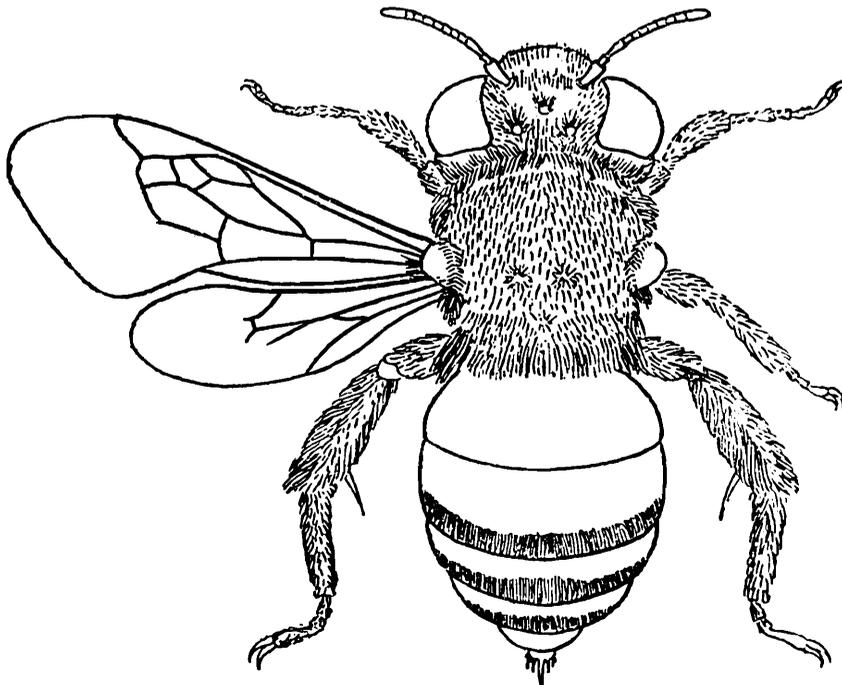
Family APIDAE.

Genus *Anthophora* Latr.

Anthophora crocea Bingham.

1887. *Anthophora crocea*, Bingham, *Fauna of British India*, Hymenoptera, p. 526; the male only.

♀. In the male the head and thorax are covered above with dense griseous pubescence but in the female the pubescence is of a rather blacker



TEXT-FIG. 4.—*Anthophora crocea*, ♀ × 5.

tint. The two black patches, below the antennae, present in both the sexes, are much larger in the female. The bands in the abdominal

region in the female are of a deep red colour, whereas in the male these are yellow. The dorsal surface of the abdominal segments (the tergites) in the male are convex but in the female they are more or less flattened.

Length about 13 mm. Collected by Bingham in June, 1898 at Taungoo in Tenasserim. One specimen in the collection of the Indian Museum.

I must express my sincere thanks to Mr. S. Ribeiro, who drew my attention to the above named Hymenoptera. My best thanks are also due to Lt.-Col. R. B. Seymour Sewell, I.M.S., Director, Zoological Survey of India, for allowing me to work in his laboratories, and to Dr. H. S. Pruthi, Officer-in-Charge of the Entomological Section for his constant guidance and advice in my research work.