

# ENTOMOLOGICAL SURVEY OF HIMALAYA\*

PART 22.—NOTES ON SOME HYMENOPTERA (INSECTA) COLLECTED BY THE THIRD ENTOMOLOGICAL EXPEDITION TO THE NORTH-WEST HIMALAYAS (1956)\*\*

By

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In an earlier paper I reported on the Hymenoptera collected by the first and second Entomological Expeditions to the North-West Himalayas, organised by Prof. Dr. M. S. Mani of the School of Entomology, St. John's College, Agra. In this paper I deal with a part of the Hymenoptera brought back by the Third Entomological Expedition. 13 species belonging to families Tiphidae, Vespidae, Eumenidae, Sphecidae, Bombidae and Xylocopidae are reported here; of these, 11 species are being recorded for the first time from the region.

There is a distinct Palaearctic facies in the material, but no European affinity is seen. The majority of the specimens are of a general darker tone of colour than from other areas.

I have also availed myself of the opportunity of examining the material from this region already in the possession of the Zoological Survey of India.

My thanks are due to Dr. M. S. Mani for guidance and encouragement, and to the Director, Zoological Survey of India, for facilities for work.

## Superfamily SCOLIOIDEA

### Family TIPHIIDAE

#### *Tiphia rufipes* Smith

1855. *Tiphia rufipes* Smith, *Cat. Hymen. Brit. Mus.*, 3, p. 83.

1897. *Tiphia rufipes*, Bingham, *Fauna Brit. India, Hymen.*, 1, p. 61.

2♀♀, Coll. Nos. 685·1/56 and 685·2/56. Sta. No. 5: Meadow with a hill to the east of the left bank of River Beas, 1·5 kilometres south of the Manali bridge on the Manali-Hamta mule track, with cultivated farms, Manali (Kulu Valley); altitude 2000m., on low vegetation in paddy fields, cloudy day. Coll. V K. Gupta, 25-vi-1956.

The central propodeal carina in specimen No. 685·2/56 does not reach up to the apex of propodeum. Colour of antennae, mandibles and tarsi darker, femora more reddish and wings more infumated than in examples from other areas. Size: 7-13 mm.

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\*\*All the collections made by the three expeditions are at present in the Zoological Survey of India, Calcutta.

There are 3 examples from Kangra Valley, 1370m. in the Z.S.I. collection.

The species was previously known only from N. India and Burma. This is the first record from the N.-W. Himalayas.

### **Tiphia consueta** Smith

1897. *Tiphia consueta* Smith, In : Bingham, *Fauna Brit. India, Hymen.*, 1, p. 61.

1♀, Coll. No. 899·2/56. Sta. No. 3 : Manali (Kulu Valley), Plantation of Willow and *Alnus nitida* on the right bank of River Beas, 1·6 kilometres south of Manali Post & Telegraph Office on the Manali-Kulu Motor Road. Forest floor with dense growth of stinging nettles and some wild barberry ; altitude 2000m. Coll. R.L. Kotpal, 24-vi-1956.

I have before me 4 examples from Kangra Valley 1370m. in the Z.S.I. collection.

Previously recorded only from Ceylon. The species is being recorded here for the first time from the N.-W. Himalayas.

## Superfamily VESPOIDEA

### Family VESPIDAE

### **Polistes maculipennis** Saussure

1897. *Polistes maculipennis* Saussure, In : Bingham, *Fauna Brit. India, Hymen.*, 1, p. 396.

1 example, Coll. No. 632·3/56. Sta. No. 50 : Purana Khoksar Village (Lahoul Valley), Kuth field, 1·5 kilometres from P.W.D. Rest House on right bank of River Chandra ; altitude 3200m. In bright sunshine. Coll. V.K. Gupta, 9-vi-1956.

There are 60 examples of this species from : Chitral, 1830m. ; Kangra Valley, 1370m. ; Srinagar, 1830m. ; Chamba Valley ; Simla Hills ; Mussoorie, 2213m. ; Nainital, 1830m. ; Nepal ; Borneo and W. China in the Z.S.I. collection.

Previously recorded only from Sikkim, Assam, Tenasserim and Java. This is the first record from the N.-W. Himalayas.

### **Polistes adustus** Bingham

1897. *Polistes adustus* Bingham, *Fauna Brit. India, Hymen.*, 1, p. 397.

4 examples, Coll. Nos. 678·1/56, 678·60/56, 1043/56 & 891/56. Sta. No. 3 : Manali (Kulu Valley), plantations of Willow and *Alnus nitida* on the right bank of River Beas, 1·5 kilometers south of Manali Post & Telegraph Office on the Manali-Kulu Motor Road. Forest floor with dense growth of stinging nettles and some wild barberry ; altitude 2000m. Coll. V.K. Gupta (2 exs.), S. Singh (1 ex.) and R.L. Kotpal (1 ex.), 24-vi-1956.

The punctation on the mesonotum is rather deep and coarser than described by Bingham (*loc. cit.*).

In the Z.S.I. collection there are 15 examples of this species from Darjeeling, 2134m.-2438m. ; Nepal ; Kumaon, 1370m. ; and Mussoorie.

This species was previously known only from Sikkim, 1830m. The present record extends the range of this species to the N.-W. Himalayas.

**Polistes** sp.

1 example, Coll. No. 1302/56. Sta. No. 58 : Katrain (Kulu Valley), orchard opposite Circuit Rest House, 1370 metres. Coll. V.K. Gupta, 27-vi-1956.

The specimen comes near *Polistes sulcatus* Smith<sup>1</sup>, but differs in (i) the pronotum having striae laterally ; (ii) mesonotum having a black streak in the anterior middle ; and (iii) sides of thorax being not black. In the latter character and in size (2mm.) the specimen approaches close to *P. stach*<sup>2</sup> Fabr. The material is not adequate for a definite specific identification.

**Vespa flaviceps** Smith

1897. *Vespa flaviceps* Smith, In : Bingham, *Fauna Brit. India, Hymen.*, 1, p. 406.

1 ♀, Coll. No. 601·35/56. Sta. No. 2 : Willow plantation and Pine Nursery in the compound of the Forest Rest House in Manali (Kulu Valley), near a slow stream at a short distance from the right bank of River Beas ; altitude 2000m. Coll. V.K. Gupta, 20-v-1956.

In the Z.S.I. collection there are 14 examples of this species from Simla, 2133m. ; Mussoorie ; Nainital ; and Nepal.

Previously known only from Kumaon, Sikkim and Tenasserim. This is the first record of the species from the N.-W. Himalayas.

## Family EUMENIDAE

**Eumenes punctata** Saussure

1852. *Eumenes punctata* Saussure, *Mon. Guep. Sol.*, p. 37.

1897. *Eumenes punctata*, Bingham, *Fauna Brit. India, Hymen.*, 1, p. 339.

5 ♂♂, Coll. Nos. 1317·1/56, 1317·3/56, 1349·2/56, 1349·3/56 and 1349·4/56, and 1 ♀, Coll. No. 1349·1/56. Sta. No. 2 : Willow plantation and Pine Nursery in the compound of the Forest Rest House, Manali (Kulu Valley), at a short distance from the right bank of River Beas ; altitude 2000m. Coll. V.K. Gupta, 1-3-vii-1956.

Instead of two yellow spots on the clypeus in female, there is a semi-lunar yellow band on the basal portion and a yellow spot on each side below the tegulae. This spot is absent in the males before me ; the clypeus of males is entirely yellow.

In the Z.S.I. collection there are 4 examples from Kangra Valley, 1370m. Previously recorded only from Kumaon, Sikkim, Burma and Tenasserim. This is the first record from the N.-W. Himalayas.

## Superfamily SPHECOIDEA

## Family SPHECIDAE

**Ammophila punctata** Smith

1856. *Ammophila punctata* Smith, *Cat. Hymen. Brit. Mus.*, 4, p. 218.

1897. *Ammophila punctata*, Bingham, *Fauna Brit. India, Hymen.*, 1, p. 233.

4 ♂♂, Coll. Nos. 601·27/56, 601·33/56, 601·34/56 and 601·38/56. Sta. No. 2 : Willow plantation in the compound of Forest Rest House, Manali (Kulu Valley). Coll. V.K. Gupta, 20-v-1956.

<sup>1</sup> Smith, *Trans. ent. Soc. (N.S.)* 2, p. 38 (1852).

<sup>2</sup> Fabricius, *Spce. Ins.* 1, p. 461.

1 ♂, Coll. No. 643/56. Sta. No. 39 : Chhatru ; extensive alpine meadow on right bank of River Chandra at entrance to Purana Khoksar Nal (Lahoul-Spiti Valley) opposite Sta. 34 and about 15m. above river, with torrents running through, camping ground with P.W.D. Rest House ; altitude 3650m. Coll. V.K. Gupta, 12-vi-1956.

The examples from Manali were caught while entering their burrow in hard ground in bright sunshine. There were three burrows close to each other and the species was hovering near them. The example from Chhatru was caught on low vegetation in bright sunshine.

In the Z.S.I. collection there are 4 examples from Bhimtal (Kumaon), 1370m. ; and Nepal : Nagarkote, Soondrijal and Chitlong.

This species was previously known only from North India, Mussoorie, Sikkim and Burma. This is the first record from the N.-W. Himalayas.

#### ***Ammophila brevipennis* Bingham**

1897. *Ammophila brevipennis* Bingham, *Fauna Brit. India, Hymen.*, 1, p. 232.

1 ♂, Coll. No. 685·1/56. Sta. No. 5 : Manali (Kulu Valley) ; meadow with a hill to the east on the left bank of River Beas, 1·6 kilometres south of the Manali bridge on the Manali-Hamta mule track with cultivated farms ; altitude 2000m. Collected on vegetation in paddy fields ; cloudy day. Coll. V.K. Gupta, 25-vi-1956.

Bingham (*loc. cit.*) has described only the female. The male differs as below :—

Head and thorax more densely pilose ; shallow furrows on each side above tegulae indistinct ; petiole black in basal half.

The species was originally described only from Bombay. This is the first record from the N.-W. Himalayas.

#### ***Ammophila hirticeps* Cameron**

1889. *Ammophila hirticeps* Cameron, *Mem. Manchester lit. phil. Soc.*, (4)2, pp. 94, 99.

1897. *Ammophila hirticeps*, Bingham, *Fauna Brit. India, Hymen.*, 1, p. 234.

2 examples, Coll. Nos. 632·1/56 and 632·2/56. Sta. No. 50 : Purana Khoksar Village (Lahoul Valley), Kuth field, 1·5 kilometres from P.W.D. Rest House on right bank of River Chandra ; altitude 3150m., in bright sunshine. Coll. V.K. Gupta, 9-vi-1956.

The base of the 5th segment is black and reddish only at the sides. Previously recorded only from Gilgit. This is the first record from the N.-W. Himalayas.

### Superfamily APOIDEA

#### Family BOMBIDAE

#### ***Bombus tunicatus* Smith**

1852. *Bombus tunicatus* Smith, *Trans. ent. Soc. (N.S.)*, 2, p. 43, pl. viii, fig. 7.

1922. *Bombus lapidarius tunicatus*, Dover, *Rec. Indian Mus.*, 24, p. 88.

1935. *Bremus tunicatus*, Friese, *Rec. Indian Mus.*, 37, pp. 339, 350.

6 examples (workers), Coll. Nos. 1442·1/56, 1442·2/56, 1442·3/56, 1442·4/56, 1442·5/56 and 1442·6/56. Near Sta. No. 2 : In compound of Forest Rest House, Manali (Kulu Valley) just in front of Rest House on polyhock ; altitude 2000m. Coll. S. Singh, 6-vii-1956.

The examples were collected hovering over Holyhock flowers in sunshine.

This species has a wide range of distribution extending all along the Himalayas from Gilgit to Nepal and Calcutta. In the North-West Himalayas it has been known from Chamba Valley and Dalhousie, 2134m. This is the first record from Manali (Kulu Valley). The vertical distribution of the species from the plains of Calcutta to an altitude of 3050m. in Gilgit is also interesting.

#### ***Bombus rufofasciatus* Smith**

1852. *Bombus rufofasciatus* Smith, *Trans. ent. Soc. (N.S.)*, 2, p. 48.

1955. *Bombus rufofasciatus*, Gupta, *Agra Univ. J. Res. (Sci.)* 4, p. 756.

1 ♀, Coll. No. 973/56. Sta. No. 18 : Marhi, Alpine meadow at the point of bifurcation of the mule track to Rohtang and the foot path to the frozen lake. Facing south, altitude 3600m. Coll. S. Singh, 29-v-1956.

1 example, Coll. No. 639·1/56. Sta. No. 5 : Manali, meadow to the east on the left bank of River Beas, 1·6 kilometres south of Manali bridge and on the Manali-Hamta mule track with cultivated farms ; altitude 2000m.

The example bearing Coll. No. 685·6/56 differs from the female collected at Marhi in the following respects : (i) smaller size, and (ii) in having the first abdominal tergite with yellow pubescence laterally in addition to white pubescence all over the first tergite.

This species has been recorded previously from Chhatru, 3460m. in the Lahoul-Spiti Valley north of Pir Panjal Range.

#### **Family XYLOCOPIDAE**

##### ***Xylocopa auripennis* Lepel.**

1897. *Xylocopa auripennis* Lepel., In : Bingham, *Fauna Brit. India, Hymen.*, 1, p. 558.

1922. *Xylocopa auripennis*, Dover, *Rec. Indian Mus.*, 24, p. 86.

1 example, Coll. No. 601·30/56. Sta. No. 2 : Pine Nursery in compound of Forest Rest House, Manali (Kulu Valley) ; altitude 2000m. Coll. V.K. Gupta, 19-v-1956.

This example differs from the published description in the following respects :—Mesonotum rather sparsely and shallowly punctured and shiny (not smooth) ; apical margin of fore-wing without any greenish tinge.

Recorded previously from Barrackpore, Calcutta, Darjeeling, Nepal, Sikkim, Naga Hills, Sibsagar (Assam), S. India, Burma and China. This is the first record of the typical oriental species from the low elevations of the N.-W Himalayas.