

ODONATA OF DISTRICT KANGRA
(HIMACHAL PRADESH)

By

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INTRODUCTION

This paper is a report on the collection of dragonflies (Odonata) brought from the District Kangra (H.P.) by the extensive faunistic Survey party, Zoological Survey of India, Northern Regional Station, Dehra Dun.

A total of 48 species, 13 of Zygoptera and 35 of Anisoptera, are dealt with and wherever necessary differences from the published accounts are given.

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Suborder ZYGOPTERA

Family PLATYCNEMIDIDAE

Subfamily PLATYCNEMININAE

***Copera marginipes* (Rambur)**

1842. *Platycnemis marginipes* Rambur, *Ins. Neurop.*: 240.

1933. *Copera marginipes*, Fraser, *Fauna Brit. Ind. Odon.*, 1: 192-197.

Material examined :—2 ♂ s, Kangra, 23.8.1967, Coll. Asket Singh; 1 ♂, Una, 21.9.1967, Coll. M. Prasad and 1 ♀, Mataur, 23.8.1967, Coll. Asket Singh.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 30.00 | 18.00 | 17.00 |
| Female | 28.00 | 18.00 | 17.00 |

Distribution—Throughout southern Asia, Sindaic Islands, Jawa, Lower Burma, Sri Lanka, Poona, Mahableshwar, Bombay, Assam and Bengal.

Copera vittata (Selys)

1863. *Psilocnemis vittata* Selys, *Bull. Acad. Belg.*, 16 (2): 170.

1933. *Copera vittata*, Fraser, *Fauna Brit. Ind. Odon.*, 1: 198-201.

Material examined—1 ♀, Dhawala, 2.9.1967 Coll. Asket Singh.

Differs from the published description of the species in only the colouration of prothorax which is yellowish brown and not blackish-brown.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Female | 29.00 | 20.00 | 18.00 |

Distribution—It is known from Southern and Eastern India, Burma and Sri Lanka.

Subfamily CALICNEMINAE

Calicnemis miles Laidlaw

1886. *Calicnemis eximia* Selys, *Mem. Cour.*, 38: 131, 132.

1933. *Calicnemis miles*, Fraser, *Fauna Brit. Ind. Odon.*, 1: 178-181.

Material examined—1 ♂, 1 ♀, Palampur, 27.8.1967, Coll. Asket Singh.

In the males 3rd segment of the antenna is brick red and pterostigma covers only $1\frac{1}{2}$ cells. In the female tiny black point at the centre of the base in labrum is absent, antenna up to 2nd segment is yellowish, basal half of 3rd segment is black, while its distal half is yellowish, the remaining segments are black. There are 14 postnodal nervures in both the wings.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 29.00 | 24.00 | 22.00 |
| Female | 28.5 | 25.5 | 24.00 |

Distribution—Upper Burma, Sikkim, Gokteik, Almora and Dehra Dun.

Family COENAGRIIDAE

Subfamily PSEUDAGRIINAE

Ceriagrion coromandelianum (Fabricius)1798. *Agrion coromandelianum* Fabricius, *Ent. Syst. Suppl.*: 287.1933. *Ceragrion coromandelianum*, Fraser, *Fauna Brit. Ind. Odon.*, 1: 315-316.

Material examined—3 ♂ s, 3 ♀s, Andaura, 5.9.1967, Coll. *Asket Singh*; 1 ♂, Basal, 21.9.1967, Coll. *M. Prasad*; 1 ♀, Behdela, 22.9.1967, Coll. *M. Prasad*; 3 ♂ s, 3 ♀s, Churru, 7.9.1967, Coll. *Asket Singh*; 2 ♂ s, 3 ♀, Gagret, 4.9.1967, Coll. *Asket Singh*; 6 ♂ s, 2 ♀s, Garli, 30.8.1967, Coll. *Asket Singh*; 2 ♂ s, Jawar, 5.9.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Jankaur, 24.9.1967, Coll. *M. Prasad*; 2 ♂ s, Pandogha, 23.9.1967, Coll. *M. Prasad*; 4 ♂ s, 1 ♀, Paragpur, 30.8.1967, Coll. *Asket Singh*; 6 ♂ s, 2 ♀s, Saloh, 23.9.1967, Coll. *M. Prasad*; 2 ♂ s, 2 ♀s, Una, 22.9.1967, Coll. *M. Prasad* and 18 ♂ s, 4 ♀s, Una, 25.9.1967, Coll. *M. Prasad*.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 30.00 | 20.00 | 19.00 |
| Female | 28.00 | 20.5 | 19.00 |

Distribution—Throughout India, Sri Lanka, Burma, Malaysia, Indo-China and South-China.

Ceriagrion cerinorubellum (Brauer)1865. *Pyrrhosoma cerinorubellum* Brauer, *Verh. Zool.-bot. Ges. Wien.*, 15: 511.1933. *Ceriagrion cerinorubellum*, Fraser, *Fauna Brit. Ind. Odon.*, 1: 326-328.

Material examined—1 ♂, Jawar, 5.9.1967, Coll. *Asket Singh*; and 2 ♂ s, Saloh, 23.9.1967, Coll. *M. Prasad*.

A very rare species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 30.00 | 18.00 | 17.00 |

Distribution—Throughout India and South East Asia.

Subfamily ISCHNURINAE

Ischnura forcipata Morton1907. *Ischnura forcipata* Morton, *Trans. ent. Soc. Lond.*: 306.1933. *Ischnura forcipata*, Fraser, *Fauna Brit. Ind. Odon.*, 1: 354-357.

Material examined—1 ♀, Andaura, 5.9.1967, Coll. Asket Singh; 1 ♂, Basal, 21.9.1967, Coll. M. Prasad; 21 ♂ s, 7 ♀s, Dera Gopipur, 29.8.1967, Coll. Asket Singh; 4 ♂ s, 2 ♀s, Gagret, 4.9.1967, Coll. Asket Singh; 2 ♀s, Jankaur, 24.9.1967, Coll. M. Prasad; 1 ♂, Jawala Mukhi, 31.8.1967, Coll. Asket Singh, 2 ♂ s, 2 ♀s, Kangra, 23.8.1967, Coll. Asket Singh; 2 ♂ s, Kangra, 25.8.1967, Coll. Asket Singh; 1 ♂, 1 ♀, Mataur, 23.8.1967, Coll. Asket Singh; 4 ♂ s, Maranda, 26.8.1967, Coll. Asket Singh; 5 ♂ s, Nagrota, 26.8.1967, Coll. Asket Singh; 2 ♂ s, 3 ♀s, Palampur, 26.8.1967, Coll. Asket Singh; 6 ♂ s, 1 ♀, Palampur, 27.8.1967, Coll. Asket Singh; 2 ♂ s, Palampur, 28.8.1967, Coll. Asket Singh; 2 ♂ s, 1 ♀, Rani Tal, 28.8.1967, Coll. Asket Singh and 2 ♀s, Una, 25.9.1967, Coll. M. Prasad.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 20.00 | 16.5 | 15.00 |
| Female | 21.00 | 16.5 | 15.00 |

Distribution—Northern India, Baluchistan and Quetta.

***Ischnura delicata* (Hagen)**

1858. *Agrion delicatum* Hagen, *Verh. Zool.-bot. Ges. Wien.* 8: 479.

1933. *Ischnura delicata*, Fraser, *Fauna Brit. Ind. Odon.*, 1: 360-362.

Material examined—1 ♂, Behdala, 22.9.1967, Coll. M. Prasad; 1 ♂, Bankhandi, 12.9.1967, Coll. Asket Singh; 1 ♀, Basal, 21.9.1967, Coll. M. Prasad; 5 ♂ s, 2 ♀s, Chauki Maniar, 7.9.1967, Coll. Asket Singh; 1 ♂, Churru, 7.9.1967, Coll. Asket Singh; 2 ♂ s, Dhawala, 2.9.1967, Coll. Asket Singh; 1 ♀, Gagret, 4.9.1967, Coll. Asket Singh; 1 ♀, Jawala Mukhi, 31.2.1967, Coll. Asket Singh; 5 ♂ s, Kangra, 23.8.1967, Coll. Asket Singh; 5 ♂ s, 1 ♀, Kangra, 24.8.1967, Coll. Asket Singh, 1 ♀, Kangra, 25.8.1967, Coll. Asket Singh; 12 ♂ s, Mataur, 23.8.1967, Coll. Asket Singh; 1 ♀, Mubarakpur, 4.9.1967, Coll. Asket Singh; 1 ♂, Panoh, 21.9.1967, Coll. M. Prasad; 1 ♂, Palampur, 26.8.1967, Coll. Asket Singh; 3 ♂ s, Rani Tal, 28.8.1967, Coll. Asket Singh; 1 ♀, Saloh, 23.9.1967, Coll. M. Prasad; 2 ♂ s, Una, 22.9.1967, Coll. M. Prasad and 2 ♂ s, 4 ♀s, Una, 25.9.1967, Coll. M. Prasad.

It differs from the published description as follows: sides and anterior lobe of the prothorax pale yellow. Pterostigma of fore wing uniformly rose-red, costal border yellowish. There are

8 postnodal nervures in fore wing and 6 in hind. There are two small spots on 1st abdominal segment, situated near median ridge.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 21.00 | 14.00 | 13.00 |
| Female | 17.00 | 13.00 | 12.05 |

Distribution—Throughout India and South-East Asia.

***Ischnura rufostigma* Selys**

1876. *Ischnura rufostigma* Selys, *Bull. Acad. Belg.* (2) 41 : 283.

1933. *Ischnura rufostigma*, Fraser, *Fauna Brit. Ind. Odon.*, 1 : 362-364.

Material examined—1 ♂, Dera Gopipur, 29.8.1967, Coll. Asket Singh.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 22.05 | 14.00 | 13.05 |

Distribution—It is known from Assam, Bengal, Bihar and Madhya Pradesh.

Subfamily *AGRIOCNEMINAE*

***Agrion pygmaea* (Rambur)**

1842. *Agrion pygmaeum* Rambur, *Ins. Neurop.* : 278.

1933. *Agrion pygmaea*, Fraser, *Fauna Brit. Ind. Odon.*, 1 : 398-401.

Material examined—1 ♀, Basal, 21.9.1967, Coll. M. Prasad; 1 ♂, Behdala, 22.9.1967, Coll. M. Prasad; 2 ♂ s, 2 ♀s, Bankhandi, 12.9.1967, Coll. Asket Singh; 1 ♂, 1 ♀, Churru, 7.9.1967, Coll. Asket Singh; 2 ♂ s, 1 ♀, Gagret, 4.9.1967, Coll. Asket Singh; 2 ♂ s, 2 ♀s, Panoh, 21.9.1967, Coll. M. Prasad; 1 ♂, Rani Tal, 31.8.1967, Coll. Asket Singh and 2 ♂ s, 3 ♀, Una, 25.9.1967, Coll. M. Prasad.

A common species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 19.00 | 11.00 | 10.05 |
| Female | 15.00 | 11.00 | 10.00 |

Distribution—Throughout Oriental Region, Australia and Pacific Islands.

Family LESTIDAE

Subfamily LESTINAE

Lestes viridula Rambur1842. *Lestes viridula* Rambur, *Hist. Nat. Ins. Neurop.*: 252-3.1933. *Lestes viridula*, Fraser, *Fauna Brit. Ind. Odon.*, 1: 45-46.

Material examined—1 ♀, Kangra, 23.8.1967, Coll. Asket Singh; 1 ♂, Kangra, 25.8.1967, Coll. Asket Singh; 1 ♀, Palampur, 28.8.1967, Coll. Asket Singh, 2 ♂ s, 1 ♀, Maranda, 26.8.1967, Coll. Asket Singh; 1 ♂, Basoli, 24.9.1967, Coll. M. Prasad and 1 ♀, Sidchaler, 8.9.1967, Coll. Asket Singh.

The specimens differ from the published descriptions of the species in following respects:—Pterostigma covers 3½ cells and not 2 cells. There are 11 postnodal nervures in the fore wing and 9-13 in the hind wing.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 33.00 | 23.00 | 22.00 |
| Female | 34.05 | 26.00 | 25.00 |

Distribution—It is known from Peninsular India and Dehra Dun.

Family CHLOROCYPHIDAE

Rhinocypha quadrimaculata Selys1853. *Rhinocypha quadrimaculata* Selys, *Syn. Cal.*: 69.1934. *Rhinocypha quadrimaculata*, Fraser, *Fauna Brit. Ind. Odon.*, 2: 14-17.

Material examined—2 ♂ s, Dera Gopipur, 29.9.1967, Coll. Asket Singh; 1 ♀, Jawala Mukhi, 31.8.1967, Coll. Asket Singh; 1 ♂, Kangra, 24.8.1967, Coll. Asket Singh; 1 ♂, 1 ♀, Mataur, 23.8.1967, Coll. Asket Singh and 7 ♂ s, 2 ♀s, Palampur, 27.8.1967, Coll. Asket Singh.

Males differ from the published description in having a small, yellowish spot on metepimeron. In the females 16-18 antenodal nervures in both the wings.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 20.00 | 33.00 | 22.00 |
| Female | 13.00 | 26.00 | 24.05 |

Distribution—It is known from Almora, Kumaon, Dehra Dun, Kashmir, Darjeeling, Sikkim, Nepal, and Burma.

Family EPALAGIDAE

Bayadera indica (Selys)

1853. *Epallage indica* Selys, *Syn. Cal.*: 49.

1934. *Bayadera indica*, Fraser, *Fauna Brit. Ind. Odon.*, 2: 79-81.

Material examined—1 ♂, Kangra, 24.8.1967, Coll. *Asket Singh*.

Each of the posterior ocelli surrounded by a large, bright greenish-yellow spot. There are 19 antenodal and 20 post nodal nervures in fore wing and 19 antenodal 18 postnodal nervures in hind wing. In right fore and hind wing Riii arises at the level of the subnode, but in left wing arises proximal to the subnode.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 33.00 | 34.00 | 31.00 |

Distribution—It is known from N. E. India and Eastern India.

Family AGRIIDAE

Subfamily AGRINAE

Neurobasis chinensis chinensis (Linnaeus)

1758. *Libellula chinensis* Linnaeus, *Syst. Nat.*, 1: 545.

1934. *Neurobasis chinensis chinensis*, Fraser, *Fauna Brit. Ind. Odon.*, 2: 121-124.

Material examined—2 ♀s, Kangra, 24.8.1967, Coll. *Asket Singh*, 2 ♂s, 2 ♀s, Mataur, 23.8.1967, Coll. *Asket Singh*; 3 ♂s, Maranda, 26.8.1967, Coll. *Asket Singh*; 2 ♂s, 2 ♀s, Palampur, 26.8.1967, Coll. *Asket Singh* and 1 ♂, Thano, 31.8.1967, Coll. *Asket Singh*.

In the female labium is uniformly pale yellow. Opaque, creamy yellow patch at node covers more than one cell in one specimen, while in the rest it covers only one cell. Pterostigma is reduced, creamy white and present only in the fore wing.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 43.00 | 35.00 | 33.00 |
| Female | 41.05 | 36.05 | 34.00 |

Distribution—Throughout India, except desert areas, Sri Lanka, Burma, and Thailand.

Suborder ANISOPTERA

Family GOMPHIDAE

Subfamily COMPHINAE

Anormogomphus heteropterus Selys

1854. *Anormogomphus heteropterus* Selys, *Bull. Acad. Belg.*, 21 (2): 61.

1934. *Anormogomphus heteropterus*, Fraser, *Fauna Brit. Ind. Odon.*, 2: 174-176.

Material examined—2 ♀s, Kangra, 24.8.1967, Coll. *Asket Singh*; 4 ♀s, Palampur, 26.8.1967, Coll. *Asket Singh* and 4 ♀s, Palampur, 27.8.1967, Coll. *Asket Singh*.

A rare species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Female | 34.05 | 31.00 | 30.00 |

Distribution—It is known from N. W India and Bihar.

Mesogomphus lineatus (Selys)

1850. *Gomphus lineatus* Selys, *Rev. Odon.*: 386.

1934. *Mesogomphus lineatus*, Fraser, *Fauna Brit. Ind. Odon.*, 2: 230-234.

Material examined—1 ♀, Amb, 5.9.1967, Coll. *Asket Singh*; 1 ♀, Basoli, 24.9.1967, Coll. *M. Prasad*; 1 ♂, Dhawala, 2.9.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Gagret, 4.9.1967, Coll. *Asket Singh*; 2 ♀s, Mataur, 23.8.1967, Coll. *Asket Singh* and 1 ♂, 1 ♀, Rani Tal, 31.8.1967, Coll. *Asket Singh*.

Common species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 29.00 | 25.00 | 23.00 |
| Female | 33.00 | 31.00 | 29.00 |

Distribution—Throughout India and Burma.

Onychogomphus M-flavum Selys

1854. *Onychogomphus bistrigatus* selys, *Mon. Gomph.*: 22.

1934. *Onychogomphus M-flavum*, Fraser, *Fauna Brit. Ind. Odon.*, 2: 250-254.

Material examined—4 ♂ s, Palampur, 27.8.1967, Coll. *Asket Singh*; 2 ♂ s, Rani Tal, 28.8.1967, Coll. *Asket Singh* and 1 ♂ s

Rani Tal, 2.9.1967, Coll. *Asket Singh*.

A rare species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 33.00 | 31.00 | 29.00 |

Distribution—It is known from Eastern India and Dehra Dun.

***Nepogomphus modestus* (Selys)**

1878. *Onychogomphus modestus* Selys, *Bull. Acad. Belg.*, **46**: 423.

1934. *Nepogomphus modestus*, Fraser, *Fauna Brit. Ind. Odon.*, **2**: 285-286.

Material examined—1 ♂, Nagrota, 26.8.1967, Coll. *Asket Singh*; and 1 ♂, Palampur, 26.8.1967, Coll. *Asket Singh*.

Very rare species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 23.00 | 24.00 | 22.00 |

Distribution—Bengal, Assam, Burma and Sumatra.

Subfamily *ICTINOGOMPHINAE*

***Ictinogomphus rapax* (Rambur)**

1842. *Diastatomma rapax* Rambur, *Ins. Neurop.*: 169.

1934. *Ictinus rapax*, Fraser, *Fauna Brit. Ind. Odon.*, **2**: 373-376.

Material examined—1 ♂, Thano, 31.8.1967, Coll. *Asket Singh*.

A very rare species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 46.00 | 41.00 | 39.00 |

Distribution—Throughout India, Burma, Sri Lanka, and Malaysia.

Family *AESHNIDAE*

Subfamily *ANACTINAE*

***Hemianax ephippiger* (Burmeister)**

1839. *Aeschna ephippiger* Burmeister, *Handb. Ent. Band.*, **2**: 840.

1936. *Hemianax ephippiger*, Fraser, *Fauna Brit. Ind. Odon.*, **3**: 147-149

Material examined—1 ♀, Kangra, 24.8.1967, Coll. *Asket Singh*.

A rare species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Female | 39.00 | 44.00 | 44.00 |

Distribution—It is known from India, South Europe, North Asia, Egypt and Mesopotamia.

Family CORDULIIDAE

Subfamily EPOPTHALMIINAE

Macromia moorei Selys

1874. *Macromia moorei* Selys, *Bull. Acad. Belg.*: 37.

1936. *Macromia moorei*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 164-166.

Material examined—2 ♂ s, Rani Tal, 31.8.1967, Coll. Asket Singh.

Very rare species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 45.00 | 46.00 | 44.00 |

Distribution—It is known from North-East Himalayas and Simla Hills.

Family LIBELLULIDAE

Subfamily LIBELLULINAE

Cratilla lineata (Brauer)

1878. *Orthemis lineata* Brauer, *Sitzungsber, Akad. Wien.*, 77: 9.

1936. *Cratilla lineata*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 286-288.

Material examined—1 ♂, Garli, 30.8.1967, Coll. Asket Singh.

Upper surface of frons is metallic green, pterostigma blackish brown, and extends over a little more than four cells.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 28.00 | 36.00 | 35.00 |

Distribution—West Coast of India, Burma, Sri Lanka, Malaysia, Borneo, New Guinea and Philippines.

Potamarcha obscura (Rambur)

1842. *Libellula obscura* Rambur, *Ins. Neurop.*: 64.

1936. *Potamarcha obscura*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 289-291.

Material examined—1 ♂, Behdala, 22.9.1967, Coll. M.

Prasad; 1 ♂, Paragpur, 30.8.1967, Coll. *Asket Singh* and 3 ♂s, Sidhchaler, 8.9.1967, Coll. *Asket Singh*.

Common species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 29.00 | 34.00 | 33.00 |

Distribution—Throughout India, Philippines, Formosa and Burma.

***Orthetrum taeniolatum* (Schneider)**

1845. *Libellula taeniolata* Schneider, *Stett. Ent. Zeit.*, **6**: 111.

1936. *Orthetrum taeniolatum*, Fraser, *Fauna Brit. Ind. Odon.*, **3**: 296-298.

Material examined—1 ♂, Andaura, 5.9.1967, Coll. *Asket Singh*; 1 ♂, Amb, 4.9.1967, Coll. *Asket Singh*; 1 ♀, Behdala, 22.9.1967, Coll. *M. Prasad*; 2 ♂s, 1 ♀, Bankhandi, 12.9.1967, Coll. *Asket Singh*; 3 ♀s, Darkata, 2.9.1967, Coll. *Asket Singh*; 1 ♂, Dhawala, 2.9.1967, Coll. *Asket Singh*; 1 ♂, Garli, 30.8.1967, Coll. *Asket Singh*; 1 ♀, Jawala Mukhi, 31.8.1967, Coll. *Asket Singh*; 4 ♀s, Jankaur, 24.9.1967, Coll. *M. Prasad*; 1 ♂, 1 ♀, Kangra, 23.8.1967, Coll. *Asket Singh*; 1 ♀, Maranda, 26.8.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Mataur, 23.8.1967, Coll. *Asket Singh*; 2 ♂s, Palampur, 28.8.1967, Coll. *Asket Singh*; 4 ♀s, Rani Tal, 28.8.1967, Coll. *Asket Singh*; 2 ♂s, 2 ♀s, Una, 21.9.1967, Coll. *M. Prasad* and 1 ♂, 1 ♀, Una, 25.9.1967, Coll. *M. Prasad*.

A very common species in District Kangra.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|-------------|-------------|-----------|
| Male | 25.00-26.00 | 28.00-30.00 | 30.00 |
| Female | 25.00 | 28.00 | 29.00 |

Distribution—Throughout India.

***Orthetrum chrysostigma luzonicum* (Brauer)**

1868. *Libella luzonica* Brauer, *Verh. Zool.-bot. Ges. Wien.*, **18**: 169, 732.

1936. *Orthetrum chrysostigma luzonicum*, Fraser, *Fauna Brit. Ind. Odon.*, **3**: 298-300.

Material examined—20 ♂s, 2 ♀s, Andaura, 5.9.1967, Coll. *Asket Singh*; 2 ♂s, Churru, 7.9.1967, Coll. *Asket Singh*; 1 ♀, Darkata, 2.9.1967, Coll. *Asket Singh*; 13 ♂s, 3 ♀s, Dera Gopipur, 29.8.1967, Coll. *Asket Singh*; 3 ♂s, 2 ♀s, Gagret, 6.9.1967, Coll. *Asket Singh*; 2 ♂s, 1 ♀, Mataur, 23.8.1967, Coll. *Asket Singh*;

2 ♂ s, Kangra, 25.8.1967, Coll. *Asket Singh*; 10 ♂ s, 1 ♀, Maranda, 26.8.1967, Coll. *Asket Singh*; 1 ♀, Nagrota, 26.8.1967, Coll. *Asket Singh*; 1 ♀, Palampur, 26.8.1967, Coll. *Asket Singh*; 5 ♂ s, 1 ♀, Pandogha, 23.9.1967, Coll. *M. Prasad*; 1 ♂, Saloh, 23.9.1967, Coll. *M. Prasad*; 3 ♂ s, Thana, 31.8.1967, Coll. *Asket Singh* and 1 ♂, Una, 25.9.1967, Coll. *M. Prasad*.

Common species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 31.00 | 33.00 | 32.00 |
| Female | 31.00 | 33.00 | 31.00 |

Distribution—Throughout India, Sri Lanka, Philippines, Java and Sumatra.

***Orthetrum sabina* (Drury)**

1770. *Libellula sabina* Drury, *Ill. Esot. Ins.*, 1: 114, 115.

1936. *Orthetrum sabina*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 300-302.

Material examined—19 ♂ s, 5 ♀s, Andaura, 5.9.1967, Coll. *Asket Singh*; 1 ♂, Amb, 5.9.1967, Coll. *Asket Singh*; 1 ♂, Basal, 21.9.1967, Coll. *M. Prasad*; 1 ♂, Churru, 7.9.1967, Coll. *Asket Singh*; 4 ♂ s, 2 ♀s, Gagret, 6.9.1967, Coll. *Asket Singh*; 2 ♂ s, 1 ♀, Garli, 30.8.1967, Coll. *Asket Singh*; 1 ♀, Jankaur, 24.9.1967, Coll. *M. Prasad*; 1 ♀, Palampur, 28.8.1967, Coll. *Asket Singh*; 1 ♂, Polian, 15.9.1967, Coll. *M. Prasad*; 2 ♂ s, Pandogha, 23.9.1967, Coll. *M. Prasad*; 1 ♂, Panoh, 21.9.1967, Coll. *M. Prasad*; 3 ♂ s, Rani Tal, 28.8.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Sidhchaler, 8.9.1967, Coll. *Asket Singh*; 1 ♂, Saloh, 23.9.1967, Coll. *M. Prasad*; 2 ♂ s, 1 ♀, Una, 22.9.1967, Coll. *M. Prasad* and 2 ♂ s, 3 ♀s, Una, 23.9.1967, Coll. *M. Prasad*.

A very common species in Distt. Kangra.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 31.00 | 33.00 | 32.00 |
| Female | 31.00 | 33.00 | 31.00 |

Distribution—Throughout India, Somali land, Mesopotamia, Persia to Samoa, Australia, Sri Lanka, Thailand and Burma.

***Orthetrum japonicum internum* MacLachlan**

1895. *Orthetrum japonicum internum* MacLachlan, *Ann. Mag. nat. Hist.*, 13: 431.

1936. *Orthetrum japonicum internum*, Fraser, *Fauna Brit. Ind. Odon.*, **3**: 304-305.

Material examined—1 ♂, Andaaura, 5.9.1967, Coll. Asket Singh; and 1 ♂, Maranda, 26.8.1967, Coll. Asket Singh.

A rare species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 29.05 | 35.00 | 34.00 |

Distribution—It is known from Eastern India, and North-West India, Nepal, Tibet and S. W. China.

***Orthetrum triangulare triangulare* (Selys)**

1878. *Libella triangularis* Selys, *Mitth. Mus. Dresden.* p. 314.

1936. *Orthetrum triangulare triangulare*, Fraser *Fauna Brit. Ind. Odon.*, **3**: 305-307.

Material examined—1 ♂, Sidhchaler, 8.9.1967, Coll. Asket Singh; 7 ♂ s, Palampur, 28.8.1967, Coll. Asket Singh and 4 ♂ s, Thana, 31.8.1967, Coll. Asket Singh.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|-------------|-------------|-------------|
| Male | 28.00-30.00 | 36.00-38.05 | 35.00-37.00 |

Distribution—Throughout India, Sri Lanka and Burma.

***Orthetrum glaucum* (Brauer)**

1865. *Libellula glauca* Brauer, *Verh. Zool.-bot. Ges. Wien.*, **15**: 1012.

1936. *Orthetrum glaucum*, Fraser, *Fauna Brit. Ind. Odon.*, **3**: 307-309.

Material examined—1 ♂, Dera Gopipur, 29.8.1967, Coll. Asket Singh; 1 ♂, Kangra, 23.8.1967, Coll. Asket Singh; 2 ♂ s, Palampur, 28.8.1967, Coll. Asket Singh and 7 ♂ s, Thana, 31.8.1967, Coll. Asket Singh.

A common species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 28.00 | 34.00 | 33.00 |

Distribution—Throughout India, Philippines and Java.

***Orthetrum pruinatum neglectum* (Rambur)**

1842. *Libellula neglecta* Rambur, *Ins. Neurop.* p. 86.

1936. *Orthetrum pruinatum neglectum*, Fraser, *Fauna Brit. Ind. Odon.*, **3**: 311-313.

Material examined—17 ♂ s, 1 ♀, Andaura, 5.9.1967, Coll. *Asket Singh*; 2 ♂ s, Anu (Hamirpur), 24.1.1967, Coll. *Asket Singh*; 5 ♂ s, Dera Gopipur, 29.8.1967, Coll. *Asket Singh*; 1 ♂, Darkata, 2.9.1967, Coll. *Asket Singh*; 4 ♂ s, Garli, 30.8.1967, Coll. *Asket Singh*; 2 ♂ s, 1 ♀, Gagret, 4.9.1967, Coll. *Asket Singh*; 1 ♂, Jankaur, 24.9.1967, Coll. *M. Prasad*; 1 ♂, Kangra, 23.8.1967, Coll. *Asket Singh*; 5 ♂ s, 2 ♀s, Mataur, 23.8.1967, Coll. *Asket Singh*; 2 ♂ s, Pandogha, 23.9.1967, Coll. *M. Prasad*; 1 ♂, Rani Tal, 28.8.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Saloh, 23.9.1967, Coll. *M. Prasad*; 2 ♂ s, 1 ♀, Sidhchaler, 8.9.1967, Coll. *Asket Singh* and 1 ♂, 1 ♀, Thana, 31.8.1967, Coll. *Asket Singh*.

A very common species in Distt. Kangra.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 27.00 | 35.00 | 34.00 |
| Female | 25.05 | 34.00 | 32.00 |

Distribution—Throughout India, Sri Lanka, Burma, Tibet and Indo-China.

Subfamily *DIASTATOPIDINAE*

***Palpopleura sexmaculata sexmaculata* (Fabr.)**

1787. *Libellula sexmaculata* Fabricius, *Mant. Ins.*, 1: 338.

1936. *Palpopleura sexmaculata sexmaculata*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 318-320.

Material examined—17 ♂ s, 5 ♀s, Andaura, 5.9.1967, Coll. *Asket Singh*; 1 ♂, Dera Gopipur, 29.8.1967, Coll. *Asket Singh*; 1 ♂, Gagret, 4.9.1967, Coll. *Asket Singh*; 1 ♀, Jawala, Mukhi, 31.8.1967, Coll. *Asket Singh*; 1 ♂, Jammal, 1.9.1967, Coll. *Asket Singh*; 2 ♀s, Kangra, 23.8.1967, Coll. *Asket Singh*; 3 ♂ s, 2 ♀s, Maranda, 26.8.1967, Coll. *Asket Singh*; 2 ♂ s, 8 ♀s, Palampur, 27.8.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Panoh, 21.9.1967, Coll. *M. Prasad*; 1 ♂, Rani Tal, 28.8.1967, Coll. *Asket Singh*; 1 ♂, 2 ♀s, Thana, 31.8.1967, Coll. *Asket Singh* and 3 ♀s, Una 25.9.1967, Coll. *M. Prasad*.

In some females an additional black strip is present in the hind wing extending from just below pterostigma to IRiii & Rspl.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 13.05 | 20.00 | 18.00 |
| Female | 11.05 | 18.00 | 16.05 |

Distribution—Throughout India, Tibet, Malaysia and Indo-China to China.

Subfamily BRACHYDIPLACTINAE

Brachydiplax sobrina (Rambur)

1842. *Libellula sobrina* Rambur, *Ins. Neurop.*, p. 114.

1936. *Brachydiplax sobrina*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 325-327.

Material examined—5 ♂ s, Churru, 7.9.1967, Coll. *Asket Singh*; 1 ♂, Jankaur, 24.9.1967, Coll. *M. Prasad*; 1 ♂, Palampur, 26.8.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Saloh, 23.9.1967, Coll. *M. Prasad* and 1 ♂, Una, 25.9.1967, Coll. *M. Prasad*.

A comparatively common species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 19.00 | 27.00 | 25.05 |
| Female | 16.00 | 24.00 | 24.00 |

Distribution—It is known from Southern and Eastern India, Burma and Sri Lanka.

Subfamily SYMPETRINAE

Acisoma panorpoides panorpoides Rambur

1842. *Acisoma panorpoides* Rambur, *Ins. Neurop.*, p. 28.

1936. *Acisoma panorpoides panorpoides*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 330-331.

Material examined—32 ♂ s, 11 ♀s, Andaura, 5.9.1967, Coll. *Asket Singh*; 1 ♂, Basal, 21.9.1967, Coll. *M. Prasad*; 4 ♂ s, 2 ♀s, Churru, 7.9.1967, Coll. *Asket Singh*; 15 ♂ s, 4 ♀s, Gagret, 4.9.1967, Coll. *Asket Singh*, 4 ♂ s, 10 ♀s, Gagret, 6.9.1967, Coll. *Asket Singh*; 1 ♂, 2 ♀s, Panoh, 21.9.1967, Coll. *M. Prasad* and 2 ♂ s, Una, 25.9.1967, Coll. *M. Prasad*.

A common species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 17.00 | 20.00 | 19.00 |
| Female | 15.00 | 19.00 | 18.00 |

Distribution—It is known from Western India and South East Asia.

Diplacodes nebulosa (Fabricius)

1793. *Libellula nebulosa* Fabricius, *Ent. Syst.*, 2: 379.

1936. *Diplacodes nebulosa*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 335-336.

Material examined—1 ♀, Amb, 4.9.1967, Coll. Asket Singh; 2 ♀s, Andaura, 5.9.1967, Coll. Asket Singh; 3 ♀s, Basal, 21.9.1967, Coll. M. Prasad; 1 ♂, 1 ♀, Dhaliara, 1.9.1967, Coll. Asket Singh; 4 ♂ s, 3 ♀s, Gagret, 4.9.1967, Coll. Asket Singh; 4 ♂ s, 3 ♀s, Gagret, 4.9.1967, Coll. Asket Singh; 4 ♂ s, 10 ♀s, Gagret, 6.9.1967, Coll. Asket Singh; 1 ♂, Jawar, 5.9.1967, Coll. Asket Singh; 1 ♀, Rani Tal, 31.8.1967, Coll. Asket Singh; 1 ♂, Panoh, 21.9.1967, Coll. M. Prasad; 1 ♀, Una, 21.9.1967, Coll. M. Prasad and 4 ♂ s, 1 ♀, Una, 25.9.1967, Coll. M. Prasad.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|-------------|-----------|-------------|
| Male | 14.00-15.00 | 19.00 | 17.00-18.00 |
| Female | 15.00 | 19.00 | 18.00 |

Distribution—It is known from Western India, Sri Lanka, Australia, Java and Philippines.

Diplacodes trivialis (Rambur)

1842. *Libellula trivialis* Rambur, *Ins. Neurop.*, p. 115.

1936. *Diplacodes trivialis*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 336-338.

Material examined—1 ♂, Basal, 21.9.1967, Coll. M. Prasad.

A very rare species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 18.05 | 19.00 | 17.05 |

Distribution—Throughout India, Sri Lanka, Burma, Formosa and Philippines.

Crocothemis servilia servilia (Drury)

1770. *Libellula servilia* Drury, *Ill. Ex. Ins.*, 1: 112, 113.

1936. *Crocothemis servilia servilia*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 345-347.

Material examined—2 ♂ s, 1 ♀, Amb, 4.9.1967, Coll. Asket Singh; 32 ♂ s, 4 ♀s, Andaura, 5.9.1967, Coll. Asket Singh; 17 ♂ s, Anu (Hamirpur), 24.1.1967, Coll. Asket Singh; 1 ♂, 2 ♀s, Basal,

21.9.1967, Coll. *M. Prasad*; 1 ♂, Basoli, 24.9.1967, Coll. *M. Prasad*; 2 ♂s, 2 ♀s, Churru, 7.9.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Chakki, 15.1.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Chetru, 22.1.1967, Coll. *Asket Singh*; 3 ♂s, 1 ♀, Dhawala, 2.9.1967, Coll. *Asket Singh*; 1 ♂, Dhaliara, 1.9.1967, Coll. *Asket Singh*; 5 ♂s, 1 ♀, Dera Gopipur, 29.8.1967, Coll. *Asket Singh*; 6 ♂s, 6 ♀s, Dera Gopipur, 1.9.1967, Coll. *Asket Singh*; 4 ♂s, Darkata, 2.9.1967, Coll. *Asket Singh*; 1 ♀, Durang, 22.1.1967, Coll. *Asket Singh*; 17 ♂s, 2 ♀s, Gagret, 4.9.1967, Coll. *Asket Singh*; 17 ♂s, 9 ♀s, Gagret, 6.9.1967, Coll. *Asket Singh*; 10 ♂s, Garli, 30.8.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Jassoor, 15.1.1967, Coll. *Asket Singh*; 1 ♀, Indora, 16.1.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Jankaur, 24.9.1967, Coll. *M. Prasad*; 7 ♂s, 1 ♀, Jawala Mukhi, 31.8.1967, Coll. *Asket Singh*; 14 ♂s, 6 ♀s, Kangra, 23.8.1967, Coll. *Asket Singh*; 14 ♀s, Maranda, 26.8.1967, Coll. *Asket Singh*; 1 ♂, Nagrota, 26.8.1967, 1 ♂, 1 ♀, Polian, 15.9.1967, Coll. *M. Prasad*; 23 ♂s, 20 ♀s, Palampur, 26.8.1967, Coll. *Asket Singh*; 22 ♂s, 24 ♀s, Palampur, 27.8.1967, Coll. *Asket Singh*; 3 ♂s, 2 ♀s, Palampur, 28.8.1967, Coll. *Asket Singh*; 3 ♂s, 2 ♀s, Pandogha, 23.9.1967, Coll. *M. Prasad*; 3 ♂s, Panoh, 21.9.1967, Coll. *M. Prasad*, 5 ♂s, 1 ♀, Rani Tal, 31.8.1967, Coll. *Asket Singh*; 8 ♂s, Rani Tal, 2.9.1967, Coll. *Asket Singh*; 1 ♂, 4 ♀s, Saloh, 23.9.1967, Coll. *M. Prasad*; 1 ♀, Thana, 31.8.1967, Coll. *Asket Singh*; 5 ♂s, 6 ♀s, Jawar, 5.9.1967, Coll. *Asket Singh* and 9 ♂s, 10 ♀s, Una, 23.9.1967, Coll. *M. Prasad*.

In some specimens face is tinted with rosy-red (not deep colour).

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-------------|-------------|
| Male | 21.00 | 27.00-29.00 | 24.00-27.00 |
| Female | 19.00 | 27.00 | 27.00 |

Distribution—It is known from India, Mesopotamia, Sri Lanka, Burma, Japan, Philippines and Australia.

***Neurothemis intermedia intermedia* (Rambur)**

1842. *Libellula intermedia* Rambur, *Ins. Neurop.*, p. 91.

1936. *Neurothemis intermedia intermedia*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 357-358.

Material examined—1 ♀, Basal, 21.9.1967, Coll. *M. Prasad*; 1 ♂, Churru, 7.9.1967, Coll. *Asket Singh*; 1 ♂, Darkata, 2.9.1967, Coll. *Asket Singh*; 2 ♂s, 4 ♀s, Gagret, 4.9.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Jankaur, 24.9.1967, Coll. *M. Prasad*; 1 ♂, Gagret, 6.9.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Jawala Mukhi, 31.8.1967, Coll. *Asket Singh*; 1 ♀, Kangra, 24.8.1967, Coll. *Asket Singh*; 1 ♀, Maranda, 26.8.1967, Coll. *Asket Singh*; 1 ♂, 1 ♀, Nagrota, 26.8.1967, Coll. *Asket Singh*; 1 ♂, Pandogha, 23.9.1967, Coll. *M. Prasad*; 3 ♂s, 3 ♀s, Palampur, 27.8.1967, Coll. *Asket Singh*; 2 ♂s, 2 ♀, Rani Tal, 28.8.1967, Coll. *Asket Singh* and 4 ♂s, Una, 21.9.1967, Coll. *M. Prasad*.

A common species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|-------------|-------------|-------------|
| Male | 21.00-23.00 | 28.00-30.00 | 26.00-28.00 |
| Female | 23.00 | 29.05 | 30.00 |

Distribution—Throughout Peninsular India, Sri Lanka, Burma, Malacca and Indo-China.

***Neurothemis tullia tullia* (Drury)**

1773. *Libellula tullia* Drury, *Ill. Exct. Ins.*, 2: 85.

1936. *Neurothemis tullia tullia*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 360-362.

Material examined—1 ♂, Churru, 7.9.1967, Coll. *Asket Singh*; 2 ♀s, Gagret, 4.9.1967, Coll. *Asket Singh*; 1 ♂, Pandogha, 23.9.1967, Coll. *M. Prasad*; 3 ♂s, Panoh, 21.9.1967, Coll. *M. Prasad*; 3 ♂s, 1 ♀, Saloh, 23.9.1967, Coll. *M. Prasad*; 4 ♂s, 6 ♀s, Una, 23.9.1967, Coll. *M. Prasad* and 2 ♂s, 4 ♀s, 25.9.1967, Coll. *M. Prasad*.

A common species in Distt. Kangra.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|-------------|-------------|-------------|
| Male | 16.00-18.00 | 20.00-23.00 | 19.00-22.00 |
| Female | 16.00 | 20.00 | 20.00 |

Distribution—It is known from South India, Sri Lanka, Burma and Indo-China.

***Brachythemis contaminata* (Fabricius)**

1793. *Libellula contaminata* Fabricius, *Ent. Syst.*, 2: 382.

1936. *Brachythemis contaminata*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 365-366.

Material examined—1 ♂, Amb, 4.9.1967, Coll. Asket Singh; 1 ♂, 2 ♀s, Andaura, 5.9.1967, Coll. Asket Singh; 1 ♂, Bankhandi, 12.9.1967, Coll. Asket Singh; 1 ♂, Behdala, 22.9.1967, Coll. M. Prasad; 2 ♂ s, Basal, 21.9.1967, Coll. M. Prasad; 2 ♂ s, 1 ♀, Chanki Maniar, 7.9.1967, Coll. Asket Singh; 1 ♂ 2 ♀s, Churru, 7.9.1967, Coll. Asket Singh; 3 ♂ s, Dera Gopipur, 1.9.1967, Coll. Asket Singh; 2 ♂ s, Dhawala, 2.9.1967, Coll. Asket Singh; 2 ♀s, Daulatpur, 6.9.1967, Coll. Asket Singh; 7 ♂ s, 4 ♀s, Gagret, 6.9.1967, Coll. Asket Singh; 2 ♂ s, 3 ♀s, Garli, 30.8.1967, Coll. Asket Singh; 2 ♀s, Jankaur, 24.9.1967, Coll. M. Prasad; 2 ♂ s, 1 ♀, Mubarakpur, 4.9.67, Coll. Asket Singh; 11 ♂ s, 2 ♀s, Polian, 18.9.1967, Coll. M. Prasad; 1 ♀, Pandogha, 23.9.1967, Coll. M. Prasad; 3 ♂ s, 2 ♀s, Rani Tal, 28.8.1967, Coll. Asket Singh; 5 ♂ s, 1 ♀, Saloh, 23.9.1967, Coll. M. Prasad; 3 ♂ s, 2 ♀s, Sidchaler, 8.9.1967, Coll. Asket Singh; 2 ♀s, Una, 21.9.1967, Coll. M. Prasad and 7 ♂ s, 2 ♀s, Una, 25.9.1967, Coll. M. Prasad.

It is one of the commonest species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-------------|-------------|
| Male | 15.05 | 20.00-30.00 | 19.00-22.00 |
| Female | 16.00 | 24.00 | 23.00 |

Distribution—Throughout plains of India and South East Asia.

Subfamily TRITHEMINAE

Trithemis aurora (Burmeister)

1839. *Libellula aurora* Burmeister, *Handb. Ent.*, 2: 859.

1936. *Trithemis aurora*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 383-385.

Material examined—1 ♂, 2 ♀s, Basoli, 24.9.1967, Coll. M. Prasad; 2 ♂ s, 3 ♀s, Basal, 21.9.1967, Coll. M. Prasad; 2 ♂ s, 2 ♀s, Behdala, 22.9.1967, Coll. M. Prasad; 3 ♂ s, 5 ♀s, Gagret, 4.9.1967, Coll. Asket Singh; 26 ♂ s, 4 ♀s, Dera Gopipur, 1.9.1967, Coll. Asket Singh; 2 ♂ s, 2 ♀s, Dhawala, 2.9.1967, Coll. Asket Singh; 2 ♂ s, 2 ♀s, Jankaur, 24.9.1967, Coll. M. Prasad; 11 ♂ s, 7 ♀s, Jawala Mukhi, 31.8.1967, Coll. Asket Singh; 1 ♂, 1 ♀, Jammal, 1.9.1967, Coll. Asket Singh; 3 ♀s, Kangra, 25.8.1967, Coll. Asket Singh; 2 ♂ s, 1 ♀, Mataur, 23.8.1967, Coll. Asket Singh;

24 ♂ s, 13 ♀s, Maranda, 26.8.1967, Coll. *Asket Singh*; 3 ♂ s, 2 ♀s, Panoh, 21.9.1967, Coll. *M. Prasad*; 1 ♂ , Pandogha, 23.9.1967, Coll. *M. Prasad*; 1 ♂ , Palampur, 26.8.1967, Coll. *Asket Singh*; 61 ♂ s, 15 ♀s, Rani Tal, 2.9.1967, Coll. *Asket Singh*; 2 ♂ s, Sidhchaler, 8.9.1967, Coll. *Asket Singh*; 2 ♂ s, 2 ♀s, Saloh, 23.9.1967, Coll. *M. Prasad*; 2 ♂ s, 1 ♀, Thana, 31.8.1967, Coll. *Asket Singh* and 2 ♂ s, 5 ♀s, Una, 25.9.1967, Coll. *M. Prasad*.

One of the common species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-------------|-------------|
| Male | 19.05 | 24.00-26.00 | 23.00-25.00 |
| Female | 19.00 | 25.00 | 25.00 |

Distribution—Throughout India, Sri Lanka, Burma, Philippines and Java.

***Trithemis kirbyi kirbyi* Selys**

1896. *Trithemis aurora* Kirby, *Proc. zool. Soc. London*, p. 327.

1936. *Trithemis kirbyi kirbyi*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 385-387.

Material examined—2 ♂ s, Dhawala, 2.9.1967, Coll. *Asket Singh* and 3 ♂ s, Rani Tal, 31.8.1967, Coll. *Asket Singh*.

The specimen of this species differ in following respects. Labium is yellowish red, and labrum and clypeus are reddish-yellow.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 20.00 | 26.00 | 25.00 |

Distribution—It is known from Northern and Southern India.

***Trithemis festiva* (Rambur)**

1842. *Libellula festiva*, Rambur, *Ins. Neurop.*, p. 92.

1936. *Trithemis festiva*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 387-389.

Material examined—2 ♂ s, Basoli, 24.9.1967, Coll. *M. Prasad*; 1 ♂ , 1 ♀, Basal, 21.9.1967, Coll. *M. Prasad*; 16 ♂ s, Dera Gopipur, 29.8.1967, Coll. *Asket Singh*; 4 ♂ s, Dhawala, 2.9.1967, Coll. *Asket Singh*; 1 ♂ , Dhaliara, 1.9.1967, Coll. *Asket Singh*; 14 ♂ s, Garli, 30.8.1967, Coll. *Asket Singh*; 2 ♂ s, 1 ♀, Jawala Mikhi, 31.8.1967, Coll. *Asket Singh*; 1 ♀, Jammal, 1.9.1967, Coll. *Asket Singh*; 1 ♂ , 1 ♀, Jankaur, 24.9.1967, Coll. *M. Prasad*; 8 ♀s,

Kangra, 23.8.1967, Coll. *Asket Singh*; 6 ♂ s, 12 ♀s, Kangra, 24.8.1967, Coll. *Asket Singh*; 4 ♂ s, 3 ♀s, Mataur, 23.8.1967, Coll. *Asket Singh*; 5 ♂ s, Maranda, 26.8.1967, Coll. *Asket Singh*; 2 ♂ s, 2 ♀s, Pandogha, 23.9.1967, Coll. *M. Prasad*; 6 ♀s, Palampur. 27.8.1967, Coll. *Asket Singh*; 17 ♂ s, 6 ♀s, Rani Tal, 28.8.1967, Coll. *Asket Singh*; 1 ♂, Sidhchaler, 8.9.1967, Coll. *Asket Singh* and 14 ♂ s, 7 ♀s, Thana, 31.8.1967, Coll. *Asket Singh*.

A common species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 20.00 | 28.00 | 26.00 |
| Female | 21.00 | 28.65 | 28.00 |

Distribution—Throughout India, Sri Lanka and Burma.

***Trithemis pallidinervis* (Kirby)**

1889. *Sympetrum pallidinervis* Kirby, *Trans. zool. Soc. London*, 12: 327.

1936. *Trithemis pallidinervis*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 389-391.

Material examined—1 ♂, Basal, 21.9.1967, Coll. *M. Prasad*; 1 ♂, Daulatpur, 6.9.1967, Coll. *Asket Singh*; 2 ♂ s, 2 ♀s, Jankaur, 24.9.1967, Coll. *M. Prasad*; 1 ♂, Polian, 18.9.1967, Coll. *M. Prasad*; 1 ♂, Pandogha, 23.9.1967, Coll. *M. Prasad* and 2 ♂ s, 2 ♀s, Una, 25.9.1967, Coll. *M. Prasad*.

Similar to the published description of the species but differ in one respect. The bright amber-yellow marking of the fore wing extends towards first antenodal nervures and cubital space.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 26.00 | 31.00 | 30.00 |
| Female | 23.00 | 30.00 | 29.00 |

Distribution—It is known throughout India, Sri Lanka, Burma, Philippines and Formosa.

Subfamily RHYOTHEMINAE

***Rhyothemis variegata variegata* (Linnaeus)**

1763. *Libellula variegata* Linnaeus, *Amoenitates Acad.*, 6: 412.

1936. *Rhyothemis variegata variegata*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 423-424.

Material examined—1 ♀, Una, 23.9.1967, Coll. *M. Prasad*.

A very rare species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Female | 20.05 | 33.00 | 31.00 |

Distribution—India, Sri Lanka, Burma and Malaysia.

Subfamily ZYXOMMATINAE

Zyxomma petiolatum Rambur

1842. *Zyxomma petiolatum* Rambur, *Ins. Neurop.*, p. 30.

1936. *Zyxomma petiolatum*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 409-410

Material examined—1 ♂, Una, 22.9.1967, Coll. M. Prasad.

A very rare species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 35.00 | 30.00 | 30.00 |

Distribution—It is known throughout India, Burma and Sri Lanka.

Tholymis tillarga (Fabricius)

1798. *Libellula tillarga* Fabricius, *Ent. Syst. Suppl.*, p. 285.

1936. *Tholymis tillarga*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 411-413.

Material examined—1 ♂, Dera Gopipur, 29.8.1967, Coll. Asket Singh; 1 ♂, Saloh, 23.9.1967, Coll. M. Prasad and 1 ♂, Una, 25.9.1967, Coll. M. Prasad.

A very rare species.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 26.00 | 34.00 | 33.00 |

Distribution—Throughout India, Sri Lanka, Burma and Australia.

Subfamily PANTALIINAE

Pantala flavescens (Fabricius)

1798. *Libellula flavescens* Fabricius, *Ent. Syst. Suppl.*, p. 285.

1936. *Pantala flavescens*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 414-416.

Material examined—1 ♂, Amb, 4.9.1967, Coll. Asket Singh; 2 ♂s, 3 ♀s, Bankhandi, 12.9.1967, Coll. Asket Singh; 1 ♂, 2 ♀s, Chauki Maniar, 7.9.1967, Coll. Asket Singh; 1 ♂, 1 ♀, Churru, 7.9.1967, Coll. Asket Singh; 2 ♂s, 4 ♀s, Darkata, 2.9.1967, Coll. Asket Singh; 1 ♂, Dhawala, 2.9.1967, Coll. Asket Singh; 1 ♂, Garli, 30.8.1967, Coll. Asket Singh; 1 ♀, Jawala Mukhi, 31.8.1967,

Coll. *Asket Singh*; 1 ♂, Jankaur, 24.9.1967, Coll. *M. Prasad*; 23 ♂ s, 33 ♀s, Kangra, 24.8.1967, Coll. *Asket Singh*; 1 ♀, Mataur, 23.8.1967, Coll. *Asket Singh*; 1 ♂, Maranda, 26.8.1967, Coll. *Asket Singh*; 2 ♂ s, 1 ♀, Nagrota, 26.8.1967, Coll. *Asket Singh*; 9 ♂ s, 5 ♀s, Palampur, 26.8.1967, Coll. *Asket Singh*; 1 ♀, Pandogha, 23.9.1967, Coll. *M. Prasad*; 2 ♂ s, 2 ♀s, Rani Tal, 28.8.1967, Coll. *Asket Singh*; 2 ♂ s, 2 ♀s, Sidhchaler, 8.9.1967, Coll. *Asket Singh*; 44 ♂ s, 4 ♀s, Thana, 31.8.1967, Coll. *Asket Singh* and 2 ♂ s, 1 ♀, Una, 25.9.1967, Coll. *M. Prasad*.

A very common species in Distt. Kangra.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|--------|---------|-----------|-----------|
| Male | 29.00 | 40.00 | 38.00 |
| Female | 27.00 | 39.00 | 36.00 |

Distribution—Throughout India, Sri Lanka, Burma and Tibet.

***Tramea basilaris burmeisteri* Kirby**

1839. *Libellula chinensis* Burmeister, *Handb. Ent.*, 2: 852.

1936. *Tramea basilaris burmeisteri*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 423-434.

Material examined—2 ♂ s, Darkata, 2.9.1967, Coll. *Asket Singh*; 1 ♂, Jawar, 5.9.1967, Coll. *Asket Singh*; and 1 ♂, Kangra, 24.8.1967, Coll. *Asket Singh*.

It differs from the description of the species in following respects. Venation of the dark area of hind wing reddish. Membrane is white and its border area is brown. Pterostigma is reddish yellow.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|---------|-----------|-----------|
| Male | 28.00 | 38.00 | 35.00 |

Distribution—It is known from India, Burma, Malaysia and Sri Lanka.

***Tramea virginia* (Rambur)**

1773. *Libellula chinensis* De Geer, *Mem. Ins.*, 3: 556.

1936. *Tramea virginia*, Fraser, *Fauna Brit. Ind. Odon.*, 3: 435-436.

Material examined—1 ♂, Jawar, 5.9.1967, Coll. *Asket Singh* and 1 ♂, Sidchaler, 8.9.1967, Coll. *Asket Singh*.

They are smaller in body length as well as wing expanse,

occiput brownish yellow, membrane of the wing and pterostigma brownish.

Measurements in mm

| | Abdomen | Fore wing | Hind wing |
|------|-------------|-------------|-------------|
| Male | 30.00-31.00 | 39.00-40.00 | 38.00-39.00 |

Distribution—Burma, Thailand, Indo-China, and Formosa.



SUMMARY

13 species of Zygoptera and 35 species of Anisoptera have been recorded from District Kangra. Differences wherever noted from the published description have been recorded.

REFERENCES

- FRASER, F. C. 1933. *The Fauna of British India*, Vol. 1. xiii—423 pp., London (Taylor and Francis).
- FRASER, F. C. 1934. *The Fauna of British India*, Vol. 2. xxiii—398 pp., London (Taylor and Francis).
- FRASER, F. C. 1936. *The Fauna of British India*, Vol. 3. xi—461 pp., London (Taylor and Francis).