

DIPTERA FROM ARUNACHAL PRADESH\* AND ASSAM  
FOOT HILLS, PART IV, LOHIT DISTRICT, LAKHIMPUR  
DISTRICT AND SIBSAGAR DISTRICT

*By*

A. N. T. JOSEPH and K. K. RAY

*Zoological Survey of India, Calcutta*

INTRODUCTION

This is the fourth part of the series and it deals with the material of Diptera collected during February-March, 1969 from the Lohit District, Arunachal Pradesh\* and Lakhimpur and Sibsagar Districts, Assam, by Dr. S. K. Tandon, Zoologist, Zoological Survey of India, Calcutta. As in Part III, the distributional records are given only for those species which have not been reported in the earlier papers of the series (Joseph & Parui, 1973).

The families dealt with are Tipulidae, Culicidae, Bibionidae, Stratiomyidae, Tabanidae, Bombyliidae, Syrphidae, Tephritidae, Sepsidae, Chloropidae, Muscidae, Calliphoridae and Hippoboscidae.

SYSTEMATIC ACCOUNT

Family TIPULIDAE

1. *Nephrotoma concolorithorax* (Brunetti)

1912. *Pachyrhina concolorithorax* Brunetti, *Fauna Brit. India*, Diptera, Nematocera, 2 : 346.

1961. *Nephrotoma concolorithorax* (Brunetti) : Alexander, *Rec. Indian Mus.*, 59 : 21.

*Material*.—(I) 1 ex., Sta. No. 6, Lohit District, Bolung, 300 m., 4. iii. 1969. (II) 2 ex., Sta. No. 11, Lohit District, Tezu, 150 m., 11. iii. 1969.

2. *Nephrotoma dorsopunctata* (Brunetti)

1911. *Pachyrhina dorsopunctata* Brunetti, *Rec. Indian Mus.*, 6 : 265-266.

1961. *Nephrotoma dorsopunctata* (Brunetti) : Alexander, *Rec. Indian Mus.*, 59 : 21.

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\*Formerly N. E. F. A.

*Material*.—(I) 3 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969. (II) 1 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969. (III) 1 ex., Sta. No. 11, Lohit District, Tezu, 150 m., 11. iii. 1969. (IV) 2 ex., Sta. No. 16, Lohit District, Sitpani, 100 m., 16. iii. 1969.

### 3. *Conosia irrorata* (Wiedemann)

1828. *Limnobia irrorata* Wiedemann, *Ausser. Zweifl.*, 1 : 574.  
 1912. *Conosia irrorata* (Wiedemann) : Brunetti, *Fauna Brit. India*, Diptera, Nematocera, 2 : 497-499, fig. 43.

*Material*.—1 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969.

*Remarks*.—Specimen damaged ; legs lost.

## Family CULICIDAE

### 4. *Mansonia (Mansonioides) indiana* Edwards

1930. *Mansonia (Mansonioides) indiana* Edwards, *Bull. ent. Res.* 21 : 541.  
 1934. *Mansonia (Mansonioides) indiana* Edwards : Barraud, *Fauna Brit. India*, Diptera, 5 : 130-131. figs. 29, d, e, 30b, 31a-c.

*Material*.—8 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 14. iii. 1969.

*Remarks*.—Mesonotum with uniform brown scales.

Recorded from Calcutta ; Gauhati and Dimapur, Assam ; Nongpoh, Meghalaya, Trivandrum, Kerala ; Coonoor, Tamil Nadu ; also from Burma ; Java.

### 5. *Culex (Culex) bitaeniorhynchus* Giles

1901. *Culex (Culex) bitaeniorhynchus* Giles, *J. Bombay nat. Hist. Soc.*, 13 : 107.  
 1934. *Culex (Culex) bitaeniorhynchus* Giles : Barraud, *Fauna Brit. India*, 5 : 391-394, figs. 90b, 91e-h.

*Material*.—7 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 14. iii. 1969.

*Remarks*.—Wings with fewer and narrower pale wing scales. Abdomen with the yellow tergite bands complete.

Widely distributed in India ; recorded also from Japan ; Africa ; Australia.

## Family BIBIONIDAE

6. *Plecia aterrima* Brunetti

1925. *Plecia aterrima* Brunetti, *Rec. Indian Mus.*, 27 : 446.

*Material.*— (I) 1 ex., Sta. No. 11, Lohit District, Tezu, 150 m., 10. iii. 1969. (II) 2 ex., Sta. No. 12, Lohit District, Digaru Road, 150 m., 11. iii. 1969. (III) 1 ex., Sta. No. 14, Lohit District, Tezu, Lohitpur Road, 150 m., 13. iii. 1969. (IV) 1 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 14. iv. 1969.

*Remarks.*— Reported from Kalimpong, W. Bengal ; also from Langbian Peaks and Dalat, Vietnam.

7. *Plecia fulvicollis* (Fabricius)

1805. *Hirtea fulvicollis* Fabricius. *Syst. Antl.* : 53.

1912. *Plecia fulvicollis* (Fabricius) : Brunetti, *Fauna Brit. India*, Diptera, Nematocera, 2 : 163-164, Pl. 12, figs. 12, 15.

*Material.*— (I) 2 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969. (II) 1 ex., Sta. No. 4, Lohit District, Santipur, 100 m., 2. iii. 1969. (III) 3 ex., Sta. No. 11, Lohit District, Tezu, 150 m., 11. iii. 1969. (IV) 2 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 14. iii. 1969. (V) 1 ex., Sta. No. 16, Lohit District, Sitpani, 100 m., 16. iii. 1969. (VI) 1 ex., Sta. No. 17, Lohit District, Chowkham Road, 100 m., 16. iii. 1969.

8. *Plecia impostor* Brunetti

1912. *Plecia impostor* Brunetti, *Rec. Indian Mus.*, 7 : 446.

1952. *Plecia impostor* Brunetti : Hardy, *Rec. Indian Mus.*, 50(1) : 94-95, fig. 3.

*Material.*— 1 ex., Sta. No. 14, Lohit District, Tezu, Lohitpur Road, 150 m., 13. iv. 1969.

*Remarks.*— Recorded from Airadeo and Bhowali, Kumaon, Uttar Pradesh.

## Family STRATIOMYIDAE

9. *Microchrysa flaviventris* (Wiedemann)

1824. *Sargus flaviventris* Wiedemann, *Anal. Ent.* : 31.

1920. *Microchrysa flaviventris* (Wiedemann) : Brunetti, *Fauna Brit. India*, Brachycera, 1 : 88.

*Material.*— (I) 1 ex., Sta. No. 4, Lohit District, Santipur, 100 m., 2. iii. 1969. (II) 1 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969.

*Remarks.*— Widely distributed in India ; also reported from Sri Lanka ; Java ; Sarawak ; Papua.

#### 10. *Ampsalis longispinus* Brunetti

1913. *Ampsalis longispinus* Brunetti, *Rec. Indian Mus.*, 9 : 264, Pl. 14, figs. 2, 4, 16.  
 1920. *Ampsalis longispinus* Brunetti : Brunetti, *Fauna Brit. India*, Diptera, Brachycera, 1 : 44-45, figs. 18-19.

*Material.*— 1 ex., Sta. No. 12, Lohit District, Digaru Road, 150 m., 11. iii. 1969.

*Remarks.*— Recorded from Darjeeling and Singla, W. Bengal ; Shillong, Meghalaya.

#### Family TABANIDAE

#### 11. *Tabanus jucundus* Walker

1848. *Tabanus jucundus* Walker, *List. Dipt.*, 1 : 187.  
 1911. *Tabanus jucundus* Walker : Ricardo, *Rec. Indian Mus.*, 4, pp. 164-165, pl. 13, fig. 10.

*Material.*— 1 ex., Sta. No. 12, Lohit District, Digaru Road, 150 m., 11. iii. 1969.

#### 12. *Haematopota assamensis* Ricardo

1911. *Haematopota assamensis* Ricardo, *Rec. Indian Mus.*, 4 : 343-344, pl. 18, fig. 19.

*Material.*— 1 ex., Sta. No. 12, Lohit District, Digaru Road, 150 m., 11. iii. 1969.

*Remarks.*— The median spots of the abdomen also present in segments 4 and 5.

#### Family BOMBYLIIDAE

#### 13. *Aphoebantus ceylonicus* (Brunetti)

1909. *Argyramoeba ceylonica* Brunetti, *Rec. Indian Mus.*, 2 : 471, pl. 12, fig. 24.

1920. *Aphoebantus ceylonicus* (Brunetti) : Brunetti, *Fauna Brit. India*, Diptera, Brachycera, 1 : 257-258.

*Material.*— 1 ex., Sta. No. 1, Assam, Kaziranga, 100 m., 25. ii. 1969.

*Remarks.*— Known to occur in Calcutta and Kalimpong, W. Bengal ; Allahabad, Uttar Pradesh ; Pusa and Chapra, Bihar ; also in Sri Lanka.

#### Family SYRPHIDAE

##### 14. *Paragus indicus* (Brunetti)

1908. *Pipizella indica* Brunetti, *Rec. Indian Mus.*, 2 : 52.  
1923. *Paragus indicus* (Brunetti) : Brunetti, *Fauna Brit. India*, Diptera, 3 : 33, pl. 1, fig. 8.

*Material.*— 1 ex., Sta. No. 2, Assam, Dibrugarh, Dinjan, 100 m., 27. ii. 1969.

*Remarks.*— The distinction between *Paragus indicus* and *P. atratus* de Meijere is arbitrary (Brunetti, 1923) ; only a detailed genitalic study of the types can determine their exact systematic position. Since the type of *P. atratus* is not available, it is not possible to conduct this study at present.

##### 15. *Paragus atratus* de Meijere

1906. *Paragus atratus* de Meijere, *Nov. Guin. Res. V. Zool.*, 1 : 85.  
1923. *Paragus atratus* de Meijere : Brunetti, *Fauna Brit. India*, Diptera, 3 : 33-34.

*Material.*— 1 ex., Sta. No. 2, Assam, Dibrugarh, Dinjan, 100 m., 27. ii. 1969.

*Remarks.*— Previously recorded from Bijrani, Nainital, Uttar Pradesh ; also from Java.

##### 16. *Melanostoma orientale* (Wiedemann)

1824. *Syrphus orientalis* Wiedemann, *Analec. Ent.* : 36.  
1923. *Melanostoma orientale* (Wiedemann) : Brunetti, *Fauna Brit. India*, Diptera, 3 : 48-50, pl. 1, fig. 14.

*Material.*— (I) 1 ex., Sta. No. 2, Assam, Dibrugarh, Dinjan, 100 m., 27. ii. 1969. (II) 3 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969. (III) 5 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969, (IV) 1 ex., Sta. No. 9, Lohit District, Kandu Roing,

300 m., 7. iii. 1969. (V) 1 ex., Sta. No. 10, Lohit District, Sadiya Road, 300 m., 8. iii. 1969. (VI) 4 ex., Sta. No. 11, Lohit District, Tezu, 150 m., 10. iii. 1969. (VII) 2 ex., Sta. No. 13, Lohit District, Tezu, Hayliaung Road 700 m., 12. iii. 1969. (VIII) 2 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 15. iii. 1969. (IX) 1 ex., Sta. No. 18, Lohit District, M. T. Forest, 100 m., 17. iii. 1969.

#### 17. *Melanostoma univittatum* (Wiedemann)

1824. *Syrphus univittatus* Wiedemann, *Analec. Ent.* : 36.  
 1923. *Melanostoma univittatum* (Wiedemann) : Brunetti, *Fauna Brit. India*, Diptera, 3 : 50-51, fig. 14.

*Material.*— (I) 2 ex., Sta. No. 10, Lohit District, Sadiya Road, 300 m., 8. iii. 1969. (II) 1 ex., Sta. No. 11, Lohit District, Tezu, 150 m., 10. iii. 1969. (III) 1 ex., Sta. No. 13, Lohit District, Tezu, Hayliaung Road, 700 m., 12. iii. 1969. (IV) 2 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 15. iii. 1969. (V) 2 ex., Sta. No. 18, Lohit District M. T. Forest, 100 m., 17. iii. 1969.

#### 18. *Asarcina ericetorum* (Fabricius)

1781. *Syrphus ericetorum* Fabricius, *Spec. Ins.*, 2 : 245.  
 1923. *Asarcina ericetorum* (Fabricius) : Brunetti, *Fauna Brit. India*, Diptera, 3 : 63-64, pl. 1, fig. 18, pl. 2, fig. 1.

*Material.*— (I) 1 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969. (II) 2 ex., Sta. No. 11, Lohit District, Tezu, 150 m., 10. iv. 1969. (III) 3 ex., Sta. No. 13, Lohit District, Tezu, Hayliaung Road, 700 m., 12. iii. 1969. (IV) 1 ex., Sta. No. 14, Lohit District, Tezu, Lohitpur Road, 150 m., 13. iii. 1969. (V) 1 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 15. iii. 1969. (VI) 2 ex., Sta. No. 17, Lohit District, Namsai, Chowkham Road, 100 m., 16. iii. 1969.

#### 19. *Asarcina aegrota* (Fabricius)

1805. *Eristalis aegrota* Fabricius, *Syst. Antl.* : 243.  
 1923. *Asarcina aegrota* (Fabricius) : Brunetti, *Fauna Brit. India*, Diptera, : 3, 64-65.

*Material.*— 2 ex., Sta. No. 11, Lohit District, Tezu, 150 m., 10. iii. 1969.

#### 20. *Syrphus serarius* Wiedemann

1830. *Syrphus serarius* Wiedemann, *Auss. Zweifl.*, 2 : 128.  
 1923. *Syrphus serarius* Wiedemann : Brunetti, *Fauna Brit. India*, Diptera, 3 : 73-75, pl. 2, fig. 11-14.

*Material.*— (I) 1 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969. (II) 2 ex., Sta. No. 11, Lohit District, Tezu, 150 m., 10. iii. 1969. (III) 1 ex., Sta. No. 17, Lohit District, Namsai, Chowkham Road, 100 m., 16. iii. 1969.

### 21. *Syrphus balteatus* (de Geer)

1776. *Musca balteata* de Geer, *Mem. Insectes*, 6 : 116.

1923. *Syrphus balteatus* (de Geer) : Brunetti, *Fauna Brit. India*, Diptera, 3 : 82-84, pl. 1, figs. 19, 20.

*Material.*— (I) 1 ex., Sta. No. 1, Assam, Kaziranga, 24. ii. 1969. (II) 1 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969. (III) 2 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969. (IV) 2 ex., Sta. No. 6, Lohit District, Bolung, 300 m., 4. iii. 1969. (V) 5 ex., Sta. No. 7, Lohit District, Dambuk, 5. iii. 1969. (VI) 1 ex., Sta. No. 8, Lohit District, Deopani Roing, 350 m., 6. iii. 1969. (VII) 1 ex., Sta. No. 9, Lohit District, Kandu Roing, 300 m., 7. iii. 1969. (VIII) 4 ex., Sta. No. 10, Lohit District, Sadiya Road, 300 m., 8. iii. 1969. (IX) 3 ex., Sta. No. 11, Lohit District, Tezu, 150 m., 10. iii. 1969. (X) 5 ex. Sta. No. 13, Lohit District, Tezu, Hayliaung Road, 700 m., 12. iii. 1969. (XI) 2 ex., Sta. No. 14, Lohit District, Tezu, Lohitpur Road, 150 m., 13. iii. 1969. (XII) 1 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 15. iii. 1969. (XIII) 1 ex., Sta. No. 17, Lohit District, Namsai, Chowkham Road, 100 m., 16. iii. 1969.

### 22. *Sphaerophoria nigratarsis* Brunetti

1915. *Sphaerophoria* "Form 3 *nigratarsis*" Brunetti, *Rec. Indian Mus.*, 11 : 216.

1923. *Sphaerophoria indiana* Bigot : Brunetti, *Fauna Brit. India*, Diptera 3 : 102-103, pl. 3, figs. 1-6.

1967. *Sphaerophoria nigratarsis* Brunetti : Joseph, *Oriental Insects*, 1 (3 & 4) : 244-247, figs. 3, 4.

*Material.*— (I) 1 ex., Sta. No. 11, Lohit District, Tezu, 150 m., 10. iii. 1969. (II) 2 ex., Sta. No. 13, Lohit District, Tezu, Hayliaung Road, 700 m., 12. iii. 1969. (III) 2 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 15. iii. 1969. (IV) 1 ex., Sta. No. 17, Lohit District, Namsai, Chowkham Road, 100 m., 16. iii. 1969.

### 23. *Sphaerophoria vockerothi* Joseph

*Sphaerophoria vockerothi* Joseph, *EOS.*, 55 : 165.

*Material.*— (I) 2 ex., Sta. No. 7, Lohit District, Dambuk, 5. iii. 1969. (II) 2 ex., Sta. No. 10, Lohit District, Sadiya Road, 300 m., 8. iii. 1969. (III) 1 ex., Sta. No. 14, Lohit District, Tezu,

Lohitpur Road, 150 m., 13. iii. 1969. (IV) 1 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 15. iii. 1969.

*Remarks.*—Originally described from Kameng Frontier and Subansiri Frontier Divisions, and Taichung, Taiwan.

#### 24. *Baccha amphithoe* Walker

1849. *Baccha amphithoe* Walker, *List. Dipt. British Mus.*, 3 : 549.

1923. *Baccha amphithoe* Walker : Brunetti, *Fauna Brit. India*, Diptera, 3 : 126-127, pl. 3, fig. 12, text-figs. 25, 26.

*Material.*— 1 ex., Sta. No. 11, Lohit District, Teju, 150 m., 10. iii. 1969.

#### 25. *Eristalis solitus* Walker

1849. *Eristalis solitus* Walker, *List. Dipt. Brit. Mus.*, 3 : 619.

1923. *Eristalis solitus* Walker, Brunetti, *Fauna Brit. India*, Diptera, 3 : 172-173.

*Material.*— 1 ex., Sta. No. 4, Lohit District, Santipur, 100 m., 2. iii. 1969.

*Remarks.*— Common in Himalaya ; also occurring in Burma ; W. China ; Japan.

#### 26. *Eristalis tenax* (Linnaeus)

1758. *Musca tenax* Linnaeus, *Syst. Nat.* ed. 10 : 591.

1923. *Eristalis tenax* (Linnaeus) : Brunetti, *Fauna Brit. India*, Diptera, 3 : 173-174.

*Material.*— (I) 2 ex., Sta. No. 6, Lohit District, Bolung, 300 m., 4. iii. 1969. (II) 10 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 15. iii. 1969. (III) 6 ex., Sta. No. Lohit District, Namsai, Chowkam Road, 100 m., 16. iii. 1969.

#### 27. *Megaspis zonatus* (Fabricius)

1787. *Syrphus zonatus* Fabricius, *Mant. Ins.*, 2 : 337.

1923. *Megaspis zonatus* (Fabricius) : Brunetti, *Fauna Brit. India*, Diptera, 3 : 203-204.

*Material.*— 1 ex., Sta. No. 7, Lohit District, Dambuk, 5. iii. 1969.

#### 28. *Chrysotoxum baphyrus* Walker

1849. *Chrysotoxum baphyrus* Walker, *List. Dipt. British Mus.*, 3 : 542.



1923. *Chrysotoxum baphyrus* Walker : Brunetti, *Fauna Brit. India*, Diptera, 3 : 296-298, fig. 63.

*Material.*— (I) 1 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969. (II) 1 ex., Sta. No. 12, Lohit District, Digaru Road, 150 m., 11. iii. 1969. (III) 1 ex., Sta. No. 13, Lohit District Tezu, Hayliaung Road, 700 m., 12. iii. 1969. (IV) 1 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 15. iii. 1969.

#### Family TEPHRITIDAE

##### 29. *Bactrocera caudata* (Fabricius)

1805. *Dacus caudata* Fabricius, *Syst. Antl.*, 16 : 276.  
1913. *Bactrocera caudata* (Fabricius) : Bezzi, *Mem. Indian Mus.*, 3(3) : 97, pl. 8, fig. 8.

*Material.*— 1 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969.

##### 30. *Rioxa quinquemaculata* Bezzi

1913. *Rioxa quinquemaculata* Bezzi, *Mem. Indian Mus.*, 3 : 115, pl. 9, fig. 27.  
1970. *Rioxa quinquemaculata* Bezzi : Kapoor, *Oriental Insects*, 4(2) : 232.

*Material.*— 1 ex., Sta. No. 8, Lohit District, Deopani Roing, 350 m., 6. iii. 1969.

*Remarks.*—Thorax more yellowish ; hind tibiae black to a greater extent. Previously recorded from Darjeeling, W. Bengal ; also from Burma.

##### 31. *Sphaeniscus sexmaculatus atilia* (Walker)

1849. *Trypeta atilia* Walker, *List. Dipt. Brit. Mus.*, 4 : 1021.  
1970. *Sphaeniscus sexmaculatus atilia* (Walker) : Kapoor, *Oriental Insects*, 4(2) : 234.

*Material.*— 4 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969.

*Remarks.*— Widespread over the Orient including India.

#### Family SEPSIDAE

##### 32. *Sepsis indica* Wiedemann

1830. *Sepsis indica* Wiedemann, *Ausseurop. Zweifl. Ins.*, 2 : 467.  
1909. *Sepsis indica* (Wiedemann) : Brunetti, *Rec. Indian Mus.*, 3 : 357-359, pl. 13, figs. 9-13.

*Material*.— (I) 1 ex., Sta. No. 8, Lohit District, Deopani Roing, 350 m., 6. iii. 1969. (II) 1 ex., Sta. No. 9, Lohit District Kandu Roing, 300 m., 7. iii. 1969. (III) 2 ex., Sta. No. 10, Assam, Sadiya Road, 300 m., 8. iii. 1969. (IV) 1 ex., Sta. No. 13, Lohit District, Hayliaung Road, 700 m., 12. iii. 1969.

*Remarks*.— The black dorsal band of thorax nearly covering the dorsum.

### 33. *Sepsis bicolor* Wiedemann

1830. *Sepsis bicolor* Wiedemann, *Ausseurop. Zweifl.*, 2 : 468.

1909. *Sepsis bicolor* Wiedemann : Brunetti, *Rec. Indian Mus.*, 3 : 364.

*Material*.—(I) 5 ex., Sta. No. 12, Lohit District, Digaru Road, 150 m., 11. iii. 1969. (II) 3 ex., Sta. No. 13, Lohit District, Hayliaung Road, 700 m., 12. iii. 1969.

*Remarks*.— Recorded from considerable regions of the Orient.

### 34. *Sepsis rufa* Macquart

1850. *Sepsis rufa* Macquart, *Dipt. Exot. Supp.*, 4 : 269.

1909. *Sepsis rufa* Macquart : Brunetti, *Rec. Indian Mus.*, 3 : 359.

*Material*.— 1 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969.

## Family CHLOROPIDAE

### 35. *Rhodesiella scutellata* (Meijere)

1908. *Meroscinis scutellata* Meijere, *Tijd. Ent.*, 51 : 172.

1940. *Rhodesiella scutellata* (Meijere) : Sabrosky, *Ann. Mag. nat. Hist.*, (11) 6 : 425-426.

*Material*.— 1 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1.ii i. 1969.

*Remarks*.— Recorded from Calcutta, W. Bengal ; also from Java ; Singapore ; Formosa ; Malaysia.

## Family MUSCIDAE

### 36. *Musca (Byomyia) ventrosa* Wiedemann

1830. *Musca ventrosa* Wiedemann, *Aussereurop. Zweifl. Ins.*, 2 : 656.

1965. *Musca (Byomyia) ventrosa* Wiedemann : Emden, *Fauna India*, Diptera, 7(1) : 60-61.

*Material.*— (I) 1 ex., Sta. No. 4, Lohit District, Santipur, 100 m., 2. iii. 1969. (II) 1 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969.

### 37. *Musca (Byomyia) sorbens* Wiedemann

1830. *Musca sorbens* Wiedemann, *Aussereurop. Zweifl. Ins.*, 2 : 418.  
 1965. *Musca (Byomyia) sorbens* Wiedemann : Emden, *Fauna India*, Diptera, 7(1) : 61-63, fig. 14.

*Material.*— 1 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969.

### 38. *Musca (Byomyia) conducens* Walker

1860. *Musca conducens* Walker, *J. Proc. Linn. Soc.*, 4 : 138.  
 1965. *Musca (Byomyia) conducens* Walker : Emden, *Fauna India*, Diptera, 7(1) : 68-69.

*Material.*— (I) 1 ex., Sta. No. 1, Assam., Kaziranga, 100 m., 24. ii. 1969. (II) 1 ex., Sta. No. 2, Dibrugarh, Dinjan, 100 m., 27. ii. 1969. (III) 3 ex., Sta. No. 3, Assam, Sadiya, 100 m., 28. ii. 1969 and 1. iii. 1969. (IV) 1 ex., Sta. No. 10, Lohit District, Sadiya Road, 300 m., 8. iii. 1969. (V) 2 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 15. iii. 1969.

*Remarks.*— Distributed throughout the Oriental and Ethiopian Regions.

### 39. *Musca (Philaematomyia) crassirostris* Stein

1903. *Musca crassirostris* Stein, *Mitt. Zool. Mus. Berlin*, 2 : 99.  
 1965. *Musca (Philaematomyia) crassirostris* Stein : Emden, *Fauna India*, Diptera, 7(1) : 71-72, fig. 11b.

*Material.*— (I) 1 ex., Sta. No. 1, Assam, Kaziranga, 100 m., 24. ii. 1969. (II) 2 ex., Sta. No. 7A, Lohit District, Roing, 300 m., 5. iii. 1969 and 7. iii. 1969. (III) 1 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 15. iii. 1969.

### 40. *Musca (Eumusca) lusoria* Wiedemann

1824. *Musca lusoria* Wiedemann, *Analecta ent.* : 47.  
 1965. *Musca (Eumusca) lusoria* Wiedemann : Emden, *Fauna India*, Diptera, 7(1) : 79-80, pl. 1, fig. 2.

*Material.*— 1 ex., Sta. No. 3, Lohit District, Hayliaung Road, 700 m., 12. iii. 1969.

41. *Musca (Viviparomusca) gibsoni* Patton and Cragg

1913. *Musca gibsoni* Patton and Cragg, *Ind. J. Med. Res.*, 1 : 14, pl. 1.  
 1965. *Musca (Viviparomusca) gibsoni* Patton and Cragg : Emden, *Fauna India*, Diptera, 7(1) : 86-87. fig. 21.

*Material.*— (I) 1 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969. (II) 1 ex., Sta. No. 9, Lohit District, Kandu Roing, 300 m., 7. iii. 1969.

42. *Musca (Setimusca) malaisei* Emden

1965. *Musca (Setimusca) malaisei* Emden, *Fauna India*, Diptera, 7(1) : 91-92.

*Material.*— (I) 1 ex., Sta. No. 13, Lohit District, Hayliaung Road, 700 m., 12. iii. 1969. (II) 1 ex., Sta. No. 14, Lohit District, Tezu, Lohitpur Road, 150 m., 13. iii. 1969.

*Remarks.*— New to India. So far only reported from the type locality, i.e., N. E. Burma, Kambaiti.

43. *Orthellia fletcheri* Emden

1965. *Orthellia fletcheri* Emden, *Fauna India*, Diptera, 7(1) : 122-123, figs. 29, 30.

*Material.*— (I) 2 ex., Sta. No. 4, Lohit District, Santipur, 100 m., 2. iii. 1969. (II) 2 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969. (III) 1 ex., Sta. No. 12, Lohit District, Digaru Road, 150 m., 11. iii. 1969.

*Remarks.*— Some examples with 1+2 *stpl.*

44. *Orthellia coerulea* (Wiedemann)

1819. *Musca coerulea* Wiedemann, *Zool. Mag.*, 3 : 23.  
 1965. *Orthellia coerulea* (Wiedemann) : Emden, *Fauna India*, Diptera, 7(1) : 124-125, pl. 1, fig. 4.

*Material.*— (I) 2 ex., Sta. No. 1, Assam, Kaziranga, 100 m., 24. ii. 1969. (II) 4 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969. (III) 15 ex., Sta. No. 4, Lohit District, Santipur, 100 m., 2. iii. 1969. (IV) 3 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969. (V) 1 ex., Sta. No. 9, Lohit District, Kandu Roing, 300 m., 7. iii. 1969. (VI) 3 ex., Sta. No. 10, Lohit District, Sadiya Road, 300 m., 8. iii. 1969. (VII) 2 ex., Sta. No. 12, Lohit District, Digaru Road, 150 m., 11. iii. 1969. (VIII) 5 ex., Sta. No. 13, Lohit District, Tezu, Hayliaung Road, 700 m., 12. iii. 1969. (IX) 2 ex., Sta. No. 17, Lohit District, Namsai, Chowkham Road, 100 m., 16. iii. 1969.

45. *Orthellia indica* (Robineau-Desvoidy)

1830. *Lucilia indica* Robineau-Desvoidy, *Myodairires* : 453.  
 1965. *Orthellia indica* (Robineau-Desvoidy) : Emden, *Fauna India*, Diptera, 7(1) : 126-127, pl. 1, fig. 3.

*Material.*— (I) 1 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969. (II) 1 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969. (III) 1 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 14. iii. 1969.

46. *Orthellia claripennis* Malloch

1923. *Orthellia claripennis* Malloch, *Ann. Mag. nat. Hist.*, (9) 12 : 515.  
 1965. *Orthellia claripennis* Malloch : Emden, *Fauna India*, Diptera, 7(1) : 130-131.

*Material.*— (I) 3 ex., Sta. No. 4, Lohit District, Santipur, 100 m., 2. iii. 1969. (II) 5 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969. (III) 2 ex., Sta. No. 6, Lohit District, Bolung Roing, 300 m., 4. iii. 1969. (IV) 1 ex., Sta. No. 8, Lohit District, Deopani Roing, 350 m., 6. iii. 1969. (V) 1 ex., Sta. No. 9, Lohit District, Kanduru Roing, 300 m., 7. iii. 1969. (VI) 8 ex., Sta. No. 10, Lohit District, Sadiya Road, 300 m., 8. iii. 1969. (VII) 2 ex., Sta. No. 12, Lohit District, Digaru Road, 150 m., 11. iii. 1969. (VIII) 1 ex., Sta. No. 13, Lohit District, Hayliaung Road, 700 m., 12. iii. 1969.

47. *Orthellia chalybea faceta* (Enderlein)

1934. *Neomyia facetā* Enderlein, *Sitzber Ges. naturf. Fr.*, 1934 : 420.  
 1965. *Orthellia chalybea faceta* (Enderlein) : Emden, *Fauna India*, Diptera, 7(1) : 131-132, fig. 31.

*Material.*— (I) 12 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969. (II) 3 ex., Sta. No. 4, Lohit District, Santipur, 100 m., 2. iii. 1969. (III) 3 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969. (IV) 1 ex., Sta. No. 8, Lohit District, Deopani Roing, 350 m., 6. iii. 1969. (V) 1 ex., Sta. No. 9, Lohit District, Kanduru Roing, 300 m., 7. iii. 1969. (VI) 1 ex., Sta. No. 12, Lohit District, Digaru Road, 150 m., 11. iii. 1969.

48. *Stomoxys calcitrans* (Linnaeus)

1758. *Conops calcitrans* Linnaeus, *Syst. Nat.* ed. 10 : 604.  
 1965. *Stomoxys calcitrans* (Linnaeus) : Emden, *Fauna India*, Diptera, 7(1) : 160-161, figs. 35-37.

*Material.*— (I) 1 ex., Sta. No. 2, Assam, Dibrugarh, Dinjan, 100 m., 27. ii. 1969. (II) 6 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969. (III) 1 ex., Sta. No. 7, Lohit District, Dambuk, 5. iii. 1969. (IV) 1 ex., Sta. No. 15, Lohit District, Namsai, 100 m., 15. iii. 1969.

#### 49. *Haematobia (Bdellolarynx) sanguinolenta* (Austen)

1909. *Bdellolarynx sanguinolentus* Austen, *Ann. Mag. nat. Hist.*, (8) 3 : 290.  
1965. *Haematobia (Bdellolarynx) sanguinolenta* (Austen) : Emden, *Fauna India*, Diptera, 7(1) : 172-173, figs. 42, 43.

*Material.*— 1 ex., Sta. No. 4, Lohit District, Santipur, 100 m., 2. iii. 1969.

*Remarks.*— Femora dark except their apices. Widely distributed in India ; also recorded from Formosa ; China.

#### 50. *Lyperosia (Lyperosia) exigua* de Meijere

1903. *Haematobia exigua* de Meijere, *Meded. Profest. Oost-Java*, (3) No. 44 : 17.  
1965. *Lyperosia (Lyperosia) exigua* de Meijere : Emden, *Fauna India*, Diptera, 7(1) : 176-187, fig. 44; pl. 1, fig. 9.

*Material.*— 2 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969.

#### 51. *Atherigona destructor* Malloch

1923. *Atherigona destructor* Malloch, *Ann. Mag. nat. Hist.*, (9) 12 : 185.

*Material.*— (I) 1 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969. (II) 2 ex., Sta. No. 5, Lohit District, Sunpura, 100 m., 3. iii. 1969. (III) 1 ex., Sta. No. 11, Lohit District, Tezu, 150 m., 10. iii. 1969. (IV) 1 ex., Sta. No. 13, Lohit District, Hayliaung Road, 700 m., 12. iii. 1969.

*Remarks.*— A common pest of cereal crops and grasses ; widely distributed in India.

#### 52. *Atherigona bituberculata* Malloch

1925. *Atherigona bituberculata* Malloch. *Mem. Dept. Agri. India* (Ent. Ser.), 8 : 119, pl. 18, figs. 13a-d.

*Material.*— 1 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969.

*Remarks.*— Recorded from Pusa, Bihar ; Coimbatore, Saidapet and Tanjore, Tamil Nadu ; Wynaad, Kerala ; also from Java ; Philippines.

#### Family CALLIPHORIDAE

##### 53. *Lucilia porphyrina* (Walker)

1857. *Musca porphyrina* Walker, *J. Proc. Linn. Soc. Lond.*, 1 : 24.  
 1940. *Lucilia porphyrina* (Walker) : Senior-White, Aubertin and Smart, *Fauna Brit. India*, Diptera, 6 : 53-54, fig. 25.

*Material.*— 1 ex., Sta. No. 10, Lohit District, Sadiya Road, 300 m., 8. iii. 1969.

*Remarks.*— Widely distributed in Himalaya ; also reported from Sri Lanka ; Malaya Peninsula ; China ; Hong Kong ; Sumatra ; Java ; Philippine Islands ; Japan ; Australia.

##### 54. *Chrysomya pinguis* (Walker)

1858. *Lucilia pinguis* Walker, *Trans. Ent. Soc. London*, 4 : 213.  
 1940. *Chrysomya pinguis* (Walker) : Senior-White, Aubertin and Smart, *Fauna Brit. India*, Diptera, 6 : 144-145, fig. 69.

*Material.*— 2 ex., Sta. No. 14, Tezu, Lohitpur Road, 150 m., 13. ii. 1969.

*Remarks.*— Recorded from Darjeeling, W. Bengal ; Simla, Himachal Pradesh ; Khasi Hills, Shillong and Mishmi Hills, Meghalaya ; Coonoor, Tamil Nadu ; also from Sri Lanka ; Burma ; Indonesia ; Malaysia ; China ; Hongkong.

#### Family HIPPOBOSCIDAE

##### 55. *Hippobosca longipennis* Fabricius

1805. *Hippobosca longipennis* Fabricius, *Syst. Antliat.* : 338.  
 1967. *Hippobosca longipennis* Fabricius, Maa, *Pacific Insects*, 9(4) : 743-744, fig. 7.

*Material.*— 3 ex., Sta. No. 3, Assam, Sadiya, 100 m., 1. iii. 1969.

#### SUMMARY

It includes 55 species of Diptera, of which one is new to India, i.e., *Musca (Setimusca) malaisei* Emden (Muscidae), belonging to 13 families. The total number of examples studied are 314.

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