

## STUDIES ON CICADELLID COLLECTIONS FROM MANIPUR (HEMIPTERA : CICADELLIDAE)

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( With 1 Text-figure )

The paper deals with the studies on the collection of Cicadellidae made by the author in March, 1974 and by M. Datta in 1975. The collections are mainly from Moirang and Churachandpur regions of the state. In all thirteen species are reported of which one is new and eleven are recorded for the first time.

### SYSTEMATIC ACCOUNT

#### Family CICADELLIDAE

##### 1. *Tettigoniella ferruginea* (Fabr.)

1794. *Cicada ferruginea* Fabr., *Ent. Syst.* 4 : 32.

1908. *Tettigoniella ferruginea* (Fabr.) : Distant, *Fauna Br. India*, (Hemiptera) 4 : 202.

1973. *Tettigoniella ferruginea* (Fabr.) : Datta, *Zool. Anz* : 191 (5 & 6) : 458.

*Material*.—1 ♀, Singnat, 27. iii. 1974, K. R. Rao.

*Remarks*.—Reported from North India, Assam and Khasi Hills.

Recorded from Manipur for the first time.

##### 2. *Tettigoniella spectra* (Distant)

1853. *Tettigonia albida* (nec Walker) Signoret, *Ann. Soc. Ent. Fr.*, 21, (3 : 663).

1908. *Tettigoniella spectra* Distant, *Fauna Br. India* (Hemiptera) 4 : 211. New name for *Tettigonia albida* Signoret 1853 not *Tettigonia albida* Walker 1851.

*Material*.—4 ♀ ♀, Moirang, Loktak Lake, 17. iii. 74, K. R. Rao ; 4 ♀ ♀, Moirang—Faogak chaokhai, 19. iii. 74, K. R. Rao ; 1 ♀, Kongvai, 22. iii. 75, M. Datta ; 18 ♂ ♂, 17 ♀ ♀, West of Churachandpur 24. iii. 74, K. R. Rao ; 2 ♀ ♀, Gulezong, 25. iii. 75, M. Datta ; 1 ♂, Singnat, 26. iii. 74. K. R. Rao.

*Remarks*.—Reported from Calcutta, Bombay, Surat, Nagpur, Pusa, Bengal, SRI LANKA and AUSTRALIA.

### 3. *Tettigoniella subvirescens* (Stål)

1870. *Tettigonia subvirescens* (Stål, *Ofv. Vet. Ak. Fjrh* : 734.

1908. *Tettigoniella subvirescens* Stål : Distant, *Fauna Br. India* (Homiptera) 4 : 212.

*Material*.—1 ♂, Moirang, 18. iii. 74, K. R. Rao.

*Remarks*.—This species is known from Calcutta, Tennasserim (BURMA) and PHILIPPINES. It is reported from the first time from Manipur.

### 4. *Tettigoniella intermedia* sp. nov.

Length including tegmen : ♂ 5.50 mm ; ♀ 5.60 mm.

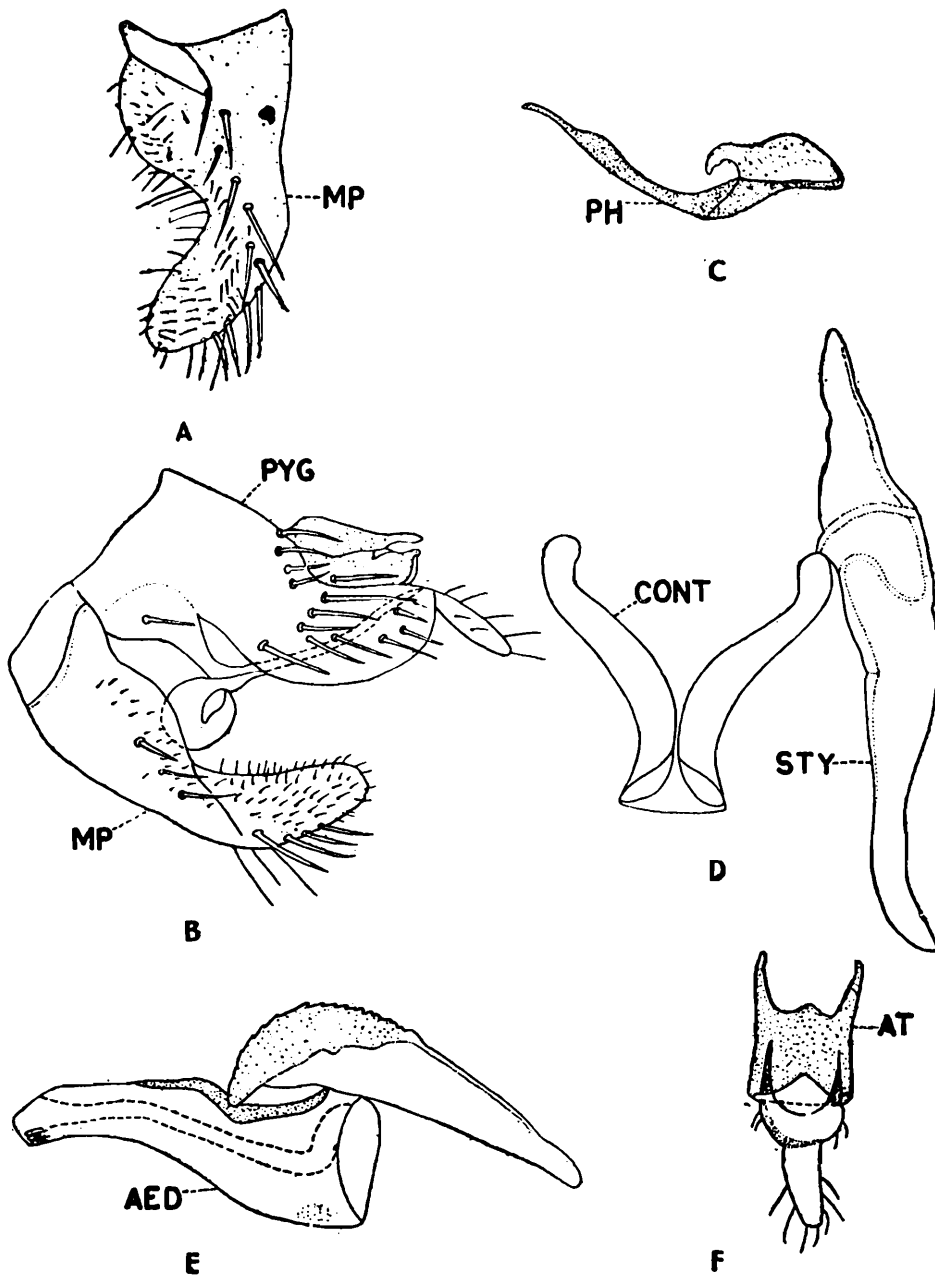
Grown with three round, black spots one at each anterior angle and another at apex ; an irregular, black spot posterior to each ocellus, three large, red spots one at inner margin of each eye and a discal one (not bifid) present ; a fine median line from base of crown to level of ocelli present. Face pale ochraceous ; clypeus with a black stripe at each lateral margin uniting medially at posterior margin and continued medially clypeus to apex. Anterior margin of pronotum pale ochraceous, with a transverse series of irregular spots, the central one, being largest ; spots sometimes forming a uniform, submarginal, black band ; central spot, medial line and the irregular, triangle at posterior margin, black ; pronotum on either side of black medial line reddish.

Scutellum reddish, with a large, black spot at each basal angle. Tegmina pale fuscous, with three, longitudinal, sanguineous fasciae ; one subcostal, another corium and third on clavus (not touching the apical area of tegmina) ; a short sanguineous fascia between the claval and corial fasciae present. Wings fuliginous, with piceous veins. Abdomen black, posterior margin of sternite pale ochraceous.

Median length of crown equal to half the distance between the eyes ; pronotum broader than long, distinctly concave at posterior margin. Valve concave at posterior margin ; pygofer long, convex posteriorly ; with stout bristles at posterior margin. Ovipositor stout.

*Male genitalia*.—Genital Capsule : Male plate (Text-fig. 1A) broad in ventral aspect ; deeply curved along lateral margin ; with a single row of macrosetae extending across disc to mesal margin and numerous irregularly arranged microsetae between macrosetae and lateral margin. Pygofer (Text-fig. 1B) with numerous macrosetae on postero-dorsal area and dorsal margin, one long macroseta just dorsal of outer basal angle of male plate. Pygofer hook (Text-fig. 1B & C) massive, arising from latero-basal margin and directed dorsally ; caudal ventrally ; apex acuminate. Anal tube (Text-fig. 1 F) cylindrical, with a few setae at the posterior end.

Style (Text-fig. 1D) straight cephalic portion narrowed and pointed ; caudal portion also narrowed but curved lateral, Connective (Text-fig.



Text-fig. 1. *Tettigoniella intermedia* sp. nov. A—Male plate ventral view, B—Genital Capsule and male plate. lateral view, C—Pygofer hook dorsal view, D—Style and connective dorsal view, E—Aedeagus lateral view, F—Anal Tube dorsal view.

MP—Male plate, PYG—Pygofer, PH—Pygofer hook, STY—Style, CONT—Connective, AED—Aedeagus, AT—Anal tube.

1D) V-shaped, arms diverging. Aedeagus (Text-fig. 1E) with a well developed base ; shaft straight, with small lobes at apical region.

*Tettigoniella intermedia* sp. nov. is intermediate between *T rubromaculata* (Sign.) and *T sikhimensis* Dist. It resembles both in having three longitudinal sanguineous fasciae on the tegmen but

differs by (i) presence of five black and three large red spots on the crown, (ii) red and black bands on the pronotum and (iii) structural variations in the genitalia.

*Specimens studied.*—

Holotype ♂ : India ; Manipur, Kongvai, Alt. 875 m, 22. iii. 1975, M. Datta.

Paratypes : 2 ♂ ♂ and 2 ♀ ♀ with same data as in Holotype. All deposited in the National collections, Zoological Survey of India, Calcutta.

### 5. *Indiocerus maculatus* Distant

1912. *Indiocerus maculatus* Distant, *Fauna Br. India* (Hemiptera), 6 : 226.

*Material.*—2 ♀ ♀, Moirang, 18. iii. 74, K. R. Rao.

*Remarks.*—Previously known from Chilka lake. Reported for the first time from Manipur.

### 6. *Hecalus porrectus* (Walker)

1858. *Acocephalus porrecta* Walker, *List. Hom. Suppl.*, 262.

1908. *Thomsoniella porrecta* (Walker) : Distant, *Fauna Br. India* (Hemiptera), 4 : 278.

1918. *Parabolocratus porrectus* (Walker) : Distant, *Fauna Br. India* (Hemiptera), 7 : 31.

1973. *Hecalus parrectus* (Walker) : Morrison, *Pacif. Ins.* 15 : 379 : 438.

1973. *Thomsoniella albomaculata* Distant : Distant, Morrison, *Pacif.* 15 : 421

1973. *Hecalaus porrectus* (Walker) : Morrison, *Pacif. ins.* 15 ; 421.

*Material.*—2 ♀ ♀, Churachandpur-Saikot, 23. iii. 74, K. R. Rao.

*Remarks.*—Reported from Calcutta, Pusa, MALDIVE Islands, Dimikoi, SRI LANKA, BURMA and the PHILIPPINES. Reported for the first time from Manipur.

### 7. *Paramesus lineaticollis* Distant

1908. *Paramesus lineaticollis* Distant, *Fauna Br. India* (Hemiptera), 4 : 294.

*Material.*—1 ♀, Churachandpur-Saikot, 23. iii. 74, K. R. Rao.

*Remarks.*—This species was so far known from Pusa (Bihar), Reported for the first time from Manipur.

8. **Jassus atkinsoni** Distant

1908. *Jassus atkinsoni* Distant, *Fauna Br. India* (Hemiptera), 4 : 331.

*Material*.—1 ♀, Noney village, New Cachar Road, 30. iii. 74, K. R. Rao.

*Remarks*.—Known from Assam and SRI LANKA. It is reported for the first time from Manipur.

9. **Arya rubrolineata** Distant

1908. *Arya rubrolineata* Distant, *Fauna Br. India* (Hemiptera), 4 : 338.

1967. *Arya rubrolineata* Distant : Rao, *J. Bombay nat. Hist. Soc.*, 64 (1) : 130

*Material*.—1 ♀, Singnat, 28. iii. 74, K. R. Rao.

*Remarks*.—Previously known from Calcutta, Barrackpore, Kalyani (West Bengal). Reported for the first time from Manipur.

10. **Phrynomorphus indicus** (Distant)

1908. *Athysanus indicus* Distant, *Fauna Br. India* (Hemiptera), 4 : 344.

1918. *Phrynomorphus indicus* (Distant) : Distant, *Fauna Br. India* (Hemiptera), 7 : 51.

*Material*.—1 ♀, Moirang, 19. iii. 74, K. R. Rao ; 1 ♂, Nongthang, 21. iii. 75, M. Datta ; 1 ♀, Keibul, 24. iii. 75, K. R. Rao.

*Remarks*.—Previously recorded from Bengal, Maharashtra and NEPAL. Reported from Manipur for the first time.

11. **Thamnotettix cicur** Melichar

1903. *Thamnotettix cicur* Melichar, *Hom. Fauna Ceylon* : 186.

1908. *Thamnotettix cicur* Melichar : Distant, *Fauna Br. India* (Hemiptera), 4 : 355.

*Material*.—1 ♀, Singnat, 28. iii. 74, K. R. Rao.

*Remarks*.—Previously known from SRI LANKA. Reported from Manipur for the first time.

12. **Nephotettix nigropictus** (Stål)

1870. *Thamnotettix nigropicta* Stål, *Ofv. Vet. Ak, Förh* : 740.

1908. *Nephotettix apicalis* (Stål) : Distant, *Fauna Br. India* (Hemiptera), 4 : 360.

1971. *Nephotettix nigropictus* (Stål), Ghauri, *Bull. ent. Res.*, 60 (3) : 491.

*Material*.—2 ♂♂, 2 ♀♀, Churachandpur, Saikot, 23. iii. 74, K. R. Rao ; 1 ♀, Bunchman, 22. iii. 74, K. R. Rao ; 6 ♂♂, 16 ♀♀, Moirang—Loktak Lake, 17. iii. 74, K. R. Rao ; 1 ♂, 6 ♀♀, Churachandpur, 24. iii. 74, K. R. Rao.

*Remarks*.—Distributed all over India. It was collected from Manipur by T. Clay in 1952.

13. *Scaphoideus festivus* Matsumura

1902. *Scaphoideus festivus* Matsumura, *Termesz Fuzetek*, **25** : 384.

1908. *Scaphoideus festivus* Matsumura : Distant, *Fauna Br. India* (Hemiptera), **4** : 372.

*Material*.—1 ♂, Singnat, 26. iii. 74, K. R. Rao.

*Remarks*.—Previously known from SRI LANKA and JAPAN. Recorded for the first time from Manipur.

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## SUMMARY

A total number of 103 examples contained in fourteen species were studied from the collections made from southern part of Manipur. Eleven new records have been reported and one new species *Tettigoniella intermedia* has been described. Details of distributional records for each species have been provided.

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