

**RECORDS OF MOSQUITOES (DIPTERA : CULICIDAE) FROM
MANIPUR : GENERA MIMOMYIA, COQUILLETTIDIA, MANSONIA,
TRIPTEROIDES, AND URANOTAENIA.**

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INTRODUCTION

The so far known mosquito-records from the state of Manipur (Barraud, 1934 ; Christophers, 1933 ; Covell, 1927, 1931 ; Puri, 1936 ; Mortimer, 1946 and Malhotra *et al.*, 1983) did not include genera *Mimomyia*, *Tripteroides*, and *Uranotaenia*, while the genera *Mansonia* and *Coquillettidia* are represented each by single species (Malhotra *et al.*, 1983).

The present communication includes the distribution records for these genera in the State of Manipur. The surveys for the present distribution records were made during 1983 to 1985. The collection procedure, rearing and identification technique, description of area & climate, have already been described earlier (Rajput and Singh, 1986).

COLLECTION RECORDS

1. *Mimomyia luzonensis* (Ludlow)

O'Reillia luzonensis Ludlow, 1905, *Can. Ent.* 37 : 101 ; Barraud, 1934 : 113-115 ; Knight and Stone, 1977 : 248.

This species is Oriental in distribution. It has been recorded from Manipur, Tamil Nadu, Uttar Pradesh and West Bengal.

Present records : Manipur : *Chingmeirong* (785 m.) — 18 ♂♂, 6 ♀♀ (18 Sept. '83 — 29 Nov. '83), 14 ♂♂, 4 ♀♀ (27 Jul. '84 — 14 Oct. '84) were collected from *Quercus acutissima* plantation. *Khongampat* (785 m.) — 12 ♂♂, 4 ♀♀ (27 Nov. '83), 2 ♂♂ (12 Aug. '84 — 16 Dec. '84) from herb vegetation. *Mantripukhri* (785 m.) — 2 ♂♂ (13 Nov. '83 — 19 Nov. '83) from bulb-light.

2. *Mimomyia chamberlaini* Ludlow

Mimomyia chamberlaini Ludlow, 1904, *Can. Ent.* **36** : 297 ; Barraud, 1934 : 108-111 ; Knight and Stone, 1977 : 285.

The species is known from Oriental region and recorded from all over India.

Present records : Manipur : *Chingmeirong* (785 m.) : 2 ♂♂, 1 ♀ (17 Oct. '83) larvae reared from a pond, 5 ♂♂, 13 ♀♀ (29 Nov. '83 — 25 Dec. '83), 10 ♀♀ (22 Jan. '84) from *Quercus acutissima* plantation, 6 ♀♀ (7 Jan. '84) from herb vegetation. Associated breeder was *Anopheles gigas*.

3. *Mimomyia hybrida* (Leicester)

Conopomyia hybrida Leicester, 1908, *Cul. Malaya* : 115; Barraud, 1934 : 111-113; Knight and Stone, 1977 : 286.

This is an Oriental species recorded from Assam, Bihar, Manipur and West Bengal in India.

Present records : Manipur : *Chingmeirong* (785 m.) — 3 ♂♂, 1 ♀ (2 Oct. '83 — 14 Oct. '83), 3 ♂♂ (13 Jul. '84 — 14 Oct. '84) from *Quercus acutissima* plantation. *Jiribam* (150 m.) — 1 ♀ (7 Oct. '84) from Banana (*Musa balbisiana*) groves. *Mantripukhri* (785 m.) — 1 ♀ (20 Nov. '83) from bulb — light.

4. *Coquillettidia crassipes* (van der Wulp)

Culex crassipes Van der Wulp, 1881, *Nat. Hist.* : 9 ; Knight and Stone, 1977 : 290.

The species is known to be distributed in Oriental, Palaearctic and Australian region. Recorded from all over India.

Present records : Manipur : *Beru-Khudom* (1,200 m.) — 4 ♂♂, 1 ♀ (23 Oct. '85) from shrubby vegetation. *Chandel* (1,500 m.) — 7 ♂♂, 11 ♀♀ (22 Oct. '85) from mixed vegetation in forest. *Chingmeirong* (785 m.) — 1 ♀ (14 Oct. '83) from shrubby vegetation, 1 ♀ (14 Apr. '84) from herb vegetation, 41 ♂♂, 10 ♀♀ (27 Jun. '84 — 14 Oct. '84) were collected from shrubby vegetation of *Quercus acutissima*. *Geljang* (820 m.) — 1 ♀ (27 Nov. '84) from shrubby forest of *Lithocarpus dealbata*. *Khongampat* (785 m.) — 1 ♂ (12 Aug. '84), from herb vegetation. *Kwakta* (760 m.) — 4 ♂♂, 1 ♀ (8 Oct. '83) from shrubby plantation of mulberry. *Langol-hill* (785 m.) — 1 ♂ (29 Jul. '84) from pit-shelter. *Mantripukhri* (785 m.) — 1 ♂ (11 Oct. '83), 1 ♂, 6 ♀♀ (27 Jul. '84 — 21 Oct. '84) from bulb — light. *Modikhul* (1,150 m.) — 2 ♂♂, 1 ♀ (23 Oct. '85) from herb vegetation. *Moltam-hill* (820 m.) — 1 ♂ (1 Nov. '84) from shrubby forest. *Moreh* (150 m.) — 1 ♂ (19 Aug. '84) from shrub vegetation. *Pheidinga* (900 m.) — 1 ♂ (12 Aug. '84) from shrubby vegetation. *Zaphou* (1,000 m.) — 1 ♀ (21 Oct. '85) from herb vegetation, 36 ♀♀ (21 Oct. '85 — 22 Oct. '85) from human-bait.

5. *Mansonia annulifera* (Theobald)

Panoplitus annulifera Theobald, 1901, *Monogr. Cul.* **2** : 183, Barraud, 1934 : 127-128; Knight and Stone, 1977 : 297.

The distribution of the species is known from Oriental region extending upto New Guinea in Australian region. Recorded from all over India except some

western states viz., Gujarat, Rajasthan, Punjab, Harayana, Himachal Pradesh and Jammu & Kashmir.

Present records : Manipur : *Mantripukhri* (785 m.) — 1 ♀ (21 Nov. '83) from cattle-shed ; 4 ♀♀ (9 Aug. '84 — 13 Oct. '84) from bovine-baits.

6. *Mansonia indiana* Edwards

Mansonia indiana Edwards, 1930, *Bull. Ent. Res.* 21 : 541. Barraud, 1934 : 130-131 ; Knight and Stone, 1977 : 297.

Distributed in Oriental region and New Guinea. In India recorded from Assam, Kerala, Manipur, Meghalaya, Mizoram, Nagaland, Tamil Nadu and West Bengal.

Present records : Manipur : *Chingmeirong* (785 m.) — 12 ♀♀ (11 Sept. '83 — 6 Nov. '83), 17 ♀♀ (27 Jun. '84 — 13 Sept. '84) were collected from day-biting, 9 ♂♂, 13 ♀♀ (18 Sept. '83 — 4 Dec. '83), 1 ♀ (9 Jun. '84), 1 ♀ (28 Jul. '84), 2 ♀♀ (8 Aug. '84), 4 ♂♂, 16 ♀♀ (9 Aug. '84 — 14 Oct. '84) from shrubby vegetation. *Khongampat* (785 m.) — 1 (27 Nov. '83) from herb vegetation. *Langol-hill* (785 m.) — 5 ♂♂ (29 Jul. '84) from pit — shelter. *Mantripukhri* (785 m.) — 6 ♀♀ (2 Oct. '83 — 21 Nov. '83), 2 ♀♀ (10 Jul. '84 — 15 Sept. '84) from cattle-sheds, 1 ♀ (21 Oct. '83) from shrubby vegetation, 1 ♂, 25 ♀♀ (23 Oct. '83 — 15 Nov. '83) 2 ♂♂, 134 ♀♀ (8 Apr. '84 — 14 Oct. '84) from human-bait, 4 ♀♀ (14 Nov. '83 — 26 Nov. '83), 25 ♂♂, 116 ♀♀ (24 Apr. '84 — 29 Oct. '84) from bovine-baits, 5 ♀♀ (27 Jun. '84 — 14 Oct. '84) from bulb-light.

7. *Mansonia uniformis* (Theobald)

Panoplites uniformis Theobald, 1901, *Monogr. Cul.* 2 : 180; Barraud, 1934 : 129-130; Knight and Stone, 1977 : 297.

This has been recorded from Ethiopian, Oriental and Australian regions, last to Bismarks, Japan and Ryukyu-Retto. Recorded from all over India.

Present records : Manipur : *Bungmul* (850 m.) — 2 ♀♀ (27 Nov. '84) from herb-vegetation. *Chandel* (1,500 m.) — 1 ♀ (22 Oct. '85) from shrubby vegetation. *Chingmeirong* (785 m.) — 1 ♂, 4 ♀♀ (11 Sept. '83), 15 ♀♀ (13 Jul. '84 — 14 Oct. '84) from human-bait during day in *Quercus acutissima* plantation, 9 ♂♂, 6 ♀♀ (18 Sept. '83 — 4 Dec. '83), 9 ♂♂, 14 ♀♀ (9 Jun. '84 — 14 Oct. '84) from shrubby vegetation. *Jiribam* (1,500 m.) — 2 ♀♀ (7 Oct. '84) from bovine-bait, *Kanglatongbi* (1,000 m.) — 1 ♀ (12 Aug. '84) from herb vegetation. *Khongampat* (785 m.) — 1 ♀ (27 Nov. '83), 1 ♂ (12 Aug. '84) from herb vegetation. *Kwakta* (760 m.) — 4 ♂♂, 2 ♀♀ (8 Oct. '83), from shrubby vegetation. *Langol-hill* (785 m.) — 18 ♂♂, 3 ♀♀ (29 Jul. '84) from pit-shelters. *Mantripukhri* (785 m.) — 18 ♀♀ (19 Sept. '83 — 23 Nov. '83), 5 ♀♀ (26 Jul. '84 — 22 Aug. '84) from cattle-sheds, 3 ♀♀ (21 Oct. '83) from shrubby vegetation, 1 ♂, 28 ♀♀ (23 Oct. '83 — 15 Nov. '83), 1 ♂, 38 ♀♀ (25 Apr. '84 — 14 Oct. '84) from human-bait, 4 ♂♂, 9 ♀♀ (14 Nov. '83 — 26 Nov. '83), 2 ♂♂, 154 ♀♀ (4 Apr. '84 — 28 Oct. '84) from bovine-bait, 1 ♀ (7 Nov. '83), 3 ♂♂, 4 ♀♀ (27 Jun. '84 — 15 Aug. '84) from bulb-light. *Moltam-hill* (820 m.) — 1 ♀ (1 Nov. '84) from day-biting. *Phedinga* (900 m.) — 1 ♂, 1 ♀ (12 Aug. '84) from shrubby vegetation. *Zaphou* (1,000 m.) — 8 ♀♀ (21 Oct. '85 — 22 Oct. '85) from human-bait.

8. *Tripteroides indicus* (Barraud)

Rachionotomyia indicus Barraud, 1929, *Indian J. med. Res.* 16 : 1061.

The species has been recorded from Burma, Celebes, India and Thailand. It is known from Assam, Manipur, Meghalaya and West Bengal in India.

Present records : Manipur : Nungba (750 m.) — 1 ♀ (8 Oct. '84) from day-biting.

9. *Uranotaenia bicolor* Leicester

Uranotaenia bicolor Leicester, 1908, *Cul. Malaya* : 225 ; Barraud, 1934 : 83; Stone *et al.* 1959 : 110; Knight and Stone, 1977 : 339.

The species is known from Hainan Islands, India and Malaysia. In India, recorded from Karnataka and Manipur.

Present records : Manipur : Mantripukhri (785 m.) — 1 ♀ , 1 ♂ (12 Nov. '83) from light during night.

10. *Uranotaenia bimaculata* Leicester

Uranotaenia bimaculata Leicester, 1908, *Cul. Malaya* : 226 ; Barraud, 1934 : 78-79 Knight and Stone, 1977 : 340.

The species is known from India and Malaysia. Recorded from Manipur and West Bengal in the country.

Present records : Manipur : Mao (1,850 m.) — 1 ♂ (8 Sept. '85) larva was reared from a discarded motor-tyre. Associated breeders were *Culex harrisoni* and *C. pallidothorax*.

11. *Uranotaenia recondita* Edwards

Uranotaenia recondita Edwards, 1922, *Bull. Ent. Res.* 13 : 91 ; Barraud, 1934 : 83-84; Knight and Stone, 1977 : 344.

The species has its distribution in Hainan Island, India, Sri Lanka and Thailand. In India, it has been recorded from Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Manipur and Tamil Nadu.

Present records : Manipur : Khongampat (785 m.) — 1 ♀ (27 Nov. '83) from herbs below trees.

12. *Uranotaenia edwardsi* Barraud

Uranotaenia edwardsi Barraud, 1926, *Ind. Journ. Med. Res.* 14 : 337 ; Barraud, 1934 : 65-66; Knight and Stone 1977 : 348.

This species has its distribution in Hainan Islands, India, Malaya and Thailand. Recorded from Assam, and Manipur in the country.

Present records : Manipur : Mantripukhri (785 m.) — 2 ♂ ♂, 4 ♀ ♀ (11 Oct. '83, 19 Nov. '83), 2 ♀ ♀ (15 Aug. '84 — 20 Oct. '84) collected from bulb-light.

13. *Uranotaenia campestris* Leicester

Uranotaenia campestris Leicester, 1908, *Cul. Malaya* : 213 ; Barraud, 1934 : 68 ; Stone *et al.* 1959 : 111; Knight and Stone, 1977 : 347.

This is an Oriental species recorded from Assam, Bihar, Delhi, Manipur and

Uttar Pradesh in India.

Present records : Manipur : *Chingmeirong* (785 m.) — 1 ♂, 1 ♀ (14 Oct. '84 — 30 Oct. '85) from shrubby vegetation of *Quercus acutissima*. *Jiribam* (150 m.) — 1 ♀ (7 Oct. '84) from shrubby vegetation.

14. *Uranotaenia macfarlanei* Edwards

Uranotaenia macfarlanei Edwards, 1914, *Bull. Ent. Res.* 5 : 127 ; Barraud, 1934 : 70-71; Knight and Stone, 1977 : 350.

The species has its distribution range in Oriental, south western and southern Palaearctic region. In India, it is known from Assam and Manipur only.

Present records : Manipur : *Geljang* (850 m.) — 1 ♂, 1 ♀ (27 Nov. '84) from shrubby forest of *Lithocarpus dealbata*.

SUMMARY

The present paper includes distribution record for *Mimomyia luzonensis*, *M. chamberlaini*, *M. hybrida*, *Coquillettidia crassipes*, *Mansonia annulifera*, *M. indiana*, *M. uniformis*, *Tripteroides indicus*, *Uranotaenia bicolor*, *U. bimaculata*, *U. recondita*, *U. edwardsi*, *U. campestris*, and *U. mactarlanei* in the Manipur. Except *Coquillettidia crassipes* and *Mansonia uniformis* all other species are recorded for the first time from the State. The larval associates were also noted for the species which were reared from larval collection.

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