RECORDS OF CULICINE MOSQUITOES FROM BASTAR DISTRICT (MADHYA PRADESH), INDIA (DIPTERA : CULICIDAE), PART IV, GENUS - CULEX

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INTRODUCTION

The genus Culex includes many important proved/potential vectors of human diseases like Culex quinquefasciatus (vector of periodic bancroftian filariasis) and C. tritaeniorhynchus (vector of Japanese encephalitis). Some probable or potential vectors for Japanese encephalitis under the genus Culex are C. gelidus, C. fuscocephala, C. vishnui and C. pseudovishnui. The genus Culex inspite of being very important from the public health standpoint remained poorly known from Bastar district of Madhya Pradesh. The district is earlier known with a record of only 7 species under two subgenera (Barraud, 1934: Husainy, 1981).

The present communication deals with the distribution records of 22 species under five subgenera from this district. The surveys were made during the year 1980-1982. The description of study area, climate, topography and materials & methods used, were described earlier (Rajput and Kulkarni, 1984).

The classification and nomenclature used here are mainly based on Synoptic Catalogue (Knight and Stone, 1977). Besides some recent papers, works of Barraud (1934), Bram (1967), Reuben (1969) and Sirivanakarn (1972, 1976, 1977 a & b) were consulted for identification. Identification was done mainly on adult characters. Genital characters of males and the characters of immatures were also taken into consideration whenever those forms were available.

COLLECTION RECORDS

Subgenus Culex Linnaeus

1. Culex barraudi Edwards

1922, Culex barraudi Edwards, Ind. Journ. Med. Res. 10: 284.

1977. Culex barraudi: Knight and Stone: 202.

Present records: Chindawada - 1 \(\frac{2}{3} \) mar. '81) from herb vegetation. Darbha - 7 \(\frac{2}{3} \), 333 between 18 Mar. '81 and 23 Mar. '81 from herb vegetation. Karanji - 2 \(\frac{2}{3} \) (11 Aug. '81) from bovine bait. Potanar - 1 \(\frac{2}{3} \) (28 Aug. '81) from herb

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vegetation. Tahakapal - 1 ? (21 Aug. '81) from herb vegetation.

2. Culex bitaeniorhynchus Giles

1901. Culex bitaeniorhynchus Giles, Journ. Bomb. Nat. Hist. Soc. 13: 607.

1977. Culex bitaeniorhynchus: Knight and Stone: 203.

Present records: Adawal - 9 ? ? , 5 & between 11 Jul. '80 and 22 Jan. '82 from herb vegetation, 699, 1000 between 6 Mar. '81 and 18 Dec. '81 larvae reared from nala margin. Aghanpur - 21 99, 188 between 19 Sept. '81 and 3 Dec. '81 larvae reared from pond margin. Balenga- 359, 5 od (11 Nov. '80) larvae reared from trench, 1999, 20 33 larvae reared between 17 Nov. '81 and 28 Dec. '81 from river margin & pits Bastar - 19, 3 & between 20 Nov. '80 and 27 Jun. '82 from herb vegetation, 18 (27 Jan. '82) from human dwellings. Bhond - 5 ? ? between 30 Jul '80 and 28 Dec. '81 from herb vegetation, 1 & (20 Jan. '82) from cattle shed, 4 ? ?, 1 & (15 Sept. '81) larvae reared from paddy field. Bringpal - 499, 18 between 14 Sept. '81) and 18 Jan. '82) from shrubby vegetation. Chapar-Bhanpuri-1 3 (25 Sept. '80), 333 (28 Aug. '81)' from herb vegetation. 1 & (23 Jan. '82) from human dwellings. Chindawada - 6 & &, 2 ?? between 1 Jul '80 and 28 Jan '82 from herb vegetation, 5 ዓይ 2 & ፈ/ዓ Jun. '81) larvae reared from pond margin, 1 ዩ (29 Jul. '81), 12 ዩዩ, 9 ፊ ሪ (24 Dec. '81) larvae reared from paddy field. Darbha - 4 99(18 Aug. '81) from bovine bait, 298 (22 Sept. '80) from human bait, 1 9, 4 & between 23 Mar. '81 and 19 Sept. '81 from herb vegetation, 37 \quad \text{?}, 43 & between 17 Dec. '80 and 3 Mar. '81 larvae reared from borrow pit, 8 22, 3 & 6 (6 Jan. '81) larvae reared from pond margin, 4 ? ?, 1 & (21 Jul. '81) larvae reared from paddy field. Daurgaon - 1 & (5 Sept. '81), 2 \(\frac{1}{2}\), 1 \(\delta\) (13 Nov. '81) from herb vegetation, 3 \(\frac{1}{2}\), 4 \(\delta\) (16 Dec. '81) larvae reared from nala pits. Dhaniyalur 399, 368 between 7 Feb. '81 and 16 Jan '82 from herb vegetation, 22 ? ?, 22 & & (2 Jul. '81) larvae reared from nala margin. Dongariguda - 488 between 23 Jul 81 and 9 Nov. '81 from herb vegetation. Gumiyapal - 7 ₹2, 3 & between 3 Sept. '81 and 21 Jan. '82 from herb vegetation, 1 3/(31 Dec. '81) from human dwellings. Jagdalpur - 18 \, \, \, 26 \, 3 \, between 29 Sept. '80 and 2 Apr. '81 larvae reared from pond margin, 1 & (17 Jan. '81) larva reared from paddy field. Kakalgur - 1 \, 4 & & between 15 Jul. '81 and 10 Dec. '81 from herb vegetation, 499, 533 between 29 Jul. '81 and 15 Jan. '82 larvae reared from paddy field. Karanji - 11 \$\$ between 27 Jul. '81 and 21 Sept. '81 from bovine bait, 8 99 between 11 Aug, '81 and 8 Sept. '81 from human bait, 8 99, 3 33 between 2 Oct. '80 and 7 Jan. '82 from herb vegetation, 63 ??, 44 & 3 larvae reared between 11 Mar. '81 and 23 Dec. '81 from rocky nala margin. Keslur - 1 & (17 Aug. '81), 1 & (18 Jan. '82) from herb vegetation, 5 \$2, 7 33 (18 Jan, '82) larvae reared from trench. Kumarawand - 1 ? (19 Sept. '81), 1 & (17 Dec. '81) from herb vegetation, 18 ♀ ♀, 22 ♂ ♂ (19 Mar. '81) larvae reared from marshy land, 25 ♀ ♀, 24 ♂ ♂, larvae reared between 4 Jul. '81 and 17 Dec. '81 from weedy pool. Kurandi - 12 22, 788 (26 Aug. '80) from bovine bait, 1 \(\frac{1}{2}\) (26 Aug. '80) from human bait, 2 \(\frac{3}{3}\) (18 Jan. '81) from herb vegetation, 1 \, 2, 1 \, 3 (27 Aug. '81) larvae reared from paddy field, 1 \, 2 (23 Nov. '81) larvae—reared from pond margin Lendra - 3 & & (11 Jan. '82) from herb vegetation. Pakhanjore - 22 \$ \$, 1 & (27 Aug. '81) 1 \$, 2 & & (28 Nov. '81) from herb vegetation, 4 ♀♀, 4 ♂♂ (28 Nov. '81) larvae reared from nala margin. Pandripani-2 ? ?, 1 & between 17 Aug. '81 and 18 Jan. '82 from herb vegetation. Potanar-8 ? ?,

8 & & between 3 Jul. '81 and 21 Jan. '82 from herb vegetation, 1 \, (21 Jan. '82) from human dwellings. Rajur-3 \, \frac{2}{3} \, 5 & & between 15 Nov. '80 and 11 Jan. '82 from herb vegetation. Retawand-1 & (9 Jul. '80) from herb vegetation, 1 \, (27 Jan. '82) from human dwellings, 3 \, \frac{2}{3} \, \frac{1}{3} \, \frac{1}{3} \, (17 May '81) larvae reared from nala margin. Sargipal-1 & (23 Nov. '80) from herb vegetation. Tahakapal-4 \, \frac{2}{3} \, \frac{1}{3} \, \frac{1}{3} \, \text{between 27 Jun. '81} and 31 Dec. '81 from herb vegetation. Tahakapal-3 \, \frac{2}{3} \, \frac{1}{3} \, \text{between 6 Aug. '80} and 15 Sept. '81 from herb vegetation, 1 \, \frac{2}{3} \, (20 Jan. 82) from cattle shed. Tandpal-1 & (21 Jan. '82) 1 \, \frac{2}{3} \, \frac{1}{3} \, \frac{1}{3} \, \text{loop from herb vegetation. Tehameta-2 \, \frac{2}{3} \, \frac{2}{3} \, \frac{3}{3} \, \text{between 11 Aug. '81 and 21 Nov. '81 from herb vegetation. Tehameta-2 \, \frac{2}{3} \, \frac{2}{3} \, \frac{3}{3} \, \frac{3}{3} \, \text{loop from herb vegetation. Tehameta-2 \, \frac{2}{3} \, \frac{2}{3} \, \frac{3}{3} \, \frac{3}{3} \, \text{loop from herb vegetation. Tehameta-2 \, \frac{2}{3} \, \frac{2}{3} \, \frac{3}{3} \, \fr

3. Culex edwardsi Barraud

1923. Culex edwardsi Barraud, Ind. Journ. Med. Res. 11:507.

1977. Culex edwardsi: Knight and Stone: 207.

Present records: Adawal-1 & (22 Jan. '82) from herb vegetation. Bastar-5 ? ?, 2 & & between 20 Nov., 80 and 27 Jan. '82 from herb vegetation, 1 & (27 Jan. '82) from human dwellings. Bhond-1 '? (24 Nov. '81) from herb vegetation Bringpal-3 ? ? (18 Jan. '82) from herb vegetation. Chindawada-1 & (18 Nov. '81) from herb vegetation. Durbha-1 ? (13 Oct. '80) from bovine bait, 1 ?, 2 & & (18 Nov. '80), 1 & (4 Jul. '81) from herb vegetation. Dhaniyalur-1 ? (16 Jan. '82) from herb vegetation. Gumiyapal-1 ? (21 Jan. '82) from shrubby vegetation. Kakalgur-1 & (28 Jan. '82) from herb vegetation. Karanji-1 ? (7 Jan. '82) from herb vegetation. Kurandi-1 ? (29 Dec. '80), 1 ? (15 Jan. '81) from bovine bait, 1 ? (26 Sept. '80) from herb vegetation. Lendra - 2 & & (11 Jan. '82) from herb vegetation. Pakhanjore-1 ? (28 Nov. '81) from herb vegetation. Pandripani - 1 & (29 Dec. '81) from shrubby vegetation. Potanar-1 & (21 Jan. '82) from herb vegetation. Rajur-1 ? (11 Jan. '82) from herb vegetation. Sargipal-1 ? (22 Nov. '80) from herb vegetation. Tandpal-3 ? ?, 2 & & (21 Jan. '82) from herb vegetation. Tekameta - 3 ? ?, 1 & (21 Nov. '81) from herb vegetation.

4. Culex epidesmus (Theobald)

1910. Taeniorhynchus epidesmus Theobald, Rec. Ind. Mus. 4:22.

1977. Culex epidesmus: Knight and Stone: 207.

Present records: Bringpal-1 ?, 1 & (24 Sept. '81) from herb vegetation. Darbha-1 ? (16 Feb. '81), 1 ? (18 Aug. '81) from bovine bait, 1 ? (18 Sept. '80) 1 ? (1 Sept. '81) from human bait, Karanji-5 ? ? (11 Aug. '81), 2 ? ? (8 Sept. '81) from bovine bait, 1 ? (25 Aug. '81), 2 ? ? (8 Sept. '81) from human bait. Kurandi-61 ? ? (26 Aug. '80) from bovine bait, 3 ? ? between 4 Jul. '80 and 3 Oct. '80 from human bait, Pakhanjore - 1 ? (28 Nov. '81) from herb vegetation. Telengarapur - 1 ? (12 Jul. '80) from human bait.

5: Culex fuscocephala Theobald

1907. Culex fuscocephala Theobald, M. C. 4:420.

1977. Culex fuscocephala: Knight and Stone: 208.

Present records: Adawal-6 ??, 233 between 11 Jul. '80 and 9 Nov. '81 from

herb vegetation, 60° °, 54 larvae reared between 28 Mar. '81 and 10 Apr. '81 from nala margin, 18 ? ? 9 & & (28 Mar. '81) larvae reared from rock pools. Aghanpur— 2 9 9 (14 Jul. '81) from herb vegetation, 2 9 9, 1 3 (14 Jul. '81) larvae reared from hoof prints, 2 ? ?, 1 & (11 Aug. '81) larvae reared from pond margin, Asana - 5 ? ?, 7 & (21 Dec. '80) larvae reared from hoof and foot prints. Balenga-1 ♀ , 1 & (1 Sept. '81) larvae reared from paddy fields, Bastar—1 & (24 Sept. '80), 2 & (20 Nov. '80) from herb vegetation. Bhond-1 & (15 Sept. '81) from herb vegetation. Bringpal-1 \, (24 Sept. '81), 1 \, \delta \, (29 Nov. '81) from herb vegetation. Chapar-Bhanpuri-1 ? (3 Jul. '81) from herb vegetation. Chindawada-18 ? , 6 & & between 23 Mar. '81 and 28 Jan. '82 from herb vegetation. Darbha-34 \$\$ between 8 Sept. '80 and 1 Sept. '81 from bovine bait, 44 2 2 between 17 Mar. '80 and 20 Jul. '81 from human bait, Daurgaon-3 ?? (5 Sept. '81) from herb vegetation. Dhaniyalur—1 ♀ (7 Feb. '81), 4♀♀, 1 ♂ (4 Apr. '81) from herb vegetation, 62♀♀, 41 ሪ ሪ (17 Nov. '80) larvae reared from nala margin, 2 ዩዩ, 3 ሪሪ (16 Jul. '81) larvae reared from rainy pit. Dongariguda-1 & (26 May '81), 1 \, (30 Sept. '81) from herb vegetation, 46 ? ?, 41 & & (31 Mar. '81) larvae reared from shallow kaccha well, 1 ? (23 Jul. '81) larvae reared from rainy pool. Gumiyapal—2 ? ? (17 Sept. '81) 1 ? (16 Dec. '81) from herb vegetation. Jagdalpur-18 \ ? , 23 \ 3 \ larvae reared between 18 (26.Feb. '81) larvae reared from gutter water, 1 2, 1 of (12 Mar. '81) larvae reared from rainy pit. Kachora-6 99 between 6 Aug. '81 and 25 Sept. '81 from herb vegetation. Kakalgur-1 & (15 Oct. '81), 1 \, (28 Jan. '82) from herb vegetation, 1 ?, 1 & (14 Apr. '81) larvae reared from shallow kaccha well, 1 & (16 Aug. '81) larvae reared from paddy field. Karanji-1 \, 1 \, 3 (25 Aug. '81), 1 \, (8 Sept. '81) from bovine bait, 7 ? ? between 25 Aug. '81 and 6 Jan. '82 from human bait, 3 ? ? (30 Mar. '81), 1 ♂ (22 Sept. '81) from herb vegetation, 1 ♀ (22 Aug. '81) larvae reared from paddy field, 1 &, (8 Sept. '81) larvad reared from road side rainy pool. Keslur—1 ♀ (4 Aug. '80), 1 ♀ (31 Aug. '81) from herb vegetation, 3♀♀, 4♂♂(13 Apr. '81) larvae reared from pond margin. Kotamsar-1 ? (27 Apr. '80) from bovine bait, 1 \, (3 Mar. '80) from human bait. Kumarawand-2 \, \, \, \, 1 \, \, \, (5 Sept. '81), 4 ♀ ♀ (26 Sept. '81) from herb vegetation, 3♀♀, 2 ♂ ♂ (5 Nov. '80) larvae reared from fresh water pool, 1 ?, 4 && (19 Mar. '81), 12 ??, 5 && (19 Mar. '81) larvae reared from marshy land. Kurandi-163 ? ? between 27 Mar. '80 and 26 Mar. '81 from bovine bait, 72 ? ? between 25 Feb. '80 and 15 Apr. '81 from human bait, 5 ? ? ? ? ? ? (12 Feb. '81) from herb vegetation, 1 ? (2 May '81) from human dwellings, 17 99, 21 33 (14 Nov. '80), 9 99, 8 33 (13 Feb. '81) larvae reared from paddy field, 1 ? (27 Feb. '81), 6 & & (11 Dec. '81) larvae reared from pond margin. Lendra-1 ? (7 Sept. '81) from her vegetation. Neganar 9 ? ?, 6 & (6 Nov. '80) larvae reared from paddy field, 8 ? ?, 11 & & (10 Dec. '81) larvae reared from pond margin. Orcha-2♀♀ (30 Nov. '81) from bovine bait. Pakhanjore-2♀♀ (27 Aug. '81) from herb vegetation, 4 \(\cdot \) (22 nov. '81) from cattle shed. Pandripani-1 \(\cdot \) (14 Oct. '81) larvae reared from cart track. Potanar—8 ? ? between 9 Apr. '81 and 21 Jan. '82 from herb vegetation. Rajur-1 ? (7 Sept. '81), 1 ? (23 Sept. '81) from herb vegetation, 1 ? (27 Jul. '81), 4??, 3 & & (10 Aug. '81) larvae reared from paddy field, 1 & (7 Sept. '81) larvae reared from rainy pool. Retawand-2 & & (21 Jan. '82) larvae reared from nala margin. Sargipal-1 ♀, 4 ♂ ♂ (22 Nov. '80), 3 ♂ ♂ (23 Nov. '80) from herb vegetation. Tahakapal ← 6 ♀ ♀ (21 Jan. '82) from

cattle shed, 1 ? (21 Aug. '81) from herb vegetation. Takaraguda—3 ? ?, 2 & & between 22 Jul. '81 and 15 Sept. '81 from herb vegetation. Tandpal—1 & (27 Jun. '81), 1 ? (10 Jul. '81) from herb vegetation. Tekameta—1 & (3 Jul. '81), 1 ?, 1 & (9 Sept. '81) from herb vegetation. Telengarapur—1 ? (12 Jan. '82) from bovine bait, 1 ? (12 Jan. '82) from human bait, 1 & (31 Aug. '81), 1 ? (14 Dec. '81) from herb vegetation, 2 ? ? (13 Apr. '81) larvae reared from nala margin. Tokapal—2 ? ? (23 Sept. '81) from herb vegetation.

6. Culex gelidus Theobald

1901. Culex gelidus Theobald, M. C. 2: 20. 1977. Culex gelidus: Knight and Stone: 209.

Present records: Adawal-2 ? ? (25 Sept. '81) from herb vegetation. Bhond-2 9 9 (30 Jul. '80) from herb vegetation. Bringpal-1 9 (24 Sept. '81) from herb vegetation. Chindawada-1 & (1 Jul. '80) from shrubby vegetation. Darbha-16 ? ? between 1 Au.g '80 and 16 Feb. '81 from bovine bait, 7 ? ? between 4 Apr. '80 and 15 Sept. '80 from human bait, 1 2 (17 May '80), 1 2, 1 3 (19 Sept. '81) from herb vegetation. Daurgaon - 1 & (13 Nov. '81) from shrubby vegetation. Dhaniyalur-299, 253 (11 Jul. '80) from herb vegetation. Dongariguda-299, 1 & (30 Sept. '81), 1 & (9 Nov. '81) from herb vegetation. Jagdalpur 1 ?, 2 δ (12 Nov. '81) from herb vegetation, 19 \$ \$, 22 & \$ (15 Mar. '81) larvae reared from pond margin. Kachora - 13 ? ? 2 d d (25 Sept. '81), 1 ? (18 Dec. '81) from herb vegetation. Karanji-14 ? ? (27 Jul. '81) from bovine bait, 1 ? (9 Sept. '81) 2? ? (22 Sept. '81) from herb vegetation. Kotamsar—1 ♀ (5 May '80), 7♀♀ (27 Jun. '80) from bovine bait, 9 ? ? between 14 Apr. '80 and 27 Jun. '80 from human bait. Kumarawand-7 ? ? (19 Sept. '81), 3 ? ? (26 Sept. '81) from herb vegetation, 1 ? (10 Nov. '81) from human dwellings. Kurandi—127 ♀ ♀ between 27 Mar. '80 and 29 Dec. '80 from bovine bait, 23 ? ? between 25 Feb. '80 and 12 Feb. '81 from human bait. Lendra-2 ? ? (23 Sept. '81) from herb vegetation. Pakhanjore-1 ? (28 Nov. '81) from herb vegetation. Potanar-1 ? (31 Jul. '80), 1 ? (21 Jan. '82) from herb vegetation. Rajur— 37 ? ?, 17 & between 21 Jul. '80 and 23 Sept. '81 from herb vegetation, 1 ? (25 Jan. '82) from cattle shed. Retawand-4??, 4 & & (9 Jul. '80) from shrubby vegetation. Tahakapal-1 ? (16 Dec. '81) from herb vegetation. Takaraguda-5 ? ? between 25 Jul. '80 and 15 Sept. '81 from herb vegetation. Tekameta-1 & (11 Aug. '81) from herb vegetation. Telengarapur-2 9 9 (12 Jul. '80) from bovine bait.

7. Culex mimulus Edwards

1915. Culex mimulus Edwards, Bull Ent. Res. 5: 284.

1977. Culex mimulus: Knight and Stone: 212.

8. Cubx pseudovishnui Colless

1957. Culex pseudovishnui Colless, Ann. Trop. Med. Parasit. 51:88.

1977. Culex pseudovishnui: Knight and Stone: 221.

Present records: Adawal—34 \, \, \, \, 10 \, \delta \, \, \text{between 30 Aug. '80 and 22 Jan. '82 from herb vegetation, 1 ? (6 Mar. '81), 3 ? ?, 4 & & (10 Apr. '81) larvae reared from nala margin, 3 ? ?, 5 & & (28 Mar. '81) larvae reared from rock pools. Aghanpur— 1499, 4 & & between 11 Aug. '81 and 17 Dec. '81 from herb vegetation, 899, 933 larvae reared between 16 Feb. '81 and 3 Dec. '81 from pond margin. Asana-5 ♀ ♀, 5 ♂ ♂ (21 Dec. '80) larvae reared from hoof marks. Balenga-11 ? ?, 3 & between 22 Jul. '81 and 15 Dec. '81 from herb vegetation, 799, 9 & larvae reared between 11 Nov. '80 and 15 Dec. '81 from pond margin, 2 ♂ ♂ (1 Sept. '81) larvae reared from paddy field. Bastar—69 ♀ ♀, 30 ♂ ♂ between 24 Sept. '80 and 27 Jan. '82 from herb vegetation, 2 9 9 (12 Jan. '82) from cattle shed, 1 9 (27 Jan. '82) from human dwelling, 1 9 (8 Sept. '81) larvae reared from paddy field. Bhond-14 ? ?, 9 & between 11 Nov. '80 and 28 Dec. '81 from herb vegetation, 1 ♂ (20 Jan. '82) from human dwellings. Bringpal-27 ♀ ♀, 15 ♂ ♂ between 3 Aug. '81 and 18 Jan. '82 from herb vegetation, 1 9 (31 Aug. '81) larvae reared from paddy field. Chapar-Bhanpuri-3 ? ?, 1 & between 28 Aug. '81 and 17 Dec. '81 from herb vegetation, 1 & (23 Jan. '82 from human dwellings. Chhepaguda—8 ♀ ♀, 5 ♂ ♂ (21 Dec. '80) larvae reared from paddy field. Chindawada-15 ??, 4 & & between 18 Nov. '81 and 28 Jan. '82 from herb vegetation, 1 ? (28 Jan. '82) from cattle shed, 2 ? ?, 9 & & (29 Aug. '81) larvae reared from paddy field. Darbha-88 ? ? between 28 Aug. '80 and 16 Dec. '80 from bovine bait, 351 ? ? between 5 Jan. '81 and 28 Dec. '81 from human bait, 3 $\stackrel{?}{\downarrow}$ $\stackrel{?}{\downarrow}$ Mar. '81) larvae reared from rock pool, 3 ? ?, 3 & & (16 May '81) larvae reared from pond margin. Daurgaon-7 ? ?, $10 \ \delta \ \delta$ from herb vegetation, $1 \ \delta$ (19 Jan. '82) from cattle shed. Dhaniyalur-6 ? ? 6 & & between 7 Feb. '81 and 16 jan. '82 from herb vegetation, 1 ? (16 Jan. '82) from cattle shed, 3 ? ?, 2 & & (4 Apr. '81) larvae reared from nala margin. Dhobhiguda-6 ♀ ♀, 6 ♂ ♂ (12 Dec. '80) larvae reared from pond margin. Dongariguda - 22 \ 2, 5 & 3 between 30 Aug. '80 and 20 nov. '81 from herb vegetation, 4 ? ?, 4 & 3 (31 Mar. '81) larvae reared from kaccha well, 1 \, 1 \, 3 (20 Aug. '81) larvae reared from rainy pool, 2 \, \, 2 \, 3 \, 3 (20 Nov. '81 and 21 Jan. '82 from herb vegetation. Jagdalpur-7 \$ \$, 6 \$ \$ (12 nov. '81) from herb vegetation, 1 ? (12 Nov. '81) from cattle shed, 1 ? (18 Jan. '82) from human

dwellings, 257 9 9, 230 & & larvae reared between 7 Dec. '80 and 23 Mar. '82 from pond margin, 14 9 9, 5 8 (17 Jan. '81) larvae reared from paddy fields. Kachora— 7 \$ \$ between 28 Mar. '81 and 8 Jan. '82 from herb vegetation, 1 \$ (22 Jan, '82) from cattle shed, 1 \, 2 (22 Jan. '82) from human dwelling, 3 \, 2 \, 1 \, d larvae reared between 4 Sept. '81 and 30 Sept. '81 from paddy field. Kakalgur-5 ??, 333 between 29 Aug. '81 and 24 Dec. '81 from herb vegetation, 2 ? ? (16 Aug. '81), 1 \$, 1 & (15 Jan. '82) larvae reared from vegetation. Karanji—246 00 between 18 Jan. '81 and 12 Nov. '81 from bovine bait, 42 ? ? between 27 Jul. '81 and 22 Dec. '81 from human bait, 15 ? ?, 20 & & between 2 Oct. '80 and 7 Jan. '82 from herb vegetation, 2 ? ? (12 Aug. '81), 1 ?, 2 & & (26 Aug. '81) larvae reared from paddy field. Keslur—1 ?, 1 & (20 Jul. '81), 1 ?, 2 & & (18 Jan. '82) from herb vegetation. Kotamsar-158 ? ? between 24 Oct. '80 and 18 Dec. '81 from bovine bait, 36 ? ? between 24 Oct. '80 and 3 Nov. '81 from human bait, 1 \$, 2 \$ \$ (6 Feb. '81) from herb vegetation, 10 ? ?, 20 & & larvae reared between 2 Dec. '80 and 19 Dec. '81 from rock pits. Kumarawand-21 ? ?; 7 & & between 22 Aug. '81 and 17 Dec. '81 from herb vegetation, 19 ? ?, 23 & & larvae reared between 5 nov. '80 and 17 Dec. '81 from weedy pools, 2 ? ?, 2 & & (11 Mar. '81) larvae reared from pond margin, 499,1 & (31 Jul. '81) larvae reared from paddy field. Kurandi—325 & between 26 Aug. '80 and 1 May '81 from bovine bait, 52 ? P between 27 Oct. 80 and 15 Apr. '81 from human bait, 7 ??, 4 & & between 30 Aug. '80 and 11 Feb. '81 from herb vegetation, 1 ♀ (23 Nov. '81), 2 ♀ ♀ (11 Dec. '81) from cattle shed, 110♀♀, 86 ♂ ♂ larvae were reared between 29 Nov. '80 and 11 Dec. '81 from pond margin, 34 ? ?, 36 & alarvae reared between 14 Nov. '80 and 26 Dec. '81 from paddy fields. Lendra-13 ? ?, 6 & & between 7 Sept. '81 and 11 Jan. '82 from herb vegetation. Neganar—499, 3 & & (10 Dec. '81) larvae reared from pond margin. Pakhanjore— 38 ♀ ♀, 20 ♂ ♂ between 27 Aug. '81 and 29 Nov. '81 from herb vegetation, 2 ♀ ♀ (20 Nov. '81), 14 ? ? (22 Nov. '81) from cattle shed, 2 & & (29 Nov. '81) larvae reared from herb vegetation, 1 ? (14 Dec. '81), 2? ?, 1 & (29 Dec. '81) from cattle shed. Potanar—17 ♀ ♀, 9 ♂ ♂ between 9 Apr. '81 and 21 Jan. '82 from herb vegetation, 2 ♀ ♀ , 3 ♂ ♂ (17 Sept. '81) larvae reared from rainy pool. Rajur—21♀♀, 6 ♂ ♂ between 7 Oct. '80 and 11 Jan. '82 from herb vegetation, 1 9 (11 Jan. '82) from 1 & (7 Sept. '81) larvae reared from rainy pool. Retawand—1 \$\frac{2}{2}\$ (20 Nov. '80) from herb vegetation, 1 ♀, 2 ♂ ♂ (12 Jan. '82) larvae reared from nala margin. Sargipal— 5 9 9, 1 & between 22 Nov. '80 and 9 Feb. '81 from herb vegetation. Tahakapal— 179 9, 5 of of between 10 Jul. '81 and 16 Dec. '81 from herb vegetation, 499 (21 Jan. '82) from cattle shed, 1 ? (21 Jan. '82) from human dwellings. Takaraguda— 1199, 5 of o between 18 Aug. '81 and 15 Dec. '81 from herb vegetation, 1 o (20 Jan. '82) from cattle shed. Tandpal—16 ♀♀, 8 ♂ ♂ between 21 Jan. '82 and 31 Dec. '81 from herb vegetation. Tekameta-20 \$ \$, 17 \$\$ between 3 Jul. '81 and 3 Dec. '81 from herb vegetation, 299, 1 & (3 Sept. '81) larvae reared from paddy field. Telengarapur-15 & & (12 Jan. '82) from bovine bait, 1 \(\frac{1}{2} \) Jan. '82) from human bait, 7 ? ?, 3 & between 12 Jan. '82 and 13 Jan. '82 from herb vegetation, 2 ♀ ♀, 1 ♂ (13 Jan. '82) from cattle shed, 7♀♀, 4 ♂ ♂ (13 Apr. '81) larvae reared from nala margin. Tokapal-1 \, 1 \, 3 (23 Sept. '81), 1 \, 2 (11 Jan. '82) from herb vegetation, 11 2 2, 11 & & (29 Dec. '81) larvae reared from pond margin.

9. Culex quinquefasciatus Say

1923. Culex quinquefasciatus Say, J. Acad. Nat. Sei. Phila 1: 10.

1978. Culex quinquefasciatus: Knight: 46.

Present records: Adawal - 66 42, 61 d terresen 11 Jul. '80 and 22 Jan. '82 from herb vegetation, 5 ? ?, 1 & (18 Disc. '81) from cattle shed, 17 ? ?, 7 & (29 Jan. '82), 2 3 3 (18 Dec. '81) from human dwellings, 9 \$ \$, 11 \$ 3 (25 Sept. '81) larvae reared from discarded pitcher. Aghanpur-13 ? 2, 25 & between 19 Mar. '81 and 17 Dec. '81 from cattle shed, 1 3 (11 Agu. '81) larvad reared from discarded tin, 2 ? ? (19 Sept. '81) larvae reared from discarded pitcher. Balanga-1 9 (4 Aug. '81), 1 9 (28 Dec. '81) from herb vegetation. Bastar-1 9, 2 d 3 between 22 Dec. '81 and 27 Jan. '82 from herb vegetation, 5 9 9 (27 Jan. '82) from human dwellings. Bhond-399, 583 between 11 Nov. '80 and 28 Dec. '81 from herb vegetation, $2 ? ? , 2 \delta \delta (15 \text{ Dec. '81})$ from human dwellings, $1 \delta (20 \text{ Jan. '83})$ from cattle shed. Bringpal-66 9 9, 678 & between 15 Jan. '81 and 18 Jan. '82 from herb vegetation, 7 ? ? between 16 Nov. '81 and 29 Dec. '81 from cattle shed, 126 \ \ \ \ \ , 143 \ \darksigma \ (6 Jul. '81), 35 \ \ \ \ \ \ , 14 \ \darksigma \ (20 Jul. '81) larvae reared from discarded tub, 2 9 9, 5 & & (20 Jul. '81) larvae reared from discarded pitchers. Chapar—Bhanpuri—1 ? (31 Jul. '80) from herb vegetation, 12 ? ?, 5 d d (23 Jan. '82), 2 ? ?, 3 ? ? (23 Jan. '82) from indoor human dwellings, 1 ? ? (28 Aug. '81) Iarvae reared from discarded pitcher. Chindawada—3 ₹ ₹, 3 ♂ between 23 Mar. '81 and 28 Jan. '82 from herb vegetation. Darbha—13 & & between 21 Jul. '80 and 15 Sept. '81 from bovine bait, 21 ? ?, 2 & & between 17 Mar. '80 and 1 Sept. '81 from human bait, 1 ? (18 Mar. '81), 2 ? ?, 3 & & (4 Jul. '81) from herb vegetation, 2 \(\frac{1}{2}\) \(\frac{1}{2}\) (23 Sept. '80) larvae reared from forest pool, 1 \(\delta\) (16 Sept. '81) larva reared from rock pool. Daurgaon-499, 233 (5 Sept. '81), 19 (13 Nov. '81) from herb vegetation, 1 ? (19 Jan. '82) from cattle shed. Dhaniyalur—6 ? ?, 4 & & between 12 Jun. '81 and 16 Jan. '82 from cattle shed, 1 ♀ (26 Dec. '81), 3 ♀ ♀ (16 Jan. '82) from human dwellings. Dharampura-40 9 9, 28 & & (14 Jul. '81) larvae reared from Ant well. Dongariguda—8?, 6 & between 23 Jul. '81 and 8 Jan. '82 from herb vegetation, 6 9 9, 1 3 (22 Jan. '82) from cattle shed, 11 9 9, 4 3 3 (22 Jan. '82) from human dwellings, 1 & (31 Mar. '81), 8 ? ? , 3 & & (23 Jul. '81) larvae reared from kaccha well, 4 ? ? , 6 & (20 Aug.) larvae reared from discarded pitcher. Gumiyapal-699, 733 (16 Dec. '81) from herb vegetation. Jagdalpur-1299. 15 & & between 23 Nov. '80 and 12 Nov. '81 from herb vegetation, 2 9 9, 1 & (12 Nov. '81) from cattle shed, 217 \$\frac{2}{3}\$, 508 \$\frac{2}{3}\$ between 10 Jan. '81 and 18 Jan. '82 from human dwellings, 6 ? ?, 9 & & between 7 Dec. '80 and 15 Mar. '81 larvae reared from pond margin, 313 ? ?, 425 & & larvae reared from gutter water, 70♀♀, 77 ♂♂ between 8 Feb. '81 and 5 Apr. '81 larvae reared from gutter water, reared from Iron tank and drums, 56 99, 63 & (21 Sept. '80) larvae reared from rainy pit, 2 ? ?, 2 d d (10 Oct. '81), 2 d d (11 Oct. '81) larvae reared from motortyre. Kachora-40 9'9, 29 & between 28 Mar. '81 and 8 Jan. '82 from herb 41 9 9, 20 5 5 between 9 Jul. '81 and 4 Sept. '81 larvae reared from discarded pitcher. Kakalgur-1 ? (29 Aug. '81), 1 ? (28 Jan. '82) from herb vegetation. Kangoli-2♀♀, 3♂♂(21 Nov. '81) from herb vegetation. Karanji-6♀♀ between

from human bait, 1 ? (7 Jan. '82) from herb vegetation, 2 ? ? (25 Nov. '81) from cattivened: Keslur-322, 5 & between 29 Jun. '81 and 31 Aug. '81 from herb vegetation, 1 4 (18 Jan. 82) from cattle shed, 4 9 9 (14 Dec. '81), 3 9 9 (18 Jan. '82) from human dwellings. Kotamsar-19 ? between 3 Mar. '80 and 1 ? (18 Dec. '81) from human balt, 1 & (6 Feb. '81) larvae reared from rock pool. Kumarawand-9 ? ?, 7 & & between 19 Mar. '81 and 3 Dec. '81 from herb vegetation, 12 \$ \$, 5 & & (3 Dec. '81) 999, 4 & (23 Jan. '82) from cattle shed, 1799, 355 between 10 Nov. '81 and 23 Jan. '82 from human dwellings. Kurandi-317 99, 72 33 between 27 Mar. '80 and 15 Apr. '81 from bovine bait, 967 \$ \$, 58 \$ \$ between 25 Feb. '80 and 15 Apr. '81 from Ruman bait, 1 & (30 Aug. '80), 1 \, 2 & \, 3 (18 Jan. '81) from herb vegetation, 1 **4 (23 Nov.** '81), 3 **4 7**, 2 **6 6** (16 Jan. '82) from cattle shed, 1 **9** (2 May '81) from human dwellings. Lendra - 1 ? (7 Sept. '81), 1 ? (11 Jan. '82) from herb vegetation, 1 of (11 Jan. '82) from human dwellings. Pakhanjore—1 ♀, 2 of (27 Aug. '81), 1♀ (29 Nov. '81) from herb vegetation, 1 \, (28 Nov. '81) from human dwellings. Pandripani-5 ? ?, 233 between 4 Dec. '81 and 18 Jan. '82 from herb vegetation, 178 9 between 16 Nov. '81 and 18 Jan. '82 from cattle shed, 1 9 (16 Nov. '81) from human dwellings, 1 ? (28 Aug. '81), 2? ?, 1 & (17 Sept. '81) larvae reared from discarded pitchers. Potanar—9 \$ \$, 1188 between 9 Apr. '81 and 21 Jan. '82 from herb vegetation, 4 \$ \$(21 Jan. '82) from human dwellings. Rajur-6 \$ \$, 6 \$ 3 between 10 Aug. '81 and 11 Jan. '82 from herb vegetation, 1 9 (11 Jan. '82), 11 9 9, 8 of (25 Jan. '82) from cattle shed, 3 ? ? (25 Jan. '82) from human dwellings. Retawand-1199, 600 (7 Jul. '81) larvae reared from discarded earthen pot. Surgipal-1 9, 11 & between 22 Nov. '80 and 9 Feb. '81 from herb vegetation. Tahakapal-399, 4 & between 27 Jan. '81 and 31 Dec. '81 from herb vegetation, 499, 11 & (21 Jan. '82), 1 \((16 Dec. '81) \) from cattle shed, 2 & (21 Jan. '82), 1 \(\), 16 (16 Dec. '81) collected from human dwellings. Takaraguda—23 99, 26 33 between 25 Jul. '80 and 20 Jan. '82 from herb vegetation, 2 ? ? (15 Dec. '81) from cattle shed. Tandpal-6 ? ?, 23 & between 21 Jan. '82 and 17 Sept. '81 from herb vegetation, 1 ♀ (16 Dec. '81) from cattle shed, 155♀♀, 195 ❖ ♂ (27 Jun. '81), 2♀♀, 1 & (21 Aug. '81) larvae reared from discarded pitchers. Tekameta — 4 2 2 between 28 Aug. '81 and 21 Nov. '81 from herb vegetation, 2 & (3 Jul. '81) larvae reared from discarded earthen pot, 499, 28 & (5 Sept. '81) larvae reared from road side rainy pool. Telengarapur—1 ♂ (14 Dec. '81) from cattle shed. Tokapal—39 ♀♀, 80 ♂♂ between 24 Nov. '80 and 25 Jan. '82 from herb vegetation, 3 9 9, 4 & & (11 Jan. '82) from cattle shed, 66 ? ?, 43 & Iarvae reared between 16 Jul. '81 and 30 Jul. '81 from discarded domestic containers.

10. Culex sinensis Theobald

1903. Culex sinensis Theobald, M. C. 3: 180. 1977. Culex sinensis: Knight and Stone: 222.

Present records: Adawal—2 \$ \$, 1 & between 11 Jul '80 and 20 Nov. '80 from herb vegetation. Aghanpur—1 & (26 Sept. '81) from shrubby vegetation. Balenga—1 \$ (15 Dec. '81) from herb vegetation. Bastar—1 \$ (22 Dec. '81) from herb vegetation. Bringpal—1 \$, 1 & (14 Sept. '81) from herb vegetation. Darbha—5 \$ \$ between 8 Sept. '80 and 15 Sept. '81 from bovine bait, 7 \$ \$ (15 Sept. '81) from human bait, 1 \$ (18 Nov. '80), 1 & (19 Sept. '81) from herb vegetation. Daurgaon—1 & (13 Nov. '81) from herb vegetation. Dongariguda—1 & (30 Sept.

'81) from herb vegetation. Gumiyapal-1 $\$ (3 Sept. '81) from herb vegetation. Kachora-1 $\$ (6 Aug. '81) from herb vegetation. Kakalgur-1 $\$ (15 Jul. '81) from herb vegetation. Karanji-9 $\$ $\$ between 27 Jul. '81 and 8 Sept. '81 from bovine bait, 12 $\$ between 27 Jul. '81 and 30 Sept. '81 from human bait, 1 $\$ (22 Sept. '81) from herb vegetation. Kumarawand-1 $\$ (22 Aug. '81), 2 $\$ $\$ (26 Sept. '81) from herb vegetation. Kurandi-1 $\$ (17 Jul. 80), 5 $\$ $\$ (26 Aug. '80) from bovine bait, 3 $\$ $\$ (17 Jul. '80) from human bait. Lendra-1 $\$ (7 Sept. '81), 1 $\$ (23 Sept. '81) from herb vegetation. Pakhanjore-3 $\$ $\$ (27 Aug. '81), 1 $\$ (27 Nov. '81) from herb vegetation. Pandripani-1 $\$ (14 Sept. '81), 1 $\$ (24 Sept. '81) from herb vegetation. Potanar-1 $\$ $\$ (3 Sept. '81) from herb vegetation. Rajur-1 $\$ (7 Sept. '81) from shrubby vegetation. Tahakapal-1 $\$ (17 Sept. '81) from herb vegetation. Tekameta-1 $\$ (9 Sept. '81), 1 $\$ (23 Sept. '81) from herb vegetation, 1 $\$ (3 Sept. '81) larvae reared from paddy field. Telengarapur-1 $\$ (24 Dec. '81) from cattle shed.

11. Culex tritaeniorhynchus Giles

1901. Culex tritaeniorhynchus Giles, Journ. Bomb. Nat. Hist. Soc. 13:606.

1977. Culex tritaeniorhynchus: Knight and Stone: 226.

Present records: Balenga-1 \, \text{3}, \, 1 \, \delta \, \, (22 \, \text{Jul.} '81) \, \text{larvae reared from rainy pit.} Bastar-1 & 22 Dec. '81) from herb vegetation, 1 ♀ (8 Sept. '81) larvae reared from paddy fields. Chapar-Bhanpuri-1 ? (28 Aug. '81) from herb vegetation. Chindawada−1 ♀ (29 Aug. '81) from herb vegetation, 1♀ (29 Aug. '81) larvae reared from paddy field. Darbha-16 ? ? between 28 Aug. '80 and 15 Sept. '81 from bovine bait, 1 ? (17 Nov. '80), 5 ? ? (18 Aug. '81) from human bait. Dhaniyalur-1 \(\) (11 Dec. '81) from herb vegetation. Gumiyapal-1 \(\) (3 Sept. '81), 3 ♀ ♀ (17 Sept. '81) from herb vegetation. Jagdalpur—1 ♀ (17 Apr. '81) larvae reared from paddy field. Kakalgur-1 ? (15 Jan. '82) from herb vegetation, 3 ? ?, 1 δ (16 Aug. '81) larvae reared from paddy field. Karanji-9 ? \$\forall \text{ between 11 Aug.} '81 and 8 Sept. '81 from bovine bait. Kotamsar-1 \$ (5 Nov. '80) from bovine bait, 1 \, \(\begin{aligned} \ (5 \, \text{Feb.} '81) \) from human bait. \(Kumarawand-1 \, \begin{aligned} \ (26 \, \text{Sept.} '81) \) from herb vegetation. Kurandi-69 ♀ ♀ between 26 Aug. '80 and 15 Apr. '81 from bovine bait, 1 ? (26 Aug. '80) from human bait, 1 ? (30 Aug. '80), 1 ? (12 Feb. '81) from herb vegetation, 1 9 (27 Aug. '81) larvae reared from paddy field. Pakhanjore— 1 \, (27 Aug. '81) from herb vegetation, 3 \, \, \, \, (22 Nov. '81) from cattle shed. Pandripani-1 ♀ (16 Nov. '81), 1 ♂ (18 Jan. '82) from herb vegetation, 1 ♀ (16 Nov. '81) from cattle shed. Potanar $-2 \ d$ (28 Aug. '81), $1 \ ?$ (21 Jan. '82) from herb vegetation. Rajur-1 ? (25 Jan. '82) from cattle shed. Takaraguda-1 ? (15 Sept. '81) from herb vegetation. Tandpal-1 \, 1 \, 3 (21 Jan. '82), 1 \, 2 (3 Sept. '81) from herb vegetation. Tekameta-1 ? (3 Sept. '81) larvae reared from paddy field. Telengarapur—2 \(\frac{1}{2} \) (12 Jan. '82) from bovine bait. Tokapal—1 \(\frac{1}{2} \) (10 Aug. '81) from herb vegetation.

12. Culex vishnui Theobald

Present records: Adawal-1 ? (20 Aug. '81) from herb vegetation, 2 ? ? (28 Mar. '81) larvae reared from rock pool. Bhond-1 ?, 1 & (4 Aug. '81) from herb

vegetation. Bringpal-1 ? (14 Sept. '81), 1 ? (24 Sept. '81) from herb vegetation. Chapar-Bhanpuri-1 ♂ (28 Aug. '81) from herb vegetation. Darbha-10 ♀ ♀ between 22 Spet. '80 and 18 Aug. '81 from bovine bait, 1 \$ (17 Nov. '80) from human bait. Dhaniyalur-2 ? ? (4 Apr. '81) larvae reared from nala margin. Dongariguda—6 ♀ ♀, 4 ♂ ♂ (31 Mar. '81) larvae reared from kaccha well. Gumivapal— 1 ♀ (3 Sept. '81) from herb vegetation. Jagdalpur—2 ♀ ♀ (17 Apr. '81) larvae reared from pond margin. Kachora-1 9 (9 Jul. '81) from herb vegetation. Karanji-3 ¥ ♀ (11 Aug. '81), 3 ♀ ♀ (25 Aug. '81) from bovine bait, 3♀♀ (11 Aug. '81) from human bait. Keslur-1 ? (13 Apr. '81) larvae reared from pond margin. Kotamsar-1 \, \text{(5 Nov. '80) from bovine bait, 2 \, \text{\text{(24 Oct. '80), 1 \, \text{\text{(8 Apr. '81)}}} from human bait. Kumarawand-2 ? ?, 1 & between 22 Aug. '81 and 10 Nov. '81 from herb vegetation. Kurandi-18 ? ? between 26 Aug. '80 and 29 Jan. '81 from bovine bait, 4 9 9 between 13 Nov. '80 and 15 Apr. '81 from human bait. Pakhanjore-3 ♀ ♀ (22 Nov. '81) from cattle shed. Potanar-1 ♀ , 1 ♂ (28 Aug. '81) from herb vegetation, 2 ? ?, 2 & & (21 Jan. '82) from cattle shed. Sargipal— 1 \(\text{(22 Nov. '80) from herb vegetation. } \(Tahakapal - 2 \(\text{\figs} \) \(\text{(27 Jun. '81)}, \(1 \) \(\text{(16)} \) Dec. '81) from shrubby vegetation. Takaraguda-1 2 (15 Sept. '81) from herb vegetation. Tekameta-1 ? (11 Aug. '81) from herb vegetation.

13. Culex whitmorei (Giles)

1904. Taeniorhynchus whitmorei Giles, Journ. Trop. Med. 3:367.

1977. Culex whitmorei: Knight and Stone: 228.

Present records: Adawal - 89 9, 1 & between 11 Jul '80 and 20 Nov.'81 from herb vegetation. Aghanpur - 3 22 between 11 Aug. '81 and 26 Sept. '81 from herb vegetation. Balenga - 22 99 between 22 Jul. '81 and 15 Sept. '81 from herb vegetation. Bastar - 4 919, 1 & between 24 Sept. '80 and 20 Nov. '80 from herb vegetation. Bhond - 12 ? ?, 2 & between 4 Aug. '81 and 15 Sept. '81 from herb vegetation. Bringpal - 17 ?? between 3 Aug. '81 and 18 Jan. '82 from herb vegetation, 1 9 (31 Aug. '81) larva reared from paddy field. Chapar-Bhanpuri -11 ? ? between 3 Apr. '81 and 5 Sept. '81 from herb vegetation. Chindawada - 1 ? (29 Aug. '81) from herb vegetation. Darba - 89 2 2 between 27 Jul. '80 and 28 Oct. '81 from bovine bait, 32 ? ? between 17 Mar. '80 and 15 Sept. '81 from human bait, 6? ?, 233 between 12 nov. '80 and 19 Sept. '81 from herb vegetation. Daurgaon - 11 9 9, 333 between 13 Nov. '80 and 13 Nov. '81 from herb vegetation. Dongariguda - 5♀♀, 5♂♂ between 30 Aug. '80 and 20 Nov. '81 from herb vegetation 1 ♀ (20 Aug. '81) larvae reared from rainy pool. Gumiyapal - 1199 between 24 Jul. '80 and 17 Sept'81 from herb vegetation. Kachora - 1 δ (26 Sept. '80) from herb vegetation, 3 ? ?, $2 \delta \delta$ (30 Sept. '81) larvae reared from paddy field. Kakalgur - 1 \, (29 Aug. '81) from herb vegetation. Karanji 194 ? ? between 7 Jul. '81 and 8 Sept. '81 from human bait, 1 & (2 Oct. '80) from herb vegetation, 4 ? ?, 2 3 3 (12 Aug. '81), 9 ? ?, 1 3 (26 Aug. '81)larvae reared from paddy field. Keshur - 3 P P(31 Aug. '81) from herb vegetation. Kotamsar - 2 ♀ ♀ (27 Jun. '80), 1 ♀ (5 Nov. '80) from bovine bait, 7 ♀ ♀ between 3 Mar. '80 and 8 Apr. '81 from human bait, 4 & & (6 Feb. '81) from herb vegetation. Kumarwand - 3 ₹ ₹ (5 Sept. '81) 1 ₹ (26 Sept. '81) from herb vegetation. Kurandi -53 9 9 between 15 May '80 and 29 Jan. '81 from bovine bait, 40 9 9 between 25 Feb. '80 and 1 May '81 from human bait, 1 2 (11 Feb. '81) from herb vegetation, 5 ? ?, 8 & &

(30 Jul. '81) larvae reared from paddy field. Lendra - 1 ? (24 Aug. '81), 1 ? (7 Sept. '81) from herb vegetation. Pakhanjore - 1 ? (27 Aug. '81), 2 ? (28 Nov. '81) from herb vegetation, 1 ? (22 Nov. '81) from cattle shed. Pandripani - 7 ? 9, 4 ? between 14 Sept. '81 and 18 Jan. '82 from herb vegetation. Potanar - 1 ? (28 Aug. '81), 1 ? (3 Sept. '81) from herb vegetation. Rajur - 5 ? between 21 Jul. '80 and 7 Sept. '81 from herb vegetation, 2 ? 9, 3 ? (10 Aug. '81) larvae reared from paddy field. Retawand 3? 9, 1 ? (9 Jul. '80) from herb vegetation, 5? 9, 1 ? (13 Oct. '81) larvae reared from road side pit. Sargipal - 2 ? ? (22 Nov. '80), 3 ? ? (23 Nov. '80) from herb vegetation. Tahakapal - 1 ? (21 Aug. '81) from herb vegetation. Takaraguda - 11 ? 2 1 ? between 18 Aug. '81 and 15 Sept. '81 from herb vegetation. Tandpal - 1 ? (21 Aug. '81), 1 ? (3 Sept. '81) from herb vegetation. Tekameta - 5 ? 2, 2 ? between 11 Aug. '81 and 21 Nov. '81 from herb vegetation. Telengarapur - 3 ? 2, 4 ? between 19 Nov. '80 and 14 Dec. '81 from herb vegetation. Tokapal - 2 ? ? (23 Sept. '81) from herb vegetation.

Subgenus Culiciomyia Theobald

14. Culex nigropunctatus Edwards

1926. Culex nigropunctatus Edwards, Bull. Ent. Res. 7: 121.

1977. Culex nigropunctatus: Knight and Stone: 131.

Present records: Bastar - 1 & (20 Nov. '80). Bringpal - 1 \(\) (16 Nov. '81), Jagdalpur - 5 \(\delta \) (15 Mar. '81). Karanji - 1 \(\delta \) (22 Sept. '81). Kumarawand \(\delta \) \(\delta \) (26 Sept. '81). Tandpal - 1 \(\delta \) (27 Jun. '81). All the mosquitoes were collected from herb vegetation.

15. Culex pallidothorax Theobald

1905. Culex pallidothorax Theobald, Journ. Econ. Blot. 1:32.

1977. Culex pallidothorax: Knight and Stone: 232.

Present records: Adawal-1 & (18 Dec. '81) from herb vegetation. Bringpal-1 & (14 Dec. '81) from herb vegetation. Chindawada - 1 & 1 & (28 Jan. '82) from shrubby vegetation. Darbha - 1 & (17 Feb. '81), 2 & (18 Mar. '81) from herb vegetation, 17 & 19 & (23 Mar. '81) larvae reared from rock pool. Dhaniyalur-7 & 7 & (11 Dec. '81), 2 & 2, 4 & (16 Jan. '82) from herb vegetation, 1 & 1 & (16 Jan. '82) from human dwellings. Dongartyuda - 1 & (9 Nov. '81), 2 & (20 Nov. '81) from herb vegetation. Karanji-1 & (9 Sept. '81) from herb vegetation. Kurandi-1 & (11 Feb. '81) from herb vegetation. Pandripani-8 & 2, 22 & between 16 Nov. '81 and 18 Jan. '82 from herb vegetation. Potanar - 1 & 1 & (21 Jan. '82) from shrubby vegetation. Tekameta - 1 & (21 Nov. '81) from herb vegetation.

Subgenus Eumelanomyia Theobald

16. Culex brevipalpis (Giles)

1902. Stegomyia brevipalpis Giles, Handbook 2nd ed: 384.

1977. Culex brevipalpis: Knight and Stone: 234.

Present records: 4 99, 588 between 2 Oct. '80 and 8 Jan. '82 from herb vegetation. Bringpal - 1 & (15 Jun. '81), from herb vegetation. Chindawada - 1 &

17. Culex malayi (Leicester)

1908. Aedes malayi Leicester, Cul. Malaya: 182. 1977. Culex malayi: Knight and Stone: 237.

Present records: Adawal - 599, 1 & between 29 Jan. '81 and 22 Jan. '82 from herb vegetation. Bastar - 3 & between 8 Sept., 81 and 27 Jan. '82 from herb vegetation. Bhond - 1 ♀ (11 Nov. '80), 1 ♂ (15 Sept. '81) from herb vegetation. Bringpal - 1122, 353 (14 Dec. '81), 1022, 333 (18 Jan. '82) from herb vegetation. Chindawada - 599, 233 between 23 Mar. '81 and 28 Jan. '82 from herb vegetation, 2 9 (18 Nov. '81) larvae reared from rock pool. Darbha - 19 9, 1 & between 18 Nov. '80 and 23 mar. '81 from herb vegetation, 299, 1 & (23 Sept. '80) larvae reared from forest pool, 399, 366 (23 mar. '81) larvae reared from margin pit at rocky nala, 1 o (23 Mar. '81) larvae reared from rock pool. Dhaniyalur - 3 ? ?, 2 & between 17 Nov. '80 and 16 Jul. '81 from herb vegetation, 1 & (16 Jan. '81) from cattle shed, 299, 1 & (4 Apr. '81) larvae reared from margin pit at nala. Gumiyapal 1 & (17 Sept. '81) from herb vegetation. Jagdalpur - 1 \(\frac{1}{2} \) (17 Sept. '80) larva reared from Iron tank, 1 o (2 Apr. '81) larvae reared from pond margin. Kakalgur - 1 ? (28 Jan. '82) from herb vegetation, 4 ??, 3'3'3'(15 Jul. '81) larvae reared from discarded pitcher. Karanji - 1 & (22 Sept. '81) from herb vegetation. Keslur - 72 2, 2 & between 31 Aug. '81 and 29 Dec. '81 from herb vegetation. Kumarawand -2 9 9 (21 Nov. '81) from shrubby vegetation. Orcha - 1 & (30 Nov. '81) from herb vegetation. Pakhanjore - 29 ? ?, 38 & between 27 Nov. '81 and 29 Nov. '81 from tree hole. Pandripani - 299, 1 & (18 Jan. '82) from herb vegetation. Potanar - 499, 2 & (21 Jan. '82) from herb vegetation, 1 & (3 Jul. '81) larvae reared from nala margin. Rajur - 2 99 (15 Nov. '80), 1 9 (24 Aug. '81) from herb vegetation. Tahakapal - 1 \(\text{(21 Jan. '82) from cattle shed, 2 \(\text{\text{?}} \) \(\text{(3 Sept, '81) from herb} \) vegetation. Takarguda - 6 22, 3 & between 15 Dec. '81 and 20 Jan. '82 from herb vegetation. Tekameta - 19, 288 between 9 Sept. '81 and 10 Nov. '81 from shrubby vegetation. Telengarapur - 1 & (19 nov. '80) from herb vegetation. Tokapal - 1 \$ (24 Aug. '81), 1 2 (23 Sept. '81) from herb vegetation.

18. Culex pluvialis Barraud

1924. Culex pluvialis barraud, Ind. Journ. Med. Res. 11: 1281.

1977. Culex pluvialis: Knight and Stone: 238.

Present records: Darbha - 2 \$9, 28,8 (23 Mar. '81), Kurandi - 1 \$ (12 Dec. '80),

Tahakapal - 1 9 (27 May '81). All the mosquitoes were collected from herb vegetation.

Subgenus Lophoceraomyia Theobald

19. Culex minor (Leicester)

1908. Culex minor Leicester, Cul. Malaya: 126. 1977. Culex minor: Knight and Stone: 245.

Present records: Bhond - 1 \, 1 \, 6 \, 4 Aug. '81) larvae reared from tree hole. Darbha - 1 \, 6 \, (23 Mar. '81) larvae reared from rock pool, 4 \, 4 \, 6 \, \, 6 \, \, 6 \, (16 Sept. '81) larvae reared from tree hole. Dhaniyalur - 1 \, 6 \, (30 Jul. '81) larvae reared from tree hole, 7 \, \, \, 10 \, \, \, \, 6 \, \, \, (13 Aug. '81) larvae reared from discarded pitcher.

20. Culex minutissimas (Theobald)

1907. Culiciomyia minutissimus Theobald, M. C. 4:235. 1977. Culex minutissimus: Knight and Stone: 245.

Present records: Adawal - 13 99, 19 &&, between 2 Oct. '80 and 20 Nov. '81 from herb vegetation. Aghanpur - 1 \, (3 Dec. '81) from vegetation. Balenga - 1 \, \, 3 \$\delta\$ (1 Sept. '81), 1 \text{ } (15 Dec. '81) from herb vegetation. Bastar - 9 \text{ }\text{ }\text{ }\text{ }\delta\$ between 17 Jun. '81 and 12 Jan. '82 from herb vegetation. Bhond - 5 22, 433 between 24 Jun. '81 and 15 Dec. '81 from herb vegetation. Bringpal - 5 99, 10 & 3 between 15 Jun. '81 and 14 Dec. '81 from herb vegetation, 1 \(\text{20 Jul. '81} \) larvae reared from discarded pitcher. Chindawada - 1899, 1088 between 23 Mar. '81 and 28 Jan. '82 from herb vegetation. Darbha - 24 \$\$, 17 & between 18 Mar, '81 and' 23 Mar. '81 from herb vegetation, 999, 11 & (23 Mar. '81) larvae reared from rock pool. Daurgaon 1 9 (13 Nov. '81) from herb vegetation. Dhaniyalur - 899, 1483 between 11 Jul. '80 and 16 Jan. '82 from herb vegetation. Dongariguda - 1 \, 1 \, 3 (31 Mar. '81) 1 d' (30 Sept. '81) from herb vegetation, 1 \(\pi \) (22 Jan. '82) from human dwellings. Gumiyapal - 4 99, 4 & & (3 Sept. '81), 2 99, 3 & & (17 Sept. '81) from shrubby vegetation. Jagdalpur - 4 ??, 8 && (17 Jul. '81) from herb vegetation. Kachora -499, 533 between 25 Sept. '81 and 18 Dec. '81 from herb vegetation, 1 ♂ (6 Aug. '81) larvae reared from discarded pitcher, Kakalgur - 1 o (15 Jul. '81) from herb vegetation. Karanji - 3 \$9, 3 &\$ (9 Sept. '81) from herb vegetation. Keslur - 1 & (29 May '81), 3♀♀, 2♂♂(29 Dec. '81) from herb vegetation. Kumarawand - 2♀♀, 6 d d between 22 Aug. '81 and 10 Nov. '81 from herb vegetation. Lendra - 1 9 (23 Sept. '81) from shrubby vegetation. Pakhanjore - 4 \, \, \, 22 &\&\, (27 Nov. '81), 1\, \, \, 1 & (29 Nov. '81) from herb vegetation. Pandripani - 4 ? ?, 2 & between 15 Jun. '81 and 18 Jan. '82 from herb vegetation. Potanar - 699, 333 between 3 Jul. '81 and 21 Jan. '82 from herb vegetation. Rajur - 2 & & (22 Sept. '81) from shrubby vegetation. Retawand - 3 99, 1 & between 17 Jun. '81 and 12 Jan. '82 from herb vegetation. Tahakapal - 799, 10 33 between 10 Jul. '81 and 17 Sept. '81 from herb vegetation. Takaraguda - 4 ??, 3 & between 7 Jul. '81 and 28 Dec. '81 from shrubby vegetation. Tandpal - 1 2 4 & between 21 Jan. '82 and 17 Sept. '81 from herb vegetation. Tekameta - 599, 1288 between 11 Aug. '81 and 21 Nov. '81 from herb vegetation. Tokapal - 2 \ ? (22 Jun. '81) from herb vegetation.

Subgenus Lutzia Theobald

21. Culex fuscanus Wiedemann

1820. Culex fuscanus Widemann, Dipt. Exot. 1:9.

1977. Culex fuscanus: Knight and Stone: 248.

Present records: Adawal - 1 & (25 Sept. '81) from herb vegetation, 1/& (25 Sept. '81) larva reared from discarded pitcher. Aghanpur - 1 \$ (3 Dec. '81), 1/3 (23 Jan. '82) from herb vegetation, 2 && (19 Sept. '81) larvae reared from discarded pitcher. Bhond - 1 & (25 Aug. '81), 2 \$\$ (1 Sept. '81) from herb vegetation. Chindawada -299, 1/8 (29 Aug. '81) larvae reared from discarded pitcher. Darbha - 1/2 (23 Mar. '81), 1 \((19 \) Sept. '81) from herb vegetation. Dongariguda - 6 \(\frac{2}{2} \), 4/3/3 (31 \) Mar. '81), 2 \$\bar{2}\$, 1 & (10 Apr. '81) larvae reared from shallow kaccha well. Gumiyapal - 1 \bar{2}\$ (3 Sept. '81) from herb vegetation. Jagdalpur - 1 \$\frac{1}{2}\$ (17 Jul. '81) from herb vegetation, 3 \$ (26 Feb. '81), 1 \$, 1 \$ (22 Mar. '81) larvae reared from gutter water, 4 \$12, 7 \$13 (22 Mar. '81) larvae reared from kaccha well, 1/3 (2 Apr. '81) larvae reared from pond margin. Kachora - 2 99. (20 Aug. '80), 2 99 (4 Sept. '81) from herb vegetation. Karanji - 1 2 (9 Sept. '81), 1.3 (22 Sept. '81) from herb vegetation, 1 2 (22 Sept. '81) from human dwelling. Kumarawand - 1 12, 3/8 (10 Nov. '81) larvae reared from discarded pitcher. Kurandi - 1 2 (13 Feb. '81) from Sept. '81) larvae reared from discarded pitcher. Rajur - 1 12 (27 Jul. '81) larvae reared from paddy field. Tekameta - 1 9 (21 Nov. '81) from herb vegetation. Tokapal - 1 & (12 Oct. '81) larvae reared from trench.

22. Culex halifaxi Theobald

1903. Culex halifaxi Theobald, Monogr. Cul. 3: 231.

1977. Culex halifaxi: Knight and Stone: 249.

Present record: Adawal - 3 & between 11 Jul. '80 and 2 Oct. '80 from herb vegetation. Aghanpur - 3 & (11 Aug. '81) larvae reared from discarded tin. Balenga - 1 & (22 Jul. '81) 1 & (15 Dec. '81) from herb vegetation. Bastar - 3/8/8 (20 Nov. '80) from herb vegetation. Chindawada - 1 & (18 Nov. '81) from herb vegetation. Darbha - 1 & (16 Sept. '81) larvae reared from sandy pit at rocky nala. Jagdalpur - 2 & ?, 3 & (7 Dec. '80), 1 & (18 Jan. '81) larvae reared from pond margin. Kakalgur - 1 & (15 Jan. '82) larvae reared from paddy field. Kotamsar - 1 & (6 Feb. '81) larvae reared from rock pit. Kurandi - 1 & (27 Aug. '81) larvae reared from pond margin, 1 & 1 & (27 Aug. '81) larvae reared from paddy field. Sargipal - 1 & (22 Nov. '80) from herb vegetation.

pallidothorax, C. brevipalpis, C. malayi, G. ptuvialis, C. minor, C. minutissimus, C. fuscanus and C. halifaxii, The distribution records for these species were also included in the paper.

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