

Distributional and Biological Notes on Mosquitoes from Sri Lanka
(Ceylon) (Diptera: Culicidae)¹

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ABSTRACT. Distributional and biological information is given for the 64 taxa of Culicidae collected from Sri Lanka during 1970-73 by Smithsonian Institution personnel from the "Biosystematic Study of the Insects of Ceylon" project. Several species represent new records for Sri Lanka.

INTRODUCTION

During the past four years (1970-73), entomological collections have been made in Sri Lanka under the direction of Karl V. Krombein, Senior Entomologist, National Museum of Natural History, Washington, D. C. and P. H. D. H. de Silva, Director, National Museums of Sri Lanka as part of the project, "Biosystematic Studies of the Insects of Ceylon"⁴.

Mosquitoes from these collections have been submitted to the Southeast Asia Mosquito Project (SEAMP) for identification and study. This material is of special interest since it provides precise locality data for many mosquito species which were previously known only from country records. In addition, one new anopheline species, *Anopheles reidi*, has been described (Harrison, 1973) and a number of species are reported from Sri Lanka for the first time.

Previous studies on the mosquito fauna include: Barraud (1934), Carter (1925, 1950a, 1950b), Carter and Wijesundara (1948), Christophers (1933) and Senior-White (1925, 1927). The most recent enumeration of Carter (1950b) reported 126 species and 8 varieties from Sri Lanka; several of these are no longer recognized as valid taxa.

This paper lists the distribution and bionomics of the 64 taxa which were collected during the four years of field work by Smithsonian teams. The genera are listed according to the systematic sequence in the world mosquito catalog of Stone, Knight and Starcke (1959).

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SPECIES DISCUSSION

*Anopheles (Anopheles)*1. *aitkenii* James 1903.

Central Prov.: Kandy Dist., Rangala, Koratuwa, Sand pool, 2 Apr. 1971, P. & P. Spangler, 1 lp (No adult); Kandegama-Loolooatte, Kobonella Estate, Earth drain, 2 Apr. 1971, P. & P. Spangler, 1 L.

Its distribution east of India is questionable.

2. *barbumbrosus* Strickland & Choudhury 1927.

Central Prov.: Kandy Dist., 5 mi. NW. Mahiyangane, 30 Mar. - 9 Apr. 1971, P. & P. Spangler, 1♀; Wakara Watte (Roseneath), Cement tank, 25 Mar. 1971, P. & P. Spangler, 11L.

North Central Prov.: Anuradhapura Dist., Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 1♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 6♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 13 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 2♀.

Uva Prov.: Badulla Dist., 5 mi. E. Mahiyangane, Ulhitiyawa-Oya, Pool, 31 Mar. - 1 Apr. 1971, P. & P. Spangler, 1♂, 1 lp. Monaragala Dist., 4 mi. W. Padiyatalawa, Maduru-Oya, Stream margin, 6 Apr. 1971, P. & P. Spangler, 4 L.

A. barbumbrosus was originally described from Sumatra and Java. This member of the *barbirostris* species group is known to have a very wide distribution ranging throughout Southeast Asia as far east as Taiwan. It was first recorded from Sri Lanka by Reid (1962). These specimens lack the fringe spot opposite wing vein R₂, as do specimens from India (Wattal et al., 1962). The genitalia of the male and its larval and pupal skins are typical of *barbumbrosus*.

3. *barbirostris* Van der Wulp 1884.

Central Prov.: Kandy Dist., Wakara Watte (Roseneath), Cement tank, 25 Mar. 1971, P. & P. Spangler, 1 L.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂, 6♀; Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 4♀. Polonnaruwa Dist., Pimburettawa, 13 mi. S. Mannampitiya, 9-12 Nov. 1970, O. S. Flint, Jr., 1♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 8♀.

Southern Prov.: Galle Dist., Kanneliya Jungle 4 mi. from Circuit bungalow, Malaise trap, 7 Oct. 1973, K. V. Krombein, P. B. Karunaratne, P. Fernando & J. Ferdinando, 1♀.

Uva Prov.: Badulla Dist., 5 mi. E. Mahiyangane, Ulhitiyawa-Oya, Pool, 31 Mar. - 1 Apr. 1971, P. & P. Spangler, 5♂ 1♀, 5L, 1 P, 5 lp; Irrigation channel, 31 Mar. 1971, P. & P. Spangler, 1 lp. Monaragala Dist., 5 mi. SE. Padiyatalawa, Wahawe, Irrigation channel, 4 Apr. 1971, P. & P. Spangler, 1♀, 2 L; 4 mi. W. Padiyatalawa, Maduru-Oya, Sand pools, 6 Apr. 1971, P. & P. Spangler, 1 L.

This species is widespread in the Oriental Region but absent from Borneo and the Philippines. All the adults show characters of *campestris* Reid but the immatures are *barbistrostris*. Such disjunct associations are also found in Thailand and Malaysia (Reid, 1968).

4. *gigas refutans* Alcock 1913.

Central Prov.: Nuwara Eliya Dist., Kande-ela Reservoir, 6200 ft., 10-21 Feb. 1970, D. R. Davis & W. H. Rowe, 1♂, 15♀; Horton Plains, Agrapatana Rd., 6600 ft., 4 Oct. 1970, O. S. Flint, Jr., 1♀; Milk Board Dairy, 4.2 mi. SW. Nuwara Eliya, 6200 ft., 9-21 Feb. 1970, D. R. Davis & W. H. Rowe, 1♀; Nuwara Eliya, Galways Nature Reserve, 29 Sept. 1973, Black light trap, K. V. Krombein, P. B. Karunaratue & P. Fernando, 11♀.

This subspecies is confined to Sri Lanka.

5. *nigerrimus* Giles 1900.

North Central Prov.: Anuradhapura Dist., Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 1♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 6♀.

This species occurs from Sri Lanka through India across Southeast Asia to Borneo and Indonesia but not in the Philippines. The hind tarsi have only apical pale banding as mentioned by Reid (1968) for Indian specimens.

6. *peditaeniatus* (Leicester) 1908.

Central Prov.: Kandy Dist., Kandy, Peak View Hotel, 1800 ft., 15-24 Jan. 1970, D. R. Davis & W. H. Rowe, 3♀; Peradeniya, Botanical Gardens, Jan. 1971, 6♀, 1-15 Feb. 1971, Piyadasa & Somapala, 1♀, 24-28 Mar. 1971, P. & P. Spangler, 3♂, 9♀, 14 L, 12 l, 21 p.

North Central Prov.: Polonnaruwa Dist., 15 mi. S. Mannampitiya, 1850 ft., 9-12 Nov. 1970, O. S. Flint, Jr., 1♀; Hunuwilagama, Wilpattu Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 3♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 3♀; Panamure, 500 ft., 15-21 Oct. 1970, O. S. Flint, Jr. 15♀.

Southern Prov.: Hambantota Dist., Palatupana, 10 ft., 22-25 Nov. 1970, O. S. Flint, Jr., 1♀; Yala, Palatupana, 8-10 Mar. 1972, K. V. Krombein & P. B. Karunaratue, 1♀; Hambantota, 10 ft., 28 Oct. 1970, O. S. Flint, Jr., 1♀.

Uva Prov.: Badulla Dist., 5 mi. E. Mahiyangane, Ulhitiyawa-Oya, Pool, 31 Mar. 1971, P. & P. Spangler, 8 L. Monaragala Dist., 4 mi. W. Padiyatalawa, Maduru-Oya, Stream margin, 6 Apr. 1971, P. & P. Spangler, 1 L.

This species is widespread in the Oriental Region. Due to highly variable pale tarsal banding, it has often been confused with *nigerrimus* Giles.

7. *reidi* Harrison 1973.

Central Prov.: Kandy Dist., Peradeniya, Botanical Gardens, Jan. 1971, Piyadasa & Somapala, 1♀.

A. reidi is confined to Sri Lanka. Carter (1925, 1950b) listed it as *pseudobarbistrostris* Ludlow.

Anopheles (Cellia)

8. *aconitus* Dönitz 1902.

Central Prov.: Kandy Dist., Peradeniya, 24-28 Mar. 1971, P. & P. Spangler, 1♀, 1 L.

Sabaragamuwa Prov.: Ratnapura Dist., Panamure, 500 ft., 15-21 Oct. 1970, O. S. Flint, Jr., 3♀.

Uva Prov.: Badulla Dist., 5 mi. E. Mahiyangane, Ulhitiyawa-Oya, Pool, 31 Mar. 1971, P. & P. Spangler, 1 L.

A. aconitus is common in many areas of the Indian and Southeast Asian subregions but does not occur in the Philippines.

9. *annularis* Van der Wulp 1884.

North Central Prov.: Anuradhapura Dist., Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 8♀. Polonnaruwa Dist., Pimburettawa, 13 mi. S. Mannampitiya, 1850 ft., 9-12 Nov. 1970, O. S. Flint, Jr., 10♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, 25 mi. NW. Medawachchiya, Irrigation canal, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 1♀.

Uva Prov.: Badulla Dist., 5 mi. E. Mahiyangane, Ulahitiyawa, Pool, 31 Mar. 1971, P. & P. Spangler, 1 L.

This species is widespread in the Oriental Region.

10. *jamesii* Theobald 1901.

Central Prov.: Kandy Dist., Laksapana, 1200 ft., 23-29 Sept. 1970, O. S. Flint, Jr., 1♂, 1♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, 25 mi. NW. Medawachchiya, Irrigation canal, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 1♀.

Sabaragamuwa Prov.: Ratnapura Dist., Panamure, 500 ft., 15-21 Oct. 1970, O. S. Flint, Jr., 3♀.

Uva Prov.: Badulla Dist., 5 mi. E. Mahiyangane, Ulhitiyawa-Oya, Pool, 31 Mar. 1971, P. & P. Spangler, 3 L.

A. jamesi is Oriental in distribution but is absent from the Philippines, Taiwan and Indonesia.

11. *karwari* (James) 1903.

Central Prov.: Kandy Dist., Laksapana, 1200 ft., 23-29 Sept. 1970, O. S. Flint, Jr., 1♀.

A. karwari is widespread in the Oriental Region.

12. *leucosphyrus* species group.

Central Prov.: Kandy Dist., Kandy, Wakara Watte (Roseneath), Ground pool, 25 Mar. 1971, P. & P. Spangler, 1 L.

Reid (1968) records *balabacensis balabacensis* Baisas and *elegans* (James) from Sri Lanka. The single larva from this collection appears to be *balabacensis* but the larva of *elegans* is undescribed.

13. *maculatus maculatus* Theobald 1901.

Central Prov.: Kandy Dist., Kandy, Peak View Motel, 1800 ft., 15-25 Jan. 1970, D. R. Davis & W. H. Rowe, 3♀; Kandy (Roseneath), Ground pool, 25 Mar. 1971, P. & P. Spangler, 1♀, 1 lp; Rangala, Kandegama-Looloowatte, Kobonella Estate, Earth drain, 2 Apr. 1971, P. & P. Spangler, 2♀, 2 L, 1 l, 2 p, Swamp, 2 Apr. 1971, P. & P. Spangler, 9 L; Koratuwa, Borrow pit, 2 Apr. 1971, P. & P. Spangler, 1 L.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 3♀.

Uva Prov.: Monaragala Dist., 5 mi. SE. Padiyatalawa, Dorakumbura-Oya, 4 Apr. 1971, P. & P. Spangler, 1♂, 2♀, 1 L, 2 lp; 4 mi. W. Padiyatalawa, Maduru-Oya, Sand pool, 6 Apr. 1971, P. & P. Spangler, 1 L, Connected rock pools, 6 Apr. 1971, P. & P. Spangler, 1 L.

Some specimens have numerous pale scales on the abdominal terga, similar to those frequently encountered in other parts of Southeast Asia (vide Reid, 1968). The species has a wide distribution in the Oriental Region.

14. *minimus* species group.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 1♀.

Due to the poor condition of this specimen it is not possible to determine the species.

15. *pallidus* Theobald 1901.

North Central Prov.: Polonnaruwa Dist., Pimburettawa, 13 mi. S. Mannampitiya, 1850 ft., 9-12 Nov. 1970, O. S. Flint, Jr., 1♀.

A. pallidus is widespread in the Oriental Region.

16. *subpictus* Grassi 1899.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 1♀.

Southern Prov.: Hambantota Dist., Hambantota, 10 ft., 28 Oct. 1970, O. S. Flint, Jr., 1♂, 5♀.

A. subpictus is a Middle East and Indian species which extends eastward through at least Thailand, Malaysia, Java, Celebes and New Guinea (Reid, 1968). In Thailand and Malaysia it is sympatric with *indefinitus* (Ludlow), with which it is easily confused. Records from other parts of Southeast Asia could refer to either species.

17. *tessellatus* Theobald 1901.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 1♀; Panamure, 500 ft., 15-21 Oct. 1970, O. S. Flint, Jr., 1♀.

A. tessellatus is widespread in the Oriental Region.

18. *vagus vagus* Dönitz 1902.

Central Prov.: Kandy Dist., Kandy, Peak View Motel, 1800 ft., 15-25 Jan. 1970, D. R. Davis & W. H. Rowe, 1♀; Peradeniya, 24 Jan. 1971, Piyadasa & Somapala, 1♀.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 2♀. Polonnaruwa Dist., Pimburettawa, 13 mi. S. Mannampitiya, 1850 ft., 9-12 Nov. 1970, O. S. Flint, Jr., 1♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 1♂, 1♀; Panamure, 500 ft., 15-21 Oct. 1970, O. S. Flint, Jr., 2♂, 20♀.

Uva Prov.: Badulla Dist., 5 mi. E. Mahiyangane, Ulahitiyawa, Pool, 31 Mar. - 1 Apr. 1971, P. & P. Spangler, 2♀, 1 L, 1 lp, Hand-dug well, 31 Mar. 1971, P. & P. Spangler, 6 L; Hasalaka, Irrigation bungalow, Apr. 1971, P. & P. Spangler, 1 L; Ulhitiyawa-Oya, Rock pools, 1 Apr. 1971, P. & P. Spangler, 2 L, 1 lp. Monaragala Dist., 5 mi. SE. Padiyatalawa, 4 Apr. 1971, P. & P. Spangler, 2♂, 2♀, 2 lp; Wahawe, Ploughed paddy, 4 Apr. 1971, P. & P. Spangler, 4 L; Maduru-Oya, Sand pools, 6 Apr. 1971, P. & P. Spangler, 23 L.

A. vagus is widespread in the Oriental Region but does not occur in Taiwan.

19. *varuna* Iyengar 1924.

Uva Prov.: Badulla Dist., 5 mi. E. Mahiyangane, Ulahitiyawa-Oya Pool, 31 Mar. - 1 Apr. 1971, P. & P. Spangler, 1♀, 3 L; Hand-dug well, 31 Mar. 1971, P. & P. Spangler, 1 L; Deyabana-Oya, River margin, 31 Mar. 1971, P. & P. Spangler, 2 L. Monaragala Dist., 5 mi. SE. Padiyatalawa,

Dorakumbura-Oya, 4 Apr. 1971, P. & P. Spangler, 7 L; 4 mi. W. Padiyatalawa, Maduru-Oya, Stream margin, 6 Apr. 1971, P. & P. Spangler, 13 L, 7 P, 4 l, 1 p, Connected rock pools, 6 Apr. 1971, P. & P. Spangler, 1 L, Sand pools, 6 Apr. 1971, P. & P. Spangler, 3 L.

A. varuna occurs in India and Burma; it is not known whether it is also present in the remainder of Southeast Asia.

Tripterooides (Tripterooides)

20. *affinis* (Edwards) 1913.

Central Prov.: Kandy Dist., Kandy, Peak View Motel, 1800 ft., 15-24 Jan. 1970, D. R. Davis & W. H. Rowe, 1♂; Kandy (Roseneath), 25 Mar. 1971, P. & P. Spangler, 3♀, 1 L, 1 lp.

The genitalia and other characteristics of our specimens agree with the description and figure given by Carter and Wijesundara (1948). The specimens from Roseneath were bred from larvae collected in a discarded tire. Barraud (1934) reports it from tree holes. *T. dofleini* (Günther), which it closely resembles, is found in pitcher plants in the lowlands. A third species, *aranooides* (Theobald), is also known from Sri Lanka.

Mimomyia

21. *chamberlaini* (Ludlow) 1904.

North Central Prov.: Polonnaruwa Dist., Pimburettawa, 13 mi. S. Mannampitiya, 1850 ft., 9-12 Nov. 1970, O. S. Flint, Jr., 2♀.

We follow Mattingly (1971) who raised *Mimomyia* to generic rank. These specimens appear to be intermediate between *chamberlaini* and *intermedia* Barraud. Until material of all stages from over the whole range of *chamberlaini* and related forms have been studied it is not possible to make any definite decisions. The specimens are best retained under the oldest name.

M. hybrida (Leicester) has also been reported from Sri Lanka (Carter, 1950b).

Ficalbia (Etorleptiomyia)

22. *luzonensis* (Ludlow) 1905.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 7♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 1♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 2♀.
Southern Prov.: Galle Dist., Kanneliya jungle, 4 mi. from Circuit bungalow, Malaise trap, 7 Oct. 1973, K. V. Krombein, P. B. Karunaratne, P. Fernando & J. Ferdinando, 1♀.

F. luzonensis was previously reported from Sri Lanka by Carter (1950b). It is a widespread species occurring throughout the Oriental Region.

Mansonia (Mansonioides)

23. *uniformis* (Theobald) 1901.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 2♀; Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 1♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal, 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 37♀.

Western Prov.: Colombo Dist., Colombo Museum, Sea level, 26 Aug. 1973, Black light trap, G. Ekis, 2♀.

M. uniformis is widespread throughout the Old World tropics and subtropics as far east as the Solomon Islands and north to the Ryukyus.

Aedeomyia

24. *catastieta* Knab 1909.

Uva Prov.: Monaragala Dist., Sella Kataragama, Menik Ganga, 150 ft., 24 Oct. 1970, O. S. Flint, Jr., 1♂, 9♀.

This is the species recorded by Carter (1950b) as *venustipes* (Skuse) and by Green (1901) as *squamipennis* (Lynch Arribálzaga). The former is now known to be restricted to the extreme southeastern part of Australia. *A. catastieta* on the other hand has a wide distribution in Southeast Asia (Tyson, 1970).

Uranotaenia (Uranotaenia)

25. *campestris* Leicester 1908.

North Central Prov.: Anuradhapura Dist., Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 2♂; Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 3♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂, 1♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis, & W. H. Rowe, 1♀.

Southern Prov.: Galle Dist., Kanneliya, 4 mi. from Circuit bungalow, 7 Oct. 1973, K. V. Krombein, P. B. Karunaratue, P. Fernando & J. Ferdinando, 1♀.

U. campestris is widely distributed but rather uncommon throughout much of the Oriental Region except for the Philippines, Taiwan and Ryukyus; recorded from Sri Lanka by Carter (1950b).

26. *rutherfordi* Edwards 1922.

Southern Prov.: Galle Dist., Kanneliya, 4 mi. from Circuit bungalow, 7 Oct. 1973, K. V. Krombein, P. B. Karunaratue, P. Fernando & J. Ferdinando, 1♀; Udugama, Kanneliya, 10 Oct. 1973, 1♀.

U. rutherfordi is apparently endemic to Sri Lanka.

Uranotaenia (Pseudoficalbia)

27. *Uranotaenia (Pseudoficalbia)* sp.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 12♂, 9♀; Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 13♂, 6♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 10♂, 1♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, Davis & Rowe, 3♂, 3♀.

We have followed Peyton (1972) in his subgeneric classification. Our specimens probably represent a new species and will be described after comparison with a few of the known Indian species. The Sri Lanka species is probably the same one Carter (1950b) listed as *recondita* Barraud.

Aedes (Finlaya)

28. *gubernatoris* (Giles) 1901.

Central Prov.: Kandy Dist., Peradeniya, Upper Hantane Hill, 2300 ft., 12-16 Jan. 1970, D. R. Davis & W. H. Rowe, 1♀.

Southern Prov.: Hambantota Dist., Badagiriya, Tank, 6.5 mi. N. Hambantota, 75 ft., 27 Oct. 1970, O. S. Flint, Jr., 1♀.

The identification of these specimens must remain doubtful until a revision has been made of the Southeast Asian species of the *gubernatoris* subgroup of Knight and Marks (1952). It was recorded from Sri Lanka by Carter (1950b). We also have specimens from Bombay, Bengal and Thailand that appear to be this species.

29. *macdougalli* Edwards 1922.

Central Prov.: Kandy Dist., Kandy (Roseneath), 25 Mar. 1971, P. & P. Spangler, 1♂, 1♀, 1 l, 2 p.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 1♀.

These are placed here because of the prominent white scaling on the underside of the proboscis. However, specimens from Thailand with totally dark proboscis (labelled *pseudotaeniatus*) have terminalia, larvae and pupae which are inseparable from the Sri Lanka specimens. It seems that *macdougalli* may just be a paler form of *pseudotaeniatus* (Giles). The whole *pseudotaeniatus* subgroup of Knight and Marks (1952) requires revision when the requisite material becomes available. This species was recorded by Carter (1950b) from Sri Lanka.

*Aedes (Stegomyia)*30. *albopictus* (Skuse) 1894.

Central Prov.: Kandy Dist., Kandy, Peak View Motel, 1800 ft., 15-24 Jan. 1970, D. R. Davis & W. H. Rowe, 1♂; Udawattekele Sanctuary, 2100 ft., 10-23 Jan. 1970, D. R. Davis & W. H. Rowe, 1♀; 5 mi. NW. Mahiyangane (Hasalaka), Mar. - Apr. 1971, P. & P. Spangler, 5♂, 6♀, 10 lp; Peradeniya, 26-28 Mar. 1971, P. & P. Spangler, 4♂, 4♀; Kandy (Roseneath), 25 Mar. 1971, P. & P. Spangler, 2♂, 2♀.

North Central Prov.: Polonnaruwa Dist., Pimburettawa, 13 mi. S. Mannampitiya, 1850 ft., 9-12 Nov. 1970, O. S. Flint, Jr., 1♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 1♀.

Uva Prov.: Badulla Dist., 5 mi. E. Mahiyangane, 1 Apr. 1971, P. & P. Spangler, 1♀.

This species is widely distributed from Madagascar in the west through the Oriental Region, southern China, Japan and the Mariana Islands in the east (Huang, 1972). It is also known to occur in New Guinea (Colless, 1973).

31. *vittatus* (Bigot) 1861.

Central Prov.: Kandy Dist., Peradeniya, Jan. 1971, Piyadasa & Somapala, 1♂, 1♀.

North Central Prov.: Anuradhapura Dist., Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis and W. H. Rowe, 4♂.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂.

Sabaragamuwa Prov.: Ratnapura Dist., Panamure, 500 ft., 15-21 Oct. 1970, O. S. Flint, Jr., 2♀; Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 1♂, 1♀.

A. vittatus is a widespread species reaching from the Mediterranean through the Ethiopian and Oriental Regions. Specimens over this wide area have been compared with topotypic material, kindly obtained for us by Dr. Jean Mouchet, O R S T O M, Bondy, France, without finding any tangible differences.

*Aedes (Aedimorphus)*32. *jamesi* (Edwards) 1914.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft. 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 2♀; Humuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂, 20♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂, 27♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, 250 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 1♀.

This species was reported by Barraud (1934) to be fairly common in Peninsular India and Sri Lanka but was not recorded from northwest India, Assam or Burma. Aslamkhan (1971) does not mention it from Bangladesh or Pakistan.

33. *pallidostriatus* (Theobald) 1907.

Southern Prov.: Hambantota Dist., Hambantota, 10 ft., 28 Oct. 1970, O. S. Flint, Jr., 4♀.

A. pallidostriatus is fairly widespread in India and Sri Lanka.

34. *pipersalatus* (Giles) 1902.

North Central Prov.: Anuradhapura Dist., Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 6♀.

Adults of *pipersalatus* are similar to *taeniorhynchoides* (Christophers), but can be separated from this species by characters given by Reinert (1973).

35. *stenoetrus* (Theobald) 1907.

Central Prov.: Nuwara Eliya Dist., Kande-ela Reservoir, 5.6 mi. SW. Nuwara Eliya, 6200 ft., 10-12 Feb. 1970, D. R. Davis & W. H. Rowe, 3♀, 1-5 Oct. 1970, O. S. Flint, Jr., 1♀, 29 Sept. 1973, Black light trap, 15♀; Nuwara Eliya, Galways Nature Reserve, 29 Sept. 1973, K. V. Krombein, P. B. Karunaratne & P. Fernando, 1♀.

According to Reinert (1973), present records of this species outside Sri Lanka and South India (Assam, Thailand) are either *vexans vexans* (Meigen) or *caecus* (Theobald). *Aedes stenoetrus* probably has a restricted distribution in the mountains above elevations of 4000 feet in Sri Lanka and southern India while *vexans vexans* is found at lower elevations.

36. *vexans vexans* (Meigen) 1830.

Southern Prov.: Hambantota Dist., Hambantota, 10 ft., 28 Oct. 1970, O. S. Flint, Jr., 5♀.

A. vexans is one of the most widespread of all mosquitoes and occurs in most major zoogeographical regions. Reinert (1973) recently summarized its distribution. In Sri Lanka, this species has probably been mistaken for *taeniorhynchoides* and *stenoetrus*.

*Aedes (Neomacleana)*37. *pseudomediofasciatus* (Theobald) 1910.

North Central Prov.: Anuradhapura Dist., Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 2♂.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 3♂, 2♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 1♀.

A. pseudomediofasciatus is known from a number of localities in Sri Lanka and southern India.

38. *uniformis* (Theobald) 1910.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 20-25 Mar. 1970, D. R. Davis & W. H. Rose, 6♀.

This species is apparently restricted to India and Sri Lanka.

39. *yerburyi* Edwards 1917.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 2♂, 8♀.

The female genitalia and other characters of the female agree with Wijesundara's (1951) description. The male genitalia agree with the illustration of Edwards (1917). This species is apparently known only from Sri Lanka.

*Aedes (Paraedes)*40. *ostentatio* (Leicester) 1908.

Central Prov.: Kandy Dist. Kandy, Peak View Motel, 1800 ft., 15-24 Jan. 1970, D. R. Davis & W. H. Rowe, 1♂, 2♀.

Mattingly (1958) placed *ostentatio* in *Paraedes* based only on characters of the female. Several specimens of the hitherto unknown male recently received from West Malaysia support this action. As suspected by Mattingly, the male lacks the brilliant scutal markings of the female. The Malaysian males and the female are siblings, hence there is no doubt about their being conspecific. The Sri Lanka specimens agree well in all respects with specimens in our collection from the Philippines, South Vietnam and Thailand, but further material is required for confirmation. *Pseudohowardina chrysosecta* Theobald from Peradeniya, known only from a female, is cited as a synonym of *ostentatio* in Stone et al. (1959). This action cannot be confirmed until topotypic males become available.

*Aedes (Neomelaniconion)*41. *lineatopennis* (Ludlow) 1905.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 3♀.

These specimens have hind claws as in *lineatopennis* from the same locality as the lectotype. Other specimens examined from the Philippines, Malaysia, Indonesia and Thailand also had simple hind claws. The first wing vein is extensively yellow as in South African *luteolateralis* (Theobald) in which, however, the hind claws are toothed. Barraud (1934) recorded *lineatopennis* from Sri Lanka and gives *luteolateralis* as a synonym.

*Aedes (Diceromyia)*42. *ramachandrai* Reuben 1967.

North Central Prov.: Anuradhapura Dist., Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂, 5♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 4♂, 3♀.

The spectacular ornamentation of this species and the genitalia of the male agree with Reuben's (1967) description and illustration.

*Armigeres (Armigeres)*43. *aureolineatus* (Leicester) 1908.

Central Prov.: Kandy Dist., Peradeniya, Botanical Gardens, Jan. - Feb. 1971, Piyadasa & Somapala, 3♂, 1♀; Peradeniya, 5 mi. NW. Mahiyangane, 30 Mar. - 9 Apr. 1971, P. & P. Spangler, 1♂.

A. aureolineatus is widespread in the Oriental Region. It was first reported from Sri Lanka by Barraud (1934) from specimens collected by James in 1913.

44. *subalbatus* (Coquillett) 1898.

Central Prov.: Kandy Dist., Kandy, Peak View Motel, 1800 ft., 15-24 Jan. 1970, D. R. Davis & W. H. Rowe, 1♂, 3♀, Feb. 1971, Piyadasa & Somapala, 1♂, 7♀; Hasalaka, 1000 ft., 30-31 Mar. 1973, Black light trap, R. W. Baumann & J. L. Cross, 1♀; Peradeniya, Botanical Gardens, Jan. - Feb. 1971, Piyadasa & Somapala, 5♂, 10♀, 1700 ft., 13 Oct. 1970, O. S. Flint, Jr., 1♀; Laksapana, 1200 ft., 23-29 Oct. 1970, O. S. Flint, Jr., 1♂, 3♀, 13 Mar. 1973, 3000 ft., Flower pot, R. W. Baumann & J. L. Cross, 1♂, 3♀; Mahaweli, Ganga Kandy, 2000 ft., 28 Mar.

1973, R. W. Baumann & J. L. Cross, 2♀; Huntana, 2000 ft., 28-29 Mar.
 1973, R. W. Baumann & J. L. Cross, 2♀, 26-28 Mar. 1971, P. & P. Spangler, 3♂, 5♀; 5 mi. NW. Mahiyangane, 30 Mar. - 9 Apr. 1971, P. & P. Spangler, 1♂. Nuwara Eliya Dist., Kande-ela Reservoir, 5.6 mi. SW. Nuwara Eliya, 10-21 Feb. 1970, D. R. Davis & W. H. Rowe, 1♂, 2♀.
Sabaragamuwa Prov.: Ratanapura Dist., Belihul-Oya, 22, Mar. 1973, R. W. Baumann & J. L. Cross, 1♂; Kukula Ganga, 1000 ft., 16 Apr. 1973, R. W. Baumann & J. L. Cross, 1♂.
Southern Prov.: Galle Dist., Udugama Kanneliya, Oct. 1973, K. V. Krombein, P. B. Karunaratne, P. Fernando & J. Ferdinando, 1♀.
Western Prov.: Colombo Dist., Colombo Museum, Sea level, 26 Aug. 1973, G. Ekis, 2♀.

A. subalbatus is widespread in the Oriental Region. The correct name for this common species will remain in doubt until topotypic material of *obturbans* (Walker) from Makassar, Celebes (Sulawesi) becomes available for examination.

Culex (Lutzia)

45. *fuscatus* Wiedemann 1820.

Central Prov.: Kandy Dist., Kandy, Feb. 1971, Piyadasa & Somapala, 1♂.
North Central Prov.: Anuradhapura Dist., Padaviya, 180 ft., 2-8 Nov. 1970, O. S. Flint, Jr., 1♀.
Sabaragamuwa Prov.: Ratnapura Dist., Panamure, 500 ft., 15-21 Oct. 1970, O. S. Flint, Jr., 3♀.

C. fuscatus is widespread in the Oriental Region.

Culex (Eumelanomyia)

46. *malayi* (Leicester) 1908.

North Central Prov.: Anuradhapura Dist., Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂.
Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 1♀.
Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 1♀.
Uva Prov.: Badulla Dist., 5 mi. E. Mahiyangane, Mar. - Apr. 1971, P. & P. Spangler. 4♂, 5♀, 4 lp, 5 L.

This species is widespread in the Oriental Region except for the Philippines where it appears to be replaced by *yeageri* Baisas and *laureli* Baisas (Sirivanakarn, 1972). Until Sirivanakarn's (1971) reclassification of *Neoculex*, this species was placed in the subgenus *Mochthogenes* Edwards.

*Culex (Lophoceraomyia)*47. *minutissimus* (Theobald) 1907.

Central Prov.: Kandy Dist., Kandy (Roseneath), 25 Mar. 1971, P. & P. Spangler, 2 L.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂.

Uva Prov.: Badulla Dist., 5 mi. E. Mahiyangane, 1 Apr. 1971, P. & P. Spangler, 1♀, 1 lp.

C. minutissimus is currently known only from Sri Lanka and Thailand but most likely is widespread in the Oriental Region.

48. *infantulus* Edwards 1922.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂.

C. infantulus is common and widely distributed in the Oriental Region.

49. *uniformis* (Theobald) 1905.

Central Prov.: Kandy Dist., Madugoda, 2 Apr. 1971, P. & P. Spangler, 4♂, 1♀, 5 L, 5 l, 4 p.

Uva Prov.: Monaragala Dist., 5 mi. SE. Mahiyangane, 4 Apr. 1971, P. & P. Spangler, 1 L.

C. uniformis is apparently endemic to Sri Lanka.

*Culex (Culiciomyia)*50. *nigropunctatus* Edwards 1926.

Central Prov.: Kandy Dist., 5 mi. NW. Mahiyangane, 30 Mar. - 9 Apr. 1971, P. & P. Spangler, 1♀; Kandy (Roseneath), 25 Mar. 1971, P. & P. Spangler, 1♀; Peak View Motel, 1800 ft., 15-24 Jan. 1970, D. R. Davis & W. H. Rowe, 1♀.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂, 2♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 4♂, 9♀.

Uva Prov.: Monaragala Dist., 5 mi. SE. Padiyatalawa, 4 Apr. 1971, P. & P. Spangler, 1♂, 1♀.

This species is widespread throughout the Oriental Region.

51. *bahri* (Edwards) 1914.

Central Prov.: Nuwara Eliya Dist., Kande-ela Reservoir, 5.6 mi. SW. Nuwara Eliya, 6200 ft., 10-21 Feb. 1970, D. R. Davis & W. H. Rowe, 1♀.

C. bahri is apparently endemic to Sri Lanka.

52. *pallidothorax* Theobald 1905.

Central Prov.: Kandy Dist., 5 mi. E. Mahiyangane, 31 Mar., 1971, P. & P. Spangler, 4 L.

C. pallidothorax is widespread throughout the Oriental Region.

*Culex (Culex)*53. *bitaeniorhynchus* Giles 1901.

Central Prov.: Kandy Dist., Laksapana, 1200 ft., 23-29 Sept. 1970, O. S. Flint, Jr., 2♀; Peradeniya, Jan. - Feb. 1971, Piyadasa & Somapala, 4♀.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 7♂, 5♀.

Sabaragamuwa Prov.: Ratnapura Dist., Panamure, 500 ft., 15-21 Oct. 1970, O. S. Flint, Jr., 8♂, 10♀.

This species or what is considered to be *bitaeniorhynchus sensu lato*, extends from Africa and Madagascar through the Oriental Region north to Japan and Korea, south to Australia and the South Pacific. Several adult forms have been described (Edwards, 1922). The most recent attempt to analyze this species on the basis of the morphological variability of all stages, is that of Sirivanakarn (1973).

54. *fusci-furcatus* Edwards 1934.

Central Prov.: Kandy Dist., Rangala, 2 Apr. 1971, P. & P. Spangler, 1♂, 1♀, 1 lp.

C. fusci-furcatus was known only from the type locality in India until 1948 when Carter and Wijesundara reported it from Sri Lanka and described the larva.

55. *fuscocephalus* Theobald 1907.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 1♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 10♂, 7♀; Panamure. 15-21 Oct. 1970, O. S. Flint, Jr., 6♀.

Southern Prov.: Hambantota Dist., Palatupana, 10 ft., 22-25 Oct. 1970, O. S. Flint, Jr., 1♂.

C. fuscocephalus is widespread in the Oriental Region and very common in some areas. The small number collected in Sri Lanka is rather surprising. Peradeniya is the type locality.

56. *gelidus* Theobald 1901.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂, 2♀;

Padaviya, 180 ft., 2-8 Nov. 1970, O. S. Flint, Jr., 1♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 4♂, 11♀;

Panamure, 500 ft., 15-21 Oct. 1970, O. S. Flint, Jr., 7♀.

Uva Prov.: Monaragala Dist., 5 mi. SE. Padiyatalawa, 4 Apr. 1971, P. & P. Spangler, 1♀, 1 lp, 1 L.

C. gelidus is widespread in the Oriental Region.

57. *mimulus* Edwards 1915.

Central Prov.: Kandy Dist., Kandy, Peak View Motel, 1800 ft., 15-24 Jan. 1970, D. R. Davis & W. H. Rowe, 1♀; Kandy (Roseneath), 25 Mar. 1971, P. & P. Spangler, 8 L.

North Central Prov.: Anuradhapura Dist., Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 1♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂, 3♀.

C. mimulus has been reported from several countries in the Oriental Region. The type locality is Sarawak, East Malaysia. It belongs to a group of closely related species with spotted wings (*mimeticus* subgroup) which requires a complete revision.

58. *pseudovishnui* Colless 1957.

Central Prov.: Kandy Dist., Kandy, Peak View Motel, 1800 ft., 15-24 Jan. 1970, D. R. Davis & W. H. Rowe, 8♂, 9♀; Peradeniya, Upper Hantane Hill, 2300 ft., 12-16 Jan. 1970, D. R. Davis & W. H. Rowe, 1♀; Hasalaka, 500 ft., 22-25 Nov. 1970, O. S. Flint, Jr., 1♀; 5 mi. NW. Mahiyangane, 30 Mar. - 9 Apr. 1971, P. & P. Spangler, 3♂, 6♀, 3 lp, 24 L; Peradeniya, Botanical Gardens, Jan. 1971, Piyadasa & Somapala, 2♀. Nuwara Eliya Dist., Kande-ela Reservoir, 5.6 mi. SW. Nuwara Eliya, 6200 ft., 10-21 Feb. 1970, D. R. Davis & W. H. Rowe, 1♂. Monaragala Dist., Padiyatalawa, 4 Apr. 1971, P. & P. Spangler, 2 L.

North Central Prov.: Anuradhapura Dist., Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 2♂, 13♀; Padaviya, 180 ft., 2-8 Nov. 1970, O. S. Flint Jr., 1♀.

Northern Prov.: Vavuniya Dist., Parayanalankulam, Irrigation canal 25 mi. NW. Medawachchiya, 100 ft., 20-25 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂, 14♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 10♂, 16♀; Panamure, 500 ft., 15-21 Oct. 1970, O. S. Flint, Jr., 1♂, 9♀.

Although not described until 1957, *pseudovishnui* is now known to have a very wide distribution in the Oriental Region. Carter's 1950b record of this species as *vishnui* Theobald probably refers to it. A critical examination of all members of the *vishnui* group of species from a wide range of localities is needed.

59. *quinquefasciatus* Say 1823.

Central Prov.: Nuwara Eliya Dist., Kande-ela Reservoir, 5.6 mi. SW. Nuwara Eliya, 6200 ft., 10-21 Feb. 1970, D. R. Davis & W. H. Rowe, 1 ♀. Kandy Dist., Peradeniya, 27 Mar. 1971, P. & P. Spangler, 2♂, 6♀, 7 lp.

C. quinquefasciatus or *fatigans* of authors which is cosmopolitan, is a common pest mosquito in the Sri Lanka lowland coastal areas.

60. *sinensis* Theobald 1903.

North Central Prov.: Anuradhapura Dist., Hunuwilagama, Wilpattu, Wildlife Society bungalow, 200 ft., 10-19 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂.

C. sinensis is widely distributed in the Oriental Region, but very seldom collected.

61. *tritaeniorhynchus* Giles 1901.

Central Prov.: Kandy Dist., Peradeniya, 26-28 Mar. 1971, P. & P. Spangler, 2♂, 1♀, 3 lp.

North Central Prov.: Anuradhapura Dist., Padaviya, Irrigation bungalow, 180 ft., 27 Feb. - 9 Mar. 1970, D. R. Davis & W. H. Rowe, 1♂, 6♀, 0. S. Flint, Jr., 5♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 5♂, 5♀; Panamure, 500 ft., 15-21 Oct. 1970, O. S. Flint, Jr., 12♀.

Southern Prov.: Hambantota Dist., Palatupana, 10 ft., 22-25 Nov. 1970, O. S. Flint, 1♀.

Uva Prov.: Monaragala Dist., 5 mi. SE. Padiyatalawa, 4 Apr. 1971, 1♀, 1 lp; 5 mi. SE. Mahiyangane, 4 Apr. 1971, P. & P. Spangler, 2 L.

C. tritaeniorhynchus is widespread in the Ethiopian, Oriental and parts of Palearctic Regions. In several areas the adults of *tritaeniorhynchus* have frequently been confused with those of *annulus* Theobald, which was regarded as a synonym of *vishnui* by Reuben (1969).

62. *whitmorei* (Giles) 1904.

Central Prov.: Kandy Dist., Kandy, Peak View Motel, 1800 ft., 15-24 Jan. 1970, D. R. Davis & W. H. Rowe, 1♀.

Sabaragamuwa Prov.: Ratnapura Dist., Uggalkaltota, Irrigation bungalow, 350 ft., 31 Jan. - 8 Feb. 1970, D. R. Davis & W. H. Rowe, 7♂, 30♀.

This species is widespread in the Oriental Region but it has not been commonly reported in recent times. Although confusion with *gelidus* is unlikely, such a possibility cannot be ruled out.

63. *vishnui* Theobald 1901.

Central Prov.: Kandy Dist., Peradeniya, 24 Mar. 1971, P. & P. Spangler, 2 lp (adults missing).

Because of the lack of associated adults, the larval and pupal skins noted above are tentatively identified as "*vishnui*", a typically Indian form,

following the interpretation by Reuben (1969). However, it is also likely that these specimens may prove to be "*annulus*" Theobald which is apparently more widespread than "*vishnu*" in the Oriental Region. Owing to inadequate material of "*vishnu*" from India, the taxonomy of this complex of closely related species has not yet been resolved.

64. Species near *C. mimulus* Edwards 1915.

Uva Prov.: Monaragala Dist., 4 mi. W. Padiyatalawa, 6 Apr. 1971, P. & P. Spangler, 8 L; 5 mi. SE. Mahiyangane, 4 Apr. 1971, P. & P. Spangler, 1 L.

This form may prove to be new. The larvae show closest similarity to *C. mimulus*, but due to the absence of an associated adult, it is not possible to arrive at a final decision.

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