

## On a Collection of Culicine Mosquitoes from Thirmalapur, Nizamabad (Deccan), India

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THIS paper is based on a collection of Culicine mosquitoes received from the Medical Officer, Thirmalapur taluk, Nizamabad District, Hyderabad (Deccan) in September, 1943, in response to a request made to Dr. A. C. Abraham, the then Assistant Malaria Officer, incharge, Anti-malaria Scheme Nizamabad. The interest in the Culicine fauna of the district was aroused owing to the unpublished reports of the incidence of filariasis in that part of the State.

Thirmalapur derives its importance from the fact of its being the most active of the three sections of the Malaria Field Organization in the district in which is situated the famous Nizamsagar reservoir covering an area of 50 square miles formerly occupied by 40 villages. The main purpose underlying the construction of this huge reservoir on Manjra, a tributary of the Godavari river, was to irrigate the vast tract of land. The main canal which is 98 miles long with its distributaries and channels (1100 miles long) can irrigate an area of 275,000 acres of land. The project supplies water to four out of five taluks of the district, viz., Banswada, Bodhen, Nizamabad and Armur. The water supply is perennial and there are two crops of rice annually.

### Topography and Meteorology

The area of the district is 2,365 square miles and it is 1,375 feet above sea-level. It lies between 18° and 19° latitude and 77° 45' and 78° 30' longitude. The average mean temperature is 93.7°F. The maximum temperature usually rises 112° F in May and the minimum is 74°F

which it touches in the month of December. The average annual rainfall is 36 inches and the average R.H. % is 64.

### Mosquito Fauna

Apart from its academic interest, a study of the mosquito fauna of the district is of immense public health importance, as besides malaria problem which has assumed enormous proportion after the inception of the new irrigation scheme, filariasis also has been reported to occur in a considerably high degree of endemicity in an area in the central part of the State of which a portion of Nizamabad district forms a part (Farooq & Qutubddin, 1946).<sup>2</sup> A list has, therefore, been given here of the culicine as well as anopheline mosquitoes so far recorded from the district.

Abraham and Samuels (1944)<sup>1</sup> listed the following species of anopheles from Thirmalapur :—

1. *A. culicifacies* Giles.
2. *A. fluviatilis*. James.
3. *A. aconitus*. Donitz.
4. *A. stephensi*. Liston.
5. *A. annularis*. van der Wulp.
6. *A. pallidus*. Theobald.
7. *A. hyrcanus* var. *nigerrimus*. Giles.
8. *A. barbirostris*. Wulp.
9. *A. subpictus*. Grassi.
10. *A. vagus*. Donitz.
11. *A. tessellatus*. Theo.
12. *A. jamesi*. Theo.
13. *A. splendidus*. Koidzumi.
14. *A. theobaldi*. Giles.
15. *A. turkhudi*.

Later on, Farooq and Qutubuddin (loc. cit), while studying the epidemiology of filariasis, recorded the following Megarhine, Culicine and Anopheline species from Kamareddy taluk of the district to the west of which is situated Thirmalapur.

### Megarhinini

1. *Megarhinus splendens*. Wied.

### Culicini

1. \**Uranotaenia* sp.
2. *Aedomyia venustipes*. (Skuse),
3. *Ficalbia* (*Mimomyia*) *chamberlaini* (Ludl).
4. *F. (F) minima*. (Theo)
5. *Mansonia* (*Mansoniodes*) *uniformis*. (Theo).
6. *M. (M) indiaea*. (Walk).
7. *Culex* (*Lutzia*) *fuscans*. Wied.
8. *C. (Lophoceratomyia) minutissimus* (Theo).
9. *C. fatigans*. Wied.
10. *C. vishnui*. Theo.
11. *C. bitaeniorhynchus*. Giles.
12. *C. tritaeniorhynchus*. Giles.
13. *C. fuscocephalus*. Theo.
14. *C. whitmorei*. Giles.
15. *C. mimulus*. Edw.

### Anophelini

1. *Anopheles subpictus*. Grassi.
2. *A. vagus*. Donitz.
3. *A. culicifacies*. Giles.
4. *A. fluviatilis*. James.
5. *A. annularis*. Wulp.
6. *A. pallidus*. Theo.
7. *A. hircanus*.
8. *A. barbrostris*. Wulp.

So far there is no record of the *Culicine* mosquitoes of Thirmalapur which is a very thickly wooded area and as will be seen is very rich in *Culicine* fauna since no less than ten species have been identified in a collection of 28 specimens sent to me.

\*This species was determined to be a previously nondescript one and was the same as that later on described under the name *U. Mattinglyi* Qutub-ud-Din from Hyderabad City (Qutub-ud-Din, 1951, C).

Though there is no published record of the occurrence of filarial disease in the area, still there is no reason to believe that the disease might not have crossed the boundaries of the adjoining taluk, Kamareddy, of the same district and those of the adjacent endemic areas of the Medak district where the incidence of elephantiasis is both intensive and extensive (Qutubuddin 1951 b) and the conditions obtaining in all these localities are almost identical.

The species recognised in the collection under report are as follows :—

1. *Culex fatigans*. Wied.
2. *C. vishnui*. Theo.
3. *C. tritaeniorhynchus*. Giles.
4. *C. mimulus*. Edw.
5. *C. fuscocephalus*. Theo.
6. *C. fuscitarsis*. Barr.
7. *C. whitmorei*. Giles.
8. *C. (Culiciomyia) pallidothorax*. Theo.
9. *Mansonia* (*Mansonioides*) *uniformis*. (Theo).
10. *Aedes* (*Aedimorphus*) *pipersalatus* (Giles)

Of these species *C. fatigans* (Wied) and *M. uniformis* (Theo) are the well-known carriers of filariasis, and the former has been incriminated by Farooq and Qutubuddin (loc. cit) and Qutubuddin (1951 b) as the carrier of the disease in Kamareddy taluk and Medak district respectively. *C. pallidothorax* and *Aedes* (*Aedimosphus*) *pipersalatus* are for the first time reported here from the district. In my account of the *Culicine* fauna of Hyderabad (Deccan) City Qutubuddin (1951 a, P. 29) *C. fuscocephalus* was mentioned to have been identified the first time in the collection from Thirmalapur. The reference was to this collection alone.

### Summary

In a collection received from Thirmalapur, Nizamabad (Deccan), 10 species of *Culicine* mosquitoes were identified 2 of

which are altogether new records from the district and the remaining 8 account for new locality records. In order to give a complete account of the mosquito fauna of the district, attempt has been made to furnish here a list of Megarhine, Anophe-line and Culicine mosquitoes so far recorded from Nizamabad.

### *References*

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