

THE DIPTEROUS INSECTS OF BARKUDA ISLAND.

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The present note can only be said to illustrate the general character of the dipterous fauna of Barkuda as it has been found impossible to name all the species collected; and it is for this reason that I have arranged this paper in the form of notes under each family. We have to thank Mr. Brunetti for naming some specimens and for confirming the identifications of the others. Mr. Edwards has identified the Culicidae. In the arrangement I have followed Sedgwick's "Zoology."

Family CULICIDAE.

Anopheles subpictus Grassi and *Stegomyia albopicta* Skuse are the commonest mosquitoes on the island. *A.?* *culicifacies* Giles, *Culex concolor* R. D., and *Culex?* *sitiens* Wied., have also been taken. *Stegomyia w-alba* Theo. is not uncommon.

Family CHIRONOMIDAE.

Culicoides peregrinus Kieff. occurs in vast numbers at the end of the rainy season, swarming with other forms round lamps in the verandah of the bungalow. *Calyptopogon albitarsis* Kieff. has also been taken.

Family PSYCHODIDAE.

A small species of *Phlebotomus* occurs, but is rather scarce.

Family TIPULIDAE.

The only Tipulid taken on the island is the widely distributed *Conosia irrorata* Wied., which is fairly common.¹

Family BIBIONIDAE.

Plecia tergorata Rond. is often abundant during the rains. It has been seen hovering in the air about six to ten feet from the ground in considerable numbers on dull showery mornings.

Family STRATIOMYIDAE.

The only members of this family taken on Barkuda were a single specimen of *Odontomyia minuta* Fabr. (10-iv-20, *Annan-dale*), and of a new genus of Pachygastrinae.

¹ Cf. Gravelly, *Rec. Ind. Mus.* XI, p. 508, 1915, for notes on habits.

Family TABANIDAE.

The common horse-fly, *Tabanus striatus* Fabr., was taken in June and October on Barkuda, where it is not a rare species. Two species of *Haematopota* are also not uncommon.

Family BOMBYLIIDAE.

Exoprosopa flammea Brun., was rather common in April, 1920, round flowers of the Tree-Euphorbia (*E. neriifolia*) on the island and I have also seen it at Rambha on the mainland. The species was previously recorded from Pusa and Trincomalee. I might mention in passing that the female on which Brunetti's original description was based was taken at Trivandrum and not at Pusa as stated by him.¹ *Exoprosopa pennipes* Wied., known previously from the lower ranges of the N. Khasi Hills and Kohima in Assam, and Karachi, Pusa, and Calcutta, was also not uncommon in April, 1920. *Hyperalonia suffuspennis* Brun., which has already been previously recorded from South India, occurred in fairly large numbers in company with *Ex. flammea*. Other Bombylids taken on Barkuda were a single specimen of the widely distributed *Anthrax afra* Fabr. and several specimens (one pair *in copula*) of *Bombylius wulpfi* Brun., in April, 1920. A single example of a new species of *Bombylius* was also taken.

Family ASILIDAE.

Four or five species of Asilidae have been taken on Barkuda where they frequent dense jungle, but the only one we have been able to have identified is *Allocotasia aurata* Fabr., a single specimen of which was taken (14-viii-20, Dover) while preying on the common bee, *Nomia oxybeloides*. Two of the other Asilids captured appear to represent undescribed species of *Leptogaster*. We cannot assign generic names to the others, but Mr. Brunetti, who is engaged on a revision of the Asilidae of the East, will probably deal with them later.

Family DOLICHOPODIDAE.

We have only a single specimen, probably of the genus *Psilopus*, from Barkuda.

Family PHORIDAE.

A species of the genus *Termitoxenia* has been found in the fungus combs of *Termes (Odontotermes) obesus* Ramb. Prof. Silvestri will deal with it later.

¹ *Rec. Ind. Mus.* V 1 p. 466, 1909, and *Faun. Brit. Ind. Brachy.* I, p. 184, 1920.

Family SYRPHIDAE.

A single specimen of *Paragus serratus* Fabr. was taken in September, 1919, and several examples (in bad condition) of the genus *Chilosia*.

Family SEPSIDAE.

Sepsis, the only genus of this family found on Barkuda, inhabits the dung of the Chital (*Cervus axis*). Only one species, probably *Sepsis coprophila* de Meij., is represented in the collection.

Family EPHYDRIDAE.

Several species, that breed at the edge of the lake and fly to light at night, cannot be identified at present.

Family DROSOPHILIDAE.

Drosophila, which lives round bananas and other fruit, is common on Barkuda. Dr. Bains Prashad has succeeded in breeding these flies in Calcutta, they are thought by Mr. Brunetti to be new to science.

Family TRYPETIDAE:

Callistomyia pavonina Bezzi, a species which has been taken on the neighbouring islands of the Chilka Lake and in the Ganjam District, is apparently the only fruit-fly that occurs on the island.

Family ORTALIDAE.

A few Ortalids have been taken on Barkuda, but it is impossible to identify them at present.

Family ANTHOMYIIDAE.

The Anthomyids taken on Barkuda are entirely confined to the shores of the island where they are extremely abundant in damp mud and decaying algae. They sometimes fly to light. They all belong to the genus *Lispa* and seem to be four different species, two of which are *Lispa glabra* Wied. and *L. ? assimilis* Wied. The former is represented in the Museum collection from Calcutta, the latter from Jubbulpore, 1,300 feet, and Rangoon.

Family TACHINIDAE.

The identification of the Tachinids is impossible at present. Apparently three species have been taken on Barkuda, either on tree-trunks or on termite mounds.

Family SARCOPHAGIDÆ.

Two or three species of *Sarcophaga*, not represented in the collection of the Indian Museum, are not uncommon on Barkuda.

Family MUSCIDÆ.

A single female of *Lyperosia minuta* Bezzi, an apparently widely distributed form, and two or three species of *Lucilia* have been captured on the island. One of the latter is certainly *L. dux* Erichs., represented in the Museum collection from Calcutta, Sikkim, Rangoon and Mergui. The larvae of *L. dux* is apparently parasitic on the Chital (*Cervus axis*). A single female of *Idielliopsis similis* Towns. (3-19-viii-19), a recently described species, was taken by Dr. Gravely on Barkuda.

Family HIPPOBOSCIDÆ.

Mr. Brunetti has identified a fly that occurs on the Chital as *Lipoptena cervi* Linn., a European species, which has also been taken in Africa.

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