

## INSECT FLOWER VISITORS OF NAYACHAR ISLAND, WEST BENGAL

Bulganin Mitra and P. Parui

Zoological Survey of India, New Alipore, M Block, Kolkata, West Bengal 700053, India.

The Nayachar Island (silt deposited) is situated on the river Hoogly, near the mouth of river Haldi, district Midnapore, West Bengal. The unique vegetation of natural mangroves and introduced trees are now ideal habitats of various insect communities.

This is an attempt to bring out a comprehensive account of the insect flower visitors along with their visited plant species from this newly emerged riverine island. Studies were conducted in the year 1999 on insect visitors to flowering plants in different habitats of Nayachar Island. Specimens were collected using insect nets during the day.

It is evident that among the insect flower visitors of this island Dipterans are maximum (9 species) (Table 1). Other than Diptera, one species each of Hymenoptera and Coleoptera were recorded. In all, 11 species of insects visited eight species of flowering plants (Table 1).

According to Mani and Saravanan (1999), among the insect visitors to Asteraceae, butterflies predominate, followed by bees, flies and beetles. On this island it was observed that flies are the predominate flower visitors of Asteraceae. Out of nine species of Diptera, *Baccha (Allobaccha) amphithoe* and *Thelaira macropus*, restricted their visit to flowers of Myrtaceae. Plants like *Tagetes erecta*, *Helichrysum sp.* and *Callistemon citrinus* have more than one insect visitor. All the three species of Calliphoridae on this island restricted their visit to three different plant species of Asteraceae. *Haptoncus reflexicollis*, the only flower visiting Coleoptera of this island was very common on the flowers of *Gardenia jasminoides*.

Among Hymenoptera, *Apis dorsata* the most common pollinating bee in India was collected only from the flower of *Callistemon citrinus*. According to Corbet *et al.* (1991) an insect is a potentially effective pollinator if it makes sequential visits to the flowers, and transfers pollen. In the present study it was not observed whether insects perform the role of pollinator or not, but their activities and foraging behaviour may lead them in near future as an effective pollinator of this island.

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### References

- Corbet, S.A., I.H. Williams and J.L. Osborne (1991). Bees and the pollination of crops and wild flowers in the European community. *Bee World* 72(2): 47-59.
- Mani, M.S. and J.M. Saravanan (1999). *Pollination Ecology and Evolution in Compositae (Asteraceae)*. Oxford and IBH Publishing Co. Pvt. Ltd. India, 165pp.

Table 1. List of insect flower visitors and the visited plant species on Nayachar Island.

Insect species	Insect family	Plant species	Plant family	Common plant name
<u>Diptera</u>				
<i>Microchrysa flaviventris</i> (Wiedemann)	Stratiomyidae	<i>Tagetes erecta</i>	Asteraceae	Merigold
<i>Ischiodon scutellaris</i> (Fabricius)	Syrphidae	<i>Tagetes erecta</i>	Asteraceae	Merigold
<i>Eristalinus (Eristalinus) arvorum</i> (Fabricius)	Syrphidae	<i>Helichrysum sp.</i>	Asteraceae	Helichrysum
<i>Baccha (Allobaccha) amphithoe</i> (Walker)	Syrphidae	<i>Helichrysum sp.</i>	Asteraceae	Helichrysum
<i>Episyrphus bulteaui</i> (De Geer)	Syrphidae	<i>Zinnia sp.</i>	Asteraceae	Zinnia
<i>Thelaira macropus</i> (Wiedemann)	Techinidae	<i>Helichrysum sp.</i>	Asteraceae	Helichrysum
<i>Chrysomya megacephala</i> (Fabricius)	Calliphoridae	<i>Mikania cordata</i>	Compositae	Mikania
<i>Stomathina discolor</i> (Fabricius)	Calliphoridae	<i>Syzygium jambos</i>	Myrtaceae	Golab jamun
		<i>Callistemon citrinus</i>	Myrtaceae	Bottle brush
<i>Hemipyrellia pulchra</i> (Wiedemann)	Calliphoridae	<i>Psidium guajava</i> Linn	Myrtaceae	Guava
<u>Coleoptera</u>				
<i>Haptoncus reflexicollis</i> (Mots)	Nitidulidae	<i>Callistemon citrinus</i>	Myrtaceae	Bottle brush
<u>Hymenoptera</u>				
<i>Apis dorsata</i> Fabricius	Apidae	<i>Gardenia jasminoides</i>	Rubiaceae	Gardenia

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