

inhabit brackish water, eg, *Cx. (Cux.) sitiens*, and polluted water, eg, *Cx. (Cux.) quinquefasciatus*. *Lutzia* are found in freshwater habitats similar to those occupied by *Culex* species, however they occur principally in tropical regions of the world.

### Feeding behavior

Most records of *Culex* and *Lutzia* from Thailand refer to nocturnal feeding on mammals, eg, humans, cows, and dogs. The periodicity of nocturnal feeding varies greatly depending on the species. *Culex (Cux.) quinquefasciatus*, for example, are fairly abundant in urban areas throughout the year and are commonly found resting during the day in shade outdoors, and on walls, dark corners, in cabinets, bathrooms, and under chairs and tables in houses. Females are vicious biters at night indoors and outdoors and feed principally on blood of man and dogs from sunset until dawn. Many species of *Culex* have been collected in large numbers at night in cowsheds, in light traps or animal-baited traps, and biting cows, pigs, and occasionally humans. Infrequently, *Cx. (Eum.)* species, *Cx. (Lop.) infantulus*, *Cx. (Lop.) rubithoracis*, and other *Cx. (Lop.)* species, as well as *Lt. (Mtl.) fusca*, are caught attacking humans. Little is known about the adult biology and medical importance of species in subgenera *Culiciomyia*, *Eumelanomyia*, *Lophoceraomyia*, and *Oculeomyia* of *Culex*, and *Metalutzia* of *Lutzia*.

## THE GROUPS, SUBGROUPS, COMPLEXES, AND SPECIES OF GENERA *CULEX* AND *LUTZIA*

A brief account of the classification and biology of the *Culex* and *Lutzia* in Thailand is given below. A complete listing of the species belonging to each species group, subgroup, and complex, and their distributions, is provided in Table 1. The known habitats of the Thai species are listed in Table 2.

### ***Culex (Culex)***

Subgenus *Culex* is important because many species have been incriminated as vectors of Japanese encephalitis and filariasis. The species occur everywhere from cities and lowland tropical forests to higher elevations in mountains. Immature stages occur in a variety of ground-water habitats, and artificial and natural containers. Nineteen species belonging to eight subgroups occur in Thailand.

**Pipiens Group.** This group includes three species in Thailand, each belonging to a different subgroup.