

## **AQUATIC LIFE**

## **AQUATIC INSECTS**

BATIQUITOS LAGOON FOUNDATION

> Aquatic insects represent an important link in the food chain within the lagoon: both as food for some birds and fish and as predators themselves, eating algae and other insects or other organisms.

**Mosquitoes** are first here because of their nuisance value and medical importance. Mosquitoes are major vectors of such deadly human diseases as malaria and encephalitis (also yellow fever and dengue fever), so that, in the U.S. at least, local governmental agencies usually keep these populations at a low level. Unlike most aquatic insects, each adult mosquito has a long proboscis. Their larvae are often called wigglers because of their method of locomation through the water. Only females suck blood, while males feed on nectar or other plant juices.



**Midges** comprise a number of species which at times can be a nuisance just from sheer numbers. The most common midge seen in this area belongs to a family similar in appearance to mosquitoes but without a long proboscis—thus, they cannot "bite". Also, unlike mosquitoes, they do not have scales on their wing veins.

Both mosquitoes and midges in larval and adult stages are a major food source for certain other animals.



**Salt Marsh Water Boatmen** may not be seen as you walk the lagoon trail, but they flock to lights. People living near the lagoon are apt to know this insect. This is one of the few insects in the area that tolerates brackish water. Its food consists of algae and other minute aquatic organisms. It, in turn, is an important food source for predatory insects, fish, herons, and other shorebirds.



**Crane Flies** in the adult stage appear to be very large mosquitoes. Some people call larger species "mosquito hawks" even though they do not prey on mosquitoes. Crane flies' mouth parts are soft and not adapted to biting or predation. The larvae are tough-skinned maggot-like creatures associated with damp habitats.



**Kelp Flies**, sometimes called "seaweed flies," are found at the lagoon mouth associated with seaweed cast on the beach. There are several species whose larvae feed on rotting seaweed. When people approach the seaweed masses, hundreds of adults take to the air.



Water Striders may be seen skating across the surface of ponds. Their light weight and the water repellant hair on their feet allow them to walk about on the surface film of water. Most are found on fresh water but a few species have adapted to living in midocean. Striders are predactious, feeding on any small creatures in the water and especially on insects that have fallen into the water.



**Dragonflies** are strong fliers and are often seen far from water as they search for prey (mosquitoes, midges, gnats, flies, et al.) that they capture while flying. It is not true that the adults can sting. The nymphal (immature) stage is also predacious preying on many other aquatic creatures. They in turn are a source of food for fish.



**Damselflies** in this area are similar in appearance to dragonflies but are smaller and hold their wings rooflike over their bodies whereas dragonflies hold their wings at right angles to their bodies. Adult damselflies generally are found quite near water and feed on small flying insects. The nymphs live in fresh water and are predators; they have gill-like appendages on the ends of their abdomens, unlike dragonfly nymphs.

Both dragonflies and damselflies live near water and lay their eggs in the water. The nymphs develop there and, eventually, leave the water, so that the adults can emerge. Adults are usually 2-3 inches long and can be seen flitting about along the trail.