

INSECTS OF SWEETWATER WETLANDS

DRAGONFLY – Order: *Odonata*, Suborder: *Anisoptera* (dragonflies)

Habitat – Larvae are purely aquatic, living in ponds, lakes, wetlands, and slower moving streams. The adults occur both near water and around fields and grassy areas, including urban parks.

Food – As larvae, they eat tadpoles, tiny fish, and the larvae of smaller insects. They grab prey with an extendible jaw. The adults feed on other flying insects, including mosquitoes.

Life Cycle – There are many species of dragonflies. Most deposit their eggs on the surface of water or wet mud. The larvae that hatch are aquatic, living underwater and breathing with gills. After completing all their growth stages, the larvae leave the water (usually by crawling up a reed). The adult emerges from the larval skin and flies away with newly formed wings. Adults leave the water and return only to mate and deposit eggs to continue the cycle.



Photo : Dennis Caldwell



Photo : Steve Prchal - SASI

PREDACEOUS DIVING BEETLE – Order: *Coleoptera* (beetles), Family: *Dytiscidae*

Habitat – Ponds, wetlands and slow moving water.

Food – Both the adults and larvae are voracious predators. They feed on other aquatic insects (including mosquito larvae), small fish, tadpoles and even adult frogs. They inject a digestive fluid into their prey and suck out the juices.

Life Cycle – Eggs are laid in water, usually attached to an aquatic plant. The larvae, called water tigers, spend their entire lives in the water until digging into mud at the water's edge to pupate into adults. Adults primarily live in the water but can emerge and fly to other ponds. Adults capture an air bubble behind their wings as their underwater air supply.

DAMSELFLY – Order: *Odonata*, Suborder: *Zygoptera* (damselflies)

Habitat – Ponds, wetlands, lakes and streams.

Food – Damselflies are predaceous in both adult and larval stages. Like dragonflies, they catch prey with an extendible jaw. They eat other insect larvae, tadpoles and small fish.

Life Cycle – Eggs are deposited in the water on aquatic plants. The larvae are aquatic, going through several growth stages before emerging from the water to molt into adults. Adults may fly away or stay near the water to mate.



Photo : Steve Prchal - SASI



Photo : Steve Prchal - SASI

GIANT WATER BUG – Order: *Hemiptera* (true bugs), Family: *Belostomatidae*

Habitat - Slow moving streams or standing water habitats such as wetlands and ponds.

Food – The larvae eat mainly other aquatic insect larvae. The adults eat insects, small fish, tadpoles and snails. Adults wait at the water's surface for their prey which they ambush and then subdue with a toxin.

Life Cycle – Eggs are laid by the females directly onto a male's back. He will carry and care for these until they hatch. Larvae breathe air through a small snorkel-like device on their backs. Larvae go through several molts until they become adults. Adults are also aquatic but breathe air which they capture as a bubble under their wings.

WATER SCORPION – Order: *Hemiptera (true bugs)*, Family: *Nepidae*

Habitat – Among vegetation in slow moving water such as wetlands and ponds. Some are found under rocks in slowing moving streams.

Food – These are ambush predators, capturing their prey with their forelegs. They eat insect larvae, worms and other invertebrates.

Life Cycle – Eggs are laid on aquatic vegetation and floating objects. Larvae molt through several stages before becoming adults. Adults tend to stay near the water's surface attached to some vegetation. They will breathe using a snorkel-like siphon and trapped air bubble. They are poor swimmers and instead tend to crawl around on aquatic vegetation.



Photo : Steve Prchal - SASI



Photo : Steve Prchal - SASI

BACKSWIMMERS – Order: *Hemiptera (true bugs)*, Family: *Notonectidae*

Habitat – Ponds, wetlands and other aquatic habitats, usually in slow moving water.

Food – They prey on other aquatic invertebrates including and the larvae of mosquitoes and other insects.

Life Cycle – Eggs are laid on the stems of aquatic vegetation. They go through several stages before becoming adults. As their name suggests, they swim upside-down. As air breathers, they capture a bubble as an underwater air supply.

PLANTS OF SWEETWATER WETLANDS

FREMONT COTTONWOOD – *Populus fremontii*

Range – Riparian areas of Arizona and throughout the southwestern states from Texas to California.

Habitat – Found near water primarily in desert, woodland and prairie riparian habitats. Often occur with willow trees.

Characteristics – These large, broad trees can grow to 60 feet high. Their seeds are covered with a soft "cotton" and are wind-carried. During the late spring at Sweetwater Wetlands, look for the cottony seeds flying through the air.

Other – Cottonwood trees need lots of water for their survival and reproduction. They have extensive roots for obtaining water. They provide important habitat for birds, insects, lizards, snakes, and small mammals. They lose their leaves in the fall.



Photo : Greg Clark



Photo : Bruce Prior

GOODING WILLOW – *Salix gooddingii*

Range – From Texas to California north to Utah and south into Mexico.

Habitat – Found near water in desert, grassland and woodland riparian habitats. Often occur with cottonwood trees.

Characteristics – These fast growing trees grow to around 50 feet high. Like cottonwoods, these willows have a "cottony" seed that becomes airborne in the spring.

Other – They are also deciduous, losing their leaves in the fall. Along with cottonwoods, these trees line the banks of Sweetwater Wetlands.