

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



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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.



Photo : Bruce Prior

SALTBUSH – *Atriplex* spp.

Range – Depending on the species, saltbush may range west to California, east to Kansas, north to Washington and south into Mexico.

Habitat – Desert shrub to juniper shrub habitats. Some species thrive in salt flats and coastal plains.

Characteristics – There are four species of saltbush at Sweetwater Wetlands. All are medium to large bushes. They are called saltbush because they can tolerate “salty” soils and because they exude salt onto their leaves, making them salty.

Other – Saltbush provides great habitat and forage for birds and other wildlife.

AMERICAN THREE-SQUARE BULRUSH – *Scirpus americanus*

Range – Across most of the U.S. except the extreme north central states. North into Canada and south into Mexico.

Habitat – The edges of ponds, lakes and wetlands. Grows mostly in the water but can tolerate some dry spells.

Characteristics – Bulrush is an emergent plant. It is rooted in the soil at the water's edge and grows up through water with its leaves and seeds “emerging” above the water. This bulrush is called three square because its stems are triangular in cross section.

Other – Bulrush are an important part of the wetland food chain. Their underwater stems (both when alive and when decomposing) provide important food and habitat for aquatic organisms. Many wetland birds eat the seeds of the bulrush.



Photo : Bruce Prior



Photo : Bruce Prior

SOFT STEM BULRUSH – *Scirpus validus*

Range – Widespread across the U.S. and into Canada and Mexico.

Habitat – The edges of ponds, lakes, wetlands and ditches. Grows in shallow water and wet soils.

Characteristics – Soft stem bulrush can reach 8 feet high and tend to droop with the weight of their brownish flowers and seeds.

Other – Their seeds are important food for many wetland birds.

GIANT BULRUSH – *Scirpus californicus*

Range – Across all the southern states as far north as Kansas.

Habitat – Grows in shallow water along wetlands and marshes and shorelines of waterways.

Characteristics – This is the tallest bulrush at Sweetwater Wetlands, reaching 10 feet in height.

Other – These tall, emergent plants provide important habitat and forage for a variety of wetland wildlife.



Photo : Bruce Prior



Photo : Bruce Prior

CATTAIL – *Typha* spp.

Range – Throughout the U.S. into Canada and Mexico.

Habitat – Standing water and wet soil of wetlands, marshes, ponds and ditches.

Characteristics – There are several species of these tall, wetland grasses. They are named for their long, brown seed heads (resembling a cat's tail) which mature through the summer. In winter, they begin to release the individual seeds in cottony clusters that become windborne.

Other – Cattails are important food and shelter for many wetlands animals. Humans also use them as a food source. Like many emergent plants, cattails cannot grow in water more than three feet deep so are found at the water's edge.

VELVET MESQUITE – *Prosopis velutina*

Range – Through Arizona, into New Mexico and south into Mexico.

Habitat – Although mainly a desert and grasslands dweller, mesquites also live in moist areas just up from the water edge, forming thick forests called “bosques.”

Characteristics – These trees can grow to 30 feet. They have tiny, feather-like leaves. Mesquites also have very long “tap” roots which grow very deep into the soil to reach water.

Other – Mesquites provide food and shelter for a variety of animals. They bloom in the spring, attracting numerous species of insects. By summer, the pollinated blossoms produce the protein-rich, yellowish bean pods which are eaten by many animals. During the winter and times of drought, the mesquite will drop its leaves.



Photo : Bruce Prior



Photo : Bruce Prior

WOLFBERRY – *Lycium berlandieri*

Range – Southern Arizona east to Texas and south into Mexico.

Habitat – Desert scrub, rocky desert slopes and desert plains.

Characteristics – A large, thorny shrub reaching over four feet in height. Wolfberry blooms sporadically and produces red berry-like fruits.

Other – Wolfberry produces its leaves in response to rain. It may be leafless during times of drought. A variety of desert birds and other animals eat its fruits.

REPTILES OF SWEETWATER WETLANDS

WESTERN DIAMOND-BACKED RATTLESNAKE – *Crotalus atrox*

Range – Across the warm southern states from Arkansas west to California.

Habitat - Prefer deserts, rocky canyons and foothills but found in a variety of habitats from the plains to the mountains.

Food - They feed mainly on small mammals such as rats, mice and even small rabbits. They will also eat small birds such as quail. They feed mostly at night. They have potent venom which they use to help subdue prey.

Other – Western diamond-backed rattlesnakes average 3 to 5 feet in length and are the largest rattlesnakes in the west. Like most rattlesnakes, they will lay in the sun to warm up their bodies and seek shade under rock crevices when they get too warm.



Photo : Earle Robinson



Photo : Paul Berquist

SONORAN DESERT TOAD – *Bufo alvarius*

Range – Mostly occur in the Sonoran Desert but range west to California, and into central Arizona.

Habitat – Deserts and grasslands near a water source.

Food – These predators will eat just about anything they can catch including large insects and other frogs and toads.

Other – They spend winter underground and dig to the surface to become active throughout the summer. Sonoran Desert Toads lay their eggs in water, with the first weeks of their lives spent as tadpoles. The glands on their backs contain a toxin that can be harmful to animals (including humans). They are the largest native toad in the United States.