

AQUATIC WILDLIFE

INDICATORS OF THE GUADALUPE RIVER'S HEALTH

OVERVIEW

Certain species of aquatic wildlife give us indications about the health of a river or stream. Using the aquatic larvae of various insects to determine water quality is called *bio-assessment*.

HOW CLEAN IS THE WATER?

Aquatic wildlife, particularly insects, can be sensitive to water quality in a river or creek. Some insects are so sensitive that you will almost never find them in water that has low dissolved oxygen, excess nutrients, toxins, or excessive bacteria. Others can readily survive polluted conditions. By looking at which wildlife is present, a naturalist has a good indication of the water quality within the river.



SECTION OF RIVER WITH HEALTHY APPEARANCE



TRASH PILE ALONG GUADALUPE RIVER



TRASH ALONG TOWN CREEK

POLLUTION INTOLERANT

These fish and aquatic larvae of these insects indicate water that is free of pollutants and has high levels of oxygen.



GUADALUPE BASS

IMAGE SOURCE: Clayton and Charles Robertson



GUADALUPE BASS FINGERLINGS

IMAGE SOURCE: Texas Parks and Wildlife Department



CADDISFLY

IMAGE SOURCE: Richard Barst



DOBSON FLY

INTERMEDIATE POLLUTION TOLERANT

These fish and aquatic larvae of these insects indicate water that has some toxins and lower levels of oxygen.



DRAGONFLY



FLATHEAD CATFISH

POLLUTION TOLERANT

These fish and aquatic larvae of these insects are not affected by pollution or low levels of oxygen.



CRANEFLY

IMAGE SOURCE: Joaquin Alvaro Gaspar



SPOTTED GAR

IMAGE SOURCE: Brian Costello

DID YOU KNOW?

The Guadalupe Bass is *endemic* to the streams and rivers of Central Texas, which means that it is not found anywhere else in the world. The Guadalupe Bass is the state fish of Texas.