



“Currents” May 2017

The Diversity of the Guadalupe River

The Guadalupe River officially begins at the confluence of the North and South Forks in Hunt just upstream of Schumacher Crossing and meanders to the eastern edge of Kerr County before continuing towards Canyon Lake and ultimately the Gulf of Mexico. As it twists and turns along its 400 mile journey, the river takes many shapes and represents great diversity in natural habitats. Our headwaters section of the river basin includes the North Fork, South Fork, and Johnson Creek along with other smaller tributaries to the mainstem Guadalupe River. Within our waterways, you can find a great diversity in habitats including springs, gravely riffles, flat bottom runs, and lakes.

Did you know that the majority of the water in the Guadalupe River originates from springs? The headwaters of the North Fork can be traced to a group of springs about 15 miles from the Hunt Store near the Kerr Wildlife Management Area. In this area, the groundwater surfaces as springs and eventually merges to form the river. The springs maintain a nearly constant temperature year round and are home to many organisms. The greenthroat darter and roundnose minnow are two fish species common to springs. Other animals like crayfish and salamanders also rely on this habitat for survival. Springs forming the South Fork and Johnson Creek are home to similar organisms.

Further east the river displays fast moving riffles like at Schumacher Crossing and Johnson Creek Crossing. Both of these popular swimming holes are great places to enjoy the river on a hot summer day, but they are also excellent habitat for many different species. The gravel bottom is made up of rocks ranging in size from pebbles to boulders and provides infinite hiding places for fish like the Texas logperch and orangethroat darter. Many aquatic invertebrates like hellgrammites and mayfly larvae also find a home between the gravel. The swift moving water is an excellent place to spot our state fish, the Guadalupe bass, as well. These areas of oxygen rich water represent the greatest diversity in the entire river.

As you know, not all of the Guadalupe River has a rocky bottom and some sections run over bedrock that is almost entirely flat. This type of river bottom is fairly uniform and provides little cover or food. Though you will not find as much diversity of organisms, some species do prefer this habitat. The Guadalupe River near G Street in Kerrville is an example of a flat bottom run and a good place to spot Texas shiners and blacktail shiners. The aquatic insects living here are not found on the bare river bottom, but do live among the plants along the river's edge.

Moving downstream, the river gains more flow from tributaries and we find wide deep sections like Flat Rock Lake. The average depth of the lake is over six feet making it a great place to launch a boat and go fishing. Sport fish like largemouth bass and sunfish are common here as well as carp and channel catfish. Dragonfly larvae live on the bottom of the lake for the first part of their life and then hatch into the brightly colored adults we see flying through the air.

I hope you have enjoyed our trip down the Guadalupe River. In addition to providing homes to various species of organisms, the wide-ranging habitats are essential to the health of our river. We are very privileged to have such a diverse and beautiful waterway in our community and we all have an obligation to protect it for future generations. Every person in our watershed has an impact on the Guadalupe River and let's work together to make sure it's a positive one.

Let's Keep Our River Clean

Tara Bushnoe, Natural Resources Coordinator for UGRA, tbushnoe@ugra.org or (830) 896-5445