

Conservation Corner

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Recently we received a call from Gus and Nancy Brinkman who were enjoying a little R & R at their lakeside vacation home. Well, actually they were calling from their farm place southwest of Rolfe after a canoe outing in their cornfield. While contemplating the flooded landscape, they were surprised to see many strange, shrimp-like creatures floating in the water. What in the world?

Turns out their pond companions were Longtail Tadpole Shrimp. Their Latin name *Triops longicaudatus* says it all: three eyes, long tails. These small freshwater crustaceans are found across North America from Canada to Mexico but also in parts of South America, the West Indies, and the Pacific Islands. Exactly matching their ancient fossils, tadpole shrimp have remained unchanged for 70 million years. They are known by a variety of names including the American or Rice Tadpole Shrimp, Living Fossils, Mini Horseshoe Crabs, or, my favorite, Prairie Shrimp.

Whatever their name, they all live in vernal pools that form after heavy rainfall or flash floods. One of the reasons they have been so successful is they cover all the bases

when it comes to reproduction – sexual, asexual, and hermaphroditic. The tadpole shrimp larvae grow rapidly and become sexually mature in just 8 days. They lay one batch of eggs a day for 2-4 weeks. Known as cysts, the eggs can tolerate extreme dryness and temperature changes. In fact, they must completely dry out before they can hatch. Once in the diapause stage, tadpole shrimp eggs may lie dormant for decades until the next heavy rainfall or flash flood.

Tadpole shrimp are 2-3 inches in length and yellowish brown in color. Their head has a pair of dorsal compound eyes and a center deep eye. Their trunk, a fused thorax and abdomen, is covered with a broad, shield-like carapace. Tadpole shrimp have anywhere from 35-71 pairs of thoracic appendages. Some of these legs carry leathery gills while others stir up sediment or guide food into their food grooves. Tadpole shrimp are omnivores, feeding on algae, organic particles, small arthropods, and worms. Most importantly and timely of all, they eat mosquito larvae. We'll take all the help we can get.

In closing, I'd like to remind everyone it's not too late to sign up for Jr. Naturalist Day Camp. This year's adventure, Back to Nature, will be held next week, July 31 through August 2. We invite all area and visiting K-6th grade students to join us at the Nature Center for activities, games, crafts, snacks and a field trip to Kenue Park in Okoboji. Registration forms may be found on our webpage or picked up at the office or area libraries and are due July 27.

As we travel Back to Nature, we'll investigate several stories and secrets of nature unfolding right here in Pocahontas County. I think the Brinkman's living fossil would qualify. Have you seen a longtail tadpole shrimp in your backyard, neighborhood park, or farm field this summer?

