

## PAHRANAGAT NWR: Leopard frogs go to school

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How many teenagers do you know who get up at 6 a.m. on Saturday, during summer break, and go to school by choice? Jason Wurtz is one such teenager. The 16-year-old junior-to-be at Pahrnagat Valley High School in Alamo, Nev., volunteers his free time taking care of some rare animals.

Each of the last two years, Wurtz eagerly anticipated the arrival of spring, because that is when the northern leopard frogs at Pahrnagat National Wildlife Refuge (NWR) begin to breed. The refuge is located a few miles south of Alamo. Several of Pahrnagat's springs serve as the southernmost stronghold for this small, native frog species. The population of northern leopard frogs in the western United States is declining across much of their historical range. However, the frogs on the refuge are doing well. With Jason's help and the support of science teacher Wesley Wilson, they are expanding their population and the number of sites they occupy.

How, you might ask, is Wurtz's contributing to the amphibians' well being? The short answer — he keeps them in school.

Here's the rest of the story:

Each February, as the frogs' breeding season approaches, Wurtz prepares aquariums housed in his high school's agriculture classroom. The aquariums and associated supplies are furnished by the U.S. Fish and Wildlife Service through the Pahrnagat NWR. When the male leopard frogs begin serenading the females on the refuge, Wurtz knows it won't be long before egg masses can be found in the springs. When at least three leopard frog egg masses are located, usually in early March, a refuge biologist collects a portion of one of the masses. The freshly-laid eggs are delivered to Wurtz at the school. He places the eggs in one of the aquariums and dotes over them like a father-to-be.



Jason Wurtz stands next to one of the aquariums at his high school in which he rears northern leopard frogs from the eggs to the froglet stage.

*FWS Photo/Tim Parker*

Within days the eggs hatch into tadpoles, which require daily care and feeding. Wurtz carefully watches over the newborns; regularly checking the water quality, monitoring the water temperature, and providing the tadpoles with a daily diet consisting of a special flaked food that helps them grow and remain healthy.

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A tiny northern leopard froglet rests on Jason Wurtz's thumb before its release into the wild at the Pahranagat National Wildlife Refuge.

*FWS Photo/Annjanette Greenwood*

By late June or early July, the tadpoles morph into inch-long froglets and Wurtz must bid them farewell. The froglets are returned to the Pahranagat NWR and released into the wild at one of springs, hopefully growing to maturity and starting additional populations.

Captive rearing provides protection from the many predators in nature that typically consume most of each year's tadpoles. This year the froglets are being released into a small, isolated spring that does not currently have leopard frogs and is not plagued with predatory fish or non-native bullfrogs that would eat the froglets.

Introductions of captive-reared northern leopard frogs on the Pahranagat NWR over the last two years resulted in the establishment of a fourth population at a separate spring site. This particular population is now self-sustaining — producing eggs, tadpoles, and froglets. Wurtz's contributions to this effort were critical.

High-schooler Jason Wurtz releases northern leopard frogs (froglets) into a spring on the Pahranagat National Wildlife Refuge. Wurtz raised the amphibians from the egg to the froglet stage in aquariums at his high school.

*FWS Photo/Annjanette Greenwood*

Wurtz said he will continue rearing the froglets in his junior and senior years, with the hope of passing the project to another student when he graduates in 2014. For their part, the staff at the Pahranagat NWR will gladly take the eggs to school to ensure that northern leopard frogs continue to prosper in the Pahranagat Valley.



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