

A Passion for Amargosa Toads

by Jeannie Stafford



Amargosa toad. Photo Credit: Michael Burroughs, USFWS

With a passion for conservation of the Amargosa toad (*Anaxyrus nelsoni*), David Spicer, a rancher in Beatty, Nevada has successfully rallied together his community. His leadership brought together environmental organizations, off-road vehicle users, mining interests, ranchers, members of the Nevada business community not usually associated with species conservation, as well as the local community, to implement conservation actions for the Amargosa toad. Their conservation efforts for the Amargosa toad have helped preclude the need to list the species.

In addition to his leadership, Spicer founded a non-profit organization, Saving Toads Though Off-Road Racing,

Ranching and Mining in the Oasis Valley (STORM-OV), and designed and constructed spring outflows to maintain functional toad habitat through Nevadas hot, dry summers. By partnering with federal and state agencies, non-profit organizations, local government, fellow landowners, and acquiring grants, Spicer and his STORM-OV partners have restored 11 springs, enhanced one mile (1.6 kilometers) of river, and created or enhanced 57 acres (23 hectares) of toad breeding and foraging habitat mostly on private land.

The Amargosa toad was first petitioned for listing under the Endangered Species Act in 1994 due to threats which included invasive species, habitat loss, vegetation encroachment and

ground water pumping. In response to the petition, an Amargosa Toad Working Group was formed to provide management and conservation guidance for the toad. Members of this group include Nevada Department of Wildlife, The Nature Conservancy, Bureau of Land Management, Nevada Natural Heritage Program, Natural Resources Conservation Service, Beatty Habitat Committee, Nye County, local residents and the town of Beatty, Nevada.

In 2002, an Amargosa Toad Conservation Agreement & Strategy was completed. This agreement provided the guidance and a framework for implementation of cooperative, long-term conservations actions to benefit the species. The strategy laid

out specific conservation actions to reduce or eliminate threats to the species and outlined the tasks and responsibilities for each stakeholder. Projects undertaken by Mr. Spicer were identified as priority actions in the conservation agreement and strategy.

The Amargosa toad is a member of the family Bufonidae, which includes North American true toads. The species is only found in the Oasis Valley in southern Nye County, Nevada. The historical and current range of the Amargosa toad is estimated to occur along an approximately 10-mile (16-kilometer) stretch of the Amargosa River and nearby spring systems, roughly between the towns of Springdale and Beatty. The amount of known and potential Amargosa toad habitat is estimated at 6,633 acres (2,864 ha), approximately 50 percent of which is on private land.

The dorsal (upper) body of the Amargosa toad has wart-like skin projections called tubercles. Their backs have black speckling or asymmetrical spots. Background coloration ranges from almost black to brownish or pale yellow-brown or olive and may vary considerably among individual toads in the same population. A light mid-dorsal stripe occurs along the backbone. The large, wart-like parotid glands located behind the eye are tawny to olive. Underneath, the Amargosa toad is whitish or pale olive with scattered black spots that merge above the legs to form the appearance of “pants.”

The breeding season for the Amargosa toad begins in mid-February, when egg clutches are laid. A female may lay up to 6,000 eggs in a single clutch, which appears as a long strand of black dots intertwined among vegetation along the edges of a slow-moving stream or shallow body of water. Toads require relatively open water that persists long enough for the tadpoles to



David Spicer holds an Amargosa toad at a restoration project on his private property. Photo Credit: USFWS

metamorphose into toadlets and leave the water. Breeding activity tapers off and ends in July. The eggs typically develop into tadpoles within a week and tadpoles into toadlets in about four weeks.

Adult toads forage at night along the water's edge and adjacent upland areas. Toads eat invertebrates

including spiders, insects, and scorpions. During the day, Amargosa toads typically take shelter in burrows, debris piles, or dense vegetation.

The Service was petitioned for listing a second time in 2008 and completed a 12-month review of the toad's status in July 2010. The Service determined that the species did not warrant protection under the Endangered Species Act. The Service was able to reach this determination because of the coordinated conservation work by the local community, and agency partners. Their conservation efforts demonstrate that a community working together can help preclude the need to list a species.

Amargosa toad tadpoles in restored habitat.

Photo Credit: USFWS



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