

## Arizona Toad (*Anaxyrus microscaphus*)

### **Species Status Statement.**

#### Distribution

Arizona toad occurs in southwestern New Mexico, central and northwestern Arizona, extreme southwestern Utah and southeastern Nevada. In Utah, Arizona toad lives primarily along the Virgin River drainage (Schwaner and Sullivan 2009).

Table 1. Utah counties currently occupied by this species.

<b>Arizona Toad</b>
GARFIELD
IRON
KANE
SAN JUAN
WASHINGTON

#### Abundance and Trends

Arizona toad has long been declining in southwestern Utah and adjacent areas of neighboring states, particularly in the area of the Beaver Dam Wash confluence with the Virgin River. The decline of this species has accelerated over the last 50 years.

### **Statement of Habitat Needs and Threats to the Species.**

#### Habitat Needs

Arizona toad prefers habitats near streams, creeks, and small rivers, between 1100 and 9000 feet elevation (Mason 2016). Managers believe that the shallow waters near the banks of streams are critically important breeding and rearing habitat for this toad's eggs and tadpoles.

#### Threats to the Species

Until recently, experts believed the principal cause of decline in Arizona toad was a combination of habitat disturbance and hybridization.

- Altered habitats and stream flows have allowed pond-spawning Woodhouse's toad to expand their distribution and colonize the same habitats as, and hybridize with, stream-spawning Arizona toad (Schwaner and Sullivan 2009).

- Arizona toads that attempt to breed in cattle tanks or other non-flowing waters have little to no reproductive success (Ryan et al 2015).
- More recently, various authors have published research that casts some doubt on the hybridization theory of decline.

The presence of non-native fish is also associated with low reproductive success. Arizona toads can contract chytrid fungus, however no mass die offs associated with the fungus have been observed for this species of toad (Ryan et al 2014).

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species' entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

<b>Arizona Toad</b>
<b>Very High</b>
Droughts
<b>High</b>
Channelization / Bank Alteration (direct, intentional)
Invasive Plant Species – Non-native
Invasive Wildlife Species - Non-native

### **Rationale for Designation.**

Arizona toad was petitioned for Endangered Species Act (ESA) listing in 2012 and was found warranted for further evaluation. A final ruling will occur in fiscal year 2022 (USFWS 2015, USFWS 2016). Hybridization and genetic integrity were the cited reason for the warranted status, and in Utah, these two issues are coupled with altered surface water flows. Arizona toad's status as a state sensitive species will help UDWR prioritize management and conservation efforts to avoid an endangered species listing.

### **Economic Impacts of Sensitive Species Designation.**

Sensitive species designation is intended to facilitate management of this species, which is required to prevent ESA listing and lessen related economic impacts. The listing of Arizona toad would have wide-ranging impacts to developing and managing water resources in southern Utah. Additionally, because invasive plants are a threat, an ESA listing could also impact rangeland management. There would also be increased costs of regulatory compliance for many land-use decisions and mitigation costs.

## Literature Cited.

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