



THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

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March 10, 2015

Division of Endangered Species – Permits
US Fish and Wildlife Service, Region 2
PO Box 1306
Albuquerque, NM 87103

Dear Permits Administrator:

Enclosed is the Arizona Game and Fish Department's annual report for TE-083636-0, our incidental take permit for the Safe Harbor Agreement for Topminnow and Pupfish in Arizona (SHA).

If you have further questions or comments on the enclosed material, please call (623-236-7740) or email: jsorensen@azgfd.gov . Thank you.

Sincerely,

Jeff Sorensen
Acting Nongame Wildlife Branch Chief

cc: Steve Spangle, FWS-AESO
Doug Duncan, FWS-AESO

**ARIZONA GAME AND FISH DEPARTMENT'S
SECTION 10(A)1(A) PERMIT ANNUAL REPORT 2014**

TE-083636-0

Topminnow and Pupfish SHA Statewide

Note: Tasks identified below are from the Department's E5 Segment 22 performance report. Information covers the Department's fiscal year (FY) 2014 (July 1, 2013 to June 30, 2014).

Cumulative total of Cooperators enrolled under the SHA at the end of Fiscal Year 2014: 15.

Cumulative number of populations topminnow and pupfish) being managed under the SHA during FY 2014: 21.

Site:	Landowner:	Species Stocked:
Timbucktwo Pond, Ruby	Private	Gila topminnow
Pemberton Pond, McDowell Mtn Regional Park	Maricopa County Parks & Recreation Department (MCPR)	Gila topminnow & desert pupfish
Nursery Tank, McDowell Mtn Regional Park	MCPR	Desert pupfish
Willow Springs, White Tanks Mtn Regional Park	MCPR	Gila topminnow (failed site, ephemeral waters)
Spur Cross Solar Oasis	MCPR	Gila topminnow & desert pupfish
Hernbrode Pond, Tucson	Private	Desert pupfish (Rio Sonoyta origin, not QBQ)
Onofryton Pond, Phoenix	Private	Desert pupfish (Rio Sonoyta origin, not QBQ)
Swimming Pool Pond, Robbins Butte Wildlife Area	Arizona Game & Fish Commission	Gila topminnow
Twin Tanks, Robbins Butte Wildlife Area	Arizona Game & Fish Commission	Desert pupfish
Stop Sign Tank, Robbins Butte Wildlife Area	Arizona Game & Fish Commission	Gila topminnow
Cottonwood Tank, Robbins Butte Wildlife Area	Arizona Game & Fish Commission	Desert pupfish
Cienega High School Pond	Vail School District	Gila topminnow
National Audubon Society Appleton-Whittell Research Ranch	Private	Desert pupfish
The Nina Mason Pulliam Rio Salado Audubon Center	Private	Gila topminnow and desert pupfish

Kei Sundt Pond, Safford	Private	Desert pupfish
Keiser Pond, Wickenburg	Private	Desert pupfish
Usery Mountain Regional Park	MCPR	Gila topminnow
Terry Morgan/KT Ranch Pond, Portal	Private	Desert pupfish
San Rafael Cattle Company	Private	Gila topminnow
Mesa Community College Red Mountain Campus*	Maricopa County Community College District	---
Gary Nabhan Pond*	Private	---
Jason Stearns/Marijilda Wash Native Fish Refuge Pond*	Private	---
Coppa Pond*	Private	---
AGFD Horseshoe Ranch*	Arizona Game & Fish Commission	---
Walker Ranch Pond*	Private	---
Native Seed Search*	NGO	---

* This site is in the process of coordination, assessment and enrollment in preparation for stocking of pupfish and topminnow.

Management activities that were implemented during FY 2014 include the evaluation, stocking, and/or monitoring of the above sites under the SHA, and the evaluation of additional sites for future enrollment. In FY14, Department staff evaluated one site for enrollment, Mesa Community College Red Mountain Campus pond in January 2014; it has suitable habitat for topminnow and pupfish. Minnow traps were set and captured a total of 182 longfin dace (*Agosia chrysogaster*). The longfin dace population at that site will be reduced before desert pupfish are planned to be stocked in late 2014.

Funding sources for activities associated with site evaluations, enrollment, and stocking of topminnow and/or pupfish under the SHA include: Arizona Heritage Fund; State Wildlife Grant; Arizona Game and Fish Fund; and CAP Funds Transfer Program.

Topminnow / Pupfish

The Statewide SHA for Topminnow and Pupfish was finalized and signed by the Department and USFWS on March 12, 2008. No new SHA sites were enrolled during the FY14 due to other workload priorities.

1. **Timbucktwo Pond**, a privately-owned pond in southern Arizona was first stocked with Redrock Canyon lineage Gila topminnow on September 3, 2008.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

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2. **Pemberton Pond** at the McDowell Mountain Regional Park (Maricopa County Parks and Recreation Department [MCPR]) was stocked with Gila topminnow on March 13 and July 9, 2009, and desert pupfish on October 15, 2009.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

3. **Spur Cross Solar Oasis** at the Spur Cross Natural Conservation Area (MCPR) was stocked on October 19, 2009 with Gila topminnow and on November 18, 2009 with desert pupfish.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

4. **Hernbrode Pond**, is a privately-owned pond in Tucson that was stocked on April 10, 2009 with Sonoyta pupfish (Rio Sonoyta origin, not Quitobaquito; the entire population was removed from the Appleton-Whittell Research Ranch Headquarters Pond).

Activities FY 2014 - During FY 2014, monitoring of the Sonoyta pupfish population at Hernbrode pond was conducted on July 2, 2013. Three collapsible minnow traps were set in the Hernbrode Pond for roughly 2.5 hours, resulting in the capture of 119 Sonoyta pupfish; there were no mortalities and the population, though small, appears to be doing well.

5. **Onofryton Pond**, is a privately-owned pond in Phoenix that was stocked on September 29, 2009, with Sonoyta pupfish (n=220) from another SHA site in Tucson, the Hernbrode Pond. These fish derived from fish that long existed in Finley Tank, a spring-fed tank within the Babocomari River drainage. They were long suspected as hybrids between Sonoyta and desert pupfishes, but recent genetic studies have identified them as pure Sonoyta pupfish of Rio Sonoyta origin, not hybrids, and not from Quitobaquito Springs. This makes them (fishes in the Hernbrode and Onofryton ponds) the only known stocks of Sonoyta pupfish derived from the Rio Sonoyta existing in the US.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

6. **Cienega High School Pond** in the town of Vail was stocked with Gila topminnow on November 9, 2009, from Davison Pond in Tucson (after that pond had received new founders from Cienega Creek). Monitoring on April 7, 2010 found topminnow very rare, almost non-existent (n<5). Stocked with longfin dace (n= 122) in the hopes that they may survive at this location.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

7-9. **Robbins Butte Wildlife Area**, owned by the Arizona Game and Fish Commission, was stocked on November 17, 2009: Gila topminnow (n=629) at **Swimming Pool Tank**, and desert pupfish (n=128) at **Twin Tanks**. Desert pupfish salvaged from the Scott L. Libby pupfish population (n=174) on September 9, 2010, were also stocked into Twin Tanks. The Gila topminnow used to stock Swimming Pool Tank came from Dexter National Fish Hatchery and Technology Center (Sharp Spring lineage) via Bubbling Ponds Fish Hatchery. The desert pupfish stocked into Twin Tanks were collected from Boyce Thompson Arboretum, Deer Valley High School, Desert Botanical Gardens, Phoenix Zoo, and Dexter via Bubbling Ponds Fish Hatchery. A second stocking of Gila topminnow (n=571) took place on April 27, 2010, at **Stop Sign Tank**. These fish were from Deer Valley High School's refuge population. Between August 5, and September 9, 2010, an additional 1386 pupfish were salvaged from Scott L. Libby Elementary School and stocked into **Cottonwood Tank** at Robbins Butte.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

10. After assurances that **Willow Springs** at the White Tanks Mountain Regional Park (MCPR) was a perennial water source, it was enrolled as a SHA site and following stocking, was monitored on October 30, 2009 and found to be dry; all fish had been extirpated.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

11. **Nursery Tank** at the McDowell Mountain Regional Park (MCPR) was stocked with desert pupfish on June 17, 2010. The fish were collected at Boyce Thompson Arboretum.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

12. **National Audubon Society Appleton-Whittell Research Ranch** was stocked with 229 desert pupfish from populations at Robbins Butte Wildlife Area on June 4, 2011. The fish originated from SHA ponds Twin and Cottonwood tanks on Robbins Butte Wildlife Area, 115 individuals from each pond.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

13. **The Nina Mason Pulliam Rio Salado Audubon Center** was stocked with 496 desert pupfish and 544 Gila topminnow on August 31, 2010.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

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14. **Kei Sundt Pond** was enrolled under the SHA in 2010 and stocked with 194 desert pupfish on November 9, 2010. Source of the pupfish stocked into the pond was the captive population maintained at The Nature Conservancy's Lower San Pedro River Preserve in Dudleyville.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

15. The **Keiser Pond** was enrolled under the SHA for topminnow and pupfish in September of 2011, and pupfish stocked in the pond roughly 1 year later on September 6, 2012. Keiser Pond had previously been stocked with longfin dace; prior to the pupfish stocking, 67 dace were removed and transported to the Phoenix Zoo. Phoenix Zoo personnel had set minnow traps earlier to capture pupfish in the Mandarin Pond, and following the stocking of the dace, the traps were pulled. A total of n=164 pupfish were captured that afternoon and transported back to Wickenburg, where they were tempered with pond water and released.

Activities FY 2014 - On July 9, 2013, Department personnel conducted a survey at the Keiser Pond SHA site using minnow traps. A total of 70 desert pupfish and 63 longfin dace were captured and released. Pupfish do not appear to be achieving population potential at this site and removal of all longfin dace is under consideration.

16. **Terry Morgan/KT Ranch Pond** was enrolled in the SHA in December of 2011. The pond was stocked with 325 desert pupfish on October 31, 2012. Forty-one pupfish were collected on October 30th from Twin Tanks and Cottonwood Tank at Robbins Butte Wildlife Area near Buckeye, and the remaining 284 were collected the same day from the Phoenix Zoo Mandarin Pond. The fish were transported and stocked the following day into the KT Ranch Pond near Portal.

Activities FY 2014 - On June 25, 2014, Department personnel surveyed the Terry Morgan-KT Ranch Pond, a SHA- enrolled site using 11 minnow traps set for 2 hours. A total of 2,409 desert pupfish were captured and released.

17. **Usery Mountain Regional Park** was enrolled in May 2010 and the initial stocking occurred on October 19, 2011 when 92 Gila Topminnow were released.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

18. **Ross Humphreys/San Rafael Cattle Company Ranch** was enrolled in July 2012 and the initial stocking occurred on March 28, 2013, when 495 Gila topminnow were released into Pasture 2 Tank on San Rafael Cattle Company property. The source of the Sharp Spring topminnow stock released into Pasture 2 Tank was Swimming Pool Tank at AGFD's Robbins Butte Wildlife Area in Buckeye.

Activities FY 2014 - No monitoring activities were conducted at this site during FY 2014.

19. **MCC – Red Mountain Campus** – Enrollment of the MCC Red Mountain Campus under the Topminnow/Pupfish SHA was completed in March of 2014. The pond was previously stocked with non-listed longfin dace to control mosquitos and to establish the necessary biotic components to maintain a balanced system, but during FY 2014 contained no listed species.

Activities FY 2014 - On January 21, 2014 a site assessment of this system was conducted in preparation of completion of enrollment and stocking of pupfish under the Topminnow-Pupfish SHA later in the year. Five minnow traps were set for approximately 2 hours, resulting in the capture of 182 longfin dace; all were found to be healthy and doing well in the system. No conservation actions involving topminnow or pupfish occurred at this site during FY 2014.

20. **Gary Nabhan Pond** – Coordination begun in 2013 for the enrollment of this property near Patagonia continued during 2014. Initial assessment of the pond in 2013 found no nonnative fishes that would exclude the enrollment and stocking, however the landowner expressed a desire to renovate the pond and re-seal it, and renovation was undertaken in 2014.

Activities FY 2014 - No conservation activities involving topminnow or pupfish occurred at this site during FY 2014.

21. **Jason Stearns/Marijilda Wash Native Fish Refuge Pond** – Coordination was initiated to enroll this site in Safford under the Topminnow/Pupfish SHA. This site consists of a series of abandoned fish ponds that the current owner wishes to turn into an 8-acre lake used for recreation and native fish conservation.

Activities FY 2014 - This site is still under construction; no conservation activities involving topminnow or pupfish occurred at this site during FY 2014.

22. **Coppa Pond** – Coordination was initiated for the potential enrollment of this site under the Topminnow/Pupfish SHA. This site consists of a small pond adjacent to a wet meadow in the Patagonia Mountains of south-central Arizona, southeast of Patagonia. The current owner wishes to enlarge the current pond and create a semi-natural Cienega consisting of a series of pools and streams in the meadow adjacent to the existing pond. Once constructed, the system will be used as a water supply for local wildlife and for native fish conservation.

Activities FY 2014 - This site is not yet under construction; no conservation activities involving topminnow or pupfish occurred at this site during FY 2014.

23. **Horseshoe Ranch Pond** – Coordination was initiated in 2013 to enroll this site along the Agua Fria River north of Phoenix, under the Topminnow/Pupfish SHA.

Activities FY 2014 - No conservation activities involving topminnow or pupfish occurred at this site during FY 2014.

24. **Walker Ranch Pond** – Coordination was initiated to enroll this site in Safford under the Topminnow/Pupfish SHA. This property contains a large pond that the current owner wishes to enroll for native fish conservation. The pond requires renovation before enrollment, which the owners plan to undertake in 2015.

Activities FY 2014 - No conservation activities involving topminnow or pupfish occurred at this site during FY 2014.

25. **Native Seed Search** - Coordination was initiated to enroll this site near Patagonia under the Topminnow/Pupfish SHA. This property is a downstream water-user of water from the Nabhan Pond; current managers have expressed an interest in enrolling the property for the protections offered under the SHA.

Activities FY 2014 - No conservation actions involving topminnow or pupfish occurred at this site during FY 2014.