

## **APPENDIX B**

### **List of Stream Renovation Projects in the Lower Colorado River Basin**

Table B-1. Annotated list of stream renovation projects using antimycin in the lower Colorado River basin, and the Rios Sonoyta and Yaqui drainages in Arizona.

STATE/ COUNTY	STREAM	DATE OF PROJECT	PURPOSE OF PROJECT (primary species targeted for benefit)	NO. OF TREAT- MENTS	DID PROJECT ACHIEVE PURPOSE?	REPORT OF RENOVATION
AZ/Pinal	Arnett Creek	1996	remove nonnative fish for conservation of native fish (longfin dace, desert sucker, Gila topminnow)	1	yes	Bizios 1997
AZ/Apache	Bearwallow Creek	1981 1987	remove nonnative fish for conservation of native fish (Apache trout)	2	1981 yes* 1987 yes	Rinne and Turner 1991 AGFD and USFS unpub. records
AZ/Graham	Bylas Springs complex	1982 1984 1996 1997 2000	remove nonnative fish for native fish conservation (Gila topminnow)	3	1982 no 1984 yes* 1996-2000 yes	Marsh and Minckley 1990 Meffe 1983 Rinne and Turner 1991 Schleusner 2000a Schleusner 2000b
NM/Catron	Dry Creek	1984 1985	remove nonnative fish for conservation of native fish (Gila trout)	2	yes	Propst <i>et al.</i> 1992 USFWS 1993
Yavapai, Gila	Fossil Creek	2004	remove nonnative fish for conservation of native fish (spikedace, loach minnow)	2	yes**	Reclamation unpub.
AZ/Apache	Hay Creek	1989	remove nonnative fish for conservation of native fish (Apache trout)	1	yes*	AGFD and USFS unpub records
AZ/Apache, Greenlee	Home Creek	1987	remove nonnative fish for conservation of native fish (Apache trout)	1	yes	Rinne and Turner 1991 AGFD and USFS unpub. data
NM/Catron	Iron Creek	1981	remove nonnative fish for conservation of native fish (Gila trout)	?	no	Propst <i>et al.</i> 1992 USFWS 1993 Coman 1981

STATE/ COUNTY	STREAM	DATE OF PROJECT	PURPOSE OF PROJECT (primary species targeted for benefit)	NO. OF TREAT- MENTS	DID PROJECT ACHIEVE PURPOSE?	REPORT OF RENOVATION
AZ/Apache	Lee Valley Creek	1982 1987 2002	remove nonnative fish for conservation of native fish (Apache trout)	3	1982 yes* 1987 yes* 2002 not yet known	Rinne and Turner 1991 AGFD and FWS unpub. data
NM/Catron	Little Creek	1982	remove nonnative fish for conservation of native fish (Gila trout)	?	?	Propst <i>et al.</i> 1992  USFWS 1993
NM/Catron, Grant	Mogollon Creek	1987 1988 1989	remove nonnative fish for conservation of native fish (Gila trout)	3	yes	Propst <i>et al.</i> 1992 USFWS 1993
AZ/Santa Cruz	O'Donnell Creek	2002	remove nonnative fish for conservation of native fish (Gila chub)	3	yes	H. Blasius, AGFD, pers. comm., July 2002
AZ/Apache	Ord Creek	1977 1978 1980	removal of nonnative fish for conservation of native fish (Apache trout)	2	no (1977, 78,80)	Rinne <i>et al.</i> 1981 Minckley and Mihalick 1981 Rinne and Turner 1991
AZ/Pima	Sabino Canyon	1999	remove nonnative fish for conservation of native fish (Gila chub)	2	yes	Hayes 1999
AZ/Greenlee	Snake Creek	2002	remove nonnative fish for conservation of native fish (Apache trout)	1	not yet known	AGFD unpub. records
AZ/Apache	Stinky Creek	1994 2002	remove nonnative fish for conservation of native fish (Apache trout)	2	1994 yes* 2002 not yet known	AGFD and USFS unpub. records
NM/Catron	Trail Canyon	1986 1987	remove nonnative fish for conservation of native fish (Gila trout)	2	yes	Propst <i>et al.</i> 1992 USFWS 1993

STATE/ COUNTY	STREAM	DATE OF PROJECT	PURPOSE OF PROJECT (primary species targeted for benefit)	NO. OF TREAT- MENTS	DID PROJECT ACHIEVE PURPOSE?	REPORT OF RENOVATION
AZ/Apache	West Fork Black River, including Burro Creek and Thompson Creek	1996	remove nonnative fish for native fish conservation (Apache trout)	1	yes	AGFD and USFS unpub. records
AZ/Cochise	West Turkey Creek	1999	remove nonnative fish for conservation of native fish (Yaqui catfish, longfin dace)	2	yes	Coleman and Minckley 1999
NM/Catron	White Creek	1991	remove nonnative fish for conservation of native fish (Gila trout)	?	yes	Stefferd <i>et al.</i> 1991
AZ/Apache	Wildcat Creek	1988	remove nonnative fish for conservation of native fish (Apache trout)	1	yes	Rinne and Turner 1991 AGFD and USFS unpub. records
NM/Catron	Woodrow Canyon	1987 1988	remove nonnative fish for conservation of native fish (Gila trout)	2	yes	Propst <i>et al.</i> 1992 USFWS 1993

\* Treatment was apparently successful, but reinvasion occurred, either from adjacent waters or by illegal introduction by humans.

\*\* One green sunfish captured after treatment; no other nonnative fishes reported in system as of September 2005.

Bizios, L. 1997. Final report for the Arnett Creek native fish re-establishment project, phase II. September 1997. U. S. Forest Service, Phoenix, AZ.

Coleman, S.M., and W.L. Minckley. 1999. Management of Yaqui chub and longfin dace in West Turkey Creek, Arizona. Proceedings of the Desert Fishes Council 31:40-41.

Coman, C.H. 1981. Gila trout management and recovery activities with emphasis on Iron Creek recovery efforts. U.S. Forest Service, Silver City, M.

Hayes, W. 1999. Memo submitting input for Region V fourth quarter 1998/99 Arizona Game and Fish Department Threatened and Endangered species report to the Governor. AGFD, Phoenix, AZ. 3 pp

- Marsh, P.C., and W.L. Minckley. 1990. Management of endangered Sonoran topminnow at Bylas Springs, Arizona: description, critique, and recommendations. *Great Basin Naturalist* 50(3):265-272.
- Meffe, G. 1983. Attempted chemical renovation of an Arizona springbrook for management of the endangered Sonoran topminnow. *North American Journal of Fisheries Management* 3:315-321.
- Minckley, W.L., and P. Mihalick. 1981. Effects of chemical treatment for fish eradication on stream-dwelling invertebrates. *Journal of the Arizona-Nevada Academy of Science* 16:79-82.
- Propst, D.L, J.A. Stefferud, and P.R. Turner. 1992. Conservation and status of Gila trout *Oncorhynchus gilae*. *The Southwestern Naturalist* 37(2):117-125.
- Rinne, J.N., W.L. Minckley, and J.N. Hanson. 1981. Chemical treatment of Ord Creek, Apache County, Arizona, to re-establish Arizona trout. *Journal of the Arizona-Nevada Academy of Science* 16:74-78.
- Rinne, J.N., and P.R. Turner. 1991. Reclamation and alteration as management techniques, and a review of methodology in stream renovation. Pp. 219-244 *in*: W.L. Minckley and J.E. Deacon, eds. *Battle against extinction*. University of Arizona Press, Tucson, AZ.
- Schleusner, C. 2000a. Renovation and habitat restoration for Gila topminnow, *Poeciliopsis o. occidentalis*, in the Bylas Springs complex. *Proceedings of the Desert Fishes Council* 32:58.
- Schleusner, C. 2000b. Tusidugihalen, "Hot Spring" (S1) and the endangered Gila topminnow habitat improvement and renovation project. Document No. USFWS-AZFRO-SC-00-007, June 28, 2000, U.S. Fish and Wildlife Service, Peridot, AZ. 7 pp.
- Stefferd, J.A., D.L. Propst, and G.L. Burton. 1991. Use of antimycin to remove rainbow trout from White Creek, New Mexico. *Proceedings of the Desert Fishes Council* 23:55-66.
- U.S. Fish and Wildlife Service. 1993. Gila trout recovery plan (revised). USFWS, Albuquerque, NM.