

## References for Species Status Assessment for Headwater and Roundtail Chubs

Abarca, F.J., and D.A. Weedman. 1993. Native fishes of Tonto Creek, Tonto National Forest, Arizona. AZ Game and Fish Dept., Phoenix, AZ. 51 pp + photos.

Allendorf, F.W., D. Bayles, D.L. Bottom, K.P. Currens, C.A. Frissell, D. Hankin, J.A. Lichatowich, W. Nehlsen, P.C. Trotter, and T.H. Williams. 1997. Prioritizing Pacific salmon stocks for conservation. *Conservation Biology* 11 (1): 140-152.

American Fisheries Society. 2009. The effects of livestock grazing on riparian and stream ecosystems. Policy Statement #23. Bethesda, Maryland. 7 pp.

American Fisheries Society. 2013. Common and Scientific Names of Species. Downloaded from AFS website.

American Rivers. 2007. Correspondence from American Rivers and other environmental groups to the Coconino and Tonto National Forests (September 11, 2007).

Anderson, R.M. 1978. The distribution and aspects of the life history of *Meda fulgida* in New Mexico. Thesis: New Mexico State University, Las Cruces, New Mexico.

Arizona Department of Mines and Mineral Resources. 2008. Arizona's Metallic Resources Trends and Opportunities. Open File Report 08-26. 29 pp.

Arizona Department of Mines and Mineral Resources. 2010. Water Consumption at Copper Mines in Arizona. Special Report 29. 18 pp.

Arizona Game and Fish Department (AGFD). 2006. Arizona Statewide Conservation Agreement for Roundtail Chub (*Gila robusta*), Headwater Chub (*Gila nigra*), Flannelmouth Sucker (*Catostomus latipinnis*), Little Colorado River Sucker (*Catostomus spp.*), Bluehead Sucker (*Catostomus discobolus*), and Zuni Bluehead Sucker (*Catostomus discobolus yarrowi*) December 2006. Arizona Game and Fish Department Wildlife Management Division Nongame Branch Native Fish Program, Phoenix, Arizona, 63 pp.

Arizona Water Settlements Act. 2004. Public Law 108-451, December 10, 2004.

Ashfaq, M., S. Ghosh, S. Kao, L.C. Bowling, P. Mote, D. Touma, S.A. Rauscher, and N.S. Diffenbaugh. 2013. Near-term acceleration of hydroclimatic change in the western U.S. *Journal of Geophysical Research: Atmospheres*, 118, 10,676-10,693.

Baalsrud, H.T., B-E., Sæther, I.J. Hagen, A.M. Myhre, T.H. Ringsby, H. Parn. and H. Jensen. 2014. Effects of population characteristics and structure on estimates of effective population size in a house sparrow metapopulation. *Molecular Ecology*. 23: 2653-2668. (Peer reviewed report with data from: Baalsrud, H.T. 2011. Population characteristics and estimates of effective population size in a house sparrow metapopulation. Thesis. Department of Biology. Norwegian University of Science and Technology.

## References for Species Status Assessment for Headwater and Roundtail Chubs

Baird, S.F. and C. Girard. 1853. Report of an expedition down the Zuni and Colorado Rivers. Report of the Secretary of War. Fishes. 147-154.

Barnett, T.P., D.W. Pierce, H.G. Hidalgo, C. Bonfils, B.D. Santer, T. Das, G. Bala, A.W. Wood, T. Nozawa, A.A. Mirin, D.R. Cayán, and M.D. Dettinger. 2008. Human-induced changes in the hydrology of the Western United States. *Science* 319:1080-1083.

Barnett, T.P., J.C. Adams, and D.P. Lettenmaier. 2005. Potential impacts of a warming climate on water availability in snow dominated regions. *Nature*. 438(7066): 303-309.

Barrett, P.J. 1992. Spatial habitat preference of smallmouth bass (*Micropterus dolomieu*), roundtail chub (*Gila robusta*), and razorback sucker (*Xyrauchen texanus*). Dissertation: Department of Renewable Resources, University of Arizona, Tucson, AZ.

Barrett, P.J. and O.E. Maughan. 1995. Spatial habitat selection of roundtail chub (*Gila robusta*) in two central Arizona streams. *The Southwestern Naturalist* 40 (3): 301-307.

Baxter, G.T. and J.R. Simon. 1970. Wyoming Fishes. Bulletin No. 4. Wyoming Game and Fish Department, Cheyenne.

Benedict, C. 2001. Report of roundtail chub in Oak Creek. In: Voeltz 2002.

Benedict, C. 2012. Report of roundtail chub in Oak Creek. In: Jones et al 2014.

Bestgen, K.R. 1985. Results of identification of collections of larval fish made in the upper Salt and Gila Rivers, Arizona. Report for Office of Endangered Species, U.S. Fish and Wildlife Service, Albuquerque, New Mexico.

Bestgen, K.R. 1985b. Distribution, biology and status of the roundtail chub, *Gila robusta*, in the Gila River Basin, New Mexico. Thesis: Colorado State University, Fort Collins, Colorado.

Bestgen, K.R. and D.L. Propst. 1989. Distribution, status, and notes on the ecology of *Gila robusta* (Cyprinidae) in the Gila River drainage, New Mexico. *The Southwestern Naturalist* 34 (3): 402-412.

Bestgen, K.R. and K.A. 2004. Distribution and status of native fishes in the Colorado River Basin, Colorado. Larval Fish Laboratory Contribution 141. Colorado State University, Fort Collins. 68 pp.

Bestgen, K.R., P. Budy, and W.J. Miller. 2011. Status and trends of flannelmouth sucker *Catostomus latipinnis*, bluehead sucker *Catostomus discobolus*, and roundtail chub *Gila robusta*, in the Dolores River, Colorado and opportunities for population improvement. Phase II report. Final report submitted to the Lower Dolores Plan Working Group-Legislative Committee. Larval Fish Laboratory Contribution 166 and Intermountain Center for River Rehabilitation and Restoration 2011(2): 1-55 + appendices.

## References for Species Status Assessment for Headwater and Roundtail Chubs

Beyers, D.W., C. Sodergren, J.M. Bundy, and K.R. Bestgen. 2001. Habitat use of bluehead sucker, flannelmouth sucker, and roundtail chub in the Colorado River. Contribution 121, Larval Fish Laboratory, Department of Fishery and Wildlife Biology, Colorado State University, Fort Collins, Colorado. 32p.

Bezzerrides, N. and K.R. Bestgen. 2002. Status review of roundtail chub *Gila robusta*, flannelmouth sucker *Catostomus latipinnis*, and bluehead sucker *Catostomus discobolus* in the Colorado River basin. Colorado State University Larval Fish Laboratory 118: 1-139.

Blasius, H. 2012. Report of roundtail chub captured near the Arizona-New Mexico line. Email from Heidi Blasius, BLM Safford to USFWS, Phoenix, Arizona. 2 pp.

Blasius, H. 2015. Report of fish captured in the Gila River of Arizona upstream of San Carlos Reservoir. Email from Heidi Blasius, BLM Safford, to USFWS, Phoenix, Arizona. 1 p.

Bonar, S.A., and N. Mercado-Silva. 2013. Report in re Aravaipa Canyon Wilderness Area (W-1-11-3342), in the General Adjudication of all rights to use water in the Gila River system and source, Arizona Superior Court Case Nos. W1-W4: Aravaipa Canyon Wilderness Area FRWR claims: Protection of Fish Resources. University of Arizona. Prepared for Environmental and Natural Resources Division, U.S. Department of Justice.

Bonar, S.A., N. Mercado-Silva, and D. Rogowski. 2010. Habitat use by the fishes of a southwestern desert stream: Cherry Creek, Arizona. Fisheries Research Report, Arizona Cooperative Fish and Wildlife Research Unit, University of Arizona, Tucson, AZ.

Bonar, S.A., A.A. Schultz, and E.A. Sontz. 2011. Captive breeding and culture of Gila chub (*Gila intermedia*), headwater chub (*Gila nigra*), and roundtail chub (*Gila robusta*). Fisheries Research Report 01-11. Arizona Cooperative Fish and Wildlife Research Unit, University of Arizona, Tucson. Report for Gila River Basin Native Fish Conservation Program, Bureau of Reclamation, Phoenix, AZ. 121 pp.

Bower, M.R., W.A. Hubert, and F.J. Rahel. 2012. Habitat features affect bluehead sucker, flannelmouth sucker, and roundtail chub across a headwater tributary system in the Colorado River Basin. *Journal of Freshwater Ecology* 23 (3): 347-357.

Bowman, D.M., J.K. Blach, P. Artaxo, W.J. Bond, J.M. Carlson, M.A. Cochrane, C.M. D'Antonio, R.S. DeSries, J.C. Doyle, S.P. Harrison, F.H. Johnston, J.E. Keeley, M.A. Krawchuk, C.A. Kull, B. Marston, M.A. Moritz, I.C. Prentice, C.I. Roos, A.C. Scott, T.W. Swetnam, G.R. van der Werf, and S.J. Pyne. 2009. Fire in the Earth system. *Science* 324: 481-484.

Brandenburg, W.H., J.L. Kennedy, and M.A. Farrington. 2015. Determining the historical distribution of the Gila robusta complex (Gila chub, Gila intermedia, headwater chub, Gila nigra, and roundtail chub, Gila robusta) in the Gila River Basin, New Mexico, using morphological analysis. American Southwest Ichthyological Researchers, L.L.C, report to New Mexico Department of Game and Fish (Share with Wildlife Program), Albuquerque. 124 pp.

## References for Species Status Assessment for Headwater and Roundtail Chubs

- Brouder, M.J. 2001. Effects of flooding on recruitment of roundtail chub, *Gila robusta*, in a southwestern river. *The Southwestern Naturalist* 46 (3): 302-310.
- Brouder, M.J., D.D. Rogers, and L.D. Avenetti. 2000. Life history and ecology of the roundtail chub, *Gila robusta*, from two streams in the Verde River Basin. Phoenix, AZ, Arizona Game and Fish Department.
- Brouder, M.J., D.D. Rogers, and L.D. Avenetti. 2006. Observations on the reproductive biology of roundtail chub, *Gila robusta*, in the upper Verde River, Arizona. *Western North American Naturalist* 66 (2): 260-262.
- Brown, A.V., M.M. Lyttle, and K.B. Brown. 1998. Impacts of gravel mining on gravel bed streams. *Transactions of the American Fisheries Society* 127: 979-994.
- Bryan, S.D. and M.W. Hyatt. 2004. Roundtail chub population assessment in the lower Salt and Verde Rivers, Arizona. Final Report. Research Branch, Arizona Game and Fish Department, Phoenix, AZ.
- Bryan, S.D. and A.T. Robinson. 2000. Population characteristics and movement of roundtail chub in the lower Salt and Verde Rivers, Arizona. Research Branch, Arizona Game and Fish Department, Phoenix, AZ.
- Bryan, S.D., A.T. Robinson, and M.J. Fry. 2000. Native-Nonnative fish interactions in the lower Salt and Verde Rivers. Final Report for Cooperative Agreement No. 98-FG-32-0240 with Arizona Game and Fish Department and U.S. Bureau of Reclamation. AGFD Research Branch, Phoenix. 81 pp.
- Burns, J. W. 1972. Some effects of logging and associated road construction on northern California streams. *Transactions of the American Fisheries Society* 101 (1): 1-17.
- Cantrell, C. 2009. Arizona Game and Fish Department's status information roundtail chub (*Gila robusta*) in the State of Arizona. Arizona Game and Fish Department, Phoenix, AZ. 44pp.
- Carlson, C.A. and R.T. Muth. 1989. The Colorado River: lifeline of the American Southwest. Pages 220-239 In: *Proceedings of the International Large River symposium*. Dodge, D.P., Ed. Canadian Special Publication of Fisheries and Aquatic Sciences 106.
- Carlson, C.A., C.G. Prewitt, D.E. Snyder, E.J. Wick, E.L. Ames, and W.D. Fronk. 1979. Fishes and macroinvertebrates of the White and Yampa Rivers, Colorado Final Report February 1978. Department of Fishery and Wildlife Biology, Department of Zoology and Entomology, Colorado State University, Ft. Collins, Colorado.
- Carman, S. M. 2006. Colorado River Basin chubs, roundtail chub (*Gila robusta*), Gila chub (*Gila intermedia*), headwater chub (*Gila nigra*), recovery plan. New Mexico Department of Game and Fish, Conservation Services Division, Sante Fe, New Mexico. 63 pp.

## References for Species Status Assessment for Headwater and Roundtail Chubs

Carroll, C., D. J. Rohlf, B. R. Noon, and J. M. Reed. 2012. Scientific Integrity in Recovery Planning and Risk Assessment: Comment on Wilhere. *Conservation Biology* 26: 743-745.

Carveth, C. J., A. M. Widmer, and S. A. Bonar. 2006. Comparison of upper thermal tolerances of native and nonnative fish species in Arizona. *Transactions of the American Fisheries Society* 135: 1433-1440.

Christensen, N. and D.P. Lettenmaier. 2006. A multimodel ensemble approach to assessment of climate change impacts on the hydrology and water resources of the Colorado River basin. *Hydrology and Earth System Sciences*. 3: 3727-3770.

Clarkson, R. W., P. C. Marsh, S. E. Stefferud, and J. A. Stefferud. 2005. Conflicts between native fish and nonnative sport fish management in the southwestern United States. *Fisheries* 30 (9): 20-27.

Clary, W. P. and D. E. Medin. 1990. Differences in vegetation biomass and structure due to cattle grazing in a northern Nevada riparian ecosystem, USDA Forest Service.

Cope, E.D. and H.C. Yarrow. 1875. Report upon the collection of fishes made in portions of Nevada, Utah, California, Colorado, New Mexico, and Arizona, during the years 1871, 1872, 1873, and 1874. *Report Geography and Geology Exploration and Survey West of the 100th meridian (Wheeler's Survey)*, 6: 635-703, pls. 26-32.

Dallas, H. 2008. Water temperature and riverine ecosystems: An overview of knowledge and approaches for assessing biotic responses, with special reference to South Africa. *Water SA* 34 (3): 393-404.

Davey, A.J. and D.J. Kelly. 2007. Fish community responses to drying disturbances in an intermittent stream: a landscape perspective. *Freshwater Biology* 52 (9): 1719-1733.

DeMarais, B.D. 1986. Morphological variation in Gila (Pisces: Cyprinidae) and geologic history: lower Colorado River basin. MS Thesis. Arizona State University. Tempe, AZ. 85 pp.

DeMarais B.D., T.E. Dowling, M.E. Douglas, W.L. Minckley, and P.C. Marsh. 1992. Origin of *Gila seminuda* (Teleosti: Cyprinidae) through introgressive hybridization: Implications for evolution and conservation. *Proceedings of the National Academy of Sciences* 89 (7): 2747-2751.

Dowling, T. E., and B.D. DeMarais. 1993. Evolutionary significance of introgressive hybridization in cyprinid fishes. *Nature* 362: 444-446.

Dowling, T.E., P.C. Marsh, C.D. Anderson, M.S. Rosenberg, and A.T. Kelsen. 2008. Population structure in the roundtail chub (*Gila robusta* complex) of the Gila River basin as determined by microsatellites. Draft Final Report to Arizona Game and Fish Department, Contract # AGR 4/21/04. Arizona State University, School of Life Sciences, Tempe, AZ. 57 pp.

## References for Species Status Assessment for Headwater and Roundtail Chubs

- Eaglin, G. S. and W. A. Hubert. 1993. Effects of logging and roads on substrate and trout in streams of the Medicine Bow National Forest, Wyoming. *North American Journal of Fisheries Management* 13 (4): 844-846.
- Ecology Audits, Inc. 1979. Habitat study of roundtail chub (*Gila robusta graham*), loach minnow (*Tiaroga cobitis*) Gila National Forest, Silver City, New Mexico. Final Report, U.S. Forest Service, Albuquerque, New Mexico. 45p.
- Fagan, W.F., P.J. Unmack, C. Burgess, and W.L. Minckley. 2002. Rarity, fragmentation, and extinction risk in desert fishes. *Ecology* 83 (12): 3250-3256.
- Fleischner, T. L. 1994. Ecological costs of livestock grazing in western North America. *Conservation Biology* 8 (3): 629-644.
- Fuller, P.L., L.G. Nico, and J.D. Williams. 1999. Nonindigenous fishes introduced into inland waters of the United States. American Fisheries Society, Special Publication 27, Bethesda, Maryland.
- Garfin, G.M., J. Overpeck, and M. Wilder. 2014. Assessment of climate change in the Southwest United States. Tucson, AZ 531p.
- Gerber, A. S., C.A. Tibbets, and T.E. Dowling. 2001. The role of introgressive hybridization in the evolution of the *Gila robusta* complex (Teleostei:Cyprinidae). *Evolution* 55 (10): 2028-2039.
- Girmendonk, A.L. and K.L. Young. 1997. Status review of the roundtail chub (*Gila robusta*) in the Verde River basin. AZ Game and Fish Dept. Nongame Technical Report 114. Phoenix, AZ. 95 pp.
- Glennon, R. J. 1995. The threat to river flows from groundwater pumping. *Rivers* 5 (2): 133-139.
- Goodman, D. 1987. The demography of chance extinction. In M. Soulé, ed. *Viable populations for conservation*. Cambridge University Press, New York. 11-43 pp.
- Gori, D., M.S. Cooper, E.S. Soles, M. Stone, R. Morrison, T.F. Turner, D.L. Propst, G. Garfin, M. Switanek, H. Chang, S. Bassett, J. Haney, D. Lyons, M. Horner, C.N. Dahm, J.K. Frey, K. Kindscher, H.A. Walker, and M.T. Bogan. Gila River Flow Needs Assessment. A report by The Nature Conservancy.
- Gorman, O. T., and J. R. Karr. 1978. Habitat structure and stream fish communities. *Ecology* 59 (3): 507-515.
- Harig, A.L. and K.D. Fausch. 2002. Minimum habitat requirements for establishing translocated cutthroat trout. *Ecological Applications* 12 (2): 535-551.
- Hassler, A.D. 1947. Eutrophication of lakes by domestic drainage. *Ecology* 28 (4): 383-395.

## References for Species Status Assessment for Headwater and Roundtail Chubs

Hawkins, C. P. and J. R. Sedell. 1981. Longitudinal and seasonal changes in functional organization of macroinvertebrate communities in four Oregon streams. *Ecology*, 62: 387–397.

IPCC 2014. ChapWGII C26: **Romero-Lankao**, P., J.B. Smith, D.J. Davidson, N.S. Diffenbaugh, P.L. Kinney, P. Kirshen, P. Kovacs, and L. Villers Ruiz, 2014: North America. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Barros, V.R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1439-1498.

IPCC 2014. AR5-SYR-Final-All Topics: *Climate Change Synthesis Report*. 80 pp.

Jaeger, K.L., J.D. Olden, and N.A. Pelland. Climate change poised to threaten hydrologic connectivity and endemic fishes in dryland streams. *PNAS*.  
[www.pnas.org/cgi/doi/10.1073/pnas.1320890111](http://www.pnas.org/cgi/doi/10.1073/pnas.1320890111).

Jennings, M.R. 1987. Status of the western painted turtle (*Chrysemys picta bellii*) in Arizona. *Journal of the Arizona-Nevada Academy of Science*. 22 (2): 129-133.

Jones, J.A., Frederick, J.S., B.C. Wemple, and K.U. Snyder. 2000. Effects on hydrology, geomorphology, and disturbance patches in stream networks. *Conservation Biology* 14 (1): 76-85.

Jones, A.K., A.S. Makinster, and J.M. Carter. 2014. Status and distribution of roundtail chub (*Gila robusta*) and headwater chub (*Gila nigra*) in the lower Colorado River Basin, Arizona. Technical Report 281. Nongame Branch, Arizona Game and Fish Department, Phoenix, AZ.

Jones, K.B., A.C. Neale, N.S. Nash, R.D. Van Remortel, J.D. Wickham, K.H. Riitters, and R.V. O'Neill. Predicting nutrient and sediment loadings to streams from landscape metrics: A multiple watershed study from the United States Mid-Atlantic Region. *Landscape Ecology* 16: 301-312.

Joseph, T.W., J.A. Sinning, R.J. Behnke, and P.W. Holden. 1977. An evaluation of the status, life history, and habitat requirement of endangered and threatened fishes of the upper Colorado River system. Report for Western Energy and Land Use Team, USFWS. FWS/OBS-77/62.

Kepner, W.G. 1979. Aquatic inventory of the upper Bill Williams Drainage, Yavapai and Mohave Counties, Arizona. U.S. Bureau of Land Management.

Kime, D.E. 1995. The effects of pollution on reproduction in fish. *Reviews in Fish Biology and Fisheries* 5 (1): 52-95.

Lake, P.S. 2000. Disturbance, patchiness, and diversity in streams. *Journal of the North American Benthological Society* 19 (4): 573-592.

## References for Species Status Assessment for Headwater and Roundtail Chubs

- Lake, P.S. 2003. Ecological effects of perturbation by drought in flowing waters. *Freshwater Biology* 48: 1161-1172.
- Lanigan, S.H. and C. R. Berry, Jr. 1981. Distribution of fishes in the White River, Utah. *The Southwestern Naturalist* 26 (4): 389-393.
- Lewis, J. 1998. Evaluating the impacts of logging activities on erosion and suspended sediment transport in the Caspar Creek watersheds. USDA Forest Service, Pacific Southwest Research Station, General Technical Report PSW-GTR-168-Web. 16 pp.
- Li, H.W., C.B. Schreck, C.E. Bond, and E. Rexstad. 1987. Factors influencing changes in fish assemblages of Pacific Northwest streams. In: *Community and evolutionary ecology of North American stream fishes*. W.J. Matthews and D.C. Heins eds. University of Oklahoma Press, Norman, OK. 193-202 pp.
- Linder, C. M., R. A. Cole, T. L. Hoffnagle, B. Persons, A. Choudhury, R. Haro, and M. Sterner. 2012. Parasites of fishes in the Colorado River and selected tributaries in Grand Canyon, Arizona. *American Society of Parasitologists* 98 (1): 117-127.
- Macogliese D.J. 2001. Implications of climate change for parasitism of animals in the aquatic environment. *Canadian Journal of Zoology* 79: 1331-1352.
- Magoulick D.D. and R.M. Kobza. 2003. The role of refugia for fishes during drought: a review and synthesis. *Freshwater Biology* 48: 1186-1198.
- Makinster, A., C.Gill, and J. Jaeger. 2013. Fisheries Survey. East Verde River-LF Ranch to Verde River Confluence. Arizona Game and Fish Department, Phoenix. 8 pp.
- Makinster, A. B. Burger, and B. Hickerson. 2014. South Fork Deadman Creek fish survey April 1-3, 2014. Trip Report, Arizona Game and Fish Department, Phoenix, AZ.
- Marks, J.C., G.A. Haden, M. O'Neill, and C. Pace. 2009. Effects of flow restoration and exotic species removal on recovery of native fish: lessons from a dam decommissioning. Northern Arizona University and Natural Channel Design, Flagstaff, AZ. 44 pp.
- Marsh, P.C. 2015. San Carlos River survey in 1983. Dr. Paul Marsh Email to USFWS, Phoenix. 2 pp.
- Medina, A. L. 1990. Possible effects of residential development on streamflow, riparian plant communities, and fisheries on small mountain streams in central Arizona. *Forest Ecology and Management* 33 (34): 351-361.
- Minckley, W.L. 1973. *Fishes of Arizona*. AZ Game and Fish Dept. Phoenix, AZ. 293 pp.
- Minckley, W.L. 1981. Ecological studies of Aravaipa Creek, Central Arizona, relative to past, present, and future uses. Final Report. Arizona State University, Tempe, AZ.

## References for Species Status Assessment for Headwater and Roundtail Chubs

Minckley, W.L. 1983. Status of the razorback sucker, *Xyrauchen texanus* (Abbott), in the lower Colorado River Basin. *The Southwestern Naturalist* 28 (2): 165-187.

Minckley, W. L. 1999. Frederic Morton Chamberlain's 1904 survey of Arizona Fishes, with annotations. *Journal of the Southwest* 41 (2): 177-237.

Minckley, W.L. and J.E. Deacon (eds.). 1991. *Battle against extinction: native fish management in the American West*. The University of Arizona Press, Tucson, AZ.

Minckley, W.L. and B.D. Demaris. 2000. Taxonomy of chubs (Teleostei, Cyprinidae, Genus *Gila*) in the American Southwest with comments on conservation. *Copeia* 1: 251-256.

Minckley, W.L. and P.C. Marsh. 2009. *Inland fishes of the greater Southwest: Chronicle of a vanishing biota*. University of Arizona Press, Tucson.

Minckley, W.L., and J.N. Rinne. 1985. Large woody debris in hot-desert streams: an historical review. *Desert Plants* 7 (3): 142-153.

Mock, C.J. 1996. Climatic controls and spatial variations in precipitation in the Western United States. *Journal of Climate*. 9(5): 1111-1125.

Mohant B.P., S. Mohanty, J.K. Sahoo, and A.P. Sharma. 2010. Climate change: impacts on fisheries and aquaculture. *Climate Change and Variability* 119-138.

Moritz, C. 1994. Defining "Evolutionarily Significant Units" for conservation. *TREE* 9(10): 373-375.

Mosher, K. and A. Makinster. 2012. *Deadman Creek. Native Fish and Herpetofauna Survey*. October 1-2, 2012. Research Branch. Arizona Game and Fish Department, Phoenix. 6 pp.

Mueller, G. 2005. Predatory fish removal and native fish recovery in the Colorado River mainstem: what have we learned? *Fisheries* 30 (9): 10-19.

Muth, R. T., L. W. Crist, K. E. LaGory, J. W. Hayse, K. R. Bestgen, T. P. Ryan, J. K. Lyons, R. A. Valdez. 2000. Flow and temperature recommendations for endangered fishes in the Green River downstream of Flaming Gorge Dam. Upper Colorado River Recovery Program Project FG-53.

Muth, R.T. and T.P. Nesler. 1993. Associations among flow and temperatures regimes and spawning periods and abundance of young of selected fishes, lower Yampa River, Colorado, 1980-1984. Final Report: Colorado State University, Fort Collins, Colorado.

Nelson, J.S., E.J. Crossman, H.E. Espinoza-Perez, L.T. Findley, C.R. Gilbert, R.N. Lea, and J.D. Williams. 2004. *Common and Scientific Names of Fishes from the United States, Canada, and Mexico*. Sixth Edition. American Fisheries Society, Bethesda, MD. 386 pp.

## References for Species Status Assessment for Headwater and Roundtail Chubs

- Neve, L.C. 1976. The life history of the roundtail chub, *Gila robusta grahami*, at Fossil creek, Arizona. MS Thesis. Northern Arizona University. Flagstaff, AZ. 46 pp.
- New Mexico Department of Game and Fish. 2006. Comprehensive Wildlife Conservation Strategy for New Mexico. Santa Fe. 681 pp.
- Olden, J. D. and N. L. Poff. 2005. Long-term trends of native and non-native fish faunas in the American Southwest. *Animal Biodiversity and Conservation* 28 (1): 75-89.
- Ouren, D. H., C. Haas, C. P. Melcher, S. C. Stewart, P. D. Ponds, N. R. Sexton, L. Burris, T. Fancher, and Z. H. Bowen. 2007. Environmental effects of off-highway vehicles on Bureau of Land Management lands: a literature synthesis, annotated bibliographies, extensive bibliographies, and internet resources: U. S. Geological Survey, Open-File Report 2007-1353, 225 pp.
- Paradzick, C, R. Valencia, R. Beane, D. Bills, J. Servoss, B. Werner; and D. Weedman. 2006. Fish and watershed committee report in support of the issuance of an incidental take permit under section 10(a)(1)(B) of the Endangered Species Act: Horseshoe and Bartlett Reservoirs, Verde River, AZ. 186 pp.
- Paroz, Y.M., J. Monzingo, and D. Propst. 2010. Ichthyofaunal inventory of the East, Middle and West Forks Gila River. Gila River Basin Native Fishes Conservation Program: Report No.1. New Mexico Department of Game and Fish and Gila National Forest.
- Paroz, Y.M., D.L. Propst, and J.A. Stefferud. 2006. Long-term monitoring of fish assemblages in the Gila River drainage, New Mexico, 1988-2005. Report to US Fish and Wildlife Service and Bureau of Reclamation. New Mexico Department of Game and Fish. Santa Fe. 75 pp.
- Pilger, T.J., K.B. Gido, and D.L. Propst. 2010. Diet and trophic niche overlap of native and nonnative fishes in the Gila River, USA: implications for native fish conservation. *Ecology of Freshwater Fish* 19: 300-321.
- Platts, W. S. and R. L. Nelson. 1989. Stream canopy and its relationship to salmonid biomass in the intermountain west. *North American Journal of Fisheries Management* 9: 446-457.
- Propst, D. L. 1999. Threatened and endangered fishes of New Mexico. New Mexico Game and Fish Department, Santa Fe, NM.
- Quist, M.C., M.R. Bower, and W.A. Hubert. 2006. Summer food habits and trophic overlap of roundtail chub and creek chub in Muddy Creek, Wyoming. *The Southwestern Naturalist* 51 (1): 22-27.
- Rahel F. J., B. Bierwagen, and Y. Taniguchi. 2008. Managing aquatic species of concern in the face of climate change and invasive species. *Conservation Biology* 22 (3): 551-561.

## References for Species Status Assessment for Headwater and Roundtail Chubs

Rahel, F.J. and W.A. Hubert. 1991. Fish assemblages and habitat gradients in a Rocky Mountain - Great Plains stream: biotic zonation and additive patterns of community change. *Transactions of the American Fisheries Society* 120: 319-332.

Reba, M.L., D. Marks, A. Winstral, T.E. Link, and M. Kumar. 2011. Sensitivity of the snowcover energetics in mountain basin to variations in climate. *Hydrological Processes*. 25:3312-3321.

Redford, K.H., G. Amato, J. Baillie, P. Beldomenico, E.L. Bennett, N. Clum, R. Cook, G. Fonseca, S. Hedges, F. Launay, S. Lieberman, G.M. Mace, A. Murayama, A. Putnam, J.G. Robinson, H. Rosenbaum, E.W. Sanderson, S.N. Stuart, P. Thomas, and J. Thorbjarnarson. 2011. What does it mean to successfully conserve a (vertebrate) species? *BioScience*, 61 (1): 39-48.

Reid, L. M. 1993. Research and cumulative watershed effects. U.S. Forest Service General Technical Report PSW-GTR-141, Albany, CA. Rich, L. R., and H.G. Reynolds. 1963. Grazing in relation to runoff and erosion on some chaparral watersheds of central Arizona. *Journal of Range Management* 6: 322-326.

Rieman B.E. and F.W. Allendorf. 2001. Effective population size and genetic conservation criteria for bull trout. *North American Journal of Fisheries Management* 21: 736-764.

Rinne, J.N. 1969. Cyprinid fishes of the genus *Gila* from the lower Colorado River basin. M.S. thesis. Arizona State University, Tempe, Arizona.

Rinne, J.N. 1976. Cyprinid fishes of the genus *Gila* from the lower Colorado River basin. *The Wasmann Journal of Biology* 34 (1): 65-107.

Rinne, J.N. 1992. Physical habitat utilization of fish in Sonoran Desert stream, Arizona, southwestern United States. *Ecology of Freshwater Fish* 1: 35-41.

Rinne, J.N. and J.A. Stefferud. 1998. Verde River native fishes: The impacts of abiotic and biotic factors. Final Report for Heritage Project 196002 June 1996 – May 1998: 1-61.

Rood et al. 2008. *Journal of Hydrology* 349:397-411.

Rosen, M.R., et al. 2007. Investigations of the Effects of Synthetic Chemicals on the Endocrine System of Common Carp in Lake Mead, Nevada and Arizona. U.S. Geological Survey Fact Sheet 2006-3131. 4 pp.

Rosenfeld, M.J., and J.A. Wilkinson. 1989. Biochemical genetics of the Colorado River *Gila* complex (Pisces: Cyprinidae). *The Southwestern Naturalist* 34(2):232-244.

Rottmann, R.W., R. Francis-Floyd, and R. Durburow. 1992. The role of stress in fish disease. Southern Regional Aquaculture Center. Publication No. 474. 4 pp.

## References for Species Status Assessment for Headwater and Roundtail Chubs

Ruppert, J.B., R.T. Muth, and T.P. Nesler. 1993. Predation on fish larvae by adult red shiner, Yampa and Green Rivers, Colorado. *The Southwestern Naturalist* (38) 4: 397-399.

**Salt River Project 2011**: not yet obtained

Salt River Project. 2013. Horseshoe and Bartlett Reservoirs Habitat Conservation Plan. Annual Report. 2013. Prepared for USFWS, Arizona ESO by SRP Environmental Services Department. Phoenix. 56 pp.

Salt River Project. 2014. Email exchange concerning operations of CC Cragin Reservoir: Marc Wicke (SRP) and Lesley Fitzpatrick (FWS-AESO). 4 pp.

Schaffer, M.L. 1987. Minimum viable populations: coping with uncertainty. In: M.S. Soulé, ed. *Viable Populations for Conservation*. Cambridge University Press, New York. 69-86 pp.

Schönhuth S., A. Perdices, L. Lozano-Vilano, P.J. Garda-de-Leon, H. Espinosa, and R.L. Mayden. 2014. Phylogenetic relationships of North American western chubs of the genus *Gila* (Cyprinidae, Teleosti), with emphasis on southern species. *Molecular Phylogenetics and Evolution* 70: 210-230.

Schreiber, D.C. and W.L. Minckley. 1981. Feeding interrelations of native fishes in a Sonoran desert stream. *Great Basin Naturalist* 41 (1): 401-426.

Schwemm M. R. 2006. Genetic variation in the *Gila robusta* complex (Teleostei: Cyprinidae) in the lower Colorado River. Master's Thesis, Arizona State University, Tempe, Arizona. 117 pp.

Schwemm, M.R., T.E. Dowling, and P.C. Marsh. 2006. Population structure in the roundtail chub (*Gila robusta* complex) of the Gila River basin. Draft Final report to U.S. Bureau of Reclamation contract #02FG320070. Arizona State University, Tempe. 68 pp.

Smith, G. R., R. R. Miller, and W. D. Sable. 1979. Species relationships among fishes of the genus *Gila* in the upper Colorado River drainage. *Proceedings of the First Conference on Scientific Research in the National Parks, USNPS Transactions and Proceedings Series 1*: 613-623.

Simmons, D.L. and R.J. Reynolds. 1982. Effects of urbanization on baseflow of selected south-shore streams, Long Island, New York. *Water Resources Bulletin Paper No. 80030*. 9 pp.

Stefferd, J.A., K.B. Gido, and D.L. Propst. 2011. Spatially variable response of native fish assemblages to discharge, predators and habitat characteristics in an arid-land river. *Freshwater Biology* 56: 1403-1416.

Sullivan, M.E. and M.E. Richardson. 1993. Functions and values of the Verde River riparian ecosystem and an assessment of adverse impacts to these resources. A supporting document for the initiation of the Verde River Advanced Identification. Report to Region 9, Environmental Protection Agency, San Francisco, CA. USFWS-Arizona Ecological Services Office, Phoenix.

## References for Species Status Assessment for Headwater and Roundtail Chubs

Sublette, J. E., M. D. Hatch, and M. Sublette. 1990. *The Fishes of New Mexico*. University of New Mexico Press, Albuquerque, NM.

Tellman, B., R. Yarde, and M. G. Wallace. 1997. *Arizona's changing rivers: how people have affected the rivers*. University of Arizona, Tucson, AZ.

Turner, P.R. and R.J. Tafaelli. 1983a. Evaluation of the instream flow requirements of the native fishes of Aravaipa Creek, Arizona by the incremental methodology. Report. Department of Fishery and Wildlife Sciences, New Mexico State University, Las Cruces, New Mexico.

Turner, P.R. and R.J. Tafaelli. 1983b. Evaluation of the instream flow requirements of the fishes of Burro Creek, Arizona by the incremental methodology. Report. Department of Fishery and Wildlife Sciences, New Mexico State University, Las Cruces, New Mexico.

U.S. Fish and Wildlife Service (Service). 2006. 12-Month Finding on a Petition to List a Distinct Population Segment of the Roundtail Chub in the Lower Colorado River Basin and to list the Headwater Chub as Endangered or Threatened with Critical Habitat; Proposed Rule. 71 FR 26007. May 3, 2006.

U.S. Fish and Wildlife Service (Service). 2007. Review of Native Species that are Candidates for Listing as Endangered or Threatened: Annual Notice of Findings on Resubmitted Petitions: Annual Description of Progress on Listing Actions. 72 FR 69034 December 6, 2007.

U.S. Fish and Wildlife Service (Service). 2008. Reinitiated biological opinion on transportation and delivery of Central Arizona Project water to the Gila River Basin in Arizona and New Mexico and its potential to introduce and spread nonindigenous aquatic species. U.S. Fish and Wildlife Service, Phoenix, AZ.

U.S. Fish and Wildlife Service (Service). 2008. Review of Native Species that are Candidates for Listing as Endangered or Threatened: Annual Notice of Findings on Resubmitted Petitions: Annual Description of Progress on Listing Actions. 73 FR 75176 December 10, 2008.

U.S. Fish and Wildlife Service (Service). 2009. 12-Month Finding on a Petition to List a Distinct Population Segment of the Roundtail Chub (*Gila robusta*) in the Lower Colorado River Basin; Proposed Rule. 74 FR 32352. July 7, 2009

U.S. Fish and Wildlife Service (Service). 2009. Review of Native Species that are Candidates for Listing as Endangered or Threatened: Annual Notice of Findings on Resubmitted Petitions: Annual Description of Progress on Listing Actions. 74 FR 57804 November 9, 2009.

U.S. Fish and Wildlife Service (Service). 2010. Review of Native Species that are Candidates for Listing as Endangered or Threatened: Annual Notice of Findings on Resubmitted Petitions: Annual Description of Progress on Listing Actions. 75 FR 69222 November 10, 2010.

## References for Species Status Assessment for Headwater and Roundtail Chubs

- U.S. Fish and Wildlife Service (Service). 2011. Review of Native Species that are Candidates for Listing as Endangered or Threatened: Annual Notice of Findings on Resubmitted Petitions: Annual Description of Progress on Listing Actions. 76 FR 66370 October 26, 2011.
- U.S. Fish and Wildlife Service (Service). 2012. Review of Native Species that are Candidates for Listing as Endangered or Threatened: Annual Notice of Findings on Resubmitted Petitions: Annual Description of Progress on Listing Actions. 76 FR 69993 November 21, 2012.
- U.S. Fish and Wildlife Service (Service). 2013. Review of Native Species that are Candidates for Listing as Endangered or Threatened: Annual Notice of Findings on Resubmitted Petitions: Annual Description of Progress on Listing Actions. 77 FR 70103 November 22, 2013.
- U.S. Forest Service (USFS). 2011. Draft Environmental Assessment for the proposed Town of Payson-Cragin Water Pipeline and Treatment Plant Project in Gila County, Arizona. Tonto National Forest, Phoenix, Arizona. 163 pp.
- U.S. Geological Survey (USGS). 2004. Endangered fish threatened by Asian fish tapeworm: The Asian fish tapeworm may inhibit the recovery of the humpback chub in the Grand Canyon. NWHC Information Sheet August 2004.
- U.S. Geological Survey (USGS). 2005. Fisheries: Aquatic and Endangered Resources (FAER Program Bulletin. U.S. Geological Survey IV (1): 1-8.
- Vanicek, C.D. and R.H. Kramer. 1969. Life history of the Colorado squawfish, *Ptychocheilus Lucius*, and the Colorado Chub, *Gila robusta*, in the Green River in Dinosaur National Monument, 1964-1966. Transactions of the American Fisheries Society. 98 (2): 193-208.
- Vannote, R. L., J. V. Minshall, K.W. Cummins, J. R. Sedell, and C. E. Cushing. 1980. The river continuum concept. Canadian Journal of Fisheries and Aquatic Sciences 37: 130–137.
- Vavra, M. 2005. Livestock grazing and wildlife: Developing compatibilities. Rangeland Ecology & Management. 58 (2): 128-134.
- Voeltz, J. B. 2002. Roundtail chub (*Gila robusta*) status survey of the lower Colorado River basin. Nongame and Endangered Wildlife Program Technical Report 186. Arizona Game and Fish Department, Phoenix, AZ.
- Wang, L., J. Lyons, P. Kanehl, R. Bannerman, and E. Emmons. 2000. Watershed urbanization and changes in fish communities in Southeastern Wisconsin streams. Journal of American Water Resource Association 36: 1173–1189.
- Warren, M. L., and M. G. Pardew. 1998. Road crossings as barriers to small-stream fish movement. Transactions of the American Fisheries Society 127: 637-644.
- Waters, T.F. 1995. Sediment in streams. Sources, biological effects and control. American Fisheries Society, Monograph 7. Bethesda, MD. 251 pp.

## References for Species Status Assessment for Headwater and Roundtail Chubs

- Werth, P.A., B.E. Potter, C.B. Clements, M.A. Finney, S.L. Goodrick, M.E. Alexander, M.G. Cruz, J.A. Forthofer, and S.S. McAllister. 2011. Synthesis of knowledge of extreme fire behavior: Volume I for fire managers. General Technical Report PNW-GTR-854. U.S. Department of Agriculture, Forest Service, and Pacific Northwest Research Station.
- Westerling, A. L., H. D. Hidalgo, D. R. Cayan, and T. W. Swetnam. 2006. Warming and earlier spring increases western U. S. forest wildfire activity. *Science* 313: 940-943.
- Wheeler, A. P. P. L. Angermeier, and A. E. Rosenberger. 2005. Impacts of new highways and subsequent urbanization on stream habitat and biota. *Reviews in Fisheries Science* (13): 141-164.
- Winter, T.C., J.W. Harvey, O.L.Franke, and W.M. Alley. 1998. Ground water and surface water: A single resource. USGS Circular 1139. Denver, Colorado. 87 pp.
- Wright, H.A. 1990. Role of fire in management of southwestern ecosystems. U.S. Forest Service General Technical Report, 191.
- Young, M.K., P.M. Guenther-Gloss, and A.D. Ficke. 2005. Predicting cutthroat trout (*Oncorhynchus clarkii*) abundance in high-elevation streams: revisiting a model of translocation success. *Canadian Journal of Fish and Aquatic Science* 62: 2399-2408.
- Ziebell, C.D. and R.R. Roy. 1989. Distribution and angler use of the roundtail chub (*Gila robusta*) in the upper Verde River. Arizona Cooperative Fish and Wildlife Research Unit. University of Arizona, Tucson, AZ.