

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Animal Abstract

Element Code: AMAJF10011

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

ME: *Lontra canadensis sonora*
COMMON NAME: Southwestern River Otter, Arizona River Otter
SYNONYMS: *Lutra canadensis sonora* Rhoads; *Lutra hudsonicus sonora*
FAMILY: Mustelidae

AUTHOR, PLACE OF PUBLICATION: Rhoads, Trans. Amer. Philos. Soc., New Ser., 19:431.1898.

TYPE LOCALITY: Beaver Creek, Montezuma Well, Yavapai Co., AZ

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS: One of two North American species in genus, only species in Arizona. One of 7 North American subspecies, only subspecies in Arizona.

DESCRIPTION: Species: A semiaquatic, slender, long-bodied mammal with total lengths of 88.9-130 cm (35-51 in); tail lengths of 30-50.7 cm (11.8-20 in); and weights of 5-14 kg (11-31 lb). They are specialized for aquatic life with thick guard hair, dense oil under the fur, webbed toes, and small ears. Coloration is a dark brown above (looks black when wet), with a paler belly; throat often a silvery gray. Paler coloration in the subspecies in Arizona (Hoffmeister, 1986). Eyes are small (eyeshine pale amber), face has prominent whitish whiskers, and dorsally flattened head has a broad snout. Tail thick at base, tapering toward tip.

AIDS TO IDENTIFICATION: Skull of *L. canadensis sonora* is larger and more angular in shape as well as being latter and less convex with inflated tympanic bullae (Hoffmeister 1986) than other otters. *Lontra canadensis* is distinguished from *L. longicaudis*, a river otter found in Mexico, by less hair on the side of the nose, a dorsally flattened skull, and tufts of hair under the toes (Wilson and Ruff, 1999).

ILLUSTRATIONS: Color photo of species (Wilson and Ruff, 1999: p. 179)
Color photo of species (Whitaker, 1996: plates 259, 260)
Color drawing of species (Burt and Grossenheider, 1980: plate 5)
Color photo (http://www.npr.unr.edu/consERVE_species/riverotter.html)

TOTAL RANGE: Major rivers in Colorado, Nevada, Arizona, and New Mexico, and the Colorado River in Sonora, Mexico. Southern Utah, Nevada and California along the Colorado River.

RANGE WITHIN ARIZONA: Occasional non-confirmed sightings along the Colorado River below Lake Meade. Historically occurred in the Colorado and Gila rivers and their major tributaries, but current distribution uncertain. A Louisiana subspecies (*L.c. lataxina*) was successfully introduced into central Arizona (Verde River drainage) during 1981-1983 and may eventually cause genetic swamping of the native form, if any still exist.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: *Lontra canadensis* can live in any marine (coastal) or freshwater habitat with a permanent food and water supply. Their dens are located in shelters dug by other mammals or in natural hollows under logs, trees, rock piles, thickets, or on river banks. Each den has an underwater entrance with a tunnel leading to a nesting chamber. They have both permanent and temporary nests. Nests are made up of leaves, grasses, mosses, pieces of bark, and some hair. Young reach sexual maturity after 2 or 3 years and can live up to 21 years in captivity. (Wilson and Ruff, 1999).

Lontra canadensis are skillful swimmers and divers and can remain submerged for up to eight minutes. In most regions, they hunt in the water at night, and can cover several kilometers in a hunting foray. They search for prey under logs, rocks, and in the mud. They will pursue terrestrial prey when on land. Generally, otters hunt solitarily but may group in pairs. They have few natural enemies, but sometimes are attacked by bobcats, coyotes, or other mammalian predators, and by some birds of prey. Adult males are generally solitary, while females live with their young until dispersal. Densities and home range sizes are quite variable, depending on habitat quality. Some reports from areas of good habitat indicate densities of one otter per 2 or 3 km of waterway. Males mark and defend territories within their home ranges. (Wilson and Ruff, 1999). Their vocalizations include a whistle, probably used to communicate over distances, and a shrill, chattering call, emitted during mating season. Otters chuckle softly to siblings and mates, probably as a sign of affection, and also chirp, grunt, snort, and growl. (Whitaker, 1996).

REPRODUCTION: *Lontra canadensis* breeds once a year, in late winter or early spring. A male can copulate with several females during breeding, and mating usually occurs in water. Gestation is estimated to be around 2 months, but because otters employ delayed implantation, gestation can last up to a year. Parturition takes place from November to May, with a peak in March and April. Litter size is 1 to 6, but usually consist of 2 or 3. The young are fully-furred, but helpless, at birth. Young open their eyes after one month and are weaned at about three months. Dispersal from the natal area probably begins about three months after weaning. (Wilson and Ruff, 1999).

FOOD HABITS: Fish make up the greatest proportion of the diet with amphibians, arthropods, crayfish, and frogs also being consumed. They occasionally prey upon muskrats and other small mammals or feed on aquatic plants (Wilson and Ruff, 1999).

HABITAT: Riparian habitat along rivers and streams with adequate prey. For the species, rivers, streams, lakes, reservoirs, marshes, swamps, and estuaries all provide potential habitat (Wilson and Ruff, 1999).

ELEVATION:

PLANT COMMUNITY: For the species and its range: they inhabit a variety of riparian plant communities, including those dominated by willows (*Salix* spp.), cottonwoods (*Populus* spp.), birches (*Betula* spp.), and spruce (*Picea* spp.). Other vegetation common to their habitat includes cattails (*Typha* spp.), red-osier dogwood (*Cornus sericea*), black hawthorn (*Crataegus douglassi*), common snowberry (*Symphoricarpos albus*), grasses, horsetails (*Equisetum* spp.), bulrushes (*Scirpus* spp.), and sedges (*Carex* spp.). (Tesky, 1993).

POPULATION TRENDS: Although apparently never abundant, population has declined in historic times to very rare at present.

For the species, the geographic range once extended throughout Canada and the United States. Now, however, they are extirpated or rare throughout most of the central and eastern United States. (Wilson and Ruff, 1999).

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:

None (USDI, FWS 1996)
[C2 USDI, FWS 1994]
[C2 USDI, FWS 1991]
[C2 USDI, FWS 1989]
[C2 USDI, FWS 1985]

STATE STATUS:

WSC (AGFD, WSCA in prep)
[State Endangered AGFD, TNW 1988]

OTHER STATUS:

Forest Service Sensitive [USDA, FS Region 3 1999]
[Forest Service Sensitive USDA, FS Region 3 1988]
Group 1 (NNDFFG, NESL 2001)
Navajo Endangered Species List (1994)

MANAGEMENT FACTORS: Riparian alteration would affect existing populations and dispersion from nearby ones. The species is very sensitive to pollution and have disappeared from heavily polluted waters (Wilson and Ruff, 1999). According to Tesky (1993), Lontra

canadensis “have been extirpated or reduced in many areas due to human encroachment, habitat destruction, and overharvest. ... A variety of internal parasites affect river otters. Of these, two roundworms (*Strongyloides lutrae* and *Gnathostoma miyazakii*) may cause serious pathological damage. River otters are also susceptible to canine distemper, jaundice, hepatitis, and feline panleucopenia.”

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Survey of habitat. Study of life history.

LAND MANAGEMENT/OWNERSHIP: Once occurred on land owned or managed by the Coronado, Prescott and Tonto National Forests, NPS, BLM, and Hualapai and Havasupai Indian Reservations. Now probably restricted to those owner or managed along the Colorado River

SOURCES OF FURTHER INFORMATION**REFERENCES:**

- Arizona Game and Fish Department. 1988. Threatened native wildlife in Arizona. Arizona Game and Fish Department Publication, Phoenix, AZ. 32pp.
- Arizona Game and Fish Department. In prep. Wildlife of special concern in Arizona. Arizona Game and Fish Department Publication. Phoenix, Arizona. 32 pp.
- BISON-M, Biota Information System of New Mexico. 2002. (<http://nmnhp.unm.edu>).
- Burt, W.H. and R.P. Grossenheider. 1980. A Field Guide to the Mammals, North America north of Mexico. Third Edition. Houghton Mifflin Company, Boston, MA. Pp. 60-63.
- Cockrum, E.L. 1960. The recent mammals of Arizona: their taxonomy and distribution. The University of Arizona Press, Tucson. pp.242-243.
- Edwards, C. 1979. A report on the distribution, abundance, population trends and habitat requirements for the river otter on the Lower Colorado River. Arizona Game and Fish Department.
- Hanna, J.D., D.W. Belitsky and J.S. Phelps. 1994. Status of river otters in Arizona. Presentation for the Nearctic River Otter Symposium. Albuquerque, New Mexico.
- Hall, E.R. 1981. The mammals of North America. second edition. John Wiley & Sons, Inc. New York. pp.1029-1031.
- Hoffmeister, D.F. 1986. Mammals of Arizona. The University of Arizona Press. Tucson. Pp. 515-517.
- Jones, et al. 1987. North American Mammals North of Mexico. Texas Tech Univ.
- NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>. (Accessed: December 11, 2003).
- Tesky, J.L. 1993. *Lutra canadensis*. In U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station Sciences Laboratory (2002, September). Fire Effects Information System, <http://www.fs.fed.us/database/feis/>. Accessed: 11/26/2002.
- USDA, Forest Service Region 3. 1988. Regional Forester's Sensitive Species List.

- USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.
- USDI, Fish and Wildlife Service. 1985. Endangered and Threatened Wildlife and Plants; Review of Vertebrate Wildlife; Notice of Review. Federal Register 50(181):37967.
- USDI, Fish and Wildlife Service. 1989. Endangered and Threatened Wildlife and Plants; Animal Notice of Review. Federal Register 54(4):564.
- USDI, Fish and Wildlife Service. 1991. Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species, Proposed Rule. Federal Register 56(225):58807.
- USDI, Fish and Wildlife Service. 1994. Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species; Proposed Rule. Federal Register 59(219):58986.
- USDI, Fish and Wildlife Service. 1996. Endangered and Threatened Wildlife and Plants; Review of Plant and Animal Taxa that are Candidates for Listing as Endangered or Threatened Species. Federal Register 61(40):7596-7613.
- Whitaker, Jr., J.O. 1996. National Audubon Society Field Guide to North American Mammals. Revised Edition. Alfred A. Knopf. New York. Pp. 782-785.
- Wilson, and Reeder. 1993. Mammals Species of the World. Smithsonian Institute Press.
- Wilson, and Ruff. 1999. Smithsonian Book of North American Mammals. Smithsonian Institute Press.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

Otters of the subspecies *L. c. lataxina* from Louisiana were reintroduced into the Verde River system, 1981-1983. This population, estimated at 15-20 breeding adults in 1994, persists along the Verde River and tributaries (Hanna et al. 1994).

Revised: 1987-08-15 (BDB)
 1995-04-03 (DBI)
 1997-03-04 (SMS)
 2002-11-15 (RHB)
 2002-11-27 (SMS)

To the user of this abstract: you may use the entire abstract or any part of it. We do request, however, that if you make use of this abstract in plans, reports, publications, etc. that you credit the Arizona Game and Fish Department. Please use the following citation:

Arizona Game and Fish Department. 20XX (= **year of last revision as indicated at end of abstract**). X...X (= **taxon of animal or plant**). Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. X pp.