

North American River Otter

Lontra canadensis

Class: Mammalia **Order:** Carnivora **Family:** Mustelidae (badgers, otters, weasels and relatives)

Other names: northern river otter

Other subspecies:

Other Relatives: There are four species in the genus *Lontra*



Zoo Otters 2.0

Timber 1.0 – male, DOB: 2009, AQ: 4/9/2013

Clarke 1.0 – female, DOB: 2009, AQ: 4/9/2013

About Timber and Clarke

Timber and Clarke came from a breeding facility in Minnesota.

Timber is the larger of the two, and tends to have clumping fur. He weighs 22 lbs 11 oz.

Clarke is leaner/slimmer and is missing 2 digits on right, hind foot. He weighs 20 lbs 4 oz.



Status

Least concern

The species is included in CITES Appendix II [1]

Geographic Region

Throughout Canada, the Great Lakes region, and down the east coast of the United States.

Reintroductions have expanded the distribution of this species in recent years, especially in the Midwestern United States [1]

Habitat

Temperate regions in lakes, rivers, bog lakes, swamp forest, and other wetlands

Characteristics

Size: *Average weight:* 18 lbs. (female), 25 lbs. (male) *Average body length:* 26-42"

Longevity: **Wild** 8 up to 13 years [1] [2] **Captivity** up to 25 years [1]

Physical Description

- North American river otters are semi-aquatic mammals, with long, streamlined bodies: thick tapered tail, short legs, and neck as wide as head. [2]
- They have wide, rounded heads, small ears, and nostrils that can be closed underwater. [2]
- Its whiskers, called **vibrissae** are long and thick, reflecting their importance in sensory perception. [2]
- The fur is dark brown to almost black above and a lighter color underneath. The throat and cheeks are usually a golden brown. The fur is dense and soft, effectively insulating these animals in water. [2]
- The feet have claws and are completely webbed. [2]
- They also have **nictitating membranes**; these act as transparent eyelids to protect the eyes while swimming, but still allowing the otter to see (also seen in most birds of prey and some reptiles). [2]

Dimorphism

Males: males are larger

Females:

Diet: Carnivore

Diet in the Wild: North American river otters eat mainly aquatic organisms such as amphibians, fish, turtles, crayfish, crabs, and other invertebrates. As an opportunistic feeder, birds, their eggs, and small terrestrial mammals are also eaten by the North American river otter on occasion. They sometimes eat aquatic plants.

Diet in the Zoo: carrots, ground beef or turkey, fish (trout), milk bones, turkey necks, and canine diet (raw meat)

Behavior

- *Diurnal*, day-active & *Nocturnal*, night-active
- These otters normally hunt at night, but can be seen at all times of day.
- They are excellent swimmers and divers, able to stay underwater for up to eight minutes.
- They are also fast on land, capable of running at up to 29 km/hr (~18mph).

Feeding Behavior

- North American river otters get their boundless energy from their very high metabolism, which also requires them to eat a great deal during the day.
- NAROs perceive their environment through vision, touch, smell, and hearing. Their large and abundant whiskers are very sensitive and are important in tactile sensation. These whiskers are used extensively in hunting, as smell, vision, and hearing are diminished in the water. The otter's long whiskers are used to detect organisms in the substrate and the dark water [2].
- Prey is eaten immediately after capture, usually in the water, although larger prey is eaten on land [2].

Home Life

- River otters have large home ranges, are only slightly territorial and generally practice mutual avoidance. Males generally have larger home ranges than females.

Social Structure & Communication

- They vocalize with whistles, growls, chuckles, and screams [2].
- They also scent mark using paired scent glands near the base of their tails or by urinating/defecating on vegetation within their home range. These glands produce a very strong, musky odor. They also use touch and communicate through posture and other body signals [2].
- NAROs associate in families of a female with her young. The family may also include unrelated “helpers”, which assist in raising the young.
- Males often form social groups and are not territorial. These families and groups hunt, live, and travel together.
- They are known as playful animals, exhibiting behaviors such as mud/snow sliding, burrowing through the snow, and water-play. Many "play" activities actually serve a purpose. Some are used to strengthen social bonds, to practice hunting techniques, and to scent mark.

Reproduction

- Females usually do not reproduce until 2 years of age, although yearlings occasionally produce young. Males are sexually mature at 2 years of age [1]
- Males and females do not associate except during the mating season. Males often breed with several females, probably those whose home ranges overlap with their own. Males and females come together to breed in late winter or early spring. [2]
- Breeding occurs December-April [1]. Gestation lasts two months, but the young may be born up to a year after mating, as female otters are capable of **delayed implantation** [2]. Births occur from February and April [1].
- Females give birth to one to six young per litter (average of one to three). **Altricial** young are born with fur, but are otherwise helpless. They open their eyes at one month of age and are weaned at about three months old. They begin to leave their natal range at from six months to a year old.
- Females give birth to, nurse, and care for their young in a *holt* (den) near the water.

Conservation

The North American river otter is not currently threatened but may become so if not closely monitored. Habitat degradation, pollution, and decline in prey populations are the major threats.

- **Use & Trade:** Historically used for fur. Unregulated trapping, in addition to habitat loss and water quality issues, resulted in **extirpations** or declines in otter populations in many areas [1]
- **Threats:** By the early 20th century, NA river otter numbers had declined significantly. Due to reintroduction, improvement in water quality, and better furbearer management techniques the numbers had improved significantly by the 1970s. [1]
- **Predators:** few natural predators in the water: alligators (*Alligator mississippiensis*), American crocodiles (*Crocodylus acutus*), and killer whales (*Orcinus orca*). They are considerably more vulnerable on land or ice where bobcats (*Lynx rufus*), cougars (*Felis concolor*), coyotes (*Canis latrans*), dogs (*Canis familiaris*) and wolves (*Canis lupus*) can kill adults. However, most otter deaths are caused by humans: hunting, road kill, and accidental capture in fishing lines.

Did You Know?/Fun Facts

- The nictitating membranes, specially adapted lenses in their eyes, accommodate underwater distortions and act like goggles.
- The river otter is the largest member of the weasel family.
- New research indicates that otters can smell underwater by exhaling air bubbles then sniffing them back up again quickly [3].

Glossary: List of definitions of the most important recurrent technical terms used in the text.

Altricial - hatched or born in an undeveloped state and requiring care and feeding by the parents.

Delayed implantation - aka *Embryonic Diapause*; a reproductive strategy used by a variety of different mammals. In embryonic diapause, the embryo does not immediately implant in the uterus, but is maintained in a state of dormancy. Little to no development takes place while the embryo remains unattached to the uterine wall. As a result, the normal gestation period is extended for a species-specific period of time.

Extirpation- eradicated, to root out and destroy completely.

Nictitating Membrane - a transparent or translucent third eyelid present in some animals that can be drawn across the eye for protection and to moisten it while maintaining visibility.

Vibrissae - Tactile hair, or whiskers, are a mammalian characteristic found on many mammals. Vibrissae differ from ordinary hair by being longer and thicker, having large follicles containing blood-filled sinus tissues, and by having an identifiable representation in the somatosensory cortex.

References

- [1] T. & P. P. Serfass, "Lontra canadensis," 2014. [Online]. Available: <http://www.iucnredlist.org/details/12302/0>. [Accessed February 2015].
- [2] E. Ellis, "Lontra canadensis," 2003. [Online]. Available: http://animaldiversity.org/accounts/Lontra_canadensis/. [Accessed February 2015].
- [3] R. Alleyne, "Can otters smell underwater?," 10 June 2010. [Online]. Available: <http://www.telegraph.co.uk/news/earth/wildlife/7803714/Can-otters-smell-underwater.html>. [Accessed March 2014].