

Otters in Ohio: Return of a Native Species
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by Paul Flournoy

The historic distribution of the North American river otter (*Lontra canadensis*) was, along with beaver (*Castor canadensis*) and gray wolves (*Canis lupus*), one of the largest geographic ranges of any North American mammal. They could be found from the frozen arctic regions of the north, to southern Florida in the East and into parts of the arid regions of the southwestern United States where an absence of suitable wetland habitats probably limited their range. River otter, along with many other furbearers, had been trapped by Native Americans long before Europeans arrived in this country, but as European settlers arrived in North America, the emphasis shifted from low levels of trapping pressure by Native Americans to large-scale harvest. Although beaver was the backbone of the trapping industry, river otter populations began to decline along with the beavers and other furbearers affected by the fur-trade. While the initial, smaller decreases in otter populations were probably the result of unregulated trapping, the loss of suitable habitat is most likely responsible for the greater declines of river otters seen throughout much of their range. Otters are semi-aquatic mammals and so require relatively healthy rivers and wetlands to survive. Deforestation and the loss of 90% of Ohio's wetlands between the 1780's and the 1980's left little room for river otters. In addition to loss of habitat, the role pollution may have played in the decline of the species in some parts of its range is thought to be significant, but has received little attention until very recently and is still poorly understood. Secretive animals like the otter can be difficult to observe and can also be difficult to study. Consequently, otter research often involves fitting individuals with radio transmitters for telemetry studies or the examination of carcasses submitted by trappers. Survival rates, home ranges, and habitat associations have already been determined for the species in Ohio and research is currently underway to gather the information needed to provide accurate population estimates and distributions of otters in the state.

River otters are medium sized members of the family Mustelidae that includes minks, badgers, and the otter's closest relatives, weasels. They range in weight from 7.5 to 34 pounds and in length from 35 to 54 inches with males being roughly 15-20% larger than females, but average lengths and weights vary from region to region. Their tail, used as a rudder when swimming or as a "third leg" while standing on their hind legs, makes up approximately 1/3 of their total length. There have been a number of studies of otter diet. They feed primarily on fish, to a lesser extent on crayfish, occasionally on frogs and insects, and though rare, will occasionally even consume birds, mammals, or reptiles. They prefer to eat slower moving, non-game species of fish and when available, crayfish can constitute a large part or occasionally even the majority of their diet.

River otters are considered social animals and in coastal populations, like those found off the coasts of Alaska and British Columbia, they sometimes travel and hunt in large social groups containing males and females. In inland or freshwater populations like those found in Ohio, most of the time that a group of otters is seen swimming or feeding together, it is a family group made up of a female and her young of the year. Even in inland areas though, small groups of males are occasionally observed together except during the breeding season when otters avoid individuals of the same sex during their search for a mate. After mating, which occurs soon after females give birth in late winter through early spring, the sexes separate for the rest of the year with the female raising the young on her own. Litter size is usually two or three, but can range from one to six young. An interesting aspect of otter reproduction is that after mating, the fertilized eggs completely delay their development for up to eleven months before implanting in the walls of the uterus and continuing development. This is referred to as "delayed implantation" and one of the possible benefits of this phenomenon is that it allows the female to spend up to a year raising her young without having to abandon them for an extended period to breed.

The average home range of otters in Ohio ranges from three to four square miles and males tend to have larger home ranges than females. River otters require relatively unpolluted bodies of water with good cover along the banks or shore to rest and seek cover when needed. They also benefit significantly from submerged

logs – not only for cover but also as habitat for the fish they eat. They make extensive use of beaver ponds and lodges and there is even a record of the two species having been found in a beaver lodge at the same time. Otters do not make dens themselves and whether just resting or raising young, they use logjams, rock piles, dens near waterways excavated by other animals, or other naturally occurring areas where they can find cover. They can tolerate some human activity, but extensive human disturbance usually causes them to abandon an area. Otters are occasionally killed by wolves, domestic dogs, coyotes, and other predators, but they face the most risk from humans, either by accidents like road kills or when their habitat is destroyed.

The decline of the river otter has led to legal protection for the species in many states. The first regulations to protect river otters in parts of Ohio were passed from 1833 to 1843 and affected a number of counties around Lake Erie. While they remained common in some parts of the state, for a few decades after that otters were soon very rare in Ohio. By the 1950's they were considered to be absent from the state. This disappearance was not unusual for the species in the Midwest or other parts of its range, but it did manage to persist in large numbers in coastal parts of the country, especially those areas with extensive coastal wetland complexes that remained intact.

In the 1970's, a number of factors like the U.S. signing the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), changes in furbearer management techniques, and federal pollution laws combined to raise awareness of the river otter and reintroduction programs were implemented in a number of states. These efforts were combined with habitat protection and restoration and the reintroduction of beavers around the country to benefit otter in the parts of its historic range where it had been decimated. The protection of wetlands and the otter re-introductions have resulted in otters recolonizing much of their former range. There are still some states where otter populations are stable or in decline, but thanks to other successful reintroduction efforts, most states now have a framework to follow for reintroducing otters as long as suitable habitat exists.

In 1986, the state of Ohio began a river otter reintroduction program and between 1986 and 1993, 123 otters were released into the state. The restoration efforts were successful enough that today the population of otters in the state is estimated to number over 5,500. Like in Missouri, Kentucky, and now Iowa, the return of significant numbers of otters to the state has allowed the initiation of a limited trapping season and a total of 225 otters were checked during the 2005-2006 season. However, in order to guarantee the success of reintroduction efforts, follow up studies are needed to evaluate the status of the restoration efforts. There is little doubt that habitat destruction, unregulated trapping, and water pollution were to blame for the extirpation of otters throughout much of their range, but the effect on otters these variables still have today is relatively unknown.

Current research being conducted by the Ohio Division of Wildlife and the Ohio State University focuses in part on reproductive and other data collected from carcasses trapped between 2005 and 2007 and will be used to further our understanding of this poorly understood furbearer in Ohio and neighboring states as well. The information will be obtained by examination of carcasses provided by you, the trapping community in Ohio. This research is important in that it will provide information needed to determine the status of the species in Ohio and will help facilitate future examination of management tools and objectives like zones, bag limits, and a stable population in the state. The role the trapping community has played in this research is obvious. Without the cooperation of trappers in Ohio, no information would be available to evaluate the success of the reintroduction efforts, to identify and address any management concerns, and of course there would also be no way to control river otter or any other furbearer populations.

In addition to the biological research being conducted, catch per unit effort surveys (or CUE's) are being conducted as well as efforts to evaluate other measures of population trends of otter in the state. Determining what factors may be limiting otter distribution around the state and why some animals are not being taken in areas where otters were predicted to occur are some of the other topics this research will address.

The restoration and continued monitoring of river otters in the state owes a debt of thanks to the cooperation of Ohio's trappers. The researchers at Ohio State University hope that you will be interested in the results of this research. I would like to encourage those of you with interest in otters or otter research to contact me and I am especially interested in what people think local otter populations are like in their area, or what they believe may be limiting or enhancing otter distribution.

I hope you all had a good season.

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