

**Delisting Proposal for
North American River Otter (*Lontra canadensis*)
in Nebraska**



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Introduction

The Nebraska Game and Parks Commission (hereafter, Commission) is authorized under the Nongame and Endangered Species Conservation Act (NESCA; Neb. Rev. Stat. § 37-801 to 37-811) to determine what species should be placed on the list of threatened or endangered species maintained under the act. Species that are listed as threatened or endangered federally are automatically placed on the state's list of threatened or endangered species; however, there are additional unlisted species whose continued existence within our state is at-risk and who are candidates for state listing. The Commission is obligated to conduct a review of species when monitoring data or emerging issues indicate concern. In 2017, Commission staff undertook a review of the state's wildlife, including plants, to determine whether any species warranted placement on the list or whether any species currently listed as threatened or endangered should be removed from the list. The last full review and revision of the list occurred in 2000. The purpose of the current statewide review is to maintain an accurate list of threatened and endangered species, based on the best information available, to help the Commission complete its mission of effectively conserving the wildlife resources of Nebraska. Over the last several months, Wildlife Division staff received input from species' experts, conducted extensive literature reviews, and coordinated with the Commission's Fisheries and Planning and Programming divisions to develop a list of species to consider for listing action. An in-house committee (Appendix 1) further refined the list based on multiple criteria of relevance, including but not limited to those described in Nebraska statute 37-806 (process and legal requirements; see Appendix 2). Of Nebraska's mammals, Commission staff concluded the North American River Otter (*Lontra canadensis*) has demonstrated recovery and should be removed from the state list.

Status

The North American River Otter (hereafter, river otter) is currently listed as Threatened in the state of Nebraska. The species is not federally listed. Based on new data, expert input, and a successful recovery program, the Commission proposes to remove the river otter from the state threatened species list. The population of river otters has been growing in Nebraska's waterways since their release back into the ecosystem in 1986. We are now in the unprecedented situation where a reintroduced and threatened species in the state is a candidate for delisting.

History

Once a common member of Nebraska's biodiversity, river otters were extirpated from the state in the early 1900s (Bischoff 2006). River otters were state listed as Endangered in 1986. In 2000, the species was down-listed to Threatened because of substantial progress towards recovery. Over the course of 6 years (1986–1991), river otters were live-trapped in other states with viable populations (primarily Alaska and Louisiana) and transported to Nebraska for release. These relocated otters were reintroduced at a total of seven sites: on the Platte (2 release sites), Niobrara, South Loup, Elkhorn, Calamus, and Cedar rivers (Andelt 1988, Bischoff 2006).

Biologists have since been monitoring the establishment of the river otters, expansion of their distribution, and progress toward their recovery.

Research

Research efforts have included surveys conducted from bridges, telemetry study for home range, habitat use, and survival, DNA analysis for density estimates, and distribution modeling from presence-absence data. Researchers found that river otters' range has been expanding beyond reintroduction rivers (Fig. 1), and their survival is high (in one study, no mortalities were detected from Oct 2006–Dec 2009 for 18 river otters tracked by telemetry on the Platte River; mean number of days that a marked river otter was known to be alive was 470.5 [$SD = 168.8$]; Wilson 2012).

NGPC regularly receives reports of river otters from hunters, anglers, landowners, boaters, birders, and field personnel for NGPC, U.S. Fish and Wildlife Service, Natural Resource Districts, the Nebraska Public Power District, Central Nebraska Public Power District, The Nature Conservancy, the Crane Trust, and Audubon's Rowe Sanctuary. Observational reports include pairs, adults with young, and groups of animals. Data on river otters have also come from accidentally trapped specimens, often of very good physical condition. These specimens provide data on areas of occurrence, age, sex, and reproduction.

The Commission keeps a list of Species of Greatest Conservation Need, identified as at-risk with Tier 1 or 2 status. This list is regularly reviewed and updated so that those species most at-risk in the state receive necessary attention and eligibility for additional conservation measures. The river otter will continue to be monitored and could be considered for Tier 1 or 2 status if conditions warrant in the future.

Monitoring of the river otter population after the species is delisted will include locations of observations from the public and the Commission, federal agencies, and non-governmental agencies. In addition, carcasses of incidentally trapped river otters will also still be collected. Sign surveys at bridges, trail camera based surveys, or searches by kayak/canoes will be used as needed to assess changes in distribution.

Fur-bearers may be considered for harvest seasons. Harvest seasons and limits in Nebraska are carefully considered and based on the ability of a population to withstand the pressure of losing some individuals. A criterion for holding a harvest is typically that the population is likely resilient to the proposed harvest based on the best available science. If monitoring of the species or poor habitat conditions reveal stresses on river otters that would threaten their persistence in the state, there will likely be a recommendation of reduced or no harvest. The same balance of allowing harvest and maintaining resilient populations has allowed other harvested species like deer, elk, and turkeys to thrive over the long term in Nebraska. Decisions regarding managing for more or less individuals would depend on future management goals. It is important to note that animals managed under game law are typically abundant over the long term and none have become extirpated under modern game management that includes a harvest.

Distribution and Abundance

In the Midwest where river otters were absent from a number of states, they have since recovered because of reintroduction efforts, including in the bordering states of Iowa, Missouri, and Kansas. The reintroductions of 159 river otters in Nebraska from 1986–1991 have allowed the species to expand to the majority of areas in the state with appropriate habitat.

During the most recent surveys (2014–2015), multiple observers covered >1000 river miles across the state to look for signs of river otters (Bieber et al. 2018). The bulk of detections of river otters in these surveys were from the Platte, Elkhorn, and Niobrara rivers. Occupancy modeling and maximum entropy modeling, from data collected during this effort, both identified the Platte, Elkhorn, central and eastern Niobrara, and southern Loup rivers as core areas for river otters in Nebraska. Survey and monitoring data indicate that river otter populations have grown and expanded out from reintroduction sites. It is likely that the otters are also recolonizing areas of Nebraska because of immigration from neighboring states, such as Missouri and Iowa, with large populations of river otters. Evidence supports growth to a nearly statewide distribution of river otters, in major river systems in Nebraska, over the last 30 years. In fact, Bieber et al.'s (2018) data and distribution modeling results indicate a current otter distribution in the state that is quite similar to historical records.

River otters are widely distributed in North America (Fig. 2). They are identified as a species of least concern by the International Union for Conservation of Nature (Serfass et al. 2015). Estimates indicate there are $\geq 50,000$ river otters globally and $\leq 5,000$ in Nebraska. Less than 10% of the river otter's global population occurs within Nebraska. Nebraska's river otter population is largely connected and has been stable or growing. It is likely that population growth will continue at some level given that there are currently no known threats of significance or exceptional mortality factors facing river otters. The number of river otters/km in a focal area of study on the Platte River was higher than previously reported (Williams 2011), although the Platte River in the study area is a complex system of braided streams, not a single river channel.

Proposal

Data clearly demonstrate a healthy, reproductively viable, and expanding population of river otters in Nebraska. In recognition of the current status of this species, it is recommended that the North American River Otter be delisted under the Nebraska Nongame and Endangered Species Conservation Act (37-801 to 37-811). Commission biologists seek to delist the river otter, but they also support continued monitoring, management, and habitat conservation for the species to ensure that river otters remain a mainstay of Nebraska's biodiversity.

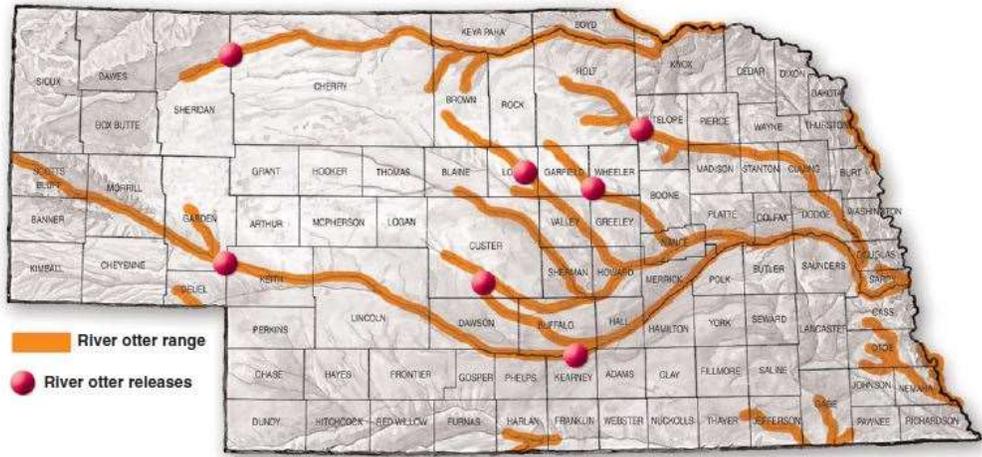


FIG. 1. The range of North American river otters in Nebraska has expanded greatly from the seven locations where biologists originally reintroduced them. Map from NEBRASKALand.



FIG. 2. The North American distribution of river otters shows their wide expanse in the United States and Canada. (D. E. Wilson and S. Ruff [Editors] 1999).

Acknowledgments

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Supporting Literature

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APPENDIX 1.

Nebraska Game and Parks Commission staff members formed the Listing Action Committee to evaluate information for all species being considered for listing action during this review.

Committee Member	Division
Melissa Panella (Chair)	Wildlife
Carey Grell	Planning and Programming
Rick Holland	Fisheries
Michelle Koch	Planning and Programming
Rick Schneider	Wildlife
Kristal Stoner	Wildlife

APPENDIX 2.

Nebraska Statute 37-806 outlines the legal requirements of endangered or threatened listing action.

37-806. Endangered or threatened species; how determined; commission; powers and duties; unlawful acts; exceptions; local law, regulation, or ordinance; effect.

- (1) Any species of wildlife or wild plants determined to be an endangered species pursuant to the Endangered Species Act shall be an endangered species under the Nongame and Endangered Species Conservation Act, and any species of wildlife or wild plants determined to be a threatened species pursuant to the Endangered Species Act shall be a threatened species under the Nongame and Endangered Species Conservation Act. The commission may determine that any such threatened species is an endangered species throughout all or any portion of the range of such species within this state.
- (2) In addition to the species determined to be endangered or threatened pursuant to the Endangered Species Act, the commission shall by regulation determine whether any species of wildlife or wild plants normally occurring within this state is an endangered or threatened species as a result of any of the following factors:
 - (a) The present or threatened destruction, modification, or curtailment of its habitat or range;
 - (b) Overutilization for commercial, sporting, scientific, educational, or other purposes;
 - (c) Disease or predation;
 - (d) The inadequacy of existing regulatory mechanisms; or
 - (e) Other natural or manmade factors affecting its continued existence within this state.
- (3)
 - (a) The commission shall make determinations required by subsection (2) of this section on the basis of the best scientific, commercial, and other data available to the commission.
 - (b) Except with respect to species of wildlife or wild plants determined to be endangered or threatened species under subsection (1) of this section, the commission may not add a species to nor remove a species from any list published pursuant to subsection (5) of this section unless the commission has first:
 - (i) Provided public notice of such proposed action by publication in a newspaper of general circulation in each county in that portion of the subject species' range in which it is endangered or threatened or, if the subject species' range extends over more than five counties, in a newspaper of statewide circulation distributed in the county;
 - (ii) Provided notice of such proposed action to and allowed comment from the Department of Agriculture, the Department of Environmental Quality, and the Department of Natural Resources;
 - (iii) Provided notice of such proposed action to and allowed comment from each natural resources district and public power district located in that portion of the subject species' range in which it is endangered or threatened;
 - (iv) Notified the Governor of any state sharing a common border with this state, in which the subject species is known to occur, that such action is being proposed;

- (v) Allowed at least sixty days following publication for comment from the public and other interested parties;
- (vi) Held at least one public hearing on such proposed action in each game and parks commissioner district of the subject species' range in which it is endangered or threatened;
- (vii) Submitted the scientific, commercial, and other data which is the basis of the proposed action to scientists or experts outside and independent of the commission for peer review of the data and conclusions. If the commission submits the data to a state or federal fish and wildlife agency for peer review, the commission shall also submit the data to scientists or experts not affiliated with such an agency for review. For purposes of this section, state fish and wildlife agency does not include a postsecondary educational institution; and
- (viii) For species proposed to be added under this subsection but not for species proposed to be removed under this subsection, developed an outline of the potential impacts, requirements, or regulations that may be placed on private landowners, or other persons who hold state-recognized property rights on behalf of themselves or others, as a result of the listing of the species or the development of a proposed program for the conservation of the species as required in subsection (1) of section 37-807.

The inadvertent failure to provide notice as required by subdivision (3)(b) of this section shall not prohibit the listing of a species and shall not be deemed to be a violation of the Administrative Procedure Act or the Nongame and Endangered Species Conservation Act.

- (c) When the commission is proposing to add or remove a species under this subsection, public notice under subdivision (3)(b)(i) of this section shall include, but not be limited to, (i) the species proposed to be listed and a description of that portion of its range in which the species is endangered or threatened, (ii) a declaration that the commission submitted the data which is the basis for the listing for peer review and developed an outline if required under subdivision (b)(viii) of this subsection, and (iii) a declaration of the availability of the peer review, including an explanation of any changes or modifications the commission has made to its proposal as a result of the peer review, and the outline required under subdivision (b)(viii) of this subsection, if applicable, for public examination.
- (d) In cases when the commission determines that an emergency situation exists involving the continued existence of such species as a viable component of the wild fauna or flora of the state, the commission may add species to such lists after having first published a public notice that such an emergency situation exists together with a summary of facts which support such determination.
- (4) In determining whether any species of wildlife or wild plants is an endangered or threatened species, the commission shall take into consideration those actions being carried out by the federal government, by other states, by other agencies of this state or political

subdivisions thereof, or by any other person which may affect the species under consideration.

- (5) The commission shall issue regulations containing a list of all species of wildlife and wild plants normally occurring within this state which it determines, in accordance with subsections (1) through (4) of this section, to be endangered or threatened species and a list of all such species. Each list shall refer to the species contained therein by scientific and common name or names, if any, and shall specify with respect to each such species over what portion of its range it is endangered or threatened.
- (6) Except with respect to species of wildlife or wild plants determined to be endangered or threatened pursuant to the Endangered Species Act, the commission shall, upon the petition of an interested person, conduct a review of any listed or unlisted species proposed to be removed from or added to the lists published pursuant to subsection (5) of this section, but only if the commission publishes a public notice that such person has presented substantial evidence which warrants such a review.
- (7) Whenever any species of wildlife or wild plants is listed as a threatened species pursuant to subsection (5) of this section, the commission shall issue such regulations as are necessary to provide for the conservation of such species. The commission may prohibit, with respect to any threatened species of wildlife or wild plants, any act prohibited under subsection (8) or (9) of this section.
- (8) With respect to any endangered species of wildlife, it shall be unlawful, except as provided in subsection (7) of this section, for any person subject to the jurisdiction of this state to:
 - (a) Export any such species from this state;
 - (b) Take any such species within this state;
 - (c) Possess, process, sell or offer for sale, deliver, carry, transport, or ship, by any means whatsoever except as a common or contract motor carrier under the jurisdiction of the Public Service Commission or the Interstate Commerce Commission, any such species; or
 - (d) Violate any regulation pertaining to the conservation of such species or to any threatened species of wildlife listed pursuant to this section and promulgated by the commission pursuant to the Nongame and Endangered Species Conservation Act.
- (9) With respect to any endangered species of wild plants, it shall be unlawful, except as provided in subsection (7) of this section, for any person subject to the jurisdiction of this state to:
 - (a) Export any such species from this state;
 - (b) Possess, process, sell or offer for sale, deliver, carry, transport, or ship, by any means whatsoever, any such species; or
 - (c) Violate any regulation pertaining to such species or to any threatened species of wild plants listed pursuant to this section and promulgated by the commission pursuant to the act.
- (10) Any endangered species of wildlife or wild plants which enters this state from another state or from a point outside the territorial limits of the United States and which is being

transported to a point within or beyond this state may be so entered and transported without restriction in accordance with the terms of any federal permit or permit issued under the laws or regulations of another state.

- (11) The commission may permit any act otherwise prohibited by subsection (8) of this section for scientific purposes or to enhance the propagation or survival of the affected species.
- (12) Any law, regulation, or ordinance of any political subdivision of this state which applies with respect to the taking, importation, exportation, possession, sale or offer for sale, processing, delivery, carrying, transportation other than under the jurisdiction of the Public Service Commission, or shipment of species determined to be endangered or threatened species pursuant to the Nongame and Endangered Species Conservation Act shall be void to the extent that it may effectively (a) permit that which is prohibited by the act or by any regulation which implements the act or (b) prohibit that which is authorized pursuant to an exemption or permit provided for in the act or in any regulation which implements the act. The Nongame and Endangered Species Conservation Act shall not otherwise be construed to void any law, regulation, or ordinance of any political subdivision of this state which is intended to conserve wildlife or wild plants.

Source:Laws 1975, LB 145, § 5; R.S.1943, (1993), § 37-434; Laws 1998, LB 922, § 356; Laws 2002, LB 1003, § 33.

Cross References Administrative Procedure Act, see section 84-920.