

# Missouri River

Missouri National Recreational River



## Endangered Species along the Missouri National Recreational River

### The Endangered Species Act



Bald Eagle

Piping Plover

The Endangered Species Act, a federal law enacted on December 28, 1973, and amended in 1978, 1982 and 1988, is one of the most far-reaching wildlife conservation laws ever enacted by any country.

Under this Act, a species may be classified as endangered or threatened. An endangered species is one that is in danger of extinction throughout all or a significant part of its range. A threatened species is one that is likely to become endangered in the near future in all or a significant part of its range. The legislation states that endangered and threatened species are of aesthetic, ecological, historical, recreational and scientific value to the nation and its people.

The primary purposes of the Endangered Species Act is to protect vulnerable species from further harm, to restore them to self-sustaining populations, and “to provide a means whereby the ecosystems upon which



Black-footed Ferret

endangered species and threatened species may be conserved.”

### Missouri National Recreational River Species at Risk

The Missouri River has had nearly three million acres of its riverine and floodplain habitats altered through land use changes, flooding, levee building, and channelization.

The Missouri River supports an abundance of wildlife including 67 species of fish, of which 51 are now listed as rare, uncommon or decreasing across all or part of their ranges. The Missouri National Recreational River has four species that are federally listed under the Endangered Species Act: the endangered pallid sturgeon, least tern, piping plover and scaleshell mussel. Current operation of the Missouri River, which is heavily dammed and channeled, poses a threat to the survival of these four species.

### Pallid Sturgeon

(*Scaphirhynchus albus*)



The pallid sturgeon was listed by the U.S. Fish & Wildlife as endangered in 1990. The pallid looks more at home in a natural history museum than on the end of a fisherman’s line, thus its nickname “Dinosaur of the Missouri,” although whether for its age or appearance is a tossup. It has a flat, upturned shovel of a nose and long, fleshy whiskers called barbels. These are used to sense the river bottom and to identify prey, allowing their vacuum cleaner-like mouth to quickly capture it. Prey consists of aquatic insects and small bottom dwelling fish.

Pallid have a knobby back and bony protrusions called scutes, rather than scales, lining the gray skin of its body.

The tail of the pallid is flattened in cross section, completely covered with armor-like plates, and the upper lobe of the tail fin is elongated and shark-like. Also, the belly of the pallid is completely without bony plates throughout its life and the barbels are positioned differently from those of the shovelnose sturgeon.



Shovelnose

Pallid

In the shovelnose, all four barbels are in line and evenly spaced in front of the mouth. In the pallid, the outer barbels are placed slightly farther back. Pallid sturgeons can weight up to 80 pounds and can live 60 years or longer. While continued research and studies are ongoing and we gain new insight into their lives, we do know that they prefer large turbid, free-flowing riverine habitats with rocky bottoms. Pallids are well adapted to life on the river bottom and inhabit areas of swift water characteristic of pre-dam conditions.



## Interior Least Tern

(*Sterna antillarum athalassos*)



Least Tern mating ritual

The interior least tern was listed as a federally endangered species in 1985, due to the loss of nesting habitat from dramatic alterations (channelization and impoundment) of important river systems.

This shorebird is the smallest member of the gull and tern family, measuring 8-9 inches (20 to 23 cm) long and having a 20 inch (51 cm) wingspread. The males and females appear identical with a black crown, white forehead patch, gray back, gray wings above with white below, orange legs and a black tipped yellow bill.

It nests on barren sandbars and beaches comprised of sand, shells or salt-encrusted soils and at sand and gravel pits adjacent to the river. The birds may also nest on flat rooftops, possibly in response to the loss of natural habitats. Least terns' nesting success depends on the presence of bare or nearly barren sandbars, favorable water levels during nesting and abundant food. Least terns begin nesting in loose colonies of 1 to 20 nests on the Missouri River in early June. The female typically lays a three-egg clutch in shallow nest bowl scraped in an



Least Tern on nest

open sandy area. Eggs hatch in about 20 days and chicks are fledged in about another 20 days. Least terns feed on small fish and crustaceans captured by hovering and diving into

shallow water. They defend their nests vigorously, calling and diving at intruders.

Water level fluctuations, vegetation of nesting habitat and disturbance (from people, pets, predators and livestock) continue to jeopardize nesting success.

## Piping Plover

(*Charadrius melodus*)



The piping plover was listed as a federal threatened species in 1985, except within the Great Lakes, where it is endangered.

The piping plover is a sandy-gray robin-sized (7 inch, 17 cm) shorebird with one dark breast band. It has a dark stripe across the crown during the breeding season. Other characteristics include a white wing stripe and a white hump that is visible in flight and a black tipped orange bill.

The piping plover is present on the Missouri River breeding grounds from April through August, primarily along the Lake Oahe and the natural stretches of the Missouri National Recreational River. Piping plovers are in the family of migratory shorebirds that begins nesting in early May.

It makes its nests on sand and gravel bars of prairie rivers, rocky beaches with short, sparse vegetation along glacial lakes and ponds and shores of alkali wetlands in the Northern Great



PipingPlover nest

Plains. The nests are shallow, scraped depressions, occasionally lined with small pebbles, shells or other material. The female lays a clutch of

three to four eggs with hatching in 28 days; eggs and young are tended by both parents.

Terns and plovers are very sensitive to the presence of humans, and disturbance threatens their survival. Each

year, most nesting areas are posted with black and white signs alerting people to the presence of nesting birds.

Boat ramps and water access points display warnings to watch for the birds in areas where they normally are found.



## Scaleshell Mussel

(*Leptodea leptodon*)



The scaleshell is a freshwater mussel that was listed an endangered species in 2001 by the U.S. Fish & Wildlife Service. The scaleshell mussel is a relatively small freshwater mussel with a thin, fragile shell and faint green rays. It grows to about one to four inches in length. The inside of the shell is pinkish white or light purple and highly iridescent. The scaleshell gets its name from the scaly appearance of the shell, which is only seen in females. Scaleshells live in medium-sized and large rivers with stable channels and good water quality. They bury themselves in the sand and gravel on the bottom with only the edge of their partially opened shells exposed. The survival of the scaleshell on the Missouri River depends greatly on the restoration of habitat and improved surface lands.

**To learn more about Threatened & Endangered species visit:**

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