

## ENVIRONMENTAL BENEFIT STATEMENT

**K.A.R. 115-15-2.** Nongame species; general provisions.

**REGULATION DESCRIPTION:** This permanent regulation designates species classified as species in need of conservation in Kansas (“SINC species”). An environmental benefit statement is required by law when amending an environmental rule or regulation. A regulation adopted by the Secretary of Wildlife and Parks concerning threatened or endangered species of wildlife is defined as an environmental rule or regulation. Although a SINC species is not a threatened or endangered species, and does not receive the same protections from other regulations requiring permit review for actions that affect threatened or endangered species, the list may be considered one that concerns threatened or endangered wildlife. Consequently, this environmental benefit statement has been prepared. The proposed amendments to the regulation are as follows:

- Add eight new SINC species:
  - Bigeye shiner, *Notropis boops*
  - Redfin darter, *Etheostoma whipplei*
  - Lake sturgeon, *Acipenser fulvescens*
  - Striped shiner, *Luxilus chrysocephalus*
  - Common shiner, *Luxilus cornutus*
  - Southern redbelly dace, *Phoxinus erythrogaster*
  - Cardinal shiner, *Luxilus cardinalis*
  - Johnny darter, *Etheostoma nigrum*
  
- Remove two SINC species:
  - Delta hydrobe, *Probythinella emarginata*
  - Plains minnow, *Hybognathus placitus*

In conjunction with these proposed amendments, the department is also proposing amendments to K.A.R. 115-15-1, which includes the lists of threatened and endangered species in Kansas. Proposed amendments to that regulation include the addition of the Shoal chub, Delta hydrobe and Plains minnow to the list of threatened species as well as the removal of the Peregrine falcon from the list of endangered species and the Bald Eagle from the list of threatened species, and therefore relate to this proposed regulatory amendment.

The Kansas Nongame and Endangered Species Act, K.S.A. 32-957 et seq., requires the department to adopt rules and regulations “which contain a list of the nongame species deemed by the secretary to be in need of conservation . . . .” (K.S.A. 32-959(a)). The law stipulates that this determination shall be on the basis of information related to population, distribution, habitat needs, limiting factors and other biological and ecological data concerning nongame species, gathered to determine conservation measures necessary for their continued ability to sustain themselves successfully.

The current proposed amendments stem from petitions for listing actions received by the department by May 31, 2008, as well as federal threatened and endangered species listings.

Since that time, the department has held various public meetings, collected data, and received official recommendations from a task force composed of personnel from the U.S. Fish and Wildlife Service, universities, the Kansas Biological Survey, and the department. In making its recommendation to the department, that task force collected numerical ratings from individuals and companies believed to have knowledge and scientific information about one or more of the species in question, over a 90-day public comment period.

Taking into consideration response from the Wildlife and Parks Commission, the general public, and the task force recommendations, the department has developed these proposed regulatory amendments. A description of the species and related information, as well as a description of the risk or threat to the species and the need for the regulatory amendment, is included for each of the species in question.

**Delta hydrobe (*Probythinella emarginata*)**

- Federal Status: None
- Current Kansas Listing Status: SINC
- Proposed Listing Action: List as threatened in Kansas
- Description: The Delta hydrobe is a gill-breathing aquatic snail. There are 5 species of gill-breathing snails in Kansas, all of which are sensitive to pollution.
- Size: Adults grow shells to 0.1 inches in length.
- Habitat: The species in Kansas had only been documented as fossil specimens from the Pleistocene era until the discovery of a relic population in Cedar Creek in Chase County, attributed to the high quality of this spring-fed stream.
- Reproduction: Unknown.
- Food: Unknown.

Threat to the species and need for the regulatory amendment: The Delta hydrobe is maintaining an isolated population in Cedar Creek. Developments that would affect the hydrology of the stream could be a detriment. A large impoundment on Cedar Creek has been proposed in the past by the Army Corps of Engineers. Dams on the mainstem of Cedar Creek would be a threat to this population. In addition, stream channelization and gravel dredging could make the substrates unstable and also threaten the established population. If bridge, pipeline and tree removal occurs at or very near the site of the established population, then a severe reduction in population could occur. Dewatering of Cedar Creek for irrigation purposes could be considered a threat during periods of drought. Listing of the species as a SINC species would provide it some protection and would help raise awareness. In addition, if listed species are used in targeting USDA programs to conserve soil, grassland, and enhance riparian zone vegetation, then this listing could help maintain or improve the excellent water quality already found on Cedar Creek. The species is proposed for listing as a threatened species and therefore would no longer be a SINC species.

**Plains minnow (*Hybognathus placitus*)**

- Federal Status: None

- Current Kansas Listing Status: SINC
- Proposed Listing Action: List the species as threatened.
- Description: Silvery, terete minnow with a small head, small subterminal mouth, and small knob on the inside tip of the lower jaw and it is tan to brown or olive dorsally, silver laterally, and white ventrally with colorless fins.
- Size: The species is 5 inches long.
- Habitat: The Republican, Smoky Hill and Arkansas river basins as well as the Cimarron River.
- Reproduction: Spawning season is from May through August.
- Food: Herbivorous.

Threat to the species and need for the regulatory amendment: Notable declines in distribution and abundance have been documented in the last 50 years. Streamflow modifications (dewatering, reduction in peak flows, and elevation of base flows), compaction of sand substrates, sediment deposition, and establishment of sight-feeding predators and competitors are all mentioned as risks for several minnow species adapted to large rivers in Kansas. The species is proposed for listing as a threatened species and therefore would no longer be a SINC species.

**Bigeye shiner (*Notropis boops*)**

- Federal Status: None
- Current Kansas Listing Status: None
- Proposed Listing Action: List as a species in need of conservation in Kansas.
- Description: A deep-bodied somewhat compressed minnow with large eyes. The large, oblique mouth is at the end of the snout, while the end of the upper jaw extends past the front of the eye. The back is typically olive yellow, and the sides are silvery. The lateral band is dark and continues around the snout, touching the tip of the lower jaw.
- Size: Adults may grow to just over 1 to 3 inches in length.
- Habitat: Clean streams in quiet pools in the southern tier of counties in southeast Kansas.
- Reproduction: Spawning occurs April-August.
- Food: Insects.

Threat to the species and need for the regulatory amendment: The Bigeye shiner feeds on small insects near and above the water surface. Water clarity, urbanization, sedimentation and impoundments are all threats to this species. Listing of the species as a SINC species would provide it some protection and would help raise awareness. In addition, if listed species are used in targeting USDA programs to conserve soil, grassland, and enhance riparian zone vegetation, then this listing could help maintain or improve the water quality at the sites in Kansas where this species is found.

**Redfin darter, (*Etheostoma whipplei*)**

- Federal Status: None
- Current Kansas Listing Status: None
- Proposed Listing Action: List as a species in need of conservation in Kansas.

- Description: Individuals have a broad frenum on the upper lip and a small pointed head. The back and sides of the body are a mottled light olive; the lower head, breast, and gill membrane areas are white. The sides of breeding males are adorned with various sizes of distinctive large red dots
- Size: Adults may grow to just over 1.8 to 3.7 inches in length.
- Habitat: Gentle stream riffles with gravel substrate in the southern tier of counties in southeast Kansas.
- Reproduction: Spawning occurs April.
- Food: Aquatic insects.

Threat to the species and need for the regulatory amendment: Urbanization, sedimentation and impoundments are all threats to this species. Listing of the species as a SINC species would provide it some protection and would help raise awareness. In addition, if listed species are used in targeting USDA programs to conserve soil, grassland, and enhance riparian zone vegetation, then this listing could help maintain or improve the water quality at the sites in Kansas where this species is found.

**Lake sturgeon (*Acipenser fulvescens*)**

- Federal Status: None
- Current Kansas Listing Status: None
- Proposed Listing Action: List as a species in need of conservation in Kansas.
- Description: This species is an evolutionarily ancient bottomfeeder with a partly cartilaginous skeleton and skin bearing rows of bony plates. The fish uses its elongated, spadelike snout to stir up the sand and silt on the beds of rivers and lakes while feeding. The coloration is olive-brown to grey on back and sides, with white belly.
- Size: Adults may grow to just over three feet to five feet in length.
- Habitat: Large rivers, primarily the Kansas River and the Missouri River.
- Reproduction: Spawning occurs April-June.
- Food: The diet consists of insect larvae, worms (including leeches), small fish and other small, primarily metazoan organisms it finds in the mud.

Threat to the species and need for the regulatory amendment: Overharvest, long sexual maturity period, damming and pollution are all threats to this species. Listing of the species as a SINC species would provide it some protection and would help raise awareness. Most of the individuals caught in Kansas are the result of a stocking program effort by the Missouri Department of Conservation. In addition, if listed species are used in targeting USDA programs to conserve soil, grassland, and enhance riparian zone vegetation, then this listing could help maintain or improve the water quality at the sites in Kansas where this species is found.

**Striped shiner (*Luxilus chrysocephalus*)**

- Federal Status: None
- Current Kansas Listing Status: None
- Proposed Listing Action: List as a species in need of conservation in Kansas.

- Description: Green or blue olive dorsally, sides blue silver, belly white silver. Prominent mid-dorsal, broad and slate colored stripe.
- Size: Adults may grow to just over two inches to four inches in length.
- Habitat: Spring River drainage in extreme southeast Kansas.
- Reproduction: Spawning occurs May-June.
- Food: Aquatic insects and plant material.

Threat to the species and need for the regulatory amendment: This species is considered common in Missouri but rarely captured in Kansas and there is no evidence of reproduction in Kansas. Listing of the species as a SINC species would provide it some protection and would help raise awareness. In addition, if listed species are used in targeting USDA programs to conserve soil, grassland, and enhance riparian zone vegetation, then this listing could help maintain or improve the water quality at the sites in Kansas where this species is found.

#### **Common shiner (*Luxilus cornutus*)**

- Federal Status: None
- Current Kansas Listing Status: None
- Proposed Listing Action: List as a species in need of conservation in Kansas.
- Description: Silvery colored (sometimes bronze) and has an olive back with a dark dorsal stripe.
- Size: Adults may grow to just over two and one-half inches to four inches in length.
- Habitat: 47 streams in 13 Kansas counties.
- Reproduction: Spawning occurs May-July.
- Food: Terrestrial and aquatic insects and plant material.

Threat to the species and need for the regulatory amendment: Listing of the species as a SINC species would provide it some protection and would help raise awareness. The western Kansas range reduction occurred at least 50 years ago. In addition, if listed species are used in targeting USDA programs to conserve soil, grassland, and enhance riparian zone vegetation, then this listing could help maintain or improve the water quality at the sites in Kansas where this species is found.

#### **Southern redbelly dace (*Phoxinus erythrogaster*)**

- Federal Status: None
- Current Kansas Listing Status: None
- Proposed Listing Action: List as a species in need of conservation in Kansas.
- Description: Cream colored lateral band is layered between dark bands on the sides, top dark band starts at the edge of the gill cover and turns into a series of spots at the base of the tail, lower band encircles the snout and ends in the tail.
- Size: Adults may grow to just over three inches in length.
- Habitat: 3 areas in Kansas and high numbers at several sites, Kansas River drainage.
- Reproduction: Spawning occurs May-June.

- Food: Southern redbelly dace are listed as herbivores feeding primarily on algae and small invertebrates in the drift.

Threat to the species and need for the regulatory amendment: Listing of the species as a SINC species would provide it some protection and would help raise awareness. In addition, if listed species are used in targeting USDA programs to conserve soil, grassland, and enhance riparian zone vegetation, then this listing could help maintain or improve the water quality at the sites in Kansas where this species is found.

**Cardinal shiner (*Luxilus cardinalis*)**

- Federal Status: None
- Current Kansas Listing Status: None
- Proposed Listing Action: List as a species in need of conservation in Kansas.
- Description: large shiner, silvery colored with a red stripe
- Size: Adults may grow to just over three inches in length.
- Habitat: Rocky runs and riffles, Upper Neosho River, Arkansas River drainage.
- Reproduction: Spawning occurs May-June
- Food: Aquatic insects and plant material

Threat to the species and need for the regulatory amendment: Listing of the species as a SINC species would provide it some protection and would help raise awareness. In addition, if listed species are used in targeting USDA programs to conserve soil, grassland, and enhance riparian zone vegetation, then this listing could help maintain or improve the water quality at the sites in Kansas where this species is found.

**Johnny darter (*Etheostoma nigrum*)**

- Federal Status: None
- Current Kansas Listing Status: None
- Proposed Listing Action: List as a species in need of conservation in Kansas.
- Description: Olive in color with numerous "w-shaped" markings along the sides.
- Size: Adults may grow to just over 2 and 1/2 inches in length.
- Habitat: Occurs in sandy and muddy, sometimes rocky, pools of headwaters, creeks, and small to medium rivers of eastern Kansas.
- Reproduction: Spawning occurs May-June.
- Food: small, bottom-dwelling invertebrates.

Threat to the species and need for the regulatory amendment: Listing of the species as a SINC species would provide it some protection and would help raise awareness. In addition, if listed species are used in targeting USDA programs to conserve soil, grassland, and enhance riparian zone vegetation, then this listing could help maintain or improve the water quality at the sites in Kansas where this species is found.