

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Endangered Species Bulletins and Technical
Reports (USFWS)

US Fish & Wildlife Service

10-24-1997

Endangered and Threatened Wildlife and Plants; Proposed Rule To List the Topeka Shiner as Endangered

Follow this and additional works at: <https://digitalcommons.unl.edu/endangeredspeciesbull>



Part of the [Biodiversity Commons](#)

"Endangered and Threatened Wildlife and Plants; Proposed Rule To List the Topeka Shiner as Endangered" (1997). *Endangered Species Bulletins and Technical Reports (USFWS)*. 39.
<https://digitalcommons.unl.edu/endangeredspeciesbull/39>

This Article is brought to you for free and open access by the US Fish & Wildlife Service at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Endangered Species Bulletins and Technical Reports (USFWS) by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

SUPPLEMENTARY INFORMATION:

Background

The Coast Guard's Vessel Information System (VIS) would collect manage the data needed to provide a nationwide pool of vessel and vessel owner information that will help in identification and recovery of stolen vessels, and deter vessel theft and fraud. Establishment of VIS is required by statute. 46 U.S.C. 12501-07.

Because of the capability to retrieve information by the names or other unique identifiers of individuals, VIS is subject to the Privacy Act, which would impose many restrictions on the use and dissemination of information in the system. However, because VIS would be used for law enforcement purposes, it may be exempted from some of these restrictions.

Privacy Act Exemption

Under subsection (k) of the Privacy Act (5 U.S.C. 552a(k)), qualifying records may be exempted from various provisions of the Act. Among these provisions are the requirement in subsection (c)(3) to maintain an accounting of disclosures of information from a system of records and make that accounting available on request to the record subject; in subsection (d) to grant to a record subject access to information maintained on him/her under the Act; in subsection (e)(1) to maintain only such information as is relevant and necessary to accomplish a purpose of the agency under statute or Executive Order; in subsection (e)(4)(G), (H), and (I) to advise record subjects of the agency procedures to request if a system of records contains records pertaining to them, how they can gain access to such records and contest their content, and the categories of sources of such records; and in subsection (f) to establish rules governing the procedures above.

Under Subsection (k)(2) of the Privacy Act (5 U.S.C. 552a(k)(2)), investigatory material compiled for law enforcement purposes, other than material encompassed within Subsection (j)(2), may be exempted from these provisions, and DOT proposes to exempt VIS accordingly; however, if an individual would be denied any right, privilege, or benefit to which he/she would otherwise be entitled by Federal law, of for which he/she would otherwise be eligible, as a result of the maintenance of such material, such material shall be provided to such individual, except to the extent that the disclosure of such material would reveal the identity of a source who furnished information to the Government under an express promise

that the identity of the source would be held in confidence.

Analysis of Regulatory Impacts

This amendment is not a "significant regulatory action" within the meaning of Executive Order 12866. It is also not significant within the definition in DOT's Regulatory Policies and Procedures, 49 FR 11034 (1979), in part because it does not involve any change in important Departmental policies. Because the economic impact should be minimal, further regulatory evaluation is not necessary. Moreover, I certify that this proposal will not have a significant economic impact on a substantial number of small entities.

This proposal does not significantly affect the environment, and therefore an environmental impact statement is not required under the National Environmental Policy Act of 1969. It has also been reviewed under Executive Order 12612, Federalism, and it has been determined that it does not have sufficient implications for federalism to warrant preparation of a Federalism Assessment. This rule does not impose any unfunded mandates as defined by the Unfunded Mandates Reform Act of 1995.

Finally, the proposal does not contain any collection of information requirements, requiring review under the Paperwork Reduction Act of 1995.

List of Subjects in 49 CFR Part 10

Penalties, Privacy.

Accordingly, DOT proposes to amend 49 CFR part 10 as follows:

PART 10—[AMENDED]

1. The authority citation to part 10 would continue to read as follows:

Authority: 5 U.S.C. 552a; 49 U.S.C. 322.

2. Part II.A of the Appendix would be amended by republishing the introductory text and adding a new paragraph 15, to read as follows:

Appendix to Part 10—Exemptions

* * * * *

Part II. Specific exemptions.

A. The following systems of records are exempt from subsection (c)(3) (Accounting of Certain Disclosures), (d) (Access to Records), (e)(4)(G), (H), and (I) (Agency Requirements), and (f) (Agency Rules) of 5 U.S.C. 552a, to the extent that they contain investigatory material compiled for law enforcement purposes in accordance with 5 U.S.C. 552a(k)(2):

* * * * *

15. Vessel Information System, maintained by the Operations Systems Center, U.S. Coast Guard (DOT/CG 590). The purpose of this exemption is to prevent persons who are the subjects of criminal investigations from

learning too early in the investigative process that they are subjects, what information there is in Coast Guard files that indicates that they may have committed unlawful conduct, and who provided such information.

* * * * *

Issued in Washington, DC, on October 15, 1997.

Rodney E. Slater,

Secretary of Transportation.

[FR Doc. 97-27974 Filed 10-23-97; 8:45 am]

BILLING CODE 4910-62-P

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17**

RIN 1018-AE42

Endangered and Threatened Wildlife and Plants; Proposed Rule To List the Topeka Shiner as Endangered

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) proposes to list the Topeka shiner (*Notropis topeka*) as an endangered species under the authority of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*). The Topeka shiner is a small fish presently known from small tributary streams in the Kansas and Neosho river basins in Kansas; the Missouri, Grand, Lamine, Chariton, and Des Moines river basins in Missouri; the North Raccoon River basin in Iowa; the James and Vermillion river watersheds in South Dakota; and, the Rock River watershed in Minnesota. The Topeka shiner is threatened by habitat destruction, degradation, modification, and fragmentation resulting from siltation, reduced water quality, tributary impoundment, stream channelization, and stream dewatering. The species is also impacted by introduced predaceous fishes. This proposal, if made final, will implement Federal protection provided by the Act for *Notropis topeka*. A determination of critical habitat is neither beneficial nor prudent.

DATES: Comments from all interested parties must be received by December 23, 1997. Public hearing requests must be received by December 8, 1997.

ADDRESSES: Comments and materials concerning this proposal should be sent to: Field Supervisor, Ecological Services Field Office, 315 Houston Street, Suite E, Manhattan, Kansas 66502. Comments and materials received will be available for public inspection, by appointment,

during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: William H. Gill, Field Supervisor, or Vernon M. Tabor, Fish and Wildlife Biologist, at the above address (913/539-3474).

SUPPLEMENTARY INFORMATION:

Background

The Topeka shiner was first described by C.H. Gilbert in 1884, using specimens captured from Shunganunga Creek, Shawnee County, Kansas (Gilbert 1884). The Topeka shiner is a small, stout minnow, not exceeding 75 millimeters (mm) (3 inches (in)) in total length. The head is short with a small, moderately oblique mouth. The eye diameter is equal to or slightly longer than the snout. The dorsal fin is large, with the height more than one half the predorsal length of the fish, originating over the leading edge of the pectoral fins. Dorsal and pelvic fins each contain 8 rays. The anal and pectoral fins contain 7 and 13 rays respectively, and there are 32 to 37 lateral line scales. Dorsally the body is olivaceous (olive-green), with a distinct dark stripe preceding the dorsal fin. A dusky stripe is exhibited along the entire longitudinal length of the lateral line. The scales above this line are darkly outlined with pigment, appearing cross-hatched. Below the lateral line the body lacks pigment, appearing silvery-white. A distinct chevron-like spot exists at the base of the caudal fin (Cross 1967; Pflieger 1975; Service 1993).

The Topeka shiner is characteristic of small, low order (headwater), prairie streams with high water quality and cool temperatures. These streams generally exhibit perennial flow, however, some approach intermittency during summer. At times when surface flow ceases, pool levels and cool water temperatures are maintained by percolation through the streambed, spring flow and/or groundwater seepage. The predominant substrate types within these streams are clean gravel, cobble and sand. However, bedrock and clay hardpan overlain by a thin layer of silt are not uncommon (Minckley and Cross 1959). Topeka shiners most often occur in pool and run areas of streams, seldom being found in riffles. They are pelagic (living in open water) in nature, occurring in mid-water and surface areas, and are primarily considered a schooling fish. Occasionally, individuals of this species have been found in larger streams, downstream of known populations, presumably as migrants (Cross 1967; Pflieger 1975; Tabor *in litt.* 1992a).

Data regarding the food habits and reproduction of Topeka shiners are limited and detailed reports have not been published. However, Pflieger (Missouri Department of Conservation, *in litt.* 1992) reports the species as a nektonic (swimming independently of currents) insectivore. In a graduate research report, Kerns (University of Kansas, *in litt.* 1983) states that the species is primarily a diurnal or daytime feeder on insects, with chironomids (midges), other dipterans (true flies), and ephemeropterans (mayflies), making up the bulk of the diet. However, the microcrustaceans cladocera and copopoda (zooplanktons) also contribute significantly to the species' diet. The Topeka shiner is reported to spawn in pool habitats, over green sunfish (*Lepomis cyanellus*) and orangespotted sunfish (*Lepomis humilis*) nests, from late May through July in Missouri and Kansas (Pflieger 1975; Kerns *in litt.* 1983). Males of the species are reported to establish small territories near these nests. Pflieger (*in litt.* 1992) states that the Topeka shiner is an obligate spawner on silt-free sunfish nests, while Cross (University of Kansas, pers. comm. 1992) states that it is unlikely that the species is solely reproductively dependent on sunfish, and suggests that the species also utilizes other silt-free substrates as spawning sites. Data concerning exact spawning behavior, larval stages, and subsequent development is lacking. Maximum known longevity for the Topeka shiner is three years, however, only a very small percent of each year class attains the third summer. Young-of-the-year attain total lengths of 20 mm to 40 mm (.78 to 1.6 in) age 1 fish 35 mm to 55 mm (1.4 to 2.2 in), and age 2 fish 47 mm to 65 mm (1.8 to 2.5 in) (Cross and Collins 1975; Pflieger 1975).

Historically, the Topeka shiner was widespread and abundant throughout low order tributary streams of the central prairie regions of the United States. The Topeka shiner's historic range includes portions of Iowa, Kansas, Minnesota, Missouri, Nebraska, and South Dakota. Stream basins within the range historically occupied by Topeka shiners include the Des Moines, Raccoon, Boone, Missouri, Big Sioux, Cedar, Shell Rock, Rock, and Iowa basins in Iowa; the Arkansas, Kansas, Big Blue, Saline, Solomon, Republican, Smoky Hill, Wakarusa, Cottonwood, and Blue basins in Kansas; the Des Moines, Cedar, and Rock basins in Minnesota; the Missouri, Grand, Lamine, Chariton, Des Moines, Loutre, Middle, Hundred and Two, and Blue basins in Missouri; the Big Blue,

Elkhorn, Missouri, and lower Loup basins in Nebraska; the Big Sioux, Vermillion, and James basins in South Dakota. The number of known occurrences of Topeka shiners has been reduced by approximately 80 percent, with approximately 50 percent of this decline occurring within the last 25 years. The species now primarily exists as isolated and fragmented populations.

Recent fish surveys were conducted across the Topeka shiner's range. In Missouri, 42 of the 72 sites historically supporting Topeka shiners were resurveyed in 1992. The species was collected at 8 of the 42 surveyed locales (Pflieger, *in litt.* 1992). In 1995, the remaining 30 historical sites not surveyed in 1992 and an additional 64 locales, thought to have potential to support the species, were sampled. Topeka shiners were found at 6 of the 30 remaining historical locations and at 6 of the 64 additional sites sampled. In total, recent sampling in Missouri identified Topeka shiners at 14 of 72 (19 percent) historic localities, and at 20 of 136 (15 percent) total sites sampled (Gelwicks and Bruenderman 1996). Gelwicks and Bruenderman (1996) also note that the species has apparently experienced substantial declines in abundance in the remaining extant populations in Missouri, with the exception of Moniteau Creek.

In Iowa, 24 locales within 4 drainages were sampled in 1994 at or near sites from which the species was reported extant during surveys conducted between 1975 and 1985. The Topeka shiner was captured at 3 of 24 sites, with these 3 captures occurring in the North Raccoon River basin (Tabor, U.S. Fish and Wildlife Service, *in litt.* 1994). Menzel (*in litt.* 1996) reports 6 collections of the species in 1994 and 1995, also from the same drainage.

In Kansas, 128 sites at or near historic collection localities for the Topeka shiner were sampled in 1991 and 1992. The species was collected at 22 of 128 (17 percent) sites sampled (Tabor, *in litt.* 1992a; Tabor, *in litt.* 1992b). Extensive stream surveys completed in 1995 and 1996 identified 10 new localities for Topeka shiners and reconfirmed the species in a historic locale where it was believed extirpated (Mammoliti, *in litt.* 1996).

In South Dakota, the species was recently captured in low numbers from one stream in the James River basin and four streams in the Vermillion River basin. (Braaten, South Dakota State University, *in litt.* 1991; Schumacher, South Dakota State University, *in litt.* 1991).

In Minnesota, 14 streams in the area likely to be occupied by Topeka shiners

were surveyed over the past 10 years. The species was collected from 5 of 9 (56 percent) streams with historic occurrences, and was not found in the 5 streams with no historic occurrences. These locales are all in the Rock River drainage (Baker, *in litt.* 1996).

In Nebraska, the species was assumed extirpated from all historic locales. However, in 1989 the species was discovered in the upper Loup River drainage, outside its former known range, where two specimens were collected (Michl and Peters 1993). In 1996, a single specimen was collected from a stream in the Elkhorn River basin, within the species' historic range (Nebraska Game and Parks Commission, *in litt.* 1997). In Nebraska, this was the first collection of a Topeka shiner within the known historic range since 1940. It is presently considered extant at these two localities (Cunningham, University of Nebraska—Omaha, pers. comm. 1996).

The Topeka shiner began to decline throughout the central and western portions of the Kansas River basin in the early 1900's. Cross and Moss (1987) report the species present at sites in the Smoky Hill and Solomon River watersheds in 1887, but by the next documented fish surveys in 1935, the Topeka shiner was absent. The Topeka shiner was extirpated from the Wakarusa River watershed during the 1970's (Cross, University of Kansas, pers. comm. 1995). The species disappeared from the Big Blue River watershed (Kansas River basin) in Nebraska after 1940 (Clausen, Nebraska Game and Parks Commission, *in litt.* 1992). The last record of the Topeka shiner from the Arkansas River basin, excluding the Neosho River watershed, was 1891 near Wichita, Kansas (Cross and Moss 1987). In Iowa, the species was extirpated from all Missouri River tributaries except the Rock River watershed prior to 1945. It was also eliminated from the Cedar and Shell Rock River watersheds prior to 1945. Since 1945, the Topeka shiner has subsequently been extirpated from the Boone, Iowa, and Des Moines drainages, with the exception of the North Raccoon River watershed (Harlan and Speaker 1951; Harlan and Speaker 1987; Menzel, Iowa State University, *in litt.* 1980; Dowell, University of Northern Iowa, *in litt.* 1980; Tabor *in litt.* 1994). In Missouri, since 1940 the species has been apparently extirpated from many of the tributaries to the Missouri River where it formerly occurred, including Perche Creek, Petite Saline Creek, Tavern Creek, Auxvasse Creek, Middle River, Moreau River, Splice Creek, Slate Creek, Crooked River, Fishing River,

Shoal Creek, Hundred and Two River, and Blue River watersheds.

Previous Federal Action

The Topeka shiner first received listing consideration when the species was included in the Animal Candidate Review for Listing as Endangered or Threatened Species, as a category 2 candidate species, published in the **Federal Register** (56 FR 58816) on November 21, 1991. In 1991, the Service's Kansas Field Office began a status review of the Topeka shiner, including information gathered from stream sampling and requests from knowledgeable individuals and agencies. Included were State fish and wildlife conservation agencies, State health and pollution control agencies, colleges and universities, and other Service offices. The Service subsequently prepared a status report on this species dated February 16, 1993 (Service 1993). In the November 15, 1994, Animal Candidate Review for Listing as Endangered or Threatened Species, published in the **Federal Register** (59 FR 58999), the Topeka shiner was reclassified as a category 1 candidate species. Category 1 candidates comprised taxa for which the Service had substantial information on biological vulnerability and threats to support proposals to list the taxa as endangered or threatened. The Service has since discontinued the category designations for candidates and has established a new policy on the definition of candidate species (formerly category 1 candidates). In the February 28, 1996, Review of Plant and Animal Taxa That Are Candidates for Listing as Endangered or Threatened Species, published in the **Federal Register** (61 FR 7596), the Topeka shiner was reclassified as a candidate species. Candidate species are those species for which the Service has on file sufficient information on biological vulnerability and threats to support issuance of a proposed rule to list as endangered or threatened species.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Act and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal "List of Endangered and Threatened Wildlife and Plants." A species may be determined to be an endangered or threatened species due to one or more of the five factors described in Section 4(a)(1). These factors and their application to the Topeka shiner

(*Notropis topeka*) throughout the species range are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* Once abundant and widely distributed throughout the central Great Plains and western tallgrass prairie regions, the Topeka shiner now inhabits less than 10 percent of its original geographic range. The action most likely impacting the species to the greatest degree in the past is sedimentation and eutrophication resulting from intensive agricultural development. Most populations of Topeka shiners occurring west of the Flint Hills region of Kansas are believed to have been extirpated prior to 1935 (Cross and Moss 1987). Minckley and Cross (1959) report that watersheds with high levels of cultivation, and subsequent siltation, and domestic pollution are unsuitable for the species. These streams often cease to flow and become warm and muddy during the summer months. Cross (1970) indicates that some of the areas where depletion of the species has occurred also coincide with areas having poor aquifers. Pflieger (1975) reports that increased siltation as a result of intensive cultivation may have reduced the amount of Topeka shiner habitat in Missouri. Pflieger (*in litt.* 1991) also reports that a known population of the species in Boone County, Missouri was extirpated between 1970 and 1976, presumably due to increased turbidity and nutrient enrichment resulting from urbanization and highway construction. Feedlot operations on or near streams are also known to impact prairie fishes due to organic input resulting in eutrophication (Cross and Braasch 1968).

The species was historically known from open pools of small prairie streams with cool, clear water. Many streams of this nature reportedly existed throughout the geographic range of the Topeka shiner "prior to the plowing of the prairie sod" (Cross 1967). These conditions continue to exist in many of the streams in the Flint Hills region of Kansas, primarily due to shallow, rocky soils with numerous limestone exposures which prevent cultivation. This is in contrast to the perturbation of the natural fish faunas and their associated habitats in prairie areas more suitable to intensive rowcrop agriculture, which is characteristic of the vast majority of the natural range of the species (Menzel et al. 1984). Menzel et al. (1984) also notes accelerated rates of soil erosion and instream deposition of fluvium (deposits caused by the action of flowing water) throughout many former prairie streams in Iowa,

encompassed by the former range of the species. Today, outside the Flint Hills region of Kansas, only a few, small isolated areas not severely impacted, or impacted to an extent within the tolerance of the species, continue to exist.

Mainstem reservoir development, tributary impoundment, and channelization have also impacted the species in some areas. Populations located within small tributary streams upstream from both mainstem and tributary impoundments attempt to utilize these water bodies as refuges from drying streams during periods of drought. During this time, the populations are subject to predation by larger predatory fish inhabiting the impounded water bodies. In unaltered systems, fish move downstream during drought to find suitable habitat. Deacon (1961) reports fishes characteristic of the small and mid-sized tributaries of the Neosho and Marais des Cygnes rivers' watersheds occurred in the mainstems following several years of protracted drought in the mid-1950's. Tributary dams also serve to block migration of fishes upstream following drought, effectively prohibiting recolonization of upstream reaches.

Several recently extant populations have been extirpated from tributaries to Tuttle Creek and Clinton reservoirs, both mainstem impoundments in the Kansas River basin of eastern Kansas. The species continues to exist in two tributaries to Tuttle Creek Reservoir; however, during sampling on one of these streams in 1994 only a single Topeka shiner was captured. All populations within the Wakarusa River watershed (Clinton Reservoir) are believed extirpated. Clinton Reservoir's completion coincided with large scale development of tributary impoundments throughout the Wakarusa's upper basin which may have compounded impacts to the species. Layher (1993) reports the extirpation of Topeka shiners from a stream following construction of a single tributary impoundment in Chase County, Kansas. Layher reported that the species had disappeared both upstream and downstream of the dam site, and noted significant habitat changes below the impoundment. Pflieger (*in litt.* 1992) reports that an abundant population of the species in Missouri was extirpated following construction of an impoundment. This population, located downstream from the dam site, was not present when revisited several years after construction. The habitat had changed from clear rocky pools, to pools filled with gravel, layered over by silt and

choked with filamentous algae. Pflieger further reports that "the SCS (Soil Conservation Service) reservoir has profoundly altered the hydrology and biota of this stream by eliminating the scouring floods that formerly created pool habitat and maintained the rocky, silt-free substrate." During 1994 sampling efforts in southeast Iowa, a stream with recent records of the species was found to have been impacted by the construction of multiple impoundments throughout its upper reaches and tributaries. No Topeka shiners were captured (Tabor *in litt.* 1994). Impoundment of prairie streams has also resulted in the documented extirpation of other prairie stream minnow species (Winston et al. 1991).

In Kansas, substantial tributary impoundment is occurring throughout the Flint Hills region, threatening Topeka shiners in these locales. As of 1993, 46 tributary impoundments had been completed in or near habitat for the Topeka shiner in the Cottonwood River basin, with an additional 115 planned for construction (Service *in litt.* 1993). Presently in the Mill Creek watershed, the largest remaining complex of habitat for the species, 16 dams have been completed, with an additional 48 planned (Hund, Mill Creek Watershed District, pers. comm. 1997; State Conservation Commission of Kansas, *in litt.* 1992). Dam construction is also a threat to the species throughout the rest of the species' range, but to a lower degree due to less immediate and intensive development.

Stream channelization has also occurred throughout much of the Topeka shiner's range. Channelization negatively impacts many aquatic species, including the Topeka shiner, by eliminating and degrading instream habitat types, altering the natural hydrography (physical characteristics of surface waters), and by changing water quality (Simpson et al. 1982). Intensive channelization of low order streams throughout the species' Iowa and Minnesota range is suspect in the species' drastic decline in these areas. Menzel (*in litt.* 1980) reports the extirpation of Topeka shiners from previous collection sites following stream channelization projects in Iowa. During 1994 status surveys across this portion of the range, most streams were found to have been severely altered from natural conditions (Tabor *in litt.* 1994). Changes included elimination of pool habitats, instream debris, and woody riparian vegetation. Water velocities were consistently high throughout the channel and deep silt was the dominant substrate. It is

suspected that the Topeka shiner is an obligate spawner on sunfish (*Lepomis* spp.) nests (Pflieger *in litt.* 1992) or other silt-free substrates, but no sunfish were captured, nor suitable sunfish spawning habitat observed in these channelized streams. At Iowa sites where Topeka shiners were captured, streams were not intensively channelized and many natural conditions persisted.

Intensive land-use practices, dewatering of streams, and continuing tributary impoundment and channelization represent the greatest existing threats to the Topeka shiner. Grazing of riparian zones and the removal of riparian vegetation to increase tillable acreage greatly diminish a watershed's ability to filter sediments, organic wastes and other impurities from the stream system (Manci 1989). Irrigation draw-down of groundwater levels affect surface and subsurface flows which can impact the species. At present, both Federal and State planning for development of watershed impoundments and channelization continue in areas with populations of Topeka shiners. Several impoundments are planned for construction on streams with abundant numbers of the species. Portions of these stream reaches will be inundated by the permanent pools of the reservoirs, imperiling the species' future existence in these localities. Prior to the planning of the impoundments, these populations of Topeka shiners were considered to be the most stable range-wide, due to their occurrence in watersheds dominated by high quality prairie with generally very good grazing management and land stewardship.

B. Overutilization for commercial, recreational, scientific, or educational purposes. Some collecting of Topeka shiners by individuals for use as bait fish and display in home aquaria does occur. However, overutilization is not thought to currently contribute to the decline of the Topeka shiner.

C. Disease or predation. There have been no studies conducted on the impacts of disease or predation upon the Topeka shiner; therefore, the significance of such threats to the species is presently unknown. Disease is not likely to be a significant threat except under certain habitat conditions, such as crowding during periods of reduced flows, or episodes of poor water quality, such as low dissolved oxygen or elevated nutrient levels. During these events, stress reduces resistance to pathogens and disease outbreaks may occur. Parasites, bacteria, and viral agents are generally the most common causes of mortality. Lesions caused by

injuries, bacterial infections, and parasites often become the sites of secondary fungal infections. However, Topeka shiners captured from a Missouri stream in 1996 were discovered to be afflicted with scoliosis, a condition of deformity affecting the vertebrae. Scoliosis can result from contact with environmental contaminants, or severely reduced genetic variability resulting from geographic isolation. No causal factor for this occurrence has been identified.

The green sunfish (*Lepomis cyanellus*) is the most common predator typical of Topeka shiner habitat throughout its range. The spotted bass (*Micropterus punctulatus*) and largemouth bass (*M. salmoides*) are also naturally occurring predators of the Topeka shiner in portions of its range but to a much lower degree due to minimal habitat overlap. These bass species typically occur in only the downstream extremes of Topeka shiner habitat. The construction of impoundments on streams with Topeka shiners and the subsequent introduction of piscivorous (fish eating) fish species not typically found in headwater habitats, such as largemouth bass, crappie (*Pomoxis* spp.), white bass (*Morone chrysops*), northern pike (*Esox lucius*), and channel catfish (*Ictalurus punctatus*), may affect the species during drought or periods of low flows when Topeka shiners seek refuge in the impoundments or permanent stream pools now occupied by these introduced fishes. The most common fishes captured in streams directly upstream and downstream of tributary impoundments in Kansas are largemouth bass, crappie, and bluegill (*Lepomis macrochirus*), and these species are often captured to the exclusion of cyprinids, including Topeka shiner (Mammoliti, Kansas Department of Wildlife and Parks, pers. comm., 1997). Tabor (*in litt.* 1994) captured only largemouth bass from a stream segmented by numerous dams in Iowa. A cooperative report completed by the Soil Conservation Service and Kansas Department of Health and Environment (1981) on the effects of watershed impoundments on Kansas streams states that predacious game fishes increased in abundance, and several minnow species, including the Topeka shiner, decreased in abundance upstream and downstream from dam sites following impoundment. While the extent of predation is undocumented, known populations have apparently been extirpated in the time period immediately following impoundment of several low order streams (Layher 1993; Pflieger, *in litt.* 1992; Tabor, *in litt.*

1992b). Topeka shiners were also reportedly extirpated from a small impoundment previously lacking largemouth bass, following stocking of largemouth bass (Prophet et al. 1981). Extirpation of the Topeka shiner from small, direct tributary streams to large mainstem impoundments has also been documented. These extirpations presumably occurred in part due to predation by introduced piscivorous fishes during drought and low flow periods when Topeka shiners seek refuge in permanent water downstream from their typical headwater habitats (Service 1993).

D. The inadequacy of existing regulatory mechanisms. In Kansas, the Topeka shiner is listed as "species in need of conservation," under the Kansas Nongame and Endangered Species Conservation Act of 1975. This status prohibits the direct taking of specimens but does not protect habitat or give opportunity to review actions or projects which may affect the species in Kansas. Under Missouri law, the species is listed as endangered. This status prohibits direct taking of specimens and provides a limited review process to suggest remediation for actions potentially impacting the species' habitat. Minnesota, Nebraska, and South Dakota consider it a species of concern, with no legal protection. In Iowa, the species has no legal status.

At present, only Missouri provides statutory protection for both the species and its habitat. No significant protections exist for the Topeka shiner and its habitat in the other states encompassing its range. Listing under the Act would provide significant protection against taking of the species, ensure coordinated review of Federal actions which may affect its habitat, and encourage proactive management throughout its range.

E. Other natural and manmade factors affecting its continued existence. In the species' Missouri range, possible interspecific competition between the Topeka shiner and the introduced blackstripe topminnow (*Fundulus notatus*) has been suggested (Pflieger, *in litt.* 1992). The absence of the Topeka shiner from suitable habitat, with blackstripe topminnow present, has also been observed in Kansas (Mammoliti, pers. comm. 1997). Both species are nektonic insectivores utilizing similar pool habitat. At present, the extent of possible competition between these species is undocumented. In degraded or suboptimal habitat conditions where Topeka shiners persist, competition by species more tolerant to these conditions, such as red shiner

(*Cyprinella lutrensis*), may negatively affect the species.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to propose this rule. Based on this evaluation, the preferred action is to list the Topeka shiner as endangered. Endangered status, which means that the species is in danger of extinction throughout all or a significant portion of its range, is appropriate for the Topeka shiner because of its significantly reduced range, including the apparent extirpation of the species throughout most of its historic range. Threatened status does not appear appropriate considering the extent of the species' population decline and the vulnerability of the remaining populations.

Critical Habitat

Critical habitat is defined in section 3 of the Act as: (i) the specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection and; (ii) specific areas outside the geographic areas occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. "Conservation" means the use of all methods and procedures needed to bring the species to the point at which listing under the Act is no longer necessary.

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for the Topeka shiner at this time. The Service's regulations (50 CFR 424.12(a)(1)) state that a designation of critical habitat is not prudent when one or both of the following situations exist—(1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species.

Section 7 of the Act requires that Federal agencies refrain from contributing to the destruction or adverse modification of critical habitat in any action authorized, funded or

carried out by such agency (agency action). This requirement is in addition to the section 7 prohibition against jeopardizing the continued existence of a listed species, and it is the only mandatory legal consequence of a critical habitat designation.

Implementing regulations (50 CFR part 402) define "jeopardize the continuing existence of" and "destruction or adverse modification of" in very similar terms. To jeopardize the continuing existence of a species means to engage in an action "that reasonably would be expected to reduce appreciably the likelihood of both the survival and recovery of a listed species."

Destruction or adverse modification of habitat means an "alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species." Common to both definitions is an appreciable detrimental effect to both the survival and the recovery of a listed species. In the case of adverse modification of critical habitat, the survival and recovery of the species has been significantly diminished by reducing the value to the species' designated critical habitat. Thus, actions satisfying the standard for adverse modification also jeopardize the continued existence of the species concerned.

Many activities that pose threats to the continued existence of the Topeka shiner are funded, permitted, or carried out by Federal agencies (e.g., channelization, impoundment, dredge and fill, and other stream and wetland modification projects). Programs that result in these activities in Topeka shiner habitat are most often regulated by the U.S. Army Corps of Engineers and the U.S. Department of Agriculture, Natural Resources Conservation Service, under a variety of authorities, and are thus subject to section 7 consultation under the Act. In areas where suitable habitat exists within the historical range of the Topeka shiner, but the species is not present, the section 7 process would still allow for the jeopardy threshold to be reached. Considerations in such cases would include, but not be restricted to, proximity to extant populations and areas essential for the recovery of the species. As explained above, designation of critical habitat would not provide any additional protection to the species beyond those already provided by listing the species.

Other State or private actions resulting in "take" of Topeka shiners would be prohibited by section 9 of the Act, and remediation of those potential threats would not be significantly advanced by designation of critical habitat.

Recovery activities to assist landowners in maintaining or improving the habitat quality of their streams or otherwise addressing known threats to Topeka shiners would not benefit from a designation of critical habitat. However, such conservation and recovery actions could be significantly impaired by public apprehension or misunderstanding of a critical habitat designation.

Intentional taking of the Topeka shiner is not known to be a problem. The Topeka shiner is found in very specialized, easily accessible and identifiable habitat characterized by small volumes of flow. It is possible that a local population could be intentionally eliminated. Publication of maps providing its precise locations and descriptions of critical habitat, as required for the designation of critical habitat, would reasonably be expected to increase the degree of threat to the species, increase the difficulties of enforcement, and could further contribute to the decline of the Topeka shiner.

In light of the above, the Service concludes that designation of critical habitat would not be beneficial to the species and could increase the degree of threat to the species from taking. Therefore, designation of critical habitat for the Topeka shiner is neither beneficial nor prudent.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness and conservation actions by Federal, State, and local agencies, private organizations, and individuals. The Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) requires Federal agencies to confer with the Service on any action that is likely to jeopardize the continued existence of a species

proposed for listing or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

A number of Federal agencies have jurisdiction and responsibilities potentially affecting the Topeka shiner, and section 7 consultation may be required in a number of instances. Federal involvement is expected to include the Corps of Engineers throughout the species' range in the administration of Section 404 of the Clean Water Act. The U.S. Environmental Protection Agency will consider the Topeka shiner in the registration of pesticides, adoption of water quality criteria, and other pollution control programs. The U.S. Department of Transportation, Federal Highway Administration, will consider the effects of bridge and road construction at locations where known habitat may be impacted. The U.S. Department of Agriculture, Natural Resources Conservation Service and Farm Service Agency, will need to consider the effects of structures and channelization projects installed under the Watershed Protection and Flood Prevention Act, (16 U.S.C. 1001-1009, Chapter 18; Pub.L. 83-566, August 4, 1954, c 656, § 1, 68 Stat. 666; as amended), "Farm Bill" programs, and other activities which may impact water quality, quantity, or timing of flows. The Federal Energy Regulatory Commission will consider potential impacts to the Topeka shiner and its habitat resulting from gas pipeline construction over streams and from hydroelectric development.

Private actions, that are not federally funded or permitted, undertaken within or near habitat occupied by Topeka shiners, would not be subject to the regulations as stated above in section 7 of the Act. Some examples of private actions not subject to section 7 consultation include, but are not limited to: farming and ranching practices, construction of private stock watering ponds on normally dry channels, and fuelwood harvest. However, private actions that result in "take" of Topeka shiners, as discussed below, would be prohibited by section 9 of the Act.

The Act and its implementing regulations set forth a series of general

prohibitions and exceptions that apply to all endangered wildlife. The prohibitions, codified at 50 CFR 17.21, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect; or to attempt any of these), import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any species that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22 and 17.23. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with otherwise lawful activities.

Requests for copies of the regulations regarding listed wildlife and inquiries about prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, P.O. Box 25486, Denver Federal Center, Denver, Colorado 80225 (303/236-8189) or fax (303/236-0027).

It is the policy of the Service to identify, to the extent known at the time a species is listed, specified activities that will and will not be considered likely to result in violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of the listing on ongoing and likely activities within a species' range. The Service believes the actions listed below would not result in a violation of section 9.

(1) Grazing within watersheds at levels consistent with the long term management of the range or prairie ecosystem, thus precluding water quality and stream habitat degradation, except where the Service has determined that such activity would negatively impact the species;

(2) Cropping within stream corridors where stable riparian vegetation buffers exist, with the buffers serving as filtering mechanisms for non-point source runoff, decreasing sediment, nutrient, and pesticide input into streams, except where the Service has determined that such activity would negatively impact the species;

(3) Construction of small stock watering ponds in upland areas on normally dry drainage; and

(4) Prescribed burns at levels consistent with the long-term management of the range or prairie ecosystem, except where the Service has determined that such activity would negatively impact the species.

The Service believes that the actions listed below may result in a violation of section 9; however, possible violations are not limited to these actions alone:

(1) Unauthorized collecting or handling of the species;

(2) Destruction or alteration of the species' habitat (i.e., actions that change water quality, quantity, and/or timing of flows; dredging or other physical modifications that impact instream habitat;

(3) The introduction of nonnative species;

(4) Use of fertilizers or pesticides inconsistent with approved labeling and application procedures; and

(5) Contamination of soil, streams, or groundwater by spills, discharges, or dumping of chemicals, silt, or other pollutants.

Questions regarding whether a specified activity will constitute a violation of section 9 should be directed to the Field Supervisor of the Service's Manhattan, Kansas Field office (see ADDRESSES section).

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to this species;

(2) The location of any additional populations of this species and the reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act;

(3) Additional information concerning the range, distribution, and population size of this species; and

(4) Current or planned activities in the subject area and their possible impacts on the species.

Final promulgation of the regulation(s) on this species will take into consideration the comments and any additional information received by the Service, and such communications may lead to a final regulation that differs from this proposal.

The Endangered Species Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days of the date of the publication of the proposal in the **Federal Register**. Such requests must be made in writing and addressed to Field Supervisor, Manhattan, Kansas (see ADDRESSES section).

National Environmental Policy Act

The Fish and Wildlife Service has determined that Environmental Assessments and Environmental Impact Statements, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

Required Determination

The Service has examined the regulation under the Paperwork Reduction Act of 1995 and found it to contain no information collection requirements.

References Cited

A complete list of all references cited herein, as well as others, is available upon request from the Manhattan, Kansas Field Office (See ADDRESSES section).

Author

The primary author of this proposed rule is Vernon M. Tabor, U.S. Fish and Wildlife Service (see ADDRESSES section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

Proposed Regulation Promulgation

Accordingly, the Service hereby proposes to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. Section 17.11(h) is amended by adding the following, in alphabetical order under "FISHES," to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.

(h) * * *

* * * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*		*
FISHES							
*	*	*	*	*	*		*
Shiner, Topeka	Notropis Topeka	U.S.A. (KS, IA, MN, MO, E, SD).	Entire	E	NA	NA
*	*	*	*	*	*		*

Dated: October 2, 1997

Jamie Rappaport Clark,

Director, Fish and Wildlife Service.

[FR Doc. 97-28231 Filed 10-23-97; 8:45 am]

BILLING CODE 4310-55-P