

the Blue Pike Recovery Team concluded that the blue pike was extinct and recommended removing it from the U.S. List of Endangered and Threatened Wildlife.

The longjaw cisco was one of several closely related species of ciscos that occur in the Great Lakes. It was known to occur in Lakes Michigan, Huron, and Erie. Despite the considerable effort of the Service's Great Lakes Fishery Laboratory and States around the Great Lakes, there has been no reported collection of this species in U.S. waters since 1967. Recent research has indicated that some species of ciscos in the Great Lakes may constitute hybrid populations. The Fish and Wildlife Service concludes that *Coregonus alpenae* is extinct.

DATE: This rule becomes effective on October 3, 1983.

ADDRESSES: Questions concerning this action may be addressed to the Regional Director, U.S. Fish and Wildlife Service, Federal Building, Fort Snelling, Twin Cities, Minnesota 55111. Comments and materials relating to this rule will be available for public inspection by appointment during normal business hours by contacting the Fish and Wildlife Service, Endangered Species staff, at the above address.

FOR FURTHER INFORMATION CONTACT: Mr. James M. Engel, Office of Endangered Species, U.S. Fish and Wildlife Service, Federal Building, Fort Snelling, Twin Cities, Minnesota 55111 (612/725-3276), or Mr. John L. Spinks, Jr., Chief, Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703-235-2771).

SUPPLEMENTARY INFORMATION:

Background

Blue pike were abundant in the commercial fishery of the late 1800's but by 1915 landings began to fluctuate extensively. Production peaks in excess of 10,000 metric tons occurred in 1915, 1936, 1944, and 1949, and lows under 2,500 metric tons occurred in 1917-19, 1929, 1941, and 1946-47 before the fishery collapsed in 1958. During the past 10 years, the blue pike has been reported to be extinct by several fishery biologists.

Fishery biologist have evidence that an over-intensive fishery, which disrupted self-stabilizing mechanisms within the population, led to the extreme fluctuations and ultimate crash of the fishery. Since young-of-the-year blue pike inhabited the same areas as older members of the populations, they were vulnerable to cannibalism. It has been postulated that overfishing for adults

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Deregulation of the Longjaw Cisco and the Blue Pike

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The U.S. Fish and Wildlife Service is removing the blue pike (*Stizostedion vitreum glaucum*) and the longjaw cisco (*Coregonus alpenae*) from the U.S. List of Endangered and Threatened Wildlife. This action is based on a review of all available data that indicates these species are extinct. Blue pike populations declined in the late 1950's and never recovered, with the last confirmed specimens taken in the 1960's. Historically, this subspecies was found in Lakes Erie and Ontario, and the Niagara River. Intensive surveys by the Fish and Wildlife Service and States where the species occurred have failed to yield any additional specimens. In a 1977 survey, the Blue Pike Recovery Team contacted all Fish and Game agencies in the U.S. in an effort to determine if blue pike existed in their waters. After all responded negatively,

caused unusual numbers of young-of-the-year to escape predation. This would lead to a short population explosion followed by several years of poor recruitment due to over-predation by abundant older fish on the young. An intensive fishery would cause increased amplitude in the fluctuations because the fish would be taken even when they were scarce. In addition, competition with and predation by the newly arrived rainbow smelt, which occupied the same habitat for part of the year, were likely detrimental to this species.

The last successful year-class occurred in 1954 and there was virtually no recruitment to the fishery after that year. Production continued at high levels for another 3 years and then collapsed. As growth rates in this period increased enormously, immature fish were readily exploited which further reduced spawning potential.

The reasons for the collapse of the fishery in 1958 have not been well defined. Summer oxygen deficiencies in the hypolimnion of the central basin probably forced the blue pike into the deeper waters of the eastern basin of Lake Erie where they were more vulnerable to an extensive fishing effort. It has also been suggested that introgressive hybridization with walleye may have been responsible for the final disappearance of the remnant stock.

The longjaw cisco, originally described in 1924, was indigenous to the Great Lakes basin and occurred in Lakes Michigan, Huron, and Erie. The longjaw cisco was one of several species of deepwater ciscos utilized by the smoked fish trade and was a very important species in the fishery of the Great Lakes. It was also an important prey species for lake trout and turbot before these fishes were decimated by the sea lamprey. The longjaw cisco has not been seen in Lakes Erie and Huron since the late 1950's. The most recent collection of this species in Lake Michigan was in 1967.

The ciscos, including the longjaw cisco, supported a substantial fishery until about 1950. These fishes were caught exclusively by gillnets set in deep (100-300 feet) water. As the deep water ciscos became scarce, the smaller shallow water species entered the fishery. The cisco or chub fishery of the Great Lakes ceased to exist before 1960 and presently only one cisco, the bloater (*Coregonus hoyi*), is important in the commercial fishery.

The decline of the longjaw cisco and the cisco fishery in general is usually attributed to fishery and environmental problems. The history of the cisco fishery in the Great Lakes is one of increasing exploitation and decreasing

stocks. As the ciscos decreased in abundance, there was an increase in the fishery effort along with a decrease in net mesh size. This resulted in further depletion of cisco stocks. In addition to the increased fishing pressure, predation by the sea lamprey and degradation of the habitat further reduced cisco populations. In recent years, problems resulting from hybridization between some species of cisco has contributed to this decline.

Section 4 of the Endangered Species Act of 1973, as amended, directs the Secretary of the Interior to conduct, at least once every 5 years, a review of all species included in the list of Endangered and Threatened species to determine if any such species should be removed from the list or be changed in status from Endangered to Threatened or Threatened to Endangered. The longjaw cisco was listed in 1967 and the blue pike in 1970 and an official review of their status was initiated in 1979. The lack of recent collections indicates that these species have apparently become extinct. Based on this information, the Service proposed to deregulate the longjaw cisco and blue pike.

Summary of Comments and Recommendations

In the May 25, 1982, *Federal Register*, the proposed rule to deregulate the blue pike and longjaw cisco asked all interested parties to submit their comments. All comments relating to the existence of the longjaw cisco and the blue pike were considered in the present status determination. A total of twelve comments were received that dealt specifically with the delisting proposal.

Three of the 12 comments came from concerned citizens, one of whom supported the proposal, while the other two felt that they had recently captured blue pike. One of these individuals reported catching blue pike in Kinzua Reservoir near Salamanca, New York. Personnel at the New York Department of Environmental Conservation indicated that they have checked out many reports of this type and no specimens have ever proven to be blue pike.

The Ontario Ministry of Natural Resources submitted a comment and reported that there was no evidence of blue pike in Ontario waters of Lake Erie and Lake Nipissing. Based on this report and previous reports from Canadian biologists, the blue pike is presumed extinct in Canada.

The National Wildlife Federation supported the action for blue pike but did not comment on the longjaw cisco. The Michigan United Conservation Clubs supported the action for the

longjaw cisco. The Great Lakes Fishery Lab, the Michigan Department of Natural Resources (two letters), and the New York Department of Environmental Conservation supported the proposal for both species. The Illinois Department of Conservation and the Wisconsin Department of Natural Resources supported the proposal for the longjaw cisco, but did not comment on the blue pike since there are no records of this species in either state. Finally, the Ohio Department of Natural Resources supported the proposal for the blue pike, but did not comment on the longjaw cisco; there are no Ohio records for this species.

Summary of Status Findings

After a careful review and examination of all available data, the Secretary has determined that the longjaw cisco and the blue pike are extinct and no longer require protection pursuant to the Endangered Species Act of 1973, as amended. A sufficient amount of time has passed since each of these species was last captured to insure that they are extinct. If evidence to the contrary is presented at a later date, the action is reversible.

Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (codified at 50 CFR Part 424; under revision to accommodate 1982 amendments) set forth the procedures for adding species to the Federal list. The Secretary of the Interior shall determine whether any species is an Endangered species or a Threatened species due to one or more of the five factors described in Section 4(a)(1) of the Act. Regulations implementing this section, 50 CFR 424.11(d), state that the factors for removing a species from the list are those in paragraph (b) of this section. The data to support such removal must be the best scientific and commercial data available to substantiate that the species is neither Endangered nor Threatened because of extinction, recovery of the species, or the original data for classification were in error. The factors in paragraph (b) of 50 CFR 424.11 and their application to the longjaw cisco and the blue pike are as follows:

Blue Pike

A. *The present or threatened destruction, modification or curtailment of its habitat or range.* Pollution and oxygen depletion may have contributed to the decline of this species.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Selective fishing by

commercial interests may have been a factor in the disappearance of the blue pike.

C. *Disease or predation.* Predation on adults by the sea lamprey may have contributed to the decline of the species.

D. *The inadequacy of existing regulatory mechanisms.* The absence of regulations sufficient to protect the fishery may have contributed to the decline of the blue pike.

E. *Other natural or manmade factors affecting its continued existence.* Competition with rainbow smelt (*Osmerus mordax*) may have been one of the factors contributing to the decline of this species.

Although the exact cause of the disappearance of the blue pike is not known, it appears that the factors reported above are responsible for the extinction of the blue pike.

Longjaw Cisco

A. *The present or threatened destruction, modification or curtailment of its habitat or range.* The longjaw cisco was historically recorded from Lakes Michigan, Huron, and Erie. There have been no known adverse effects on the cisco from water quality degradation or habitat elimination in Lakes Huron and Michigan. Extensive industrial and municipal wastes that contributed to an overall deterioration of water quality in Lake Erie may have led to the decline in the cisco population there.

B. *Overutilization for commercial, recreational, scientific or educational purposes.* An intensive commercial fishery for large ciscos in Lakes Michigan and Huron may have contributed to the decline of the longjaw cisco in these lakes.

C. *Disease or predation.* Sea lamprey predation in Lakes Michigan and Huron

may account for a portion of the longjaw cisco's decline.

D. *The inadequacy of existing regulatory mechanisms.* The absence of regulations sufficient to maintain the fishery may have contributed to the decline of this species.

E. *Other natural or manmade factors affecting its continued existence.* Competition with smaller ciscos, as well as with alewife (*Alosa pseudoharengus*) and rainbow smelt (*Osmerus mordax*), was a suspected contributory factor in the decline of the longjaw cisco. Hybridization with other cisco species may also have been a contributing factor in the species' disappearance.

The data presented here are considered the best scientific data that are available. The Service has determined that a sufficient amount of time passed since these species were last found (1967 for the longjaw cisco and the late 1960's for the blue pike) to make a determination that the species are in fact extinct and remove them from the protective measures provided by the Endangered Species Act.

Effects of the Rule

The rule removes the longjaw cisco and the blue pike from the List of Endangered and Threatened Wildlife and discontinues all protections accorded the fishes and their habitats under provisions of the Endangered Species Act of 1973, as amended.

National Environmental Policy Act

An Environmental Assessment was prepared in conjunction with this rule. It is on file in the Service's Twin Cities Regional Office, Federal Building, Fort Snelling, Twin Cities, Minnesota 55111, and may be examined by appointment during regular business hours. This

assessment is the basis for a decision that this is not a major Federal action that would significantly affect the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969 (implemented at 40 CFR Parts 1500-1508).

Primary Authors

The primary authors of this rule are Robert F. Johnson, Jr., and John G. Sidle, U.S. Fish and Wildlife Service, Federal Building, Fort Snelling, Twin Cities, Minnesota 55111 (612/725-3563).

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

PART 17—[AMENDED]

Accordingly Part 17, Subchapter B of Chapter I, Title 50 of the U.S. Code of Federal Regulations, is hereby amended as set forth below:

1. The authority citation is as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531, *et seq.*).

§ 17.11 [Amended]

2. Section 17.11(h) is amended by removing the longjaw cisco (*Coregonus alpenae*) and the blue pike (*Stizostedion vitreum glaucum*), under "Fishes," from the List of Endangered and Threatened Wildlife.

Dated: August 2, 1983

G. Ray Arnett,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 83-24180 Filed 9-1-83; 8:45 am]

BILLING CODE 4310-55-M