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ADMINISTRATIVE
HEARINGS

STATE OF MINNESOTA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF FISH AND ENFORCEMENT

IN THE MATTER OF PROPOSED ADOPTION OF
FISH RULES RELATING TO CHANGES IN THE DAILY AND
POSSESSION LIMIT OF YELLOW PERCH

STATEMENT OF NEED AND REASONABLENESS

GENERAL PROVISIONS

I. INTRODUCTION

Purpose

The primary purpose of the game and fish rules is to preserve, protect, and propagate desirable species of wild animals while ensuring recreational opportunities for those who enjoy wildlife-related activities.

Scope

The proposed amendment includes two changes to the daily and possession limit for yellow perch: 1) modifying the existing rule to be consistent with 2000 legislation (SF2514) that mandates a daily limit of 20 and possession limit of 50 from December 1, 2000 until December 1, 2001; and 2) by rule starting December 1, 2001 reducing the daily limit to 20 and possession limit to 30.

Notification to Persons and Classes of Persons Affected by the Proposed Rules

A request for comments was published in the State Register on April 12, 1999. This notice described the specific area of the proposed rule, the statutory authority for the proposed change, and the parties that could be affected by the proposed rule. The department also provided additional notice to people who may be affected by the rule by sending the request for comments and additional information to a number of angling groups, other environmental and social organizations, businesses, individuals, and legislators. The department also published a statewide news release that described major parts of the proposed rule change with instructions on how to provide comments. The Department of Natural Resources (DNR) web site forum was used to take comments directly related to the rule.

In addition to the request for comments period, meetings were held with resort owners and others in the Grand Rapids area regarding the proposed reduction in yellow perch possession limits for inland waters. The yellow perch possession limit was also discussed at a January 1999 meeting of key legislators and conservation, resort, and environmental group leaders.

Organizations and individuals contacted included: Minnesota Lakes Association; Minnesota Sportfishing Congress; Fisheries Funding Citizen Oversight Committee; Minnesota Tourism; the chamber of commerce in several cities; businesses, individuals, and local sports groups around Lake Winnibigoshish, Lake Mille Lacs, and Cass Lake; Southeast Asian and Hispanic organizations; and several state legislators.

As a result of the extensive outreach done by the department, a great deal of input was received regarding the proposed rule change. A total of 343 comments were received on this topic. Only six people who commented were not in favor of lowering the yellow perch limit. Fifteen people who commented indicated that the limit should be lowered but left the decision of how much up to the DNR. Two felt that it should be lowered substantially, but wanted it done gradually over a period of time to relieve economic hardships on the resort community. One person indicated that the limit should be zero fish. Eleven people commented that the limit should be less than 20 fish. One hundred and fifteen people

commented that the possession limit should be somewhere between 20 and 35 fish. Eighty-five people commented that the inland limit should be the same as the present South Dakota border water limit of 25 fish daily and 50 fish possession. Seventy-three people commented that the limit should be somewhere between 40 and 50 fish. Three people commented in favor of limits of 60 to 80 fish. One person suggested that a higher license fee be charged for yellow perch fishing. Fifteen people indicated that the limit should be lowered on a lake-by-lake basis instead of statewide. Sixteen people felt that other alternatives, like slot limits and minimum size limits, should be used to protect the resource instead of lowering the possession limits. In looking at only those comments that suggested a possession limit change, 179 people felt that there should not be a daily limit that differed from the possession limit, while 131 people suggested various combinations where the daily and possession limits would be different.

At the January 1999 Fishing Roundtable meeting, all in attendance (approximately 60 people) indicated support for a reduction of yellow perch possession limits statewide. Discussions were held about what the limit should be and how to implement the new possession limit. Ideas for what would be a reasonable new possession limit varied from 10 to 50 fish. The group was split on whether to implement a new possession limit in an incremental fashion to lessen economic hardships on those resorts near major yellow perch fisheries, or implement the reduction all at once.

Additional notice on the proposed rules will be provided to persons or classes of persons who could be affected. Our notice plan involves sending the notice of intent to adopt rules with or without a public hearing to those resorts, angling groups, and individuals who were on the previous yellow perch mailing and requested being contacted. News releases that detail the rule will be issued statewide. The DNR web site forum will be used to inform the public of our intent to adopt this rule. Notice will also be provided to appropriate legislators as required by Minn. Stat., sec. 14.116.

Statutory Authority

Statutory authority for the proposed rule is listed below.

Rules Part
6262.0200

Minnesota Statutes, sections
97C.401, subd. 1 and 2 ; 97A.045, subd. 2

II. REGULATORY ANALYSIS

Description of the Classes of Persons Affected by the Proposed Rules

The proposed change in the inland yellow perch bag limit (6262.0200, item O) would affect anglers and angling-related businesses. The proposal could impact angling-related businesses if some non-resident anglers choose not to fish Minnesota waters. Resorts in the Grand Rapids and Bemidji areas have been the most concerned about economic impact to their winter fishing business from this rule change. The recent legislative change that decreases the yellow perch limit to 20 daily and 50 in possession on December 1, 2000 is considered to be an interim measure to moderate the magnitude of the reduction in the short term. The intent is to give resort owners more time to communicate with their clientele and help limit revenue losses that might occur. However, this proposal has substantial support among anglers and would help maintain quality yellow perch populations, resulting in a long term benefit to the fishery and related businesses.

Probable Costs to the Agency or Other Agencies from the Proposed Rules

The proposed fish rule would result in no costs to the department or other agencies. There is already extensive monitoring of the fish populations that would be affected by the proposed rule and no additional monitoring is planned if the rule is adopted. The reduction in the yellow perch possession limit (6262.0200, item O) may reduce non-resident fishing license revenues. This is a change that affects many non-resident anglers who come to Minnesota during the winter months to fish just for yellow perch. However, we are unable to predict the number of non-resident yellow perch anglers that will not return if the proposed rule is implemented.

Determination of Less Costly or Less Intrusive Methods for Achieving the Purpose of the Proposed Rules

The proposed reduction in the limit for yellow perch from a daily and possession limit of 100 to a limit of 20 daily and 30 in possession (6262.0200, item O) is more restrictive and, therefore, more intrusive. A variety of more and less intrusive limit reductions were considered. Simulation modeling predicted that a daily and possession limit of 20 had the best chance of improving and protecting the yellow perch fishery, but this option was rejected as being too restrictive for resorts and other small businesses that depend on yellow perch fisheries. Less drastic limit reductions, such as a daily and possession limit of 30 or a daily limit of 25 and a possession limit of 50, were rejected because they had a low probability of adequately reducing yellow perch harvest and would not provide long-term benefits to fishing-related businesses. A daily and possession limit of 25 and the proposed change (daily limit of 20 and possession limit of 30) had reasonably good chances of achieving the necessary reduction in yellow perch harvest. The proposed limit reduction of 20 daily and 30 in possession was considered to be the best alternative of the two because it balances biological and economic concerns. This option has about the same probability of providing the necessary harvest reduction as a daily and possession limit of 25 fish. However, unlike the daily and possession limit of 25, the limit of 20 daily and 30 in possession may encourage overnight stays by non-local anglers and help to minimize the economic impact of reduced yellow perch limits.

We also considered taking an "incremental" approach to reducing yellow perch limits, in which gradual reductions would be made over a period of years. This option was not selected by the Division of Fisheries, primarily because it would increase risk on lakes where over-harvest of yellow perch is occurring. It would also be confusing for anglers because regulations would be changing from year to year. However, during the 2000 legislative session it was decided that it was in the best interest of the resorts to mandate an "incremental approach." Consequently, a bill (SF 2514) was passed that sets the yellow perch limit at 20 daily with 50 in possession starting on December 1, 2000, and allows no further changes until after December 1, 2001.

Other options for reducing yellow perch harvest that were considered and not selected were season adjustments and size limits. Season restrictions could achieve the necessary reductions in yellow perch harvest, but would be more intrusive than limit reductions. In order to reduce yellow perch harvest by the necessary amount, a closed season would have to be implemented during periods when significant fishing would otherwise take place. This would reduce angling opportunity and have a greater economic impact than the proposed limit reduction.

Size limits could also achieve the necessary reduction in yellow perch harvest. However, it is difficult to have a single size limit that would be effective across the state because yellow perch growth

rates and sizes vary considerably from lake to lake. In addition, many anglers would probably find size limits on a panfish species such as yellow perch more intrusive than a limit reduction, because it would require them to measure the fish that they caught. Further, panfish species, such as yellow perch, have a narrower range of size limit options than larger game fish species, such as walleye and northern pike, making a statewide size limit less practical than possession limit reductions.

Description of Alternative Methods for Achieving the Purpose of the Proposed Rules

The major alternatives to possession limit reductions and size limits are: 1) quotas where a certain level of harvest is allowed after which all harvest activity is curtailed for the remainder of the season; and 2) limited entry where only a certain number of anglers are allowed to engage in harvest activities (*Inland Fisheries Management in North America, 1993*). These alternatives could achieve the purpose of the proposed rules. However, quotas and limited entry are not proposed because they are considered to be unnecessarily intrusive and would require more monitoring from the department to determine when harvest limits were reached.

Probable Costs of Complying with the Proposed Rules

The type of restriction being proposed for harvest of yellow perch does not result in increased costs for the public.

Assessment of Differences between the Proposed Rules and Existing Federal Regulations

The proposed rule covers an area that is not addressed by federal law; therefore, this consideration is not applicable.

Regulatory, Licensure, or Other Charges in the Proposed Rules

The proposed rule does not involve any new regulatory, permit, or license fees or any other charges to the public.

Proposed Rules Affect on Farming Operations

The proposed fishing rule would not affect farming operations.

Description of How the Agency Considered and Implemented the Policy to Adopt Rules that Emphasize Superior Achievement in Meeting the Agency's Regulatory Objective and Maximum Flexibility for the Regulated Party and the Agency in Meeting these Goals

The agency's objective with regard to recreational fishing is to provide for resource conservation, public safety, and equitable use, while maintaining flexibility for anglers and businesses to participate in a variety of opportunities for use and enjoyment of the aquatic resources consistent with state and federal law. To the extent possible, the department attempts to maintain simplicity and understandability of regulations, balanced against the demand for more specialized regulations to protect resources and provide additional opportunities for use of these resources. The agency also attempts to balance the economic and social impacts against the biological requirements needed to meet goals that conserve and protect the aquatic resources.

In developing the proposed rules, the agency sought to make the rules more business friendly without compromising resource conservation. That is why a yellow perch possession limit of 20 daily and

30 in possession was proposed instead of a daily and possession limit of 25.

The DNR has promoted voluntary catch and release and selective harvest to help promote a conservation ethic among anglers and to counter the effects of increased fishing pressure. However, when over-harvest results in declining trends for a specific fish species or on a specific body of water, voluntary compliance cannot be relied on to achieve the necessary harvest reductions (Gigliotti and Taylor 1990). Typically, when new rules on harvest are established and enforced, acceptance and compliance by the public must evolve over time before the regulation reaches its full effectiveness. There is little doubt that the role of regulations in fisheries management will need to increase as fishing pressure increases and anglers use more advanced technology. Without setting and enforcing more restrictive fishing regulations, over-harvest will occur on more and more waters.

III. RULE-BY-RULE ANALYSIS

6262.0200 FISHING REGULATIONS FOR INLAND WATERS.

Subpart 1. General inland fishing regulations. The proposed language in this subpart includes language to make yellow perch daily and possession limits consistent with the recent legislative change and makes further changes in those limits starting December 1, 2001 (Item O). The proposed language would reduce the yellow perch limit for inland waters from the current combined daily and possession limit of 100 fish to a daily limit of 20 fish and a possession limit of 50 fish from December 1, 2000 until December 1, 2001, as mandated by the 2000 legislature (SF 2514). The limit as defined only by a rule change would then decrease again starting December 1, 2001 to a daily limit of 20 fish and a possession limit of 30 fish. It is useful to review the history and nature of the yellow perch fishery in Minnesota to understand the need and reasonableness of the proposed change.

Historically, yellow perch were not a highly valued game fish in Minnesota, even though this species was popular in other states in the upper Midwest, including Wisconsin. This is best demonstrated by the fact that, through most of this century, Minnesota has had no possession limit and no closed season for yellow perch (Minnesota fishing regulation booklets). In 1979, the current daily and possession limit of 100 was established because there was concern that Wisconsin residents were taking large quantities of yellow perch, primarily from Lake Winnibigoshish, for commercial sale back home.

The popularity of yellow perch fishing in Minnesota has increased dramatically since the 100-fish limit was established in 1979. This has resulted in substantially higher fishing pressure targeted at yellow perch, particularly during the winter months. This increase is common knowledge among those who are familiar with Minnesota's fisheries resource, but has not been widely quantified across the state. However, there are some data that help to verify the increased interest in yellow perch fishing. On Mille Lacs Lake (Aitkin and Mille Lacs counties), the average annual estimated harvest of yellow perch increased from about 27,000 pounds in the 1960's to more than 120,000 pounds in the 1990's (Minnesota DNR Special Publication No. 151, 1997). On Lake Winnibigoshish (Itasca County), annual perch harvest was estimated to be about 2,500 pounds in 1930 and 20,000 pounds in the late 1950's. Recent average annual harvest on Lake Winnibigoshish has been estimated at 289,000 pounds (Minnesota DNR Special Publication No. 151 1997). The highest yellow perch harvest recorded on Lake Winnibigoshish occurred in 1994-95, when close to 640,000 pounds were taken. Statewide surveys of Minnesota resident anglers indicate that the percentage of total fishing days spent targeting yellow perch has increased from 1.4 % in 1987 to 2.7 % in 1998, which is a statistically significant difference (Jacobsen et al. 1999)

Yellow perch occur in all the major drainages in Minnesota and are common in many lakes

throughout the state. However, many lakes have yellow perch populations that consist of numerous, small, slow growing fish (Becker 1983). Yellow perch in these lakes are an important forage species for larger game fish species, but are not desirable to anglers. Lakes with large yellow perch that provide fisheries sought by anglers are much less common. Large lakes with abundant walleye and northern pike usually have the best yellow perch fisheries. Yellow perch are relatively easy to catch and tend to provide near-equitable harvest rates among anglers (Cook and Younk 1998).

Liberal possession limits and increased fishing pressure have resulted in over-harvest of yellow perch on Lake Winnibigoshish. This over-harvest of yellow perch threatens the recreational value of the fishery. The most significant measure of over-harvest on Lake Winnibigoshish is that anglers take an estimated 67% of the yellow perch over 9 inches each year. This 67% "exploitation rate" is extremely high. To put it in perspective, the estimated safe exploitation rate that would sustain a fishery for yellow perch over 9 inches is 38 % (various DNR staff reports; Deriso 1987). This indicates that a harvest reduction of 44% is needed to reverse the decline of large yellow perch.

There are several indicators that verify that yellow perch exploitation rates are too high on Lake Winnibigoshish. First, the abundance of yellow perch greater than 9 inches has declined since 1977 (see attached Figures 1 and 2). In 1953, when the yellow perch population was almost unexploited, 52 % of the yellow perch sampled in survey gill nets were over 9 inches. This percentage has decreased to an average of about 15% in the 1990's. Second, Lake Winnibigoshish yellow perch have exhibited a "recruitment response," which means that growth and survival of small fish has increased in recent years (see attached Figure 3). Third, the condition or plumpness of yellow perch over 8 inches has decreased (see attached Figure 4). All of these factors are classic indicators of over-harvest (Ricker 1975; Olson and Cunningham 1990; Hillborn and Waters 1992).

A simulation model using Lake Winnibigoshish data was used to predict the effects of yellow perch possession limit reductions and to estimate the probability that a particular limit would achieve the necessary harvest reduction. The model was developed from an Ontario Ministry of Natural Resources simulation model that is often used to determine potential consequences of bag or size limit changes (Korver 1992).

The model predicted that a substantial reduction in the yellow perch possession limit was needed to have a reasonable chance of meeting the objective of a 44% harvest reduction. For example, the model indicated that a "combined" daily and possession limit of 20 fish would have an estimated 100% probability of success (defined as 44% harvest reduction) and a limit of 25 yellow perch would have an 84% chance of success. The estimated probability of success dropped to 67% with a limit of 30 and 0% with a limit of 50. A "split" daily limit of 25 fish and possession limit of 50 fish would only have a 35% probability of success. The model indicated that the current proposal (daily limit of 20 and possession limit of 30) has an 82% probability of success, similar to the results predicted with a combined daily and possession limit of 25.

It is reasonable to use the Lake Winnibigoshish data to develop a statewide proposal for yellow perch limits. The current limit of 100 fish has not adequately protected the yellow perch fishery on Lake Winnibigoshish and there are data indicating that over-harvest of yellow perch is occurring on other lakes under existing regulations. For example, based on samples of fish taken in gill nets and trap nets during DNR lake surveys, the percentage of yellow perch over 9 inches has decreased significantly on three Bemidji area lakes - Lake Bemidji, Big Turtle Lake, and Big Lake (DNR lake file information). On Big Turtle Lake, the percentage of yellow perch over 9 inches was over 30% in the 1950's, but has been less

than 10% throughout the 1980's and 1990's. On Big Lake, the percentage of yellow perch over 9 inches was 45% in the 1960's, but has been less than 15% since the mid-1980's. On Lake Bemidji, the percentage of yellow perch over 9 inches ranged from 30% to 45% in the 1970's to early 1980's, but had decreased to less than 10% when it was last surveyed in the late 1990's. It is reasonable to conclude that over-harvest of yellow perch is occurring on other lakes under the current possession limit of 100, and could occur on more lakes as fishing pressure continues to increase.

It is necessary and reasonable to adopt a more conservative limit for yellow perch statewide, even though it would affect lakes that are not over-harvested at this time. It is much more difficult from a biological and economic standpoint to implement more restrictive fishing regulations after a fish population has declined and local economies have come to depend on unsustainable harvest levels. It is also reasonable to adopt this change statewide to prevent anglers from targeting lakes with higher yellow perch limits and increasing the risk that these lakes would be over-harvested.

The language reducing the yellow perch limit to 20 daily and 50 in possession from December 1, 2000 until December 1, 2001 is necessary and reasonable to be consistent with the law that was passed during the 2000 legislative session. This change is also necessary and reasonable to clarify yellow perch limits on Minnesota-Canada border waters. Fish limits for Minnesota-Canada border waters are provided by Minnesota Rules, part 6266.0700, subp. 2, item I. However, this rule part refers to part 6262.0200 for limits on yellow perch and other fish species that are not specifically listed in 6266.0700, subp. 2.

It is necessary to further reduce the yellow perch limit to 20 daily and 30 in possession starting December 1, 2001 to have a reasonable probability of meeting the harvest reduction objective on Lake Winnibigoshish, to reduce harvest on other lakes where yellow perch exploitation rates are too high, and to prevent over-harvest of yellow perch on lakes where populations are currently satisfactory. The split limit of 20 daily and 30 in possession is a reasonable alternative to a combined daily and possession limit of 25, because the probability of success is about the same and it may help to minimize the economic impact of this change by encouraging overnight stays by non-local anglers at resorts and hotels.

OTHER CONSIDERATIONS

Review of Documents

Sources cited in this document may be reviewed on work days between 8:00 am and 4:30 p.m. in the Section of Fisheries or Ecological Services office in the DNR headquarters, 500 Lafayette Road, St. Paul, Minnesota.

Upon request, this document and others can be made available in an alternative format, such as large print, Braille, or cassette tape. To make such a request, please contact Linda Erickson-Eastwood, by writing to 500 Lafayette Rd, Box 12, St Paul, MN, calling 651-296-0792, or email to linda.erickson-eastwood@dnr.state.mn.us

Witnesses

If the rules go to public hearing, the witnesses below may testify on behalf of the department in support of the need and reasonableness of the rules. The witnesses will be available to answer questions about the development and content of the rules. The witnesses for the Department of Natural Resources include:

Steve Hirsch, Fisheries Operations Manager
Minnesota Department of Natural Resources
500 Lafayette, Box 12
St. Paul, MN 55112

Paul Radomski, Fisheries Research Biologist
Minnesota Department of Natural Resources
1601 Minnesota Drive
Brainerd, MN 56401

Henry Drewes, Regional Fisheries Manager
Department of Natural Resources
2115 Birchmont Beach Road NE
Bemidji, MN. 56601

Chris Kavanaugh, Area Fisheries Manager
Department of Natural Resources
1201 E. Hwy 2
Grand Rapids, MN 55744

Based on the foregoing, the department's proposed rules are both necessary and reasonable.

Allen Garber, Commissioner
Department of Natural Resources

By: _____
Bradley M. Moore,
Assistant Commissioner for Operations

Dated: _____

References

Anonymous. 1997. Potential, target, and current yields for Minnesota's 10 large walleye lakes. Minnesota Department of Natural Resources, Section of Fisheries Special Publication 151.

Becker, G. C. 1983. Fishes of Wisconsin. University of Wisconsin Press, Madison.

Cook, M.F., and J.A. Younk. 1998. A historical examination of creel surveys from Minnesota's lakes and streams. Minnesota DNR, Section of Fisheries Investigational Report No. 464.

Deriso, R.B. 1987. Optimal F0.1 criteria and their relationship to maximum sustainable yield. Canadian Journal of Fisheries and Aquatic Sciences 44(Suppl. 2):339-348.

Gigliotti, L.M., and W.W. Taylor. 1990. The effect of illegal harvest on recreational fisheries. North American Journal of Fisheries Management 10:106-110.

Hilborn, R., and C.J. Walters. 1992. Quantitative Fisheries Stock Assessment: Choice, Dynamics, and Uncertainty. Chapman and Hall, New York.

Inland Fisheries Management in North America. 1993. Publisher American Fisheries Society.

Jacobsen, P.C., T. Close, C. Anderson, and T.J. Kelly. 1999. Attitudes of Minnesota Residents about fishing issues.

Korver, R. 1992. MANSIM: a fairly generic computer model for simulating management actions on single fish population. Ontario Ministry of Natural Resources, Maple, Ont.

Olson and Cunningham. 1990. No title. Minnesota Department of Natural Resources, Section of Fisheries Investigation Report 400.

Ricker, W.E. 1975. Computation and interpretation of biological statistics of fish populations. Fisheries Board of Canada, Bulletin No. 191.

Figure 1. The number of yellow perch (YEP) greater than nine inches that were caught in a gill net sample (CPUE) from 1970 to year 1999 in Winnibigoshish.

Figure 2. Percent of yellow perch that were greater than nine inches that were found in each gill net sample (CPUE) from 1950 to the year 1999 in Winnibigoshish.

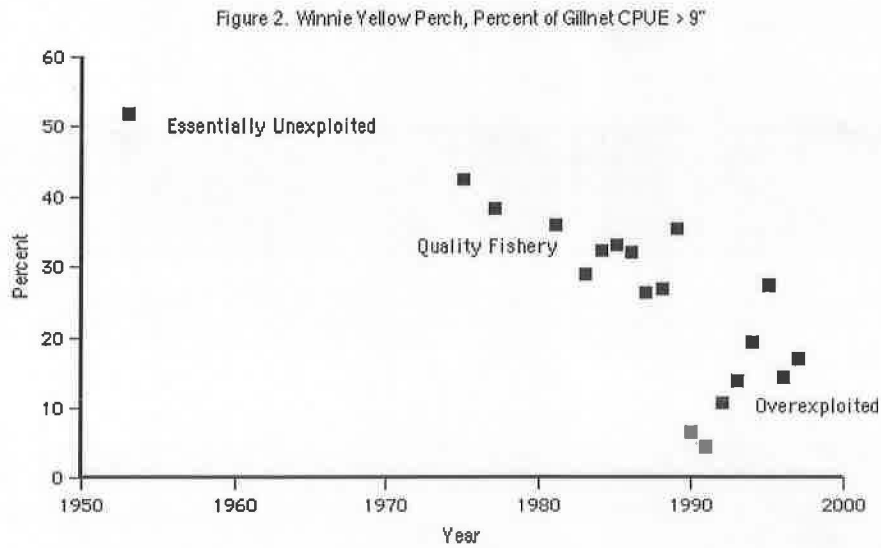
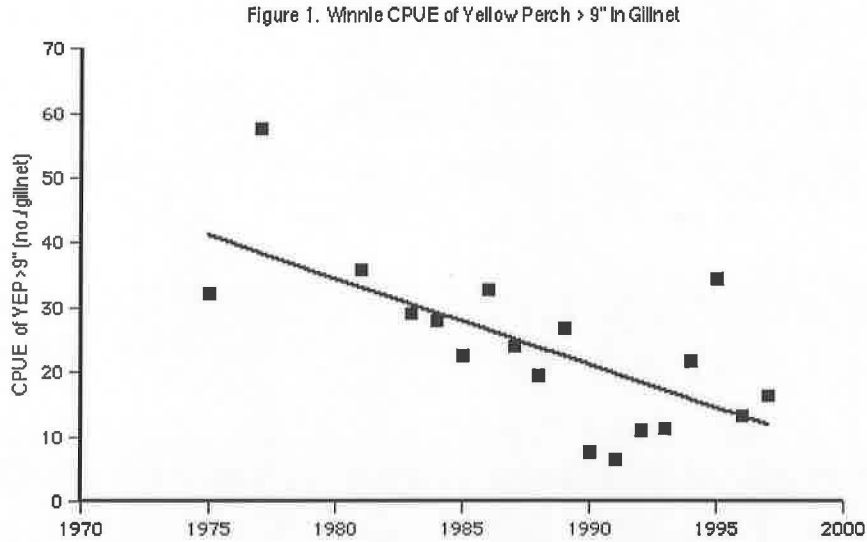


Figure 3. Number of young of the year (yoy) yellow perch caught per trawl survey (CPUE) in Winnibigoshish from 1970 to the year 1999.

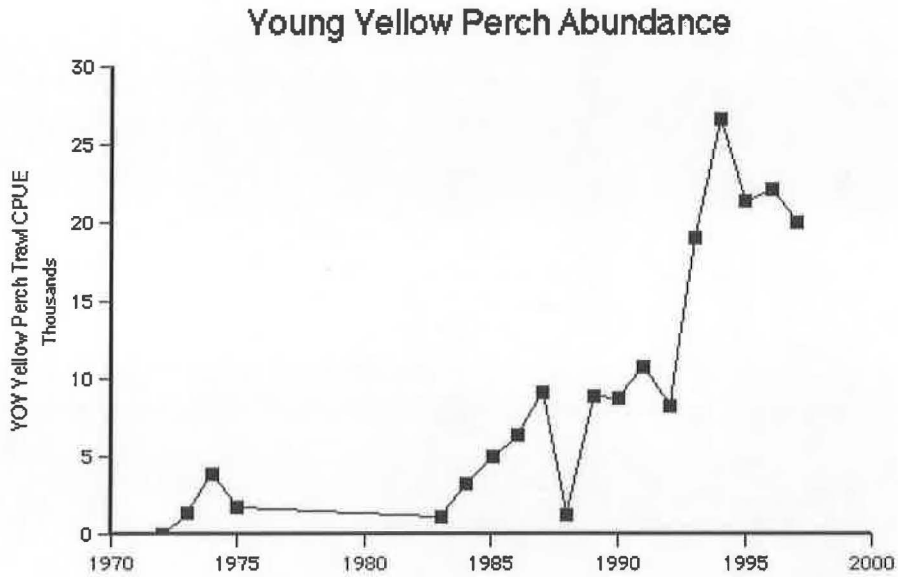


Figure 4. Condition of 8 inch perch in 1997.

Condition of 8 inch yellow Winnibigoshish from 1986-

