



Regulatory Guidelines for Managing Crappie Sport Fisheries in Ontario

**Fisheries Section
Fish and Wildlife Branch
Ontario Ministry of Natural Resources**

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NOTE: Since the approval of this document in 2004, MNR has launched the New Ecological Framework for Recreational Fisheries Management. A key component of this new framework is the establishment of Fisheries Management Zones (FMZs) which will replace fishing divisions as the unit for managing recreational fisheries (Appendix I). The recommendations for the application of the regulatory options given herein have been updated to be consistent with the new FMZs.

This report describes the regulatory options for the management of sport fisheries for crappies (*Pomoxis* spp.) in Ontario. The options are based on current scientific knowledge on the effectiveness of various regulations for managing crappie (see Kerr 2002). Although crappies have not traditionally been overexploited in Ontario, province-wide catch limits are recommended to place a value on the resource and provide a consistent approach to the issue of sustainable fisheries and resource limitations.

The management strategies recommended herein are designed to maximize angling opportunities while protecting crappie populations from overexploitation. The goal of this approach is to ensure that regulations can be rationalized on a sound biological basis to achieve resource sustainability while, at the same time, streamlining and simplifying Ontario's fishing regulations and optimize angling opportunities.

In order to provide consistency to the management of crappies in Ontario, the regulatory options contained herein are the recommended options to be used in the development of any new regulations for crappie. Where the existing regulations do not conform to the approach in this report, they should be analyzed using the criteria set out in the Provincial Approvals in Principle process and either removed or modified.

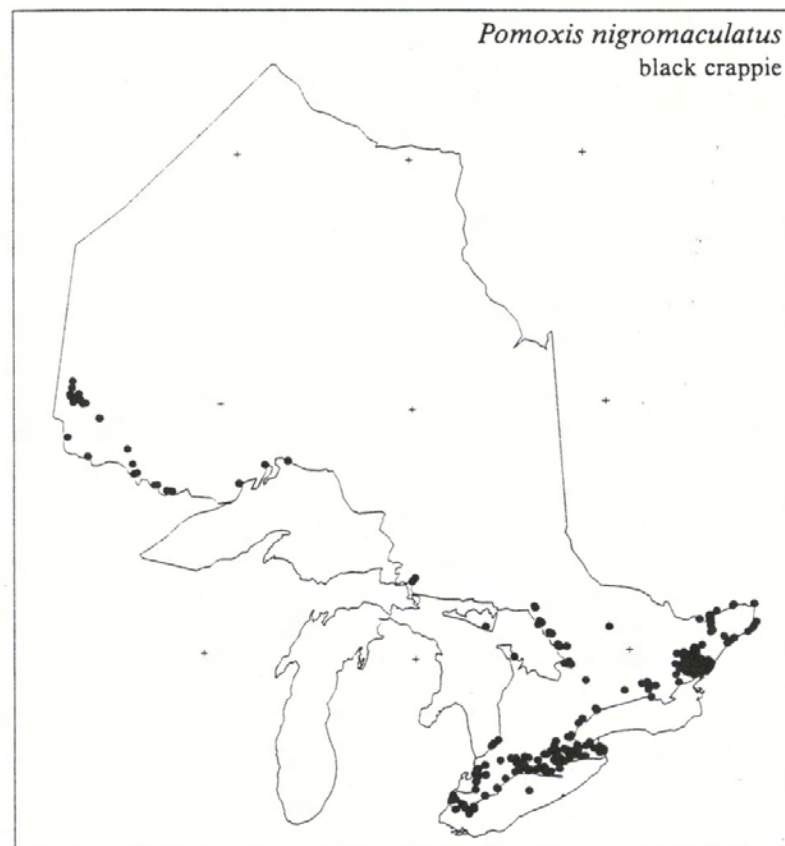
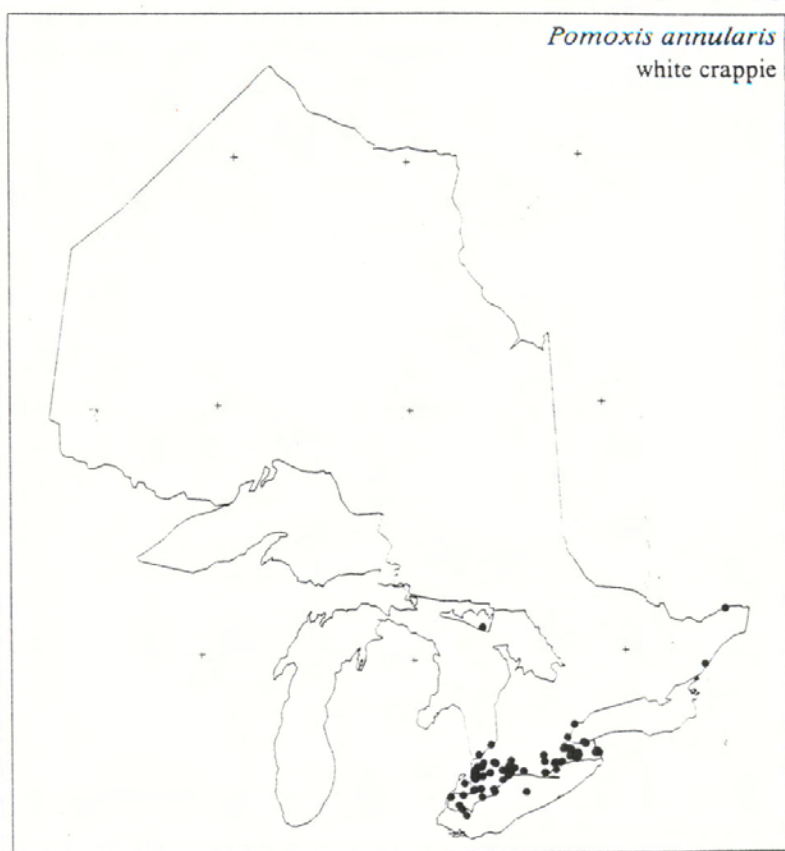
Introduction

Both black crappie (*Pomoxis nigromaculatus*) and white crappie (*P. annularis*) are found in Ontario waters. Black crappie are found in the lower Great Lakes as well as inland waters in the south-southcentral and northwestern portions of the province. Dalglish (2002) documented 273 Ontario waters which contained black crappie and there is every indication that this species is expanding its range in the province. White crappie are much less common in Ontario. They are found in the lower Great Lakes as well as a few inland waters in southwestern Ontario.

Crappies are a schooling fish which spawn in the late spring-early summer when water temperatures are approximately 19-20^o C. They are nest builders and the male fish guards the nest. One female may spawn in more than one nest with other male fish. Growth of young crappies varies greatly according to population density, food supply, and the productivity of the habitat. The diet of young crappies up to approximately 2-3 years of age is comprised largely of invertebrates. After that point they become piscivorous.

Crappies generally frequent quiet waters found in ponds or the bays of lakes and rivers. They are often associated with underwater cover such as brush or aquatic vegetation. Black crappie seem less tolerant of turbid conditions than white crappie.

Crappies are highly edible and sustain both commercial and sport fisheries. Crappies are most commonly angled during the spring but are also sought during the winter ice fishery. Their tendency to suspend at midwater depths in the summer makes them less susceptible to all but the most ardent anglers.



Distribution of white and black crappie in Ontario (reproduced from Mandrak and Crossman (1992)) with permission of the Royal Ontario Museum.

Open/Closed Seasons

Fishing seasons for crappies have never been a widespread management tool in Ontario. Most other North American jurisdictions have an all year open season for crappies. With the exception of Divisions 6 (Kawartha Lakes) and 13 (Algonquin Park) where there is a winter closure for all species, there has always been a year-round open season for crappies in Ontario. In 1991, a ban on nighttime fishing for species including crappies was brought into effect for Eagle Lake (Division 22). In 1993, a one day (December 24) closure for administrative purposes became effective for all waters in northwestern Ontario (Divisions 19, 20, 21, 22, 22A, 23, 24, 25, 30, 31, 32, 33, and 34). In 2000, a split season for crappie (January 1-March 27; May 20-October 15) was instituted for Division 27 (Lake Nipissing). These exceptions were all put in place for species other than crappies.

There were 5 division-wide open seasons for crappie across the province in 2002 (Table 1). Lake Nosbonsing (Division 15) is the only exception, with open seasons from January 1- March 7th and May 18 (Saturday before Victoria Day) - December 31.

Table 1. Division-wide open seasons for crappie in Ontario (based on the 2002 Ontario Recreational Fishing Regulations Summary).

Season	Division (s)
Open all year	1,2,3,4,5,7,8,9,10,11,12,14,16,17,18,26, 28,29
Open all year except December 24 th	12A,15,19,20,21,22/22A,23,24,25,30,31,32,33,34
January 1- March 7 & May 20 - October 15	27
April 27 (last Saturday) - November 15	6
April 27 (last Saturday) - November 30	13

Recommended Season Dates:

Crappies represent a species which can provide more angling opportunities than are currently being realized.

- **As a general standard, it is recommended that the angling season for crappies be open year-round across Ontario.**
- **FMZs which currently have winter closures for all species (including crappies) could be listed as exceptions. Consideration should be given to expanding fishing opportunities in those areas that do not have year-round open seasons (e.g., FMZ 17).**
- **There should be no open season for FMZs where crappie are not present.**

Based on FMZs the following crappie seasons are recommended for Ontario:

Season	FMZs
Open all year	All FMZs containing crappies
Closed all year	All FMZs where crappies are absent
January 1- March 7 & May 20 - October 15	11 (Lake Nipissing) under review as part of management plan
April 27 (last Saturday) - November 15	17
April 27 (last Saturday) - November 30	15 (Algonquin Park)

Catch and Possession Limits

Catch limit is defined as the number of fish an angler is allowed to catch and keep in one day. Fish which are caught and eaten that day as a shore lunch are counted as part of the daily catch limit. The possession limit is the number of fish an angler is allowed to legally possess any time whether on-hand, in cold storage or in transit. In most cases, possession limits are the same as one day's catch limit. The concept behind catch and possession regulations is to limit the harvest, to equitably distribute the resource among users, and to convey a realistic expectation regarding capacity and value of the resource.

Generally, crappies are managed using liberal catch limits to decrease intraspecific competition, increase growth rates and ensure that crappie populations are not dominated by small, slow-growing fish.

Most other North American jurisdictions already have catch and possession limits for crappies (ranging from 6 to 50 fish).

One of the first bag limit for crappies in Ontario was a 40 fish per day limit established for Rainy Lake and Lake of the Woods in 1968. This bag limit was extended to Division 22 in 1987. In 1990, the crappie catch and possession limit in Divisions 22 and 32 was reduced to 30 fish per day. In 1991, a thirty fish daily catch limit was also instituted in the waters of southeastern Ontario (Divisions 8, 9, 10, 11, 12, and 29).

With the implementation of the Conservation licence in 1993, a ten fish daily limit was designated for holders of a Conservation licence in those divisions already having a daily catch and possession limit.

There were a wide range of catch and possession limits for crappie across Ontario in 2002 (Table 2).

Table 2. Division-wide catch and possession limits for crappie in Ontario. (based on the 2002 Ontario Recreational Fishing Regulations Summary).

Division (s)	Catch Limit by License Type		Possession Limit by License Type	
	Sport	Conservation	Sport	Conservation
1,2,3,4,5,6,7,13,14,15,16,17,18,19, 23,25,26,27,28	No limit	No limit	No limit	No limit
8,9,10,11,12,12A,29	30	10	30	10
20,21,22/22A,24,30,31,32,33	15	10	15	10
34	5	5	5	5
Sydney Lake area (Division 22 & 31)	10	10	10	10

While there is little, if any, evidence that crappies are being overexploited in Ontario waters, the designation of catch limits will serve to place a value on the resource and provide a consistent approach to the issue of sustainable fisheries and resource limitations. Based on results of the 2000 survey of Ontario anglers 77.5% of respondents (260,763 of 336,902 respondents) support the designation of a catch limit for crappies.

Recommended Catch and Possession Limits:

- **The provincial standard catch and possession limit will be 30 crappie for holders of a Sport Fishing Licence and 10 crappie for holders of a Conservation Fishing Licence. Where more conservative measures are required, a limit of 15 fish for holders of a Sport Fishing Licence and 10 fish for holders of a Conservation Fishing Licence could be applied.**
- **Daily catch and possession limits are an aggregate limit including black and white crappie.**
- **FMZ 17 will remain with no limits for crappie.**
- **The possession limit for crappie is the same as one day's catch limit in order to be consistent with other fish species in Ontario.**

Size Limit Regulations

Size limit regulations have been used in several U. S. jurisdictions. In heavily exploited crappie fisheries, minimum size limits have been established in an attempt to protect fish from being harvested until they reach a more preferred size.

At the northern edge of their range, growth conditions and levels of exploitation differ substantially from more southern climes. In Minnesota, in order for size limit regulations to be considered, three conditions must be met:

- crappies must reach 9 inches in three or, at most, four years of age;
- recruitment must be relatively stable from year to year, and
- harvest must be substantial (from Allen 1996).

Minimum size limits for crappies should be used with caution. There is evidence that the implementation of minimum size limits can increase abundance and associated intraspecific competition of younger, smaller fish. After four years of a 9 inch minimum size limit for crappies in Alvin Lake, South Dakota, it was found that growth rates as well as the harvest of legal-sized fish declined (Bister 2000). The regulation was rescinded to allow anglers the opportunity to catch and harvest crappies that were stockpiling just below the minimum size limit. Similar observations were reported in an Ohio Reservoir (Hale et al. 1999).

There are currently no size limit regulations for crappie in Ontario.

Recommendations for Size Limits:

- **There is no evidence that the widespread use of size limit regulations is an appropriate management option for Ontario's crappie fisheries. Size limit regulations may be considered on an experimental basis if they can be thoroughly rationalized and are fully evaluated.**

Sanctuaries

Fish sanctuaries are designated areas where all fishing is prohibited. Sanctuaries can be seasonal in duration or extend for the entire year. To date, fish sanctuaries have not been used as a management tool for crappies in Ontario.

Recommendations for Sanctuaries:

- **Generally, the use of fish sanctuaries for crappies is discouraged. Fish sanctuaries should only be considered as a management option when it is necessary to take action to ensure the sustainability of the crappie resource.**

Special Regulations

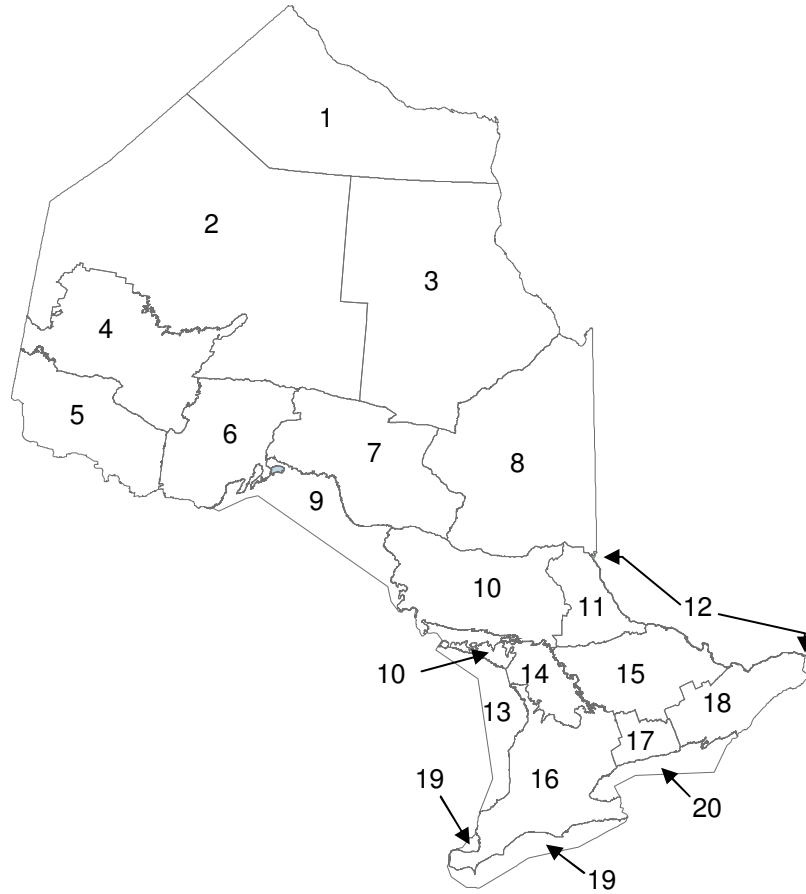
Special regulations include any other restrictions, such as gear type, bait, fishing times, etc. Special regulations have not been used to manage crappie fisheries in Ontario.

Recommendation on use of Special Regulations:

- **Generally, the use of special regulations is discouraged for crappie fisheries except where they are implemented on an experimental basis with plans for a thorough assessment of their relative effectiveness and a reasonable expectation for ensuring compliance so that the integrity of the experimental project is maintained.**

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Appendix I New Fisheries Management Zones for Ontario's Sport Fisheries