

## **Brook Trout Daily Possession Limit Review**

In 2000, the daily possession limit for brook trout in most Michigan streams was reduced from 10 fish to 5 fish. This change was implemented as part of a comprehensive effort to limit individual stream regulations and consolidate Michigan's trout streams into a suite of standardized types. Sociological considerations, such as simplification of fishing regulations and equitable distribution of harvest, were the primary impetus for the brook trout possession limit reduction. Since 2000, anglers have continued to ask Fisheries Division to consider reinstating the 10 fish daily possession limit for brook trout on Upper Peninsula streams. Fisheries Division personnel agreed to evaluate the issue in early 2011 and used available data and information from Division work and the published literature to assess the potential effects of the proposed possession limit change on brook trout populations. The available evidence suggests that increasing the daily possession limit from 5 fish to 10 fish likely would have minimal biological effects on Upper Peninsula brook trout populations.

After an internal review was completed, presented and discussed with the Coldwater Resources Steering Committee (which includes anglers at large and representatives from 10 sport fishing organizations), Fisheries Division staff initiated a process to collect public comments regarding the proposed regulation change. An online survey was developed using Survey Monkey<sup>®</sup>. A link to this survey was posted on the "Fishing" page of the DNR website and a news release was issued to inform anglers of this opportunity for providing comments. The survey was open from March 26 through May 28, 2012. In addition to gathering public comments regarding brook trout daily possession limits, the survey also provided a means to collect data regarding angler demographics, fishing practices, and factors that influence the perceived quality of fishing experiences. Anglers that did not have internet access were provided the opportunity to contact the Plainwell Operations Service Center and complete the survey via telephone.

More than 1,400 anglers participated in the survey, but not every participant completed all of the questions. Most respondents completed the survey online. Twenty-four anglers completed the survey via telephone and four anglers filled out paper copies of the surveys. Approximately 95% of the survey respondents were males, and most had fished in Michigan for more than 20 years (Figure 1). Eighty-two percent of the respondents indicated that they had fished for brook trout in Upper Peninsula streams during the last three years (Figure 2). About 44% of the respondents indicated that they primarily practiced catch and release, whereas the remaining anglers harvested at least a portion of their catch (Figure 3). Fly fishing was the most common fishing method, followed by live bait and artificial lures (e.g., spinners and spoons; Figure 4).

Anglers were asked to rate the importance of various factors in determining the quality of their brook trout fishing experiences in Upper Peninsula streams. Approximately 73% of respondents indicated that aesthetics and scenery were important (Figure 5). Only 29% of respondents rated catching fish to eat as important, and 32% indicated that catching fish to eat was not important. Catching large fish and the number of fish caught and released were at least somewhat important to most respondents. Eighty five percent of respondents indicated that they primarily fish with family or friends, and about 80% of respondents rated being with family or friends as important or somewhat important in determining the quality of their fishing experiences (Figure 6).

Survey respondents were asked to rate their level of support for the existing 5 brook trout daily possession limit and the proposed 10 fish daily possession limit. Overall, 55% of respondents indicated that they support the existing 5 fish limit, compared to 17% which opposed the 5 fish limit (Figure 7). By comparison, 28% of anglers supported and 53% opposed the 10 fish daily possession limit. This general

Michigan Department of Natural Resources  
Brook Trout Limits in Upper Peninsula Streams

pattern of greater support for the existing 5 fish limit and greater opposition to the 10 fish limit held true regardless of how often the respondents fished for brook trout in Upper Peninsula streams (Figure 8).

Support for the 10 fish possession limit was much higher among anglers who mostly kept their catch compared to anglers who typically practiced catch and release (Figure 9). Similarly, anglers who fished with live bait were more supportive of the 10 fish limit than anglers who fished with lures or flies (Figure 10). The primary purpose of the proposed change in brook trout possession limits is to increase harvest opportunities. Thus, it is not surprising that harvest-oriented anglers were much more supportive of the 10 fish limit than anglers who rarely harvest fish. Anglers who rarely harvested fish expressed concerns that raising the possession limit would decrease catch rates and reduce the abundance of large brook trout in Upper Peninsula streams.

Lower Peninsula residents and nonresident anglers clearly favored the existing 5 fish limit over the 10 fish limit (Figure 11). Among Upper Peninsula residents, the existing 5 fish limit was only slightly more popular than the proposed 10 fish limit. Of the respondents from the Upper Peninsula, 45% supported the 5 fish limit and 39% supported the 10 fish limit. Conversely, 27% of Upper Peninsula residents opposed the 5 fish limit and 45% opposed the 10 fish limit.

Generational differences appear to have influenced perspectives on the 5 fish and 10 fish limits. In general, support for the 10 fish limit increased with the number of years respondents fished in Michigan (Figure 12). Anglers who had fished in Michigan for  $\leq 50$  years were more likely to oppose the 10 fish limit. Anglers who had fished in Michigan for more than 60 years were more likely to support the 10 fish limit. By contrast, anglers who had fished in Michigan for  $\leq 60$  years were much more likely to support the existing 5 fish limit (Figure 13). Anglers who had fished in Michigan for 51- 60 years were about equally likely to support or oppose the 5 fish limit.

On the online survey form, anglers were allowed to suggest other regulations for consideration. There was wide variation in the survey responses. Equal numbers of anglers recommended daily possession limits that were more restrictive or more liberal than the existing 5 fish limit. Roughly equal numbers of anglers also suggested minimum size limits that were more restrictive or more liberal than the existing regulations.

In addition to the online survey, public meetings were held at 17 locations throughout the state during March 26-April 30, 2012. The purpose of these meetings was to discuss the brook trout daily possession limit proposal, other statewide regulation proposals, and potential changes to local fishing regulations. Public comments were collected during these meetings, but meeting facilitators encouraged attendees to complete the online survey. By filling out the surveys, anglers provided more complete, structured, and quantifiable responses than typically received at public meetings. In addition, outspoken attendees can intimidate other attendees from expressing dissenting opinions, whereas this is not a problem with an online survey. Overall, 244 people attended the public meetings. In general, attendees at the Upper Peninsula meetings expressed more interest in the brook trout possession limit proposal than attendees at meetings in the Lower Peninsula. Among the 139 attendees at the Upper Peninsula meetings, there was roughly equal support for the 5 fish or 10 fish daily possession limits.

Despite Fisheries Division's attempts to direct anglers to fill out the survey, some anglers employed a different tactic and circulated petitions. A western Upper Peninsula fishing group submitted a petition in support of a 10 brook trout daily possession limit, with five of these fish being smaller than 7 inches. This petition had 212 signatures. Another Upper Peninsula petition asked anglers to sign their name and mark if they supported raising the brook trout possession limit. Eighty-nine anglers indicated that they were in favor of raising the possession limit and one angler indicated that he did not support raising the possession limit. A third Upper Peninsula petition was submitted opposing increasing the brook trout

Michigan Department of Natural Resources  
Brook Trout Limits in Upper Peninsula Streams

possession limit. This petition drive apparently was completed through a combination of written and online signatures, with the combined total of 541 signatories. We have no means of determining how many of the signatories to any of these petitions also completed the online survey.

Fisheries Division also received two letters in support of the 10 fish daily possession limit and five letters opposing the 10 fish limit. Some organizations issued position statements on this topic. The Michigan Chapter of Trout Unlimited, the Fred Waara Chapter of Trout Unlimited, and the Sault Sainte Marie Tribe of Chippewa Indians opposed increasing the daily possession limit for brook trout. The Ottawa Sportsmen's Club submitted a resolution to Michigan United Conservation Clubs in support of the 10 fish daily possession limit. At the annual Michigan United Conservation Clubs meeting on June 22, 2012, a formal voice vote defeated this resolution.

Summary and Recommendations

There does not appear to be widespread support for raising the daily possession limit for brook trout. In general, catch rates and the opportunity to catch larger fish were more important to anglers than catching fish to eat. Raising the daily possession limit would yield no biological benefits. Based on the available biological data, the effects of raising the daily possession limit on catch rates and the size structure of brook trout populations would be minimal. However, many anglers were skeptical of our data and indicated that the potential risk of decreasing the abundance of adult trout (especially larger fish) outweighs the potential benefit of increased harvest opportunities. On the online survey form, anglers were allowed to suggest other regulations for consideration.

Raising the daily possession limit for brook trout from 5 fish to 10 fish is not recommended at this time for the following reasons; (1) there are no biological benefits and some slight biological risks with raising the daily possession limit; (2) based on the results of the public survey and historic creel data, it appears that raising the daily possession limit would benefit a relatively small percentage of the angling population; (3) nearly twice as many anglers opposed the possession limit increase compared to those who supported the change. Given that there is no biological need to increase the daily possession limit, it is not prudent to establish a regulation that does not have a significant margin of support from the angling public.

Michigan Department of Natural Resources  
Brook Trout Limits in Upper Peninsula Streams

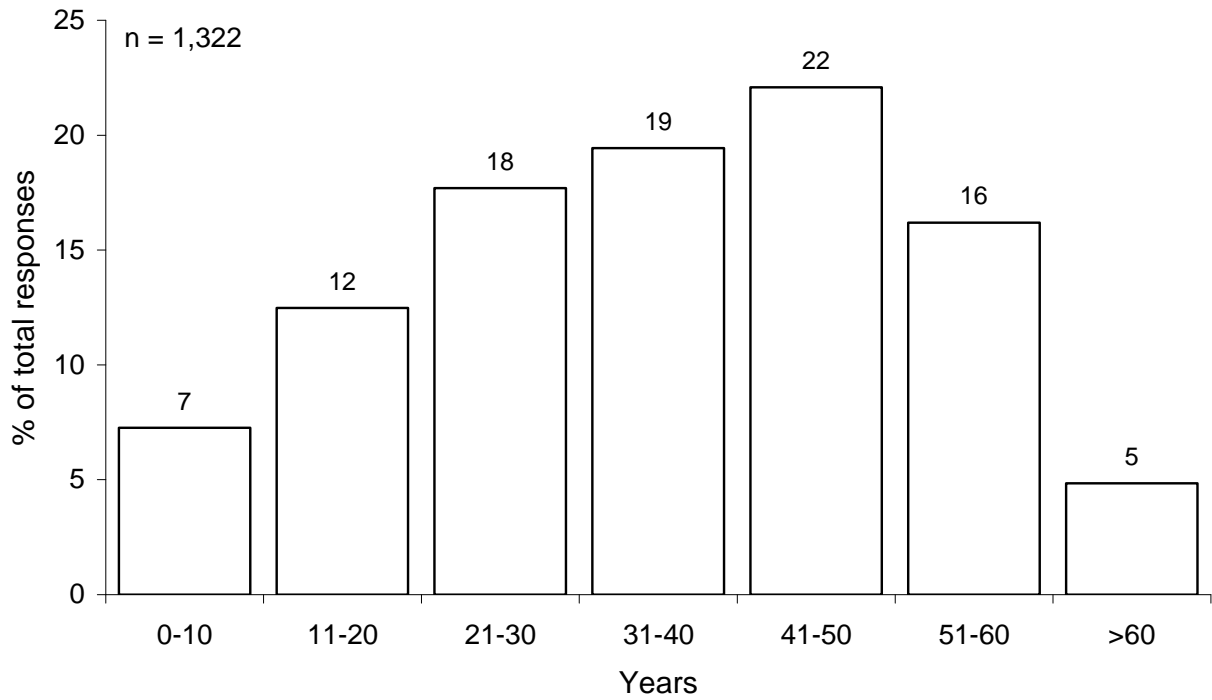


Figure 1.—Number of years that survey respondents had fished in Michigan.

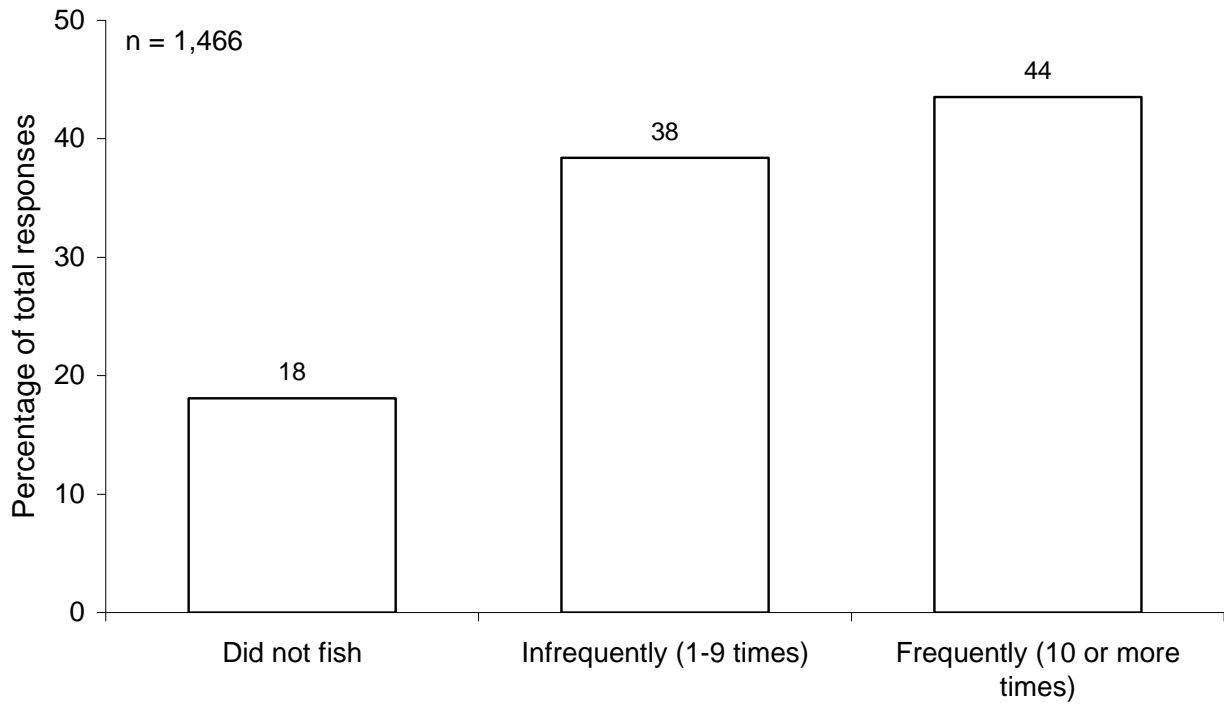


Figure 2.—Percentages of survey respondents that fished infrequently, fished frequently, or did not fish for brook trout in Upper Peninsula streams during the last three years.

Michigan Department of Natural Resources  
Brook Trout Limits in Upper Peninsula Streams

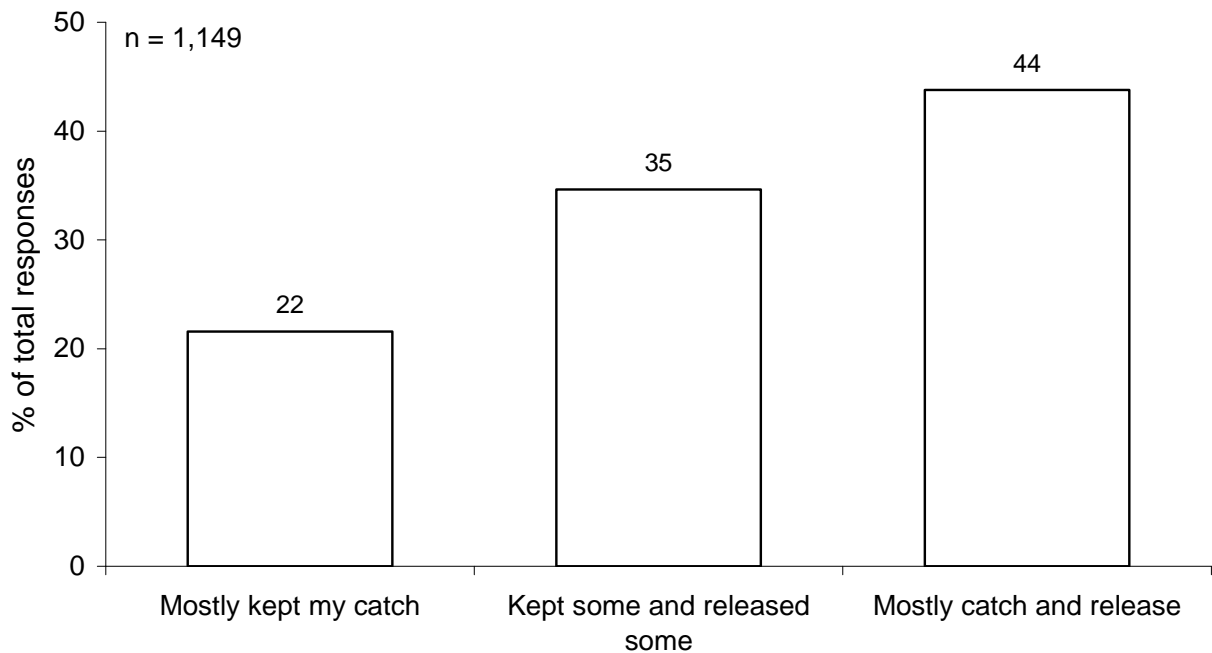


Figure 3.—Percentages of survey respondents that mostly kept their catch, kept some and released some brook trout, and mostly practiced catch and release.

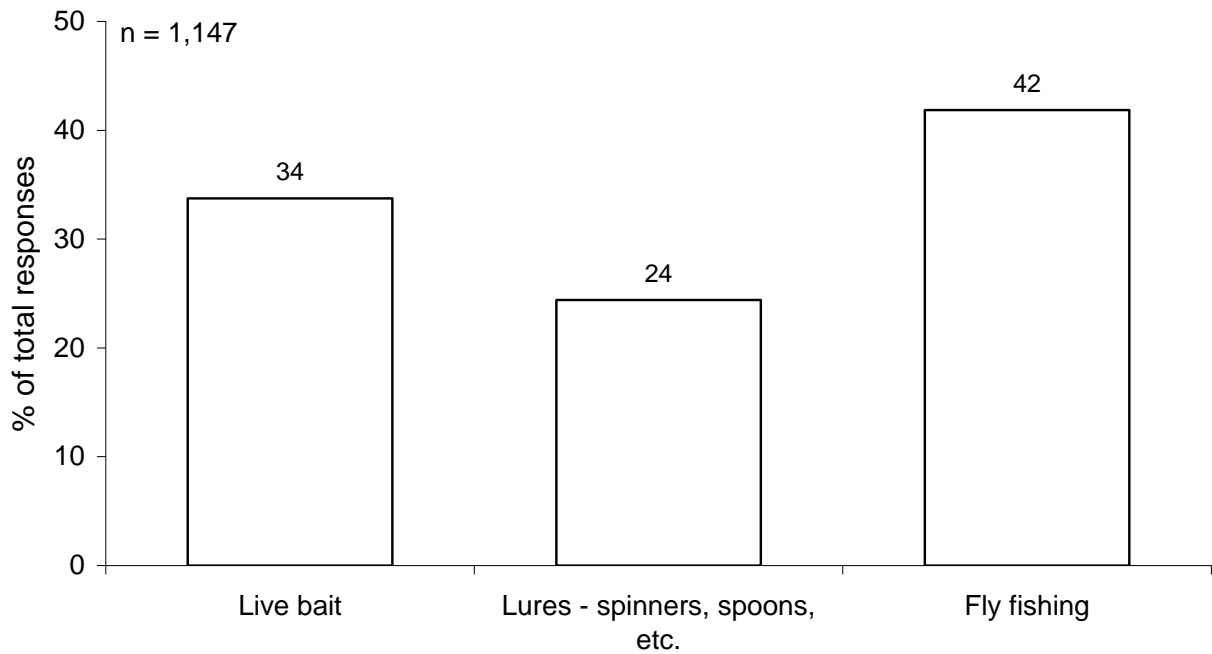


Figure 4.—Percentages of survey respondents that listed live bait, lures, and fly fishing as their primary method of fishing for brook trout in Upper Peninsula streams.

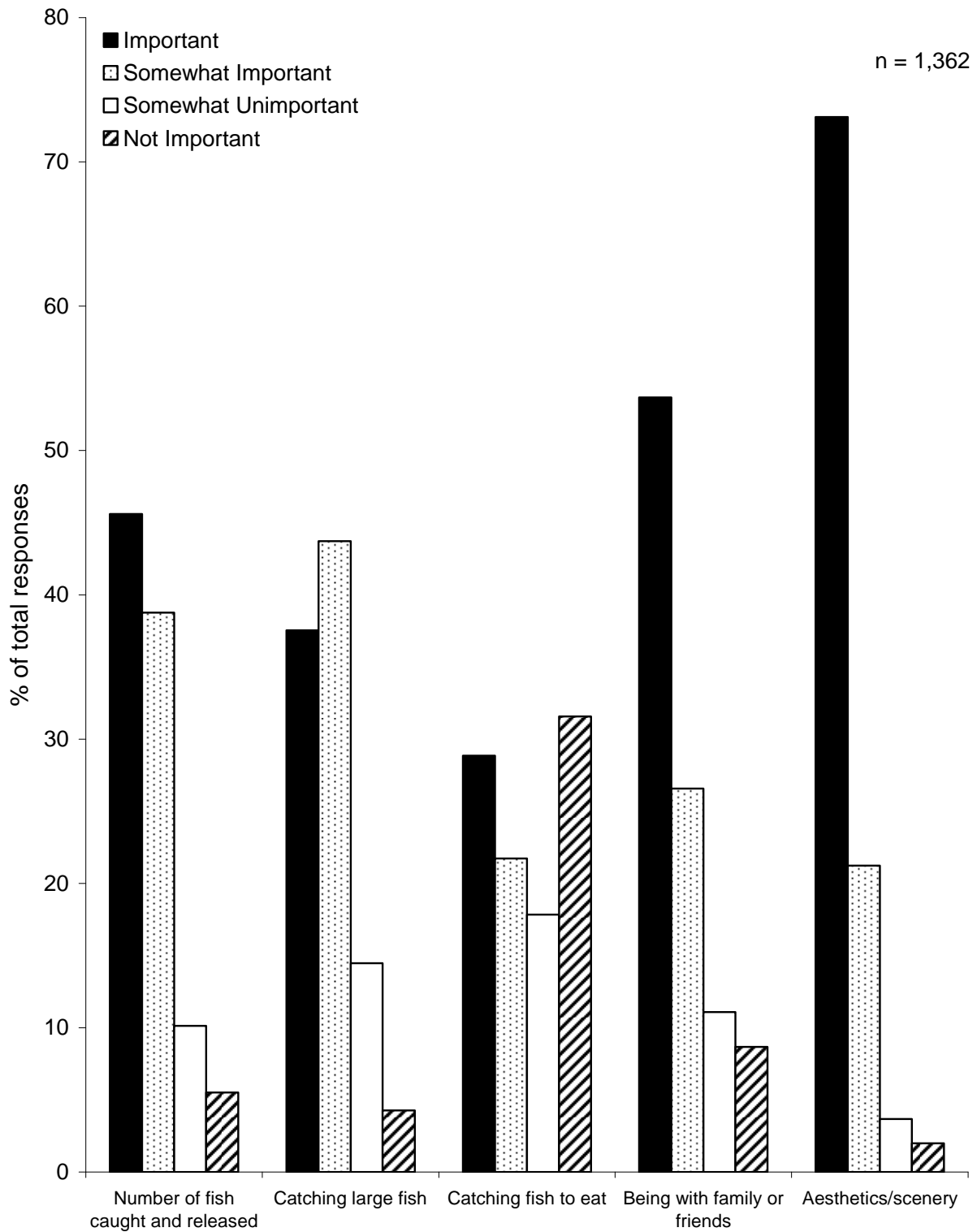


Figure 5.—Percentages of survey respondents that rated various factors as important, somewhat important, somewhat unimportant, and not important in determining the quality of their fishing experiences in Upper Peninsula streams.

Michigan Department of Natural Resources  
 Brook Trout Limits in Upper Peninsula Streams

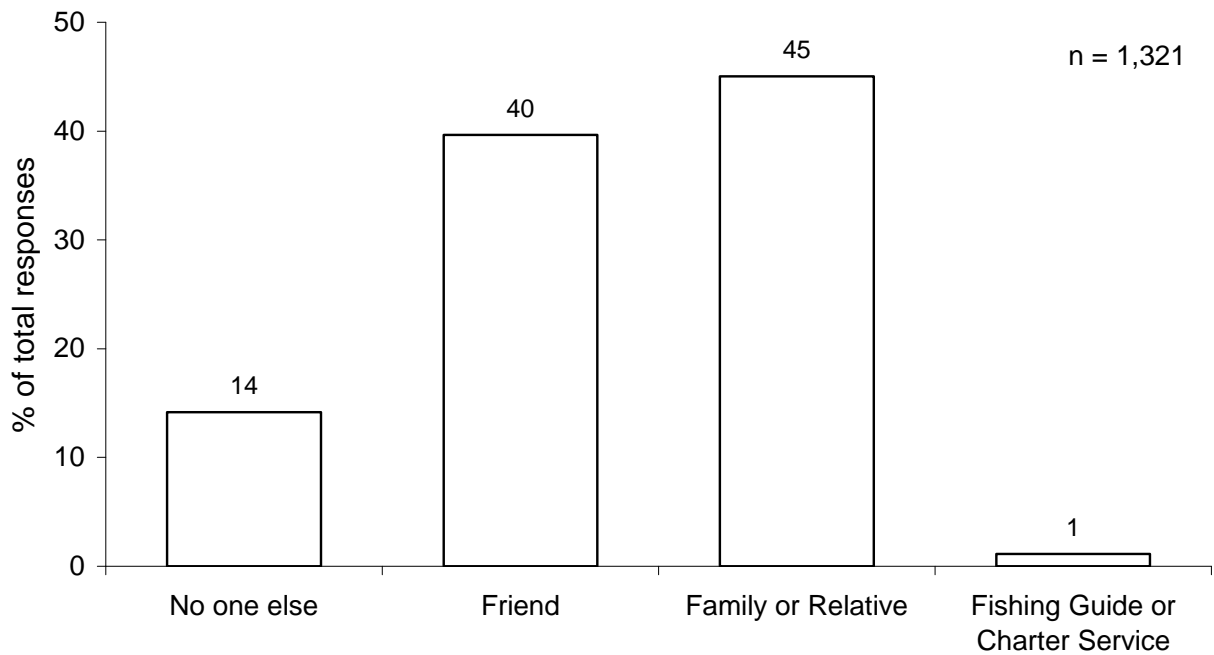


Figure 6.—Percentages of respondents who indicated that they primarily fish with no one else, friends, family or relatives, and fishing guides.

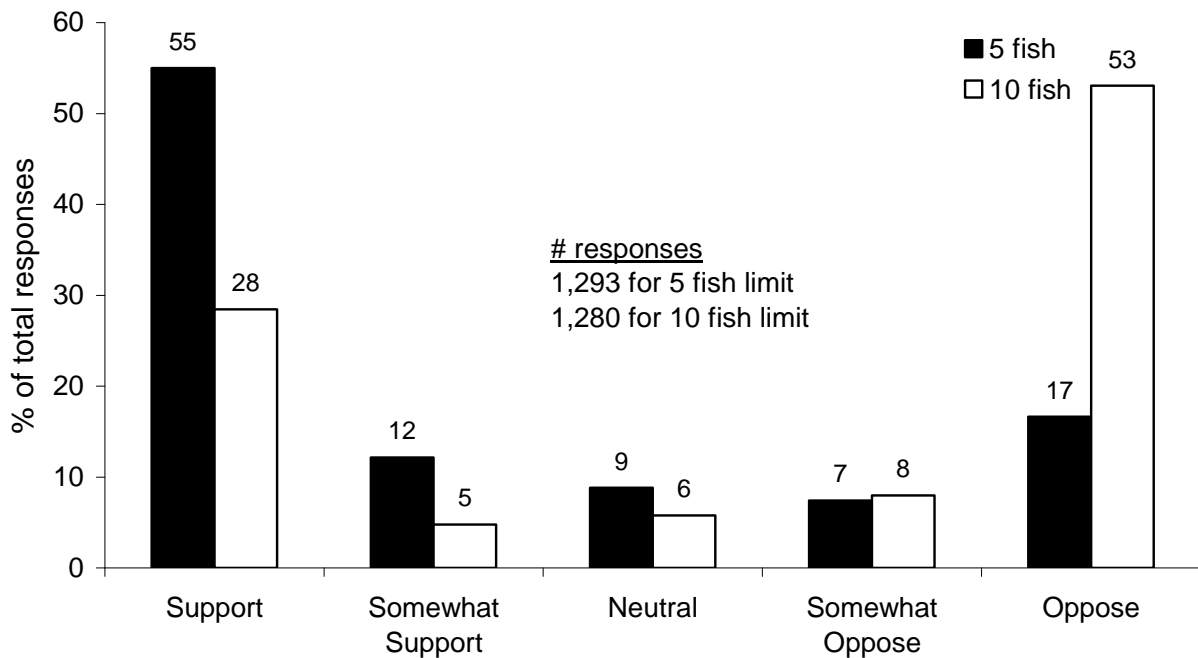


Figure 7.—Percentages of respondents who supported or opposed the existing 5 brook trout daily possession limit and the proposed 10 brook trout daily possession limit.

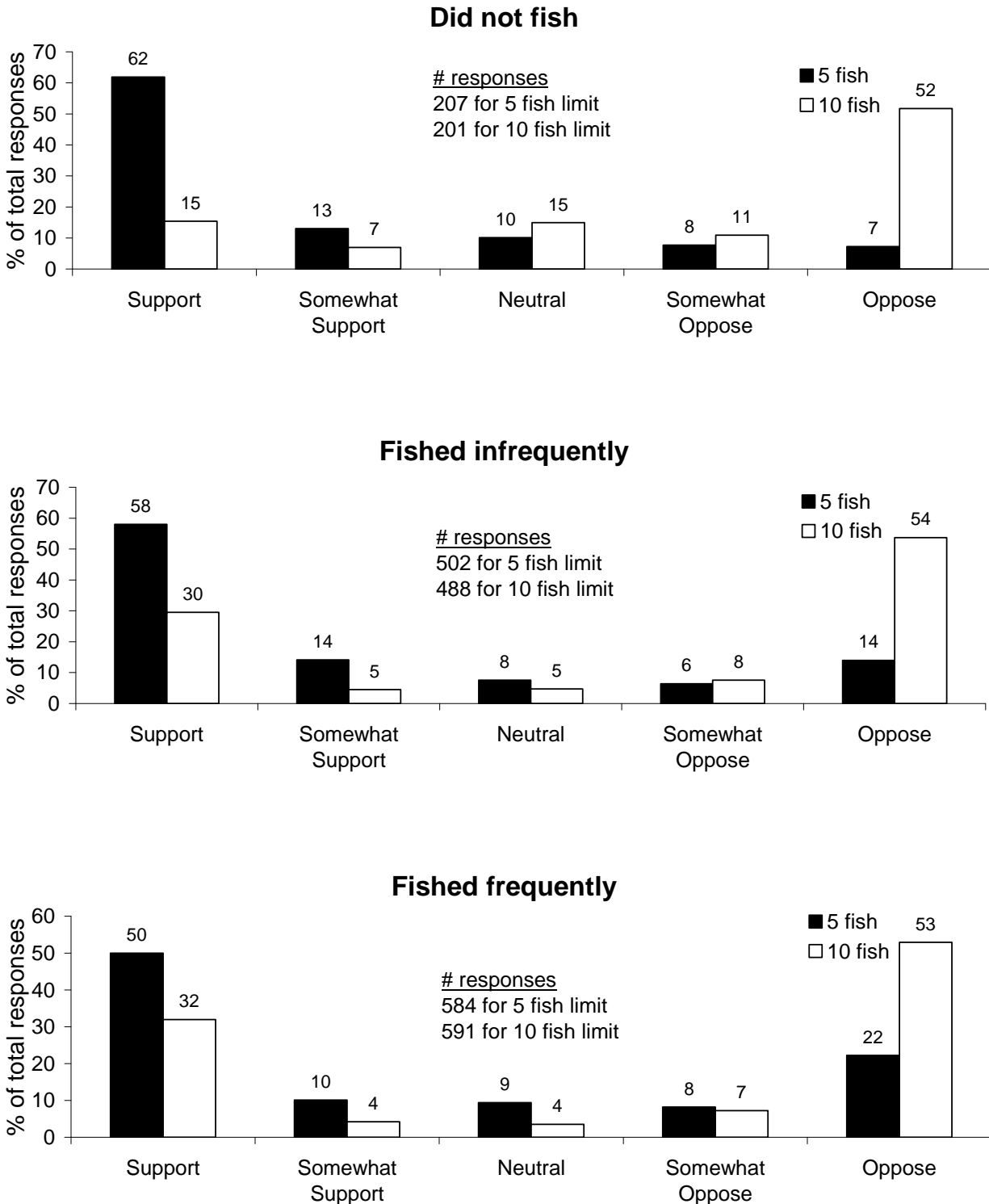


Figure 8.—Percentages of respondents who supported or opposed the existing 5 brook trout daily possession limit and the proposed 10 brook trout daily possession limit. Respondents are grouped based on how frequently they fished for brook trout in Upper Peninsula streams during the last three years. Respondents who fished more than 10 times in the last three years were placed in the “fished frequently” category, whereas those who fished 1-9 times were placed in the “fished infrequently” category.



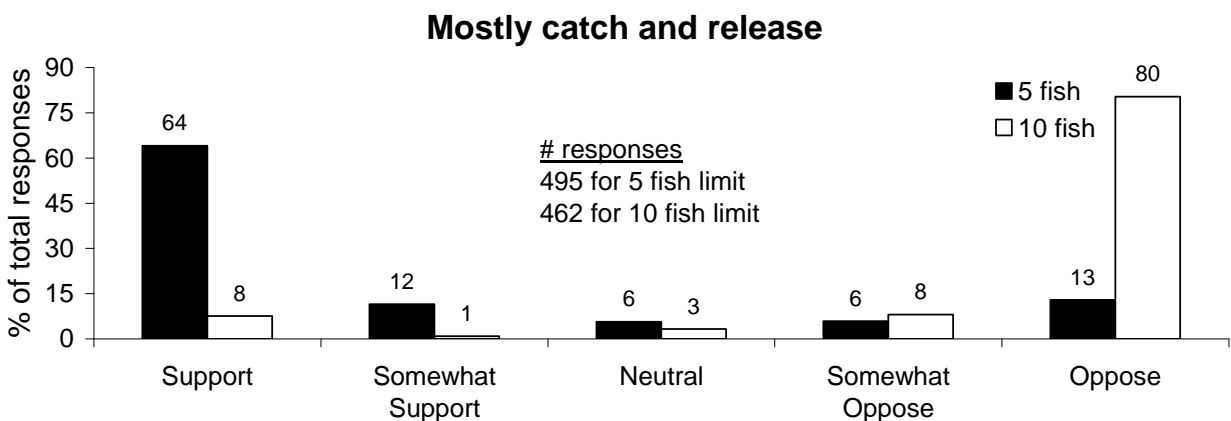
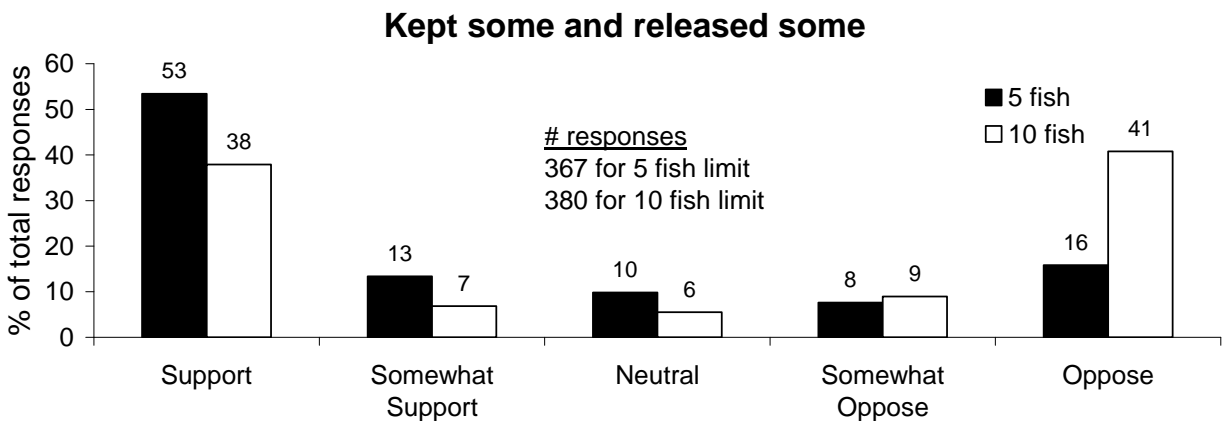
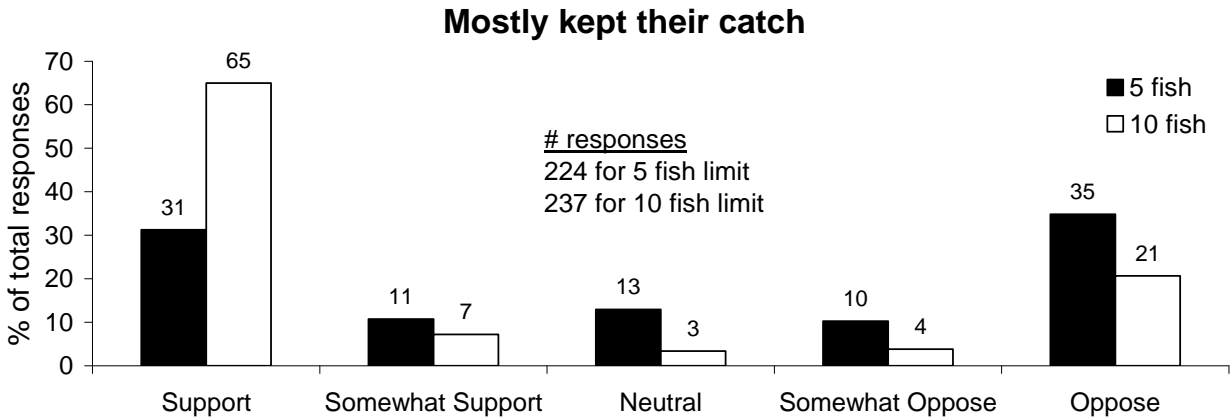


Figure 9.—Percentages of respondents who supported or opposed the existing 5 brook trout daily possession limit and the proposed 10 brook trout daily possession limit. Respondents are grouped based on whether they mostly kept their catch, kept some and released some brook trout, or primarily practiced catch and release.

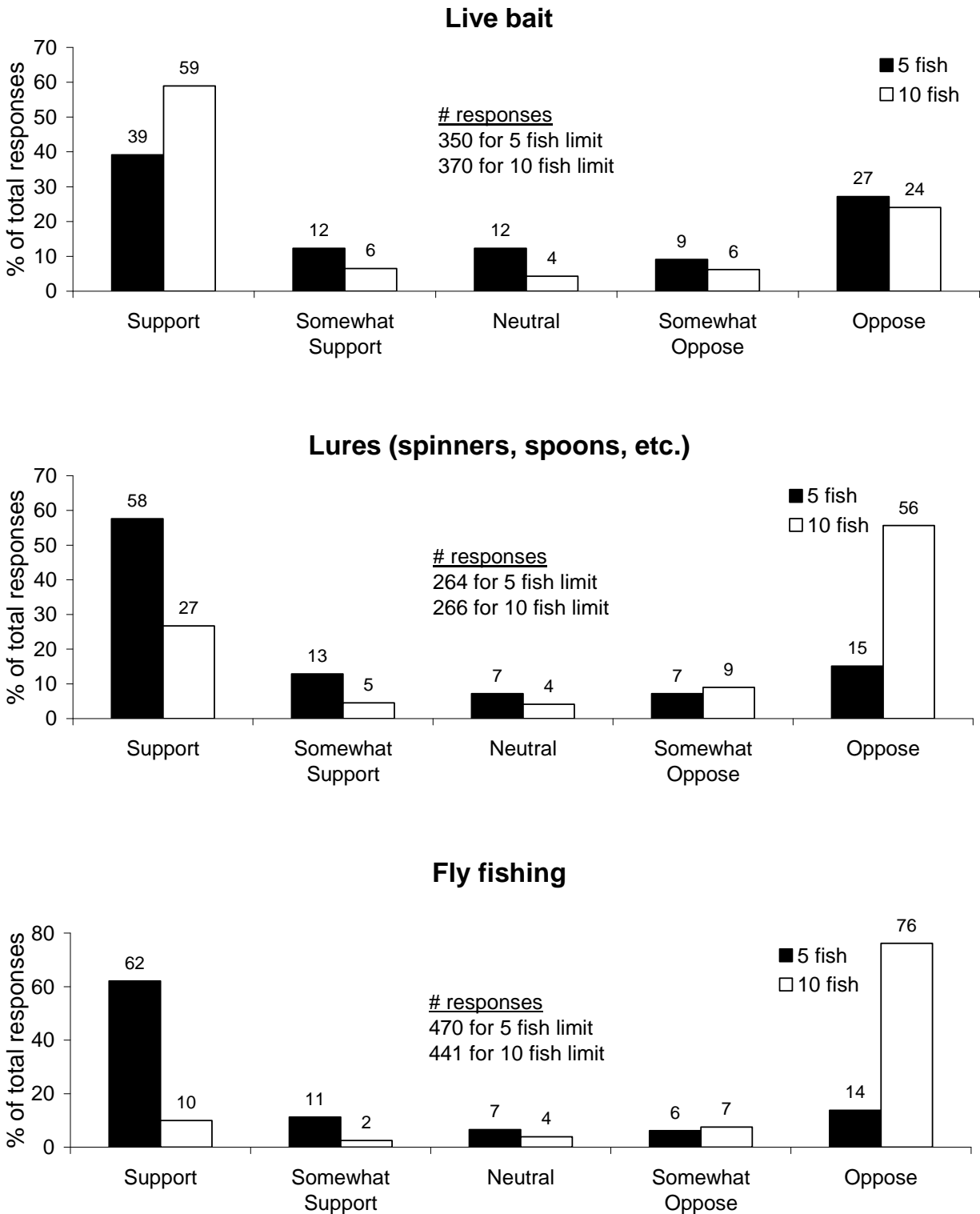


Figure 10.—Percentages of respondents who supported or opposed the existing 5 brook trout daily possession limit and the proposed 10 brook trout daily possession limit. Respondents are grouped by primary fishing method.

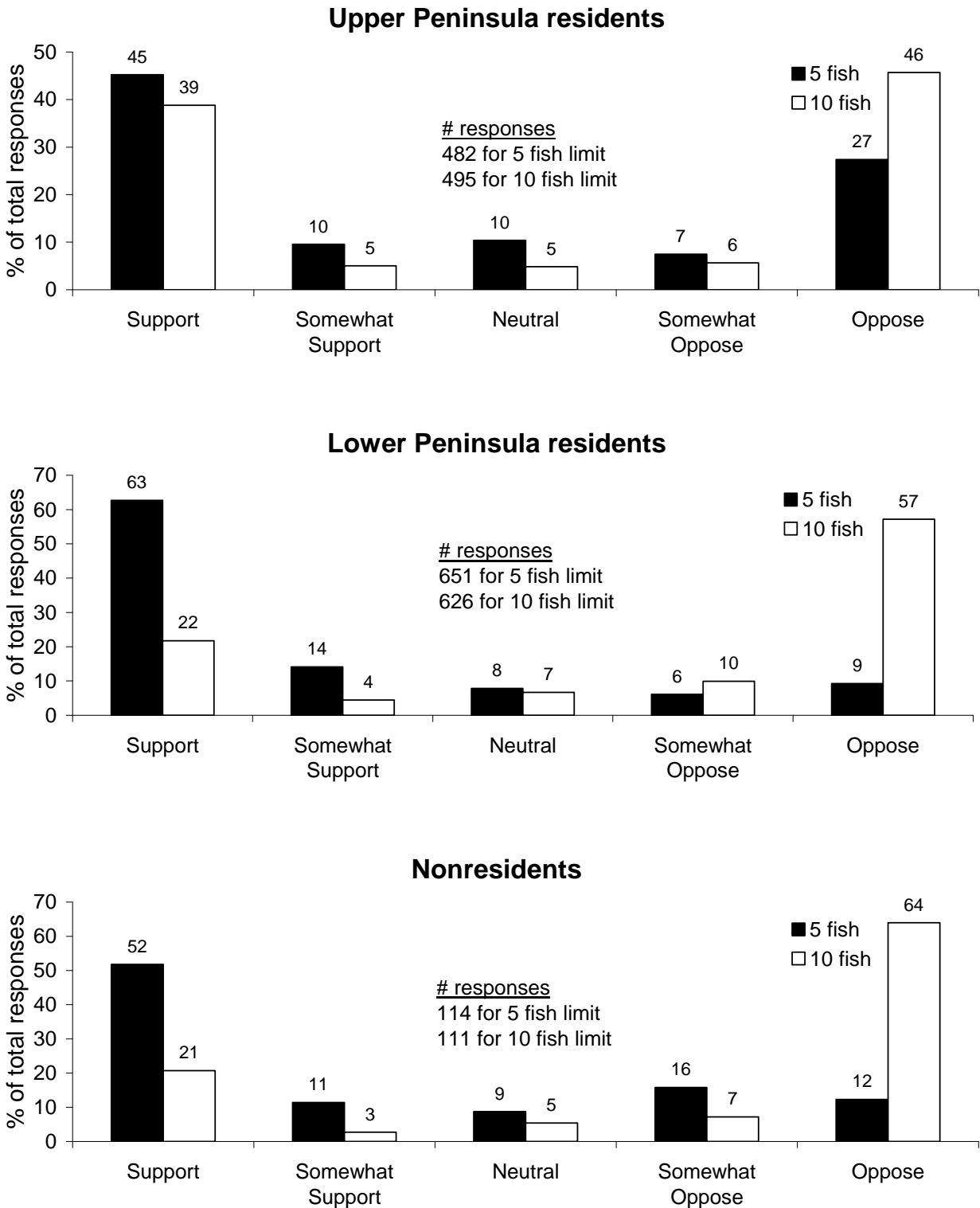


Figure 11.—Percentages of respondents who supported or opposed the existing 5 brook trout daily possession limit and the proposed 10 brook trout daily possession limit. Zip codes of primary residences were used to classify respondents as Upper Peninsula residents, Lower Peninsula residents, or nonresidents.

Michigan Department of Natural Resources  
 Brook Trout Limits in Upper Peninsula Streams

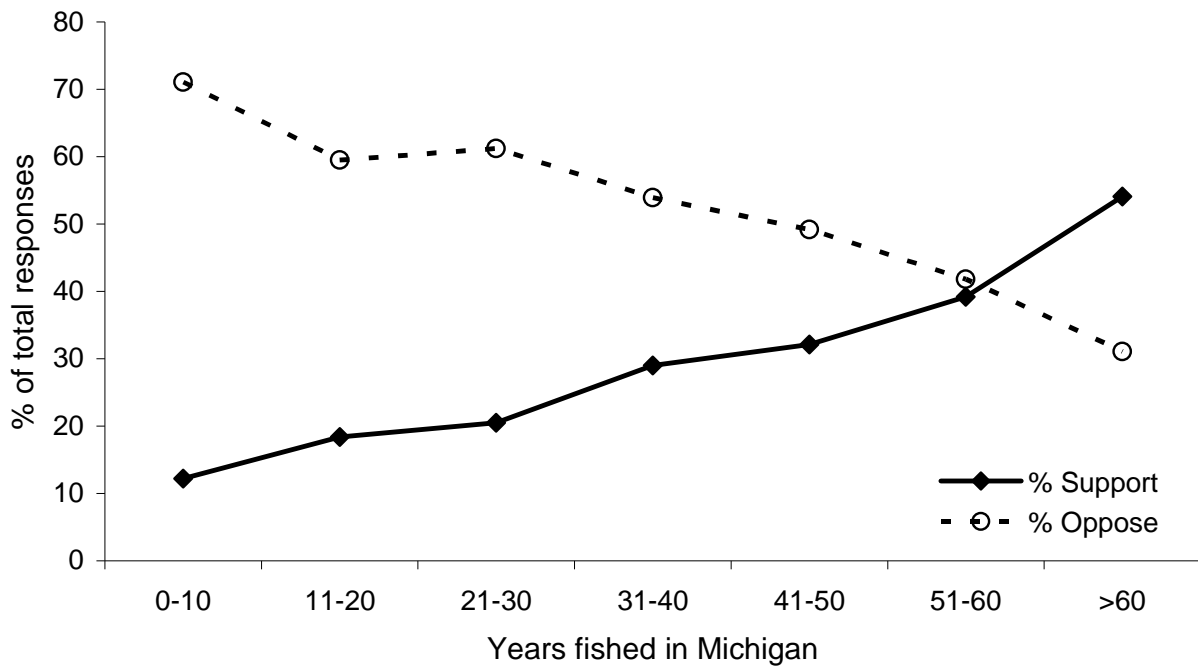


Figure 12.—Percentages of survey respondents who supported or opposed the proposed 10 brook trout daily possession limit. Respondents are grouped by number of years fished in Michigan.

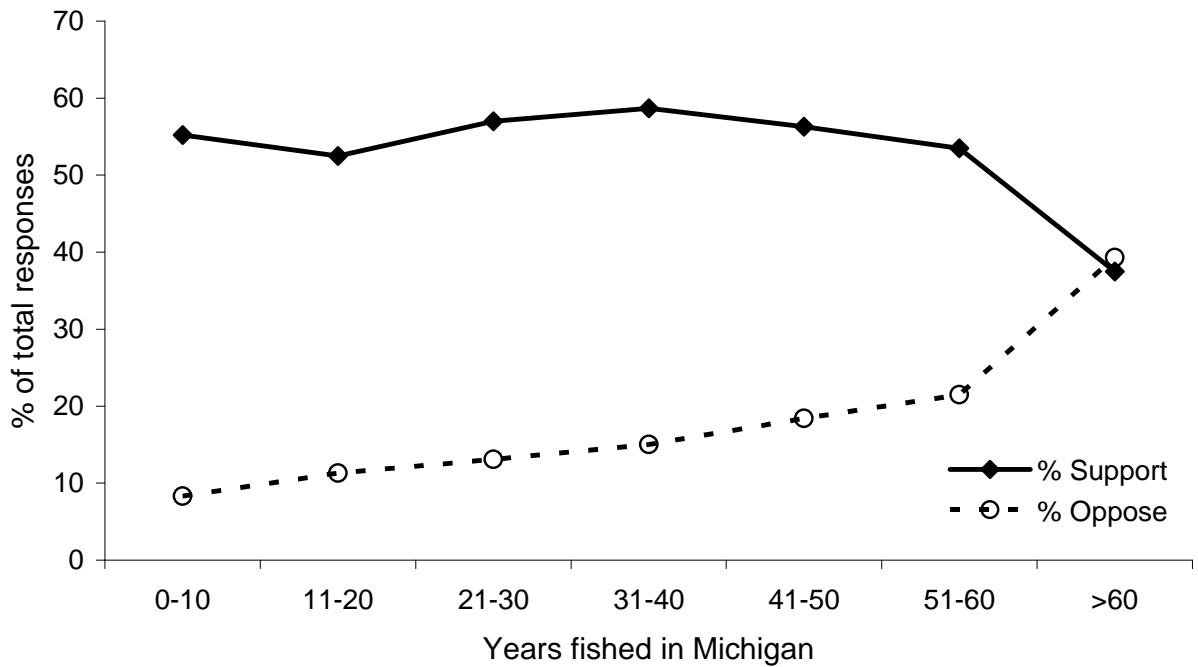


Figure 13.—Percentages of survey respondents who supported or opposed the existing 5 brook trout daily possession limit. Respondents are grouped by number of years fished in Michigan.