

**NEW YORK STATEWIDE  
ANGLER SURVEY  
2007**

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**REPORT 2:  
ANGLER CHARACTERISTICS,  
PREFERENCES, SATISFACTION, AND  
OPINION ON MANAGEMENT TOPICS**

**June 2009**



New York State Department of Environmental Conservation  
Bureau of Fisheries  
625 Broadway  
Albany, New York 12233



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ANGLER CHARACTERISTICS, PREFERENCES, SATISFACTION, AND  
OPINION ON MANAGEMENT TOPICS**

by

Nancy A. Connelly and Tommy L. Brown

## EXECUTIVE SUMMARY

To efficiently manage New York's freshwater fisheries, comprehensive information is needed periodically on the fishing patterns, preferences, and attitudes of anglers as well as the economic impacts of New York's fisheries. To gather this information, a statewide angler survey was conducted by mail in three phases over the course of 2007-08 and focused on resident and nonresident fishing experiences in New York during the calendar year 2007.

The study had multiple objectives. Those addressed in this report include:

1. Examine demographic characteristics of anglers and their level of participation consistency.
2. Assess angler preferences for species and water bodies.
3. Assess angler satisfaction with the number and size of fish caught, the DEC Bureau of Fisheries performance, and what actions the Bureau might take to increase satisfaction.
4. Assess angler opinion on several management topics: regulation of panfish sale, brown trout stocking options, amenities at boat launch and fishing access sites, and establishment of an Internet-based angler diary program.
5. Characterize anglers by region of residence in terms of their preferences, satisfactions, and views on several management topics.

For each survey phase, a random sample of 17,000 was drawn from all license holders eligible to fish during the phase. Of the 17,000 questionnaires mailed out during each phase, between 700 and 1,100 were undeliverable and between 6,000 and 8,000 completed questionnaires were returned. This resulted in adjusted response rates ranging from 38% for phase 2 to 49% for phase 3. Responses from all three phases were weighted and combined for the analysis reported herein (total = 20,775), and reflect the distribution of license types sold over a one year period. Thus, the results are representative of people who hold a license that allowed them to fish in New York State in 2007.

Anglers are older than the general population (Fig. ES-1), and the majority are male (86%), whereas the gender of the general population is almost evenly split. These findings are not new or unique to New York.

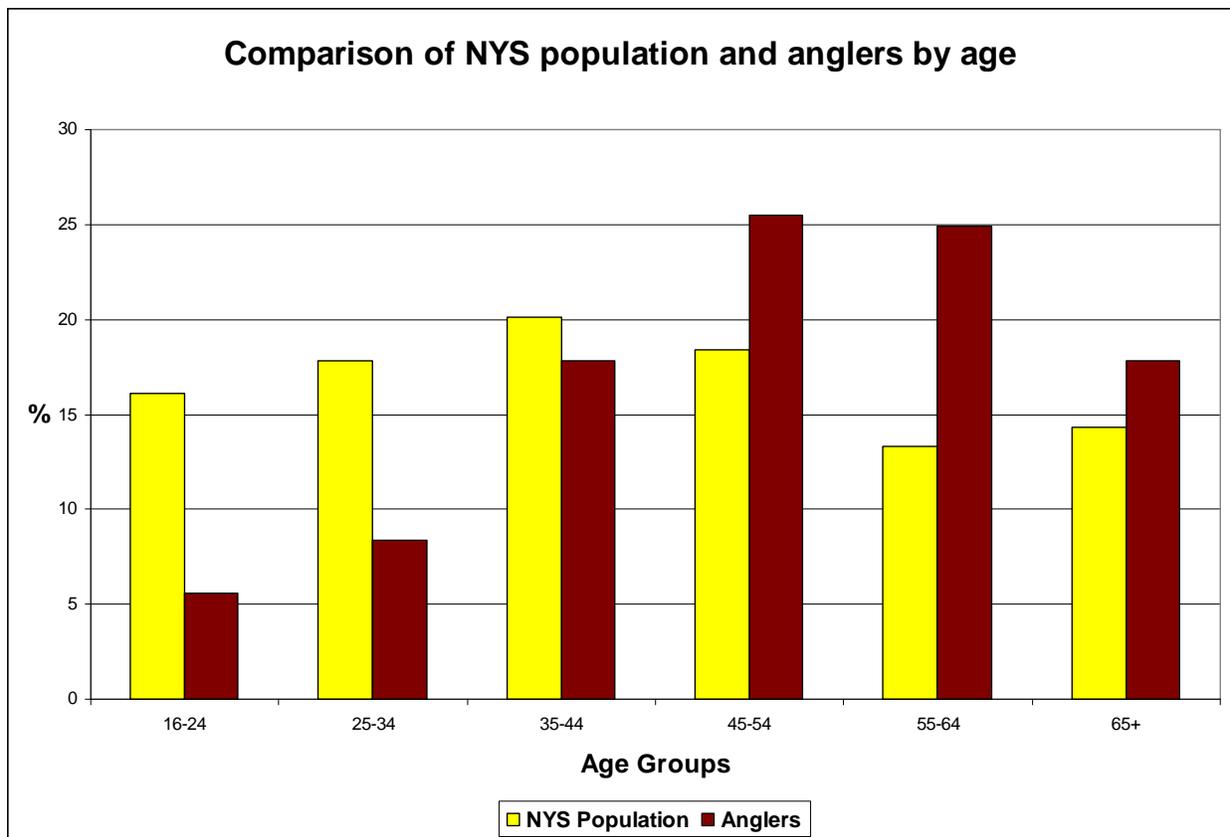


Figure ES-1. Comparison of the NYS 2005 projected population with anglers by age.

We estimated from the survey results that over half (55%) of the fishing license holders fished every year for the past five years (we considered these consistent anglers); 28% fished intermittently (in at least one year, but not all five years), and 17% did not fish at all. Respondents who had fished at least once in the past three years (2005-2007) were asked to complete the questions reported in the remainder of this report on preferences, satisfaction, and management topics. This sample represents an estimated 834,483 anglers. Of those, 68% were considered consistent anglers, using the definition above; the remainder were called intermittent anglers.

Black bass was the favorite species of one-third of responding anglers. Trout, walleye, and yellow perch were each among the top five favorite species for about half of the anglers. Most anglers (about 625,000 in total) would like to be able to fish inland lakes for warmwater species in New York. The next most popular water body type was inland trout streams, preferred by half of the anglers. Angler preferences were not limited to one water body type. On average, anglers checked 3.4 water body types from the 13 listed in the questionnaire as favorite types.

To look at angler preferences in more detail, we used cluster analysis to group anglers based on their preferences for fishing locations. We found five groups of anglers who had

similar preferences within their group, but different preferences from other groups. We named each group, and the most distinguishing characteristics of each group are discussed below.

1. The largest of the five groups (38.9%) was labeled “new experiences” because the most important factor to this group was going to new places, and getting away from the usual places.
2. The second group (20.1%) sought wild fish and unspoiled places. We labeled them “wild and unspoiled.” They wanted to fish for wild (not stocked) fish in uncrowded areas.
3. The third group (20.2%) was named “home bodies” because they wanted to fish close to home in waters where they had success catching fish in the past.
4. The fourth group (12.2%) was named “catch and access” because they wanted more so than other angler groups to have good access and be able to catch lots of fish.
5. The fifth group (8.6%) contained the smallest number of anglers. They said all the factors were important to them. Of particular importance was fishing a water that did not have a contaminant advisory, which was an item in the harvesting fish factor, and where they had the ability to catch many and large fish. Thus, we named this group “clean catch.”

Results from this analysis can be used by managers in a variety of ways. For example, knowing that almost 40% of anglers are looking for new experiences could lead to educational programs aimed at introducing anglers to the variety of fishing opportunities available in New York. Or it could lead to a desire for future research to better pinpoint the type of new experiences anglers are looking for.

Approximately half of the anglers were satisfied with the number and size of fish they caught on their fishing trips during the time period for which they were surveyed. One-quarter to one-third were neutral regarding their satisfaction, with the remainder (22-27%) being moderately or very dissatisfied. Average satisfaction levels did not vary during the year. Almost half of the anglers (49%) were satisfied with the Bureau’s efforts to restore fish populations and protect aquatic habitats. Over half of the anglers (56%) were satisfied with the quality of the information that the DEC Bureau of Fisheries provides. Very few anglers (9%) were moderately or very dissatisfied.

Anglers were asked what DEC Bureau of Fisheries might do to increase anglers’ enjoyment of their fishing trips. From the list of possible actions provided on the questionnaire, most popular were to increase the number of fishing access sites, improve facilities at existing sites, and expand opportunities to catch larger fish and wild trout.

Anglers ranked the top five amenities that they would like to see at boat launches and fishing access sites. At the top of the list were fishing piers or other shore fishing opportunities (81%), portable toilets (86%), and trash receptacles (92%). Fish cleaning stations, used fishing line receptacles, and information kiosks were next, with over 50% of anglers ranking them among the top five needed amenities.

New York is one of a few states that allows the sale of panfish caught by anglers. While over half of the license holders who had fished in the past three years (i.e., those who were asked

the questions on the sale of panfish) indicated that they would fish for panfish in 2007, very few indicated that they would sell panfish in 2007. We estimated the number of people selling panfish at just under 5,000. A plurality of anglers (48%) had no opinion on the sale of panfish. Of those who had an opinion, most (approximately 330,000) thought the sale should be banned. We estimated that 100,000 anglers thought the sale should be allowed to continue.

The DEC Bureau of Fisheries asked anglers their opinion regarding the current stocking mix of yearling and two-year old brown trout. Three-quarters of the license buyers who fished in the past three years had a brown trout stocking preference. The majority wanted to see the current mix of one and two year old brown trout maintained. Of the remainder, a slightly larger percentage wanted more two year old trout stocked compared to having only one year old trout stocked. Those who fished for trout or listed it among their top five favorite species to fish for were more likely to have an opinion about stocking, and more likely to prefer the current mix or more two year old brown trout.

## ACKNOWLEDGMENTS

Shaun Keeler and Steve Hurst of the New York State Department of Environmental Conservation (NYSDEC), Bureau of Fisheries, were our primary contacts throughout the study and headed up the Bureau Angler Survey Team. They provided invaluable help and support for the project. We also would like to thank the other members of the Bureau Angler Survey Team (Melissa Cohen, Steve LaPan, Bill Culligan, Dan Bishop, Phil Hulbert, and Bill Schoch) for their efforts in questionnaire design and analysis planning. NYSDEC consultant, Scott Houde, deserves recognition for the many hours he spent on sample selection. NYSDEC Bureau of Fisheries staff member, Casey Festa, is recognized for the many hours spent coding water bodies and reviewing data for the report.

We thank Human Dimensions Research Unit staff member, Karlene Smith, who assisted with sample selection and mailings. We also thank Margie Peech for typing the many tables in this report. The Survey Research Institute at Cornell University implemented the surveys, conducted the nonrespondent telephone follow-ups, and scanned the completed questionnaires.

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# INTRODUCTION

To efficiently manage New York's freshwater fisheries, comprehensive information is needed periodically on the fishing patterns, preferences, and attitudes of anglers as well as the economic impacts of New York's fisheries. Such information is most effectively obtained from a statewide mail survey. New York has conducted four such surveys, in 1973 (Brown 1975), in 1976-77 (Kretser and Klatt 1981), in 1988 (Connelly et al. 1990), and in 1996 (Connelly et al. 1997). This is the second in a series of four reports that will document the results of a fifth statewide angler survey. The survey was conducted in three phases over the course of 2007-08 and focused on resident and nonresident fishing experiences in New York during the calendar year 2007. The Human Dimensions Research Unit (HDRU) at Cornell University conducted the study for the Department of Environmental Conservation, Bureau of Fisheries.

The study had multiple objectives. Those addressed in this report include the following:

1. Examine demographic characteristics of anglers and their level of participation consistency.
2. Assess angler preferences for species and water bodies.
3. Assess angler satisfaction with the number and size of fish caught, the DEC Bureau of Fisheries performance, and what actions the Bureau might take to increase satisfaction.
4. Assess angler opinion on several management topics: regulation of panfish sale, brown trout stocking options, amenities at boat launch and fishing access sites, and establishment of an Internet-based angler diary program.
5. Characterize anglers by region of residence in terms of their preferences, satisfactions, and views on several management topics.

## Report Organization

The remainder of the report is divided into six sections. The first deals with methods used to collect data and the results of that effort (e.g., response rates). The remaining sections each deal with one objective listed above. Extensive appendix tables are used to provide more detailed information on comparisons discussed in each section.

## SECTION I: METHODS AND INITIAL RESULTS

### Questionnaire Design

The Bureau of Fisheries Angler Survey Team met numerous times to go over questions from past surveys and develop new ones to address issues of current interest and management needs. Core questions on fishing effort and expenditures were retained from past surveys to allow for trends comparisons, and are reported on primarily in Report 1 (Connelly and Brown 2009). New questions on angler satisfaction, preferences,

and opinions on management issues were developed and are discussed in this report. Appendix A shows the exact content and wording of the questionnaire.

### **Sample Selection**

Dissimilar to previous statewide angler surveys, which were conducted using a single annual mailing, the 2007 survey was implemented at three different times during the calendar year. By using a three-wave approach, we hoped to reduce the amount of recall bias associated with angler trip recollection. For each phase, a random sample of 17,000 was drawn from all license holders eligible to fish during the phase. Lifetime licenses holders aged 16 or older at the time the survey was implemented were included in the random drawing. Other license types that permitted fishing included annual resident fishing and sportsman, annual nonresident fishing and sportsman, and short-term (1-day, 7-day) resident and nonresident fishing licenses.

### **Mail Survey Implementation**

The mail survey for each phase was implemented as soon as possible after the phase period ended. The first phase covered the period from Jan. 1 to May 31, 2007. The surveys were sent out on May 31, 2007 with up to three follow-up mailings sent to nonrespondents over the course of the following month. Phase 2 covered the period from June 1 to Sept., 30, 2007, and the first mailing of the survey was sent out on Oct. 18, 2007. Phase 3 covered the period from Oct. 1 to Dec. 31, 2007, and the first mailing of the survey was sent out on Jan. 7, 2008.

### **Nonrespondent Telephone Follow-up**

A telephone follow-up to 200 nonrespondents was implemented after each phase, for a total of 600 nonrespondent interviews. Questions were asked on fishing effort and satisfaction to provide an estimate of the degree to which nonrespondents differed from respondents.

### **Analysis and Data Weighting**

Returned mail questionnaires were scanned. The data were entered into SPSS (a statistical analysis package for the social sciences).

Generally questions analyzed in this report are not associated with a specific timeframe, thus, responses from all three survey phases can be combined. However, in each phase only license holders eligible to fish during that phase were sampled, resulting in a combined sample with more sportsmans' license holders than fishing license holders, as compared to the annual number of licenses sold. Therefore, weighting of the combined data file was needed to accurately represent the views of anglers who purchased a license in 2007. This was accomplished by giving more weight to "fishing only" license holders and less weight to sportsman license holders. Also there was a difference in response rate by license type, with short-term license holders responding at

a lower rate than other types of license holders (Appendix Table B-1). This was adjusted for in the weighting as well. The final combined sample reflected the distribution of license types sold over a one year period, and thus, the results are representative of people who hold a license that allowed them to fish in New York State in 2007.

Nonrespondents who were contacted by telephone were considered to be representative of all nonrespondents. Checks of license type partially confirmed this assumption. Comparisons indicated that respondents were less satisfied than nonrespondents with the number and size of fish caught, and DEC Bureau of Fisheries performance (Appendix Table B-2). These differences may be due in part to the reluctance of some anglers to tell phone interviewers that they were dissatisfied. We did not adjust the results to reflect the difference between respondents and nonrespondents, preferring instead to focus on respondents who were more negative as a baseline/benchmark for gauging improvements desired by DEC Bureau of Fisheries.

### Mail Survey Response

Of the 17,000 questionnaires mailed out during each phase, between 700 and 1,100 were undeliverable and between 6,000 and 8,000 completed questionnaires were returned (Table 1). This resulted in adjusted response rates ranging from 38% for phase 2 to 49% for phase 3.

	Phase 1 (Jan.-May)	Phase 2 (June-Sept.)	Phase 3 (Oct.-Dec.)
Initial sample size	17,000	17,000	17,000
Undeliverable	800	1,103	751
Undeliverable rate	4.7%	6.5%	4.4%
Responses	6,823	6,018	7,934
Response rate adjusted for undeliverables	42.1%	37.9%	48.8%

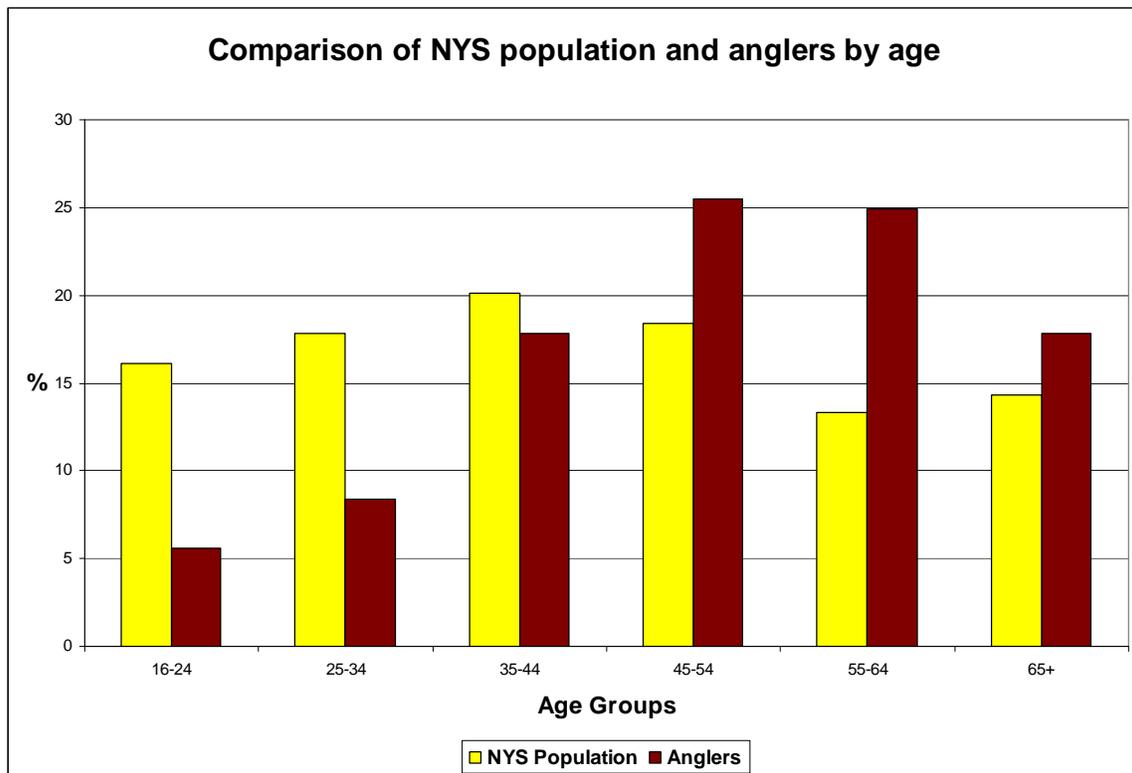
## SECTION II: ANGLER DEMOGRAPHICS AND CONSISTENCY

Anglers are older than the general population. While this finding is by no means new or unique to New York, the differences shown in Table 2 are quite striking. The proportion of anglers in the youngest two age brackets (14%) is half that of the NYS population in the same age brackets (34%). A few caveats about the numbers in Table 2: 1) anglers were defined here as those who fished at least one day during the time period for which they were surveyed. Some survey respondents who did not fit this definition of angler could still be considered anglers if they fished in another time period than the one they were sampled for, 2) people who respond to mail surveys tend to be a little older than the general population, and 3) survey respondents are not all residents of NYS. Still

**Table 2. Comparison of NYS population with age and gender of survey respondents, and among respondents those who indicated they fished at least one day during the time period about which they were surveyed.**

<i>Age</i>	NYS 2005 Projected Population*	Survey Respondents	Anglers (i.e., fished at least once during time period surveyed)
	Percent		
16-24	16.1	5.0	5.6
25-34	17.8	7.3	8.4
35-44	20.1	15.3	17.8
45-54	18.4	23.4	25.5
55-64	13.3	23.3	24.9
65+	14.3	25.7	17.8
<b>Gender</b>			
Male	48.4	86.1	85.6
Female	51.6	13.9	14.4

\*Source: <http://pad.human.cornell.edu/che/BLCC/pad/data/projections.cfm>



given these caveats, anglers fishing in New York are clearly older than the population as a whole.

The majority of survey respondents and anglers are male, whereas the gender of the general population is almost evenly split (Table 2). Again, this finding is not new or unique to New York.

Because the definition of an “angler” changed between this study and the previous statewide angler survey (Connelly et al. 1997), exact comparisons are not possible. However, the current study shows an even older angler population than previously reported, and perhaps a slight increase in the proportion of anglers who are women.

Using data provided by the DEC Bureau of Fisheries on license sales in New York in 2007, we estimated that 1,031,500 people possessed a short-term, annual, resident, nonresident, or lifetime license that gave them the privilege of fishing in New York State in 2007. Of those people, we estimated from the survey results that over half (55%) fished every year for the past five years; 28% fished intermittently (in at least one year, but not all five years), and 17% did not fish at all. The proportions were similar between residents of Regions 3 through 9, but fewer people who had a license actually fished from Regions 1 and 2 (Table 3). (See Figure 1 for a map of DEC Regions.) Out-of-state anglers were more likely to be intermittent anglers in New York. If we define consistent anglers as those who fish every year of the last five years, then over half a million people are consistent New York State anglers.

Respondents who had fished at least once in the past three years (2005-2007) were asked to complete the questions reported in the remainder of this report on preferences, satisfaction, and management topics. These respondents represent an estimated 834,483 anglers. Of those, 68% were considered consistent anglers, using the definition above; the remainder were called intermittent anglers. While out-of-state anglers were considered more intermittent in their participation than anglers in other regions over the past five years, they were more likely to have fished in the past three years (Table 3). This probably can be attributed to out-of-state anglers who had to purchase a more expensive nonresident license in anticipation of a trip to New York State in 2007, being more likely to fish in 2007 than resident anglers.

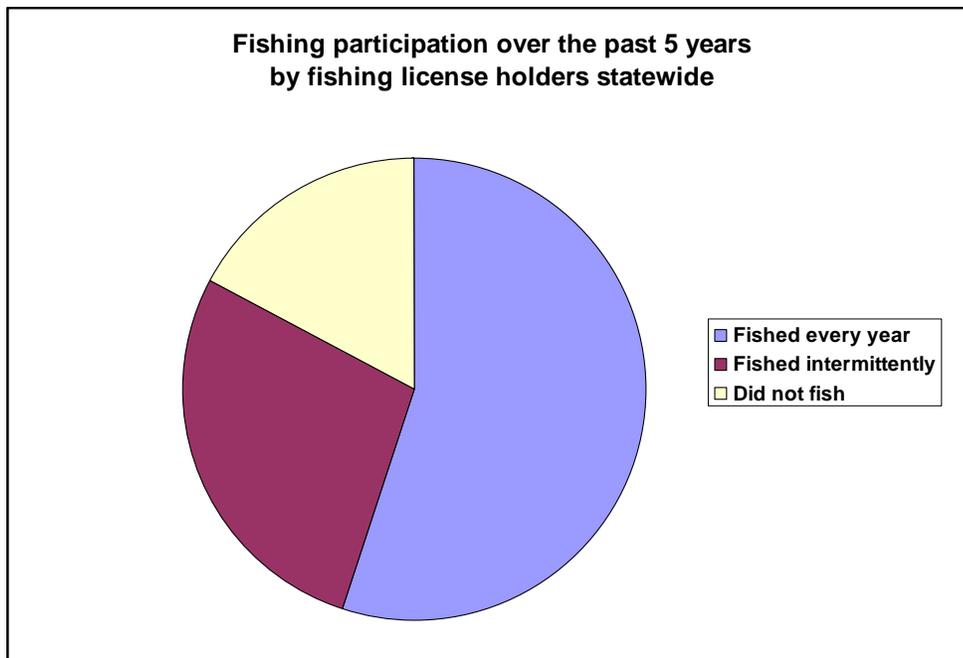
## **SECTION III: ANGLER PREFERENCES FOR SPECIES AND WATER BODIES**

### **Species Preferences**

Anglers were asked to rank their five favorite species to fish for in New York State, and over three-quarters chose black bass as one of their top five (Table 4, Fig. 2). Black bass was also the favorite species of one-third of responding anglers, followed by trout, walleye, and yellow perch, which were each among the top five for about half of the anglers. Preferences differed by DEC region of residence (detailed in Appendix Tables B3 - B12).

**Table 3. Past fishing activity of fishing license holders, statewide and by DEC region of residence.**

	Did not fish in past 5 years	Fished intermittently (at least 1 year, but not all 5 years)	Fished every year	Fished in 2007 or 2006 or 2005
	% (and estimated number) of license holders			
Statewide	17.2 (177,418)	27.9 (287,788)	54.9 (566,294)	80.9 (834,483)
Region 1	28.3 (9,341)	25.0 (8,252)	46.7 (15,415)	68.9 (22,742)
Region 2	26.1 (6,192)	30.7 (7,283)	43.2 (10,249)	72.6 (17,224)
Region 3	19.0 (20,186)	23.9 (25,392)	57.1 (60,666)	78.5 (83,402)
Region 4	20.0 (16,298)	23.8 (19,394)	56.2 (45,796)	77.8 (63,398)
Region 5	17.3 (11,956)	21.9 (15,135)	60.8 (42,019)	81.0 (55,980)
Region 6	18.5 (15,839)	23.4 (20,034)	58.1 (49,742)	79.4 (67,978)
Region 7	17.2 (26,613)	23.6 (36,515)	59.2 (91,597)	80.8 (125,018)
Region 8	19.7 (29,871)	22.0 (33,359)	58.3 (88,401)	78.3 (118,727)
Region 9	18.1 (28,752)	23.5 (37,330)	58.4 (92,769)	79.6 (126,445)
Out-of-state	7.5 (12,455)	50.8 (84,364)	41.7 (69,252)	91.8 (152,454)



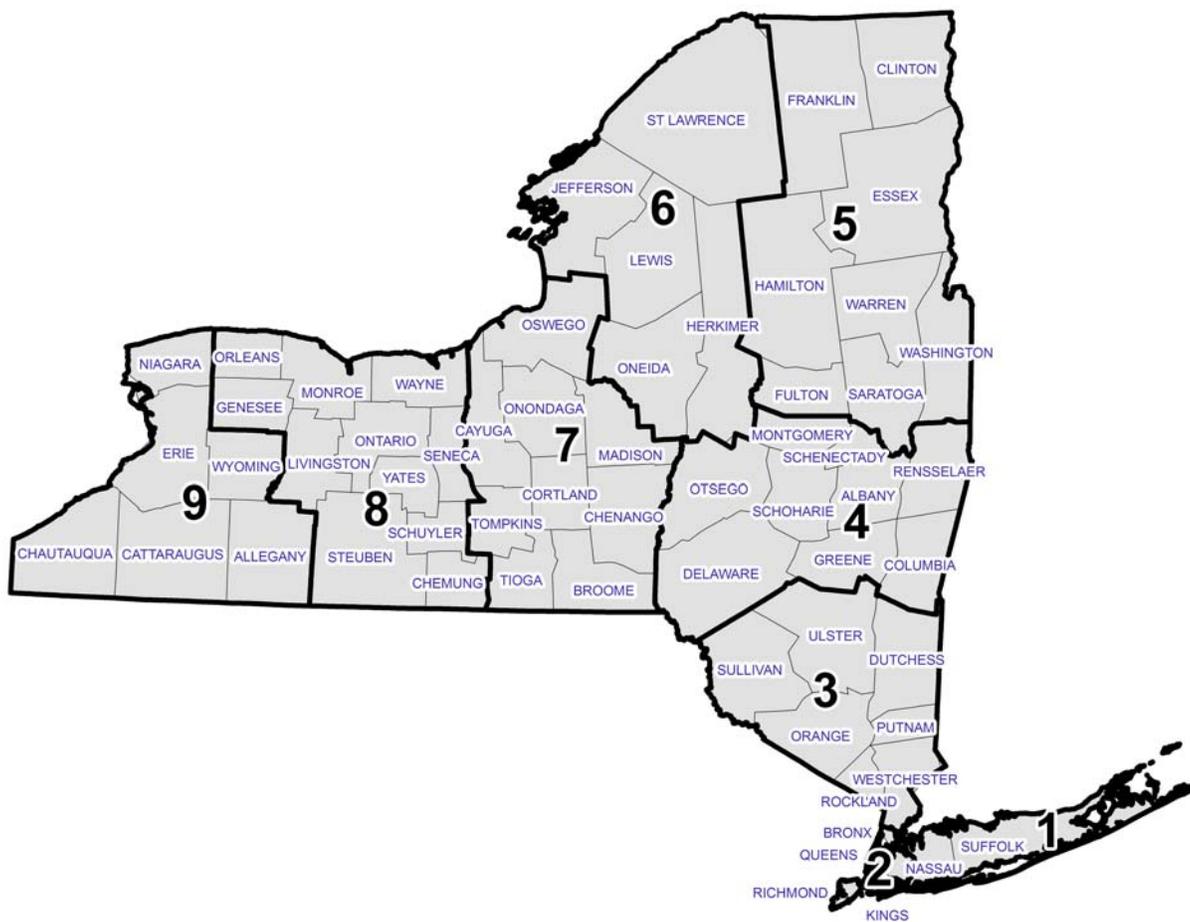


Figure 1. Map showing DEC Regions in New York State.

<b>Table 4. Anglers' five favorite species to fish for in New York State.</b>						
	#1	#2	#3	#4	#5	Among top 5
<i>Favorite species</i>	Percent					
Black Bass	32.3	17.7	12.0	8.1	6.0	76.1
Trout	22.6	12.4	9.7	8.0	5.7	58.4
Walleye	11.2	10.3	9.4	8.8	7.0	46.7
Coho/Chinook Salmon	5.5	4.3	4.0	3.2	3.0	20.0
Steelhead	4.3	6.3	4.1	3.7	2.6	21.0
Yellow Perch	3.9	9.0	10.9	11.0	9.8	44.6
Northern Pike	3.4	8.8	8.4	8.2	7.3	36.1
Lake Trout	3.1	6.6	7.0	6.5	5.4	28.6
Bullhead/Catfish	1.8	3.4	4.7	5.3	6.4	21.6
Landlocked Atlantic Salmon	1.6	2.8	2.7	2.9	2.4	12.4
Crappie/Calico Bass	1.6	3.8	5.0	6.2	5.2	21.8
Striped Bass	1.4	2.4	3.0	2.9	2.6	12.3
Sunfish	1.3	2.8	4.9	6.4	8.1	23.5
Muskie	0.7	1.0	1.5	2.0	2.6	7.8
Carp	0.4	0.5	0.7	1.1	1.8	4.5
Pickrel	0.2	1.5	2.7	2.5	2.8	9.7
Tiger Muskellunge	0.2	0.6	0.9	1.2	1.2	4.1
Shad	0.1	0.2	0.3	0.3	0.6	1.5
No Specific Type	1.4	0.4	0.6	0.7	5.5	8.6

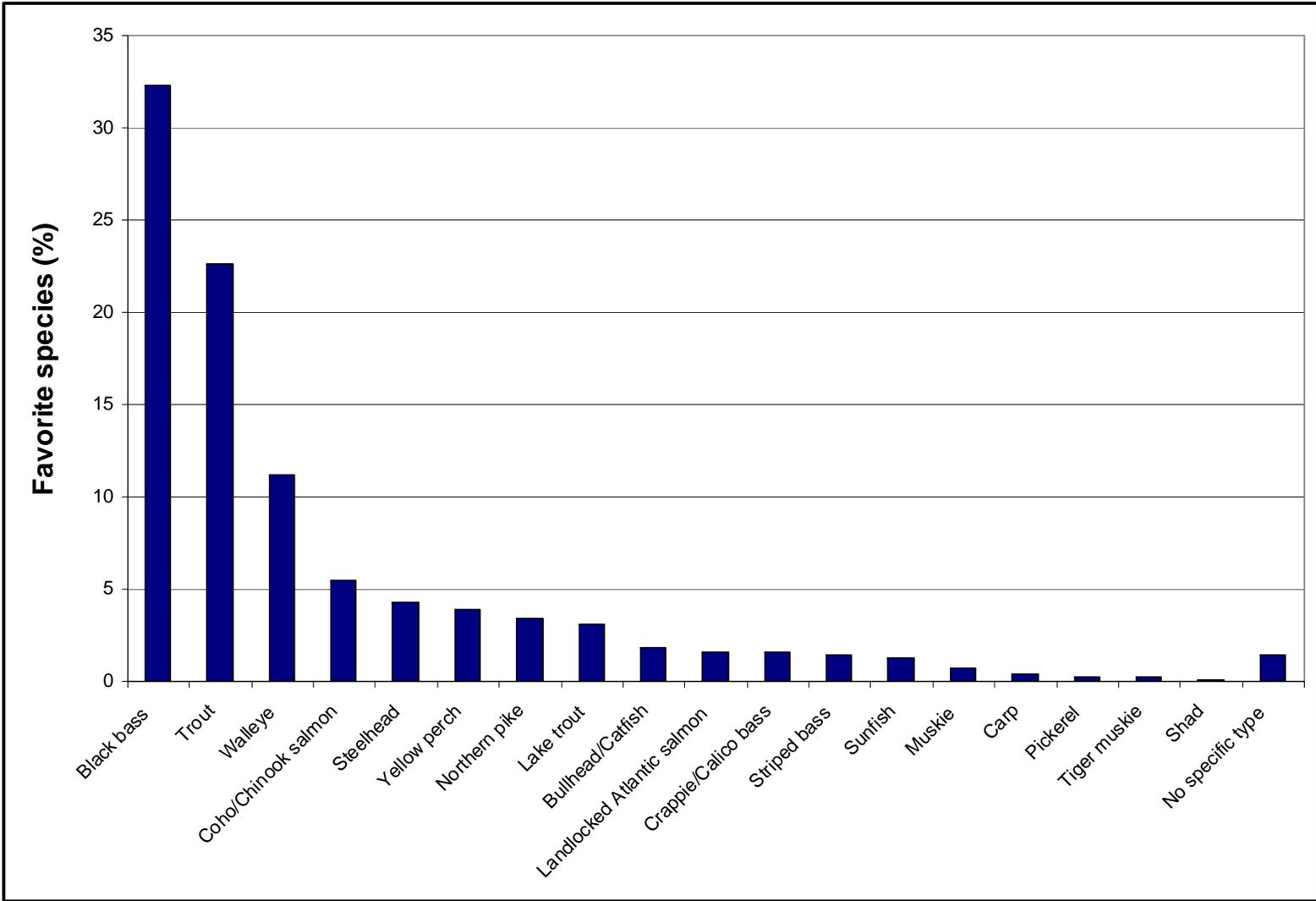


Figure 2. Anglers' favorite species to fish for in New York State.

Many anglers had the opportunity to fish for their favorite species during the time period for which they were surveyed (Table 5). Since the time period during which anglers were asked to report their fishing participation might not have encompassed their primary fishing season, it is quite likely that they may have had the opportunity to fish for their favorite species at other times in 2007. For example, anglers who listed striped bass as their favorite species but were surveyed during Jan.-May, when the season was partially closed, might not have fished for their favorite species during the period they were surveyed. However, they may have had an opportunity to fish for striped bass at another time during 2007. Therefore, the percentages in Table 5 are likely lower than if anglers were asked to report their fishing participation over a one year period.

Warmwater gamefish (i.e., black bass, walleye, northern pike, muskie, and tiger muskie) was the favorite species group to fish for by almost 50% of all anglers (Table 6). Over one-third of anglers reported a coldwater gamefish (i.e., trout and salmon) as their favorite. Few anglers listed panfish (i.e., yellow perch, bluegill/sunfish, bullheads/catfish, and crappie/calico bass), marine/anadromous (i.e., shad and striped bass), or carp as their favorite species to fish for. Residents of Regions 1, 6, 7, 8, and 9 were more likely to favor warmwater gamefish, whereas coldwater gamefish were more popular than average among Region 2, 3, 4, 5, and out-of-state anglers. As expected, marine/anadromous species were more popular among anglers who lived closest to marine waters.

### **Water Body Preferences**

Most anglers (about 625,000 in total) would like to be able to fish inland lakes for warmwater species in New York (Table 7, Fig. 3). The next most popular water body type was inland trout streams, preferred by half of the anglers. Angler preferences were not limited to one water body type. On average, anglers checked 3.4 water body types listed in Table 7; only 17% checked just one water body type. Other water body types preferred by over one-quarter of anglers were inland lakes for trout or salmon, the open water of Lake Ontario, and inland streams for warmwater species. Preferences differed based on where anglers live. These results are detailed in Appendix Table B-13. Table B-14 shows that consistent anglers prefer more water body types than intermittent anglers.

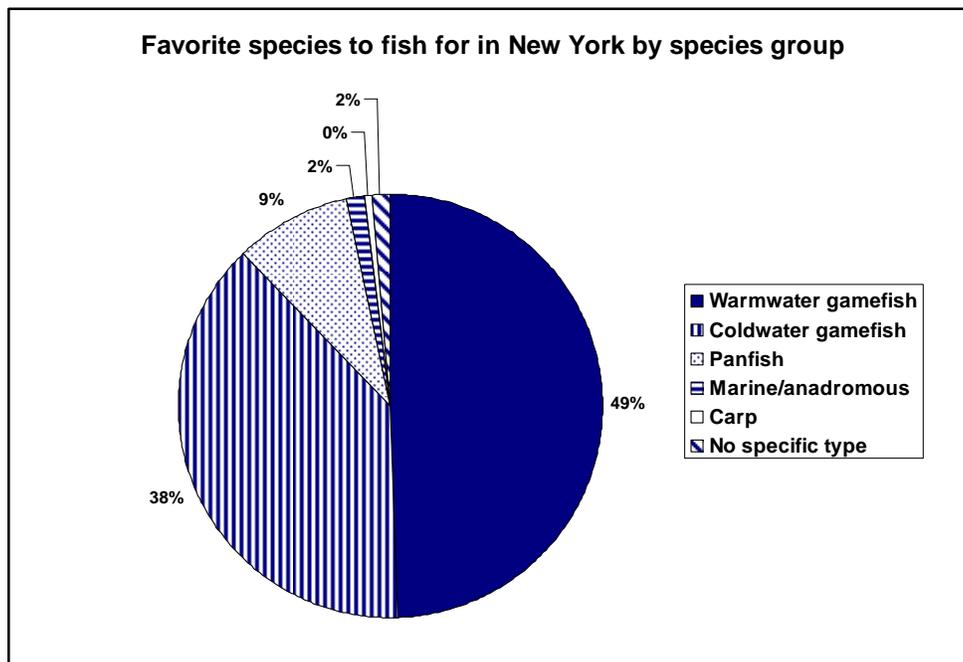
For those water body preferences that could be checked, almost all anglers who fished a water body listed it as a preferred location. For example, 96% of those who fished the St. Lawrence River in 2007 indicated it was a type of water that they preferred to fish in New York State. The same was true for anglers fishing the Niagara River (97%), Lake Erie (91%), and to a slightly lesser extent Lake Ontario (84%). Thus, it appears that anglers are fishing the waters they prefer to fish.

**Table 5. Anglers who fished at least one day for their favorite species during the time period they were surveyed.**

<i>Species</i>	Percent who fished at least one day for favorite species during survey time period
Black bass	65.4
Trout	66.7
Walleye	62.9
Coho/Chinook Salmon	68.5
Steelhead	73.1
Yellow Perch	65.3
Northern Pike	64.9
Lake Trout	58.5
Bullhead/Catfish	45.8
Landlocked Atlantic Salmon	61.6
Crappie/Calico Bass	64.5
Striped Bass	43.8
Sunfish	57.2
Muskie	47.6
Carp	51.4
Pickerel	68.0
Tiger Muskellunge	13.0
Shad	64.3

**Table 6. Anglers' favorite species to fish for in New York (grouped by type), overall and by region of residence and participation consistency.**

	Favorite species to fish for in New York					
	Warmwater Gamefish	Coldwater Gamefish	Panfish	Marine/Anadromous	Carp	No Specific Type
	Percent					
Overall	49.4	38.3	8.9	1.5	0.4	1.5
Region of Residence						
1	55.2	32.9	4.0	3.3	1.3	3.3
2	42.4	42.0	4.7	6.2	4.0	0.7
3	44.0	43.1	5.2	5.8	0.5	1.4
4	47.4	40.8	5.5	3.8	0.4	2.1
5	42.4	44.4	10.7	0.6	0.2	1.7
6	56.6	32.2	10.2	0.1	0.2	0.7
7	56.7	29.4	11.4	0.8	0.4	1.3
8	55.0	26.8	15.5	0.5	0.3	1.9
9	55.4	30.6	11.2	0.6	0.3	1.9
Out-of-state	37.0	58.2	3.0	0.8	0.1	0.9
Participation consistency						
Consistent	51.1	37.3	9.1	1.3	0.3	0.9
Intermittent	45.7	40.5	8.4	2.1	0.5	2.8



<b>Table 7. Water body preferences of fishing license holders who have fished in New York State in past three years.</b>	
<i>Water Body Preferences</i>	% (and estimated number) of license holders who fished in past 3 years
Inland lakes for warm water species	74.9 (625,028)
Inland trout streams	50.3 (419,745)
Inland lakes for trout or salmon	39.5 (329,621)
Lake Ontario—open water	25.2 (210,290)
Inland streams for warm water species	25.0 (208,621)
Large warm water rivers	23.4 (195,269)
Lake Ontario—tributaries for lake run trout and salmon	22.1 (184,421)
Back country Adirondack ponds	21.0 (175,241)
Inland streams for lake run trout and salmon	19.7 (164,393)
St. Lawrence River	16.6 (138,524)
Lake Erie—open water	11.5 (95,966)
Niagara River	9.1 (75,938)
Lake Erie—tributaries for lake run trout and salmon	8.3 (69,262)

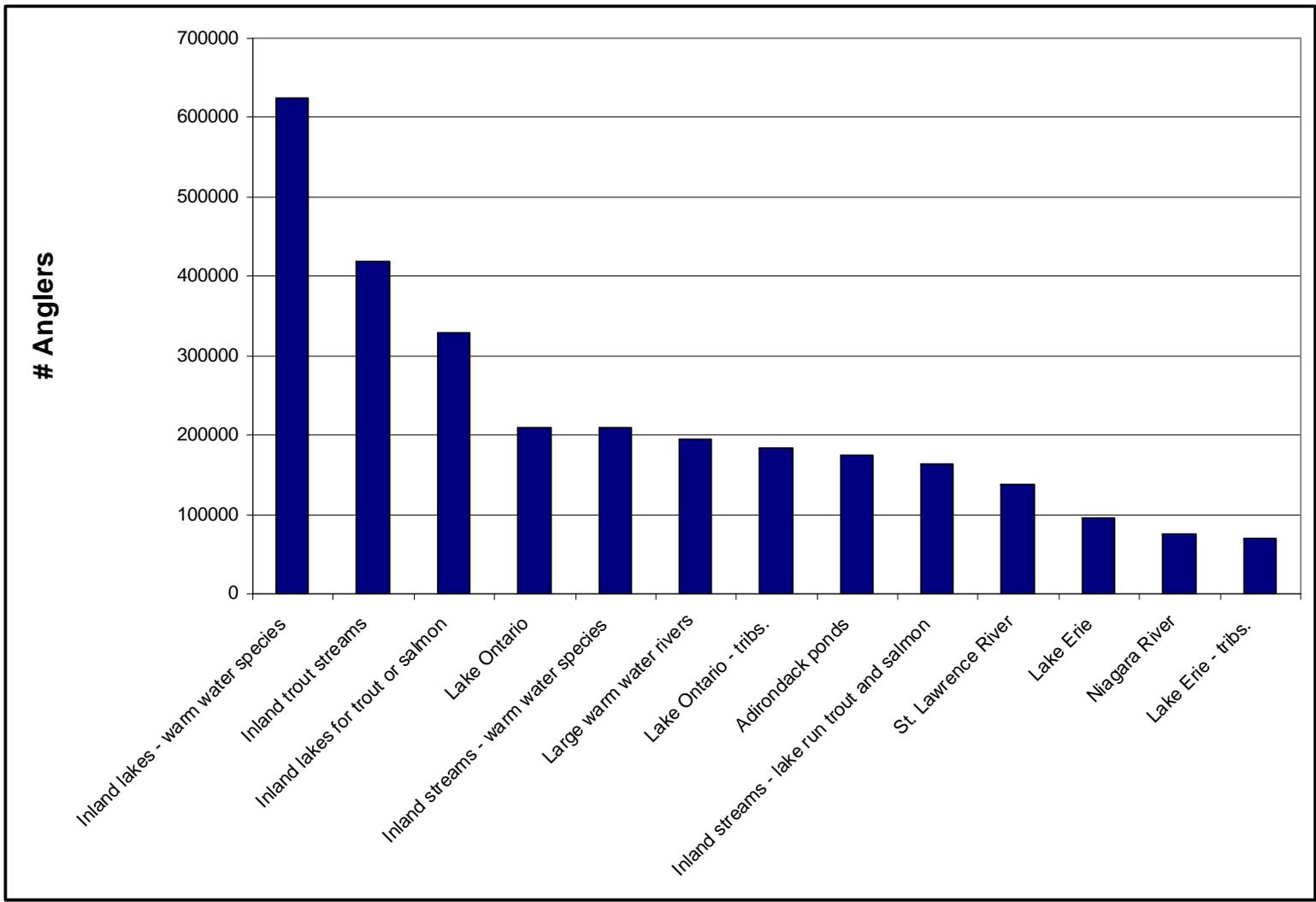


Figure 3. Water body preferences of New York anglers.

## Preferences for Different Types of Fishing Opportunities

Anglers were asked how important 18 different items were to their decision about where to fish in New York State. The items were grouped into six factors using factor analysis, which explained 58% of the variance in the data and had a reliability score of  $\alpha=0.74$ . Both values are sufficiently high for us to accept the factors as adequately describing the reasons for fishing location preferences. The first factor we named “catching fish” (Table 8). Many anglers based their decision on where to fish on the species of fish found in a water body and their past experience catching fish in the water body. Many anglers also wanted a “pleasant, convenient location” in which to fish, the second factor. This factor contained items such as good access, uncrowded location, and close to home/camp. The third factor, which also was important to many anglers, was fishing in a new location. Three other factors were important to some people, but for others they were not important at all. These factors included fishing in a natural location with wild fish, being able to harvest the fish, and fishing in a vacation spot or tournament location.

To what extent can these data be examined to compare how well the suite of fishing opportunities currently provided in New York matches angler preferences? This is not as simple as it may initially appear because most anglers want a suite of items or opportunities as opposed to just one leading preference. To look at angler preferences in more detail, we used cluster analysis to group anglers based on their preferences for fishing locations. We did this using the waverage clustering method and found five groups of anglers who had similar preferences within their group but different preferences from other groups. The most distinguishing characteristics of each group are discussed below and summarized in Table 9.

1. The largest of the five groups (38.9%) was labeled “new experiences” because the most important factor to this group was going to new places, and getting away from the usual places.
2. The second group (20.1%) sought wild fish and unspoiled places. We labeled them “wild and unspoiled.” They wanted to fish for wild (not stocked) fish in uncrowded areas.
3. The third group (20.2%) was named “home bodies” because they wanted to fish close to home in waters where they had success catching fish in the past.
4. The fourth group (12.2%) was named “catch and access” because they wanted more so than other angler groups to have good access and be able to catch lots of fish.
5. The fifth group (8.6%) contained the smallest number of anglers. They said all the factors were important to them. Of particular importance was fishing a water that did not have a contaminant advisory, which was an item in the harvesting fish factor, and where they had the ability to catch many and large fish. Thus, we named this group “clean catch.”

Returning to the question of the extent to which angler preferences matched preferred location characteristics, most anglers who fished in New York State listed a

<b>Table 8. Importance of items to anglers' decisions about where to fish, grouped by location preference factors.</b>						
Factor/Item	Mean*	Not Important	Somewhat Important	Important	Very Important	Extremely Important
		Percent				
<b><i>Catching Fish</i></b>						
The water contains the species for which you desire to fish	3.90	3.5	5.6	23.8	31.5	35.6
You have caught lots of fish in that body of water in the past	3.12	8.4	19.4	36.0	24.1	12.1
You have caught relatively large fish in that body of water in the past	2.84	13.7	25.0	33.3	19.4	8.6
The water is known for its trophy fish	2.17	39.5	25.1	20.0	9.3	6.1
<b><i>Pleasant, Convenient Location</i></b>						
The water has good access	3.43	5.9	11.9	34.1	29.9	18.2
The water is not crowded with other anglers	3.43	5.0	15.8	30.3	29.3	19.6
The water is in an aesthetically pleasing location	2.98	12.9	19.9	34.1	22.5	10.6
Close to home/camp	2.93	14.3	25.2	27.1	19.7	13.7
<b><i>Harvesting Fish</i></b>						
The water does not have a contaminant advisory	3.64	10.7	10.5	20.2	21.0	37.6
The water is stocked with fish	2.59	26.5	23.2	25.5	14.0	10.8

<b>Table 8.</b> (cont.)						
Factor/Item		Not Important	Somewhat Important	Important	Very Important	Extremely Important
	Mean*	Percent				
<b><i>Harvesting Fish</i></b>						
You hear that fishing has been good lately on a particular body of water	2.55	19.4	28.6	34.4	13.0	4.6
Regulations for the water allow you to keep more fish	1.77	59.3	17.5	13.6	6.3	3.3
<b><i>Natural/Wild Fish</i></b>						
The water contains wild fish	3.00	16.0	16.7	32.1	21.3	13.9
The water has catch and release/artificial lures regulations in place	1.98	50.5	20.0	16.1	7.6	5.8
<b><i>Novelty/New Places</i></b>						
You usually fish this water and don't change waters often	2.47	28.4	23.6	27.9	13.1	7.0
You want to fish different waters	2.45	23.8	28.7	30.6	12.2	4.7
<b><i>Vacation/Tournament Location</i></b>						
The water is a vacation destination	2.02	50.7	17.8	16.6	8.2	6.7
You wish to participate in a fishing tournament	1.49	76.0	10.0	7.0	3.5	3.5
*Mean calculated on a 5-point Likert-type scale where 1 = not important and 5 = extremely important.						

<b>Table 9. Mean factor scores and the percent of anglers for angler types generated by cluster analysis.</b>					
Factors	New Experiences	Wild & Unspoiled	Home Bodies	Catch & Access	Clean Catch
	Means*				
Catching fish	2.63 <sup>a</sup>	3.10 <sup>b</sup>	3.17 <sup>b</sup>	3.16 <sup>b</sup>	3.94 <sup>c</sup>
Pleasant, convenient location	2.83 <sup>a</sup>	3.38 <sup>c</sup>	3.42 <sup>c</sup>	3.19 <sup>b</sup>	3.83 <sup>d</sup>
Harvesting fish	2.22 <sup>a</sup>	2.91 <sup>c</sup>	2.70 <sup>b</sup>	2.65 <sup>b</sup>	3.68 <sup>d</sup>
Natural/wild fish	1.84 <sup>a</sup>	3.44 <sup>c</sup>	2.40 <sup>b</sup>	2.45 <sup>b</sup>	3.51 <sup>d</sup>
Novelty/new places	3.28 <sup>c</sup>	3.36 <sup>d</sup>	2.11 <sup>a</sup>	2.93 <sup>b</sup>	3.00 <sup>b</sup>
Vacation/tournament location	1.49 <sup>b</sup>	1.48 <sup>b</sup>	1.37 <sup>a</sup>	2.80 <sup>c</sup>	3.00 <sup>d</sup>
% of anglers	38.9	20.1	20.2	12.2	8.6
*Mean calculated on a 5-point Likert-type scale where 1 = not important and 5 = extremely important.					
<sup>a,b,c,d</sup> Angler types with different letters have a significantly different mean factor score from each other, at P = 0.05 using Scheffe's test.					

warmwater species such as bass as their favorite species to fish for (Table 10). This was true for all the clusters of anglers, except for the wild and unspoiled group, who were more likely than the other groups to prefer to fish for a coldwater species (trout or salmon). Thus, species preference appears largely consistent with anglers' preferences for where they want to fish.

<b>Table 10. Anglers' favorite species to fish for (grouped by species type), overall and by angler types generated by cluster analysis.</b>						
Favorite species (grouped)	Angler Type					
	Overall	New Experiences	Wild & Unspoiled	Home Bodies	Catch & Access	Clean Catch
	Percent					
Warm water	58.7	60.7	47.9	60.5	67.1	57.6
Cold water	38.4	36.1	50.0	36.4	29.4	39.6
Marine/anadromous	1.5	1.4	1.5	1.3	1.9	2.1
No specific type	1.4	1.8	0.6	1.8	1.6	0.7

We also examined whether preferences for specific types of water bodies available in New York seemed to match the preferred location characteristics of anglers. Again, we found consistency in this regard (Table 11). For example, the wild and unspoiled angler group was more likely than other groups to prefer to fish inland trout streams. Similarly the St. Lawrence River has many good public and private access sites and good warmwater fisheries, making it more attractive to the “catch and access” group compared to other groups.

Anglers were asked what DEC Bureau of Fisheries could do to increase the enjoyment of their fishing trips, and again we found consistency between angler types and expressed desires (Table 12). For example, anglers in the catch and access group were more likely to choose the actions that would improve access and improve opportunities to catch larger fish than other possible actions DEC might take. Over half of the wild and unspoiled group wanted DEC to expand wild trout fishing opportunities. Almost two-thirds of the clean catch group wanted DEC to expand fishing opportunities for larger fish.

Results from this analysis can be used by managers in a variety of ways. For example, knowing that 40% of anglers are looking for new experiences could lead to educational programs aimed at introducing anglers to the variety of fishing opportunities available in New York. Or it could lead to a desire for future research to better pinpoint the type of new experiences anglers are looking for. Angler preferences vary somewhat by region, which has implications across the board—for attempting to better address those preferences, for providing information on existing opportunities, and for marketing.

## **SECTION IV: ANGLER SATISFACTION**

### **Satisfaction with the Number and Size of Fish Caught**

Approximately half of the anglers were satisfied with the number and size of fish they caught on their fishing trips during the time period for which they were surveyed (Table 13, Fig. 4). One-quarter to one-third were neutral regarding their satisfaction, with the remainder being moderately or very dissatisfied. Average satisfaction levels did not vary during the year.

Anglers coming from out-of-state tended to be more satisfied with the number and size of fish caught than in-state anglers (Appendix Table B-15). Residents of Region 4 were the least satisfied with the number of fish caught and residents of Region 2 were the least satisfied with the size of fish caught.

## Angler Satisfaction with DEC Bureau of Fisheries Efforts

Almost half of the anglers were satisfied with the Bureau's efforts to restore fish populations and protect aquatic habitats (Table 14). Residents of Regions 7 and 9 were slightly more satisfied and residents of Region 3 were less satisfied. Out-of-state anglers were less likely to have an opinion about the Bureau's efforts. Consistent anglers (those who had fished every year in the past five years) were more likely than intermittent anglers to have an opinion, either positive or negative.

Water Body Preferences	Angler Type					
	Overall	New Experiences	Wild & Unspoiled	Home Bodies	Catch & Access	Clean Catch
	Percent Checking*					
Inland lakes for warm water species	74.9	78.3	71.4	71.3	78.0	73.2
Inland trout streams	50.3	51.2	62.5	42.4	41.1	51.1
Inland lakes for trout or salmon	39.5	39.2	45.3	33.4	36.8	46.6
Lake Ontario--open water	25.2	25.2	23.1	20.3	31.6	33.1
Inland streams for warm water species	25.0	26.7	28.8	19.5	22.7	26.5
Large warm water rivers	23.4	25.8	25.1	17.1	23.5	26.0
Lake Ontario—tributaries for lake run trout and salmon	22.1	22.5	25.5	16.4	21.0	27.8
Back country Adirondack ponds	21.0	22.4	25.7	13.5	21.0	22.5
Inland streams for lake run trout and salmon	19.7	20.6	24.3	13.7	18.3	24.6
St. Lawrence River	16.6	17.4	14.4	13.1	22.9	17.9
Lake Erie – open water	11.5	11.7	9.2	8.8	15.4	16.9
Niagara River	9.1	9.5	8.1	6.9	11.8	11.8
Lake Erie – tributaries for lake run trout and salmon	8.3	8.3	9.5	6.2	8.5	11.1

\*Percentages add to more than 100% because anglers could check more than one type of water body preference.

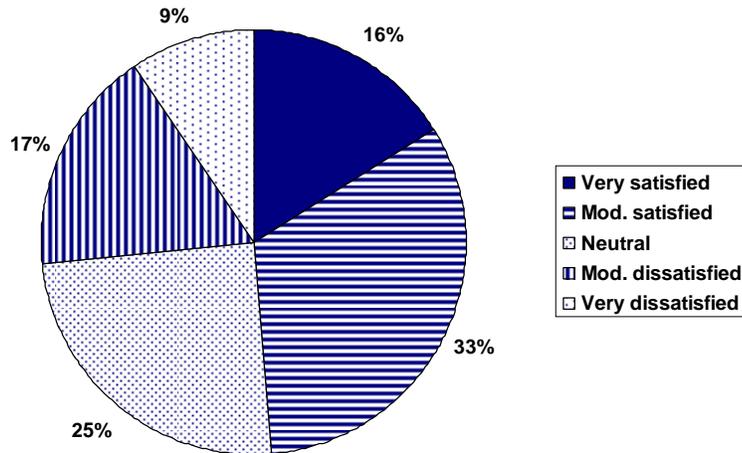
**Table 12. Angler preference for actions DEC Bureau of Fisheries might take to increase enjoyment of angler fishing trips, by angler types generated by cluster analysis.**

<i>Actions DEC Bureau of Fisheries might take</i>	Angler Type				
	New Experiences	Wild & Unspoiled	Home Bodies	Catch & Access	Clean Catch
	% indicating action would increase their enjoyment of fishing trips				
<i>Related to the fishing experience:</i>					
Increase the number of fishing access sites	39.9	50.0	39.6	42.7	56.4
Improve facilities at existing fishing access sites	38.8	43.0	38.0	45.3	55.2
Provide more information on fishing opportunities in NY	31.1	39.0	28.0	36.0	47.0
Make fishing regulations easier to understand	28.1	34.2	29.5	30.7	43.9
<i>Related to the fish:</i>					
Expand fishing opportunities for larger fish	35.3	48.5	36.9	44.4	62.1
Expand wild trout fishing opportunities	35.2	57.2	34.3	36.7	52.9
Make more waters open to year-round catch and release fishing	30.6	47.4	27.4	36.1	44.9
Make more waters open to year-round harvest fishing	22.4	27.0	24.0	28.2	41.2
Stock fewer but larger fish if possible	12.4	19.3	15.0	17.1	24.8

**Table 13. Angler satisfaction with the number and size of fish caught on their fishing trips during each survey time period and the respondent average for all time periods.**

	Mean*	Very Dissatisfied	Moderately Dissatisfied	Neutral	Moderately Satisfied	Very Satisfied
		Percent				
Numbers of fish caught						
Jan.-May	3.3	9.4	17.2	24.8	32.6	16.0
June-Sept.	3.3	8.6	16.8	24.6	36.2	13.8
Oct.-Dec.	3.3	9.5	15.9	26.1	32.3	16.2
Overall	3.3	9.6	16.8	23.7	33.9	16.0
Size of fish caught						
Jan.-May	3.3	8.2	15.2	28.8	33.0	14.8
June-Sept.	3.3	7.0	14.9	30.8	34.4	12.9
Oct.-Dec.	3.4	8.0	12.2	30.2	32.6	17.0
Overall	3.3	8.2	14.0	29.2	33.1	15.5
*Measured on a 5-point scale where 1 = very dissatisfied to 5 = very satisfied.						

### Angler satisfaction with the number of fish caught



### Angler satisfaction with the size of fish caught

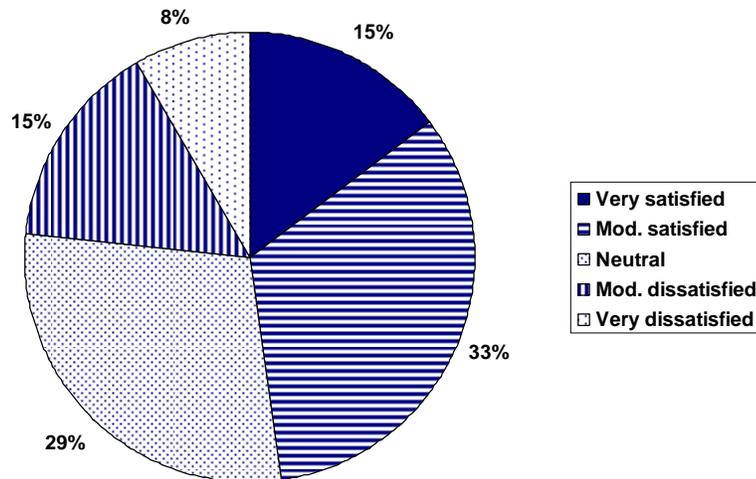


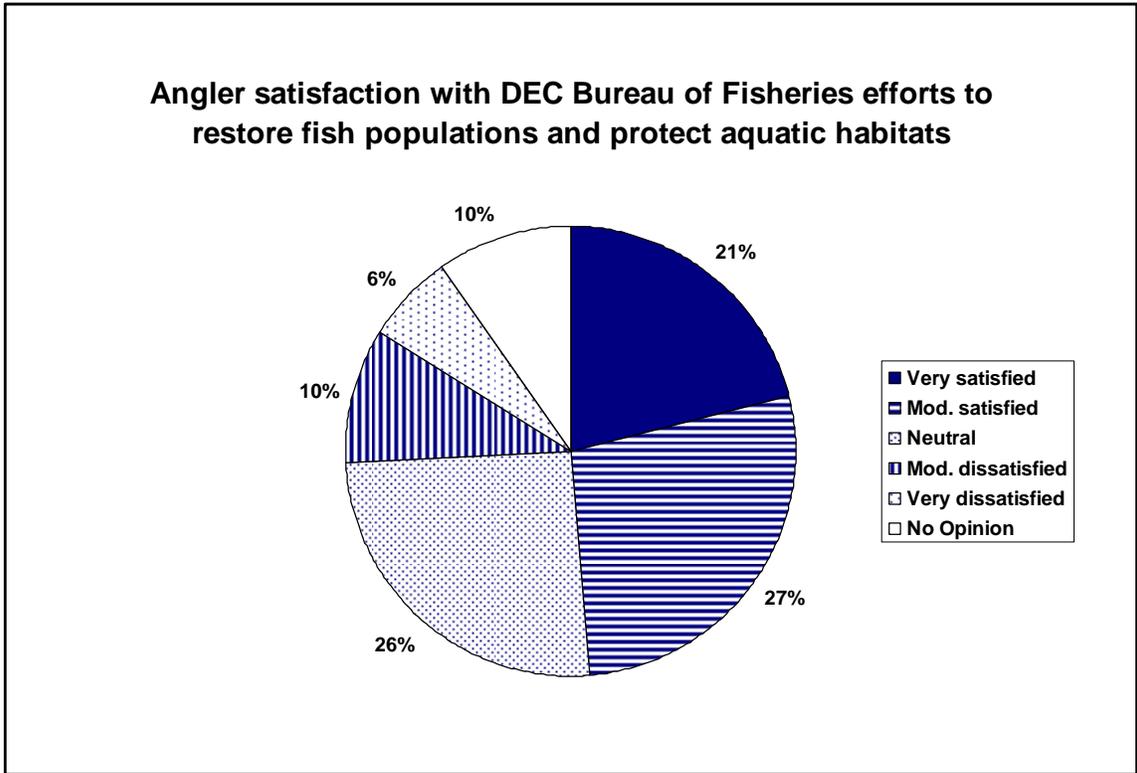
Figure 4. Angler satisfaction with the number and size of fish caught on their fishing trips in 2007.

**Table 14. Angler satisfaction with DEC Bureau of Fisheries efforts to restore fish populations and protect aquatic habitats, overall and by region of residence, participation consistency, gender, age, and type of license purchased.**

	Very Dissatisfied	Moderately Dissatisfied	Neutral	Moderately Satisfied	Very Satisfied	No Opinion/Don't Know
	Percent					
Overall	6.3	9.7	25.6	27.6	21.1	9.7
<b>Region of Residence</b>						
1	8.1	11.5	25.1	25.4	21.4	8.5
2	4.3	12.6	24.5	24.5	21.2	12.9
3	7.5	8.8	25.4	27.9	20.6	9.8
4	7.0	13.4	28.9	26.6	16.1	8.0
5	8.1	10.5	24.8	29.5	18.4	8.7
6	8.0	11.2	26.5	28.6	18.9	6.8
7	6.5	8.7	24.9	30.4	22.2	7.3
8	6.6	11.0	24.7	28.0	20.6	9.1
9	7.0	10.8	24.0	30.1	21.8	6.3
Out-of-state	2.9	6.1	27.2	22.5	24.4	16.9
<b>Participation consistency</b>						
Consistent	7.5	11.3	23.5	29.6	20.9	7.2
Intermittent	3.6	6.3	30.3	23.0	21.7	15.1
<b>Gender</b>						
Male	6.4	10.1	25.3	27.4	21.5	9.3
Female	6.5	6.7	26.8	29.0	19.5	11.5
<b>Age</b>						
16-44	4.4	9.4	27.1	30.1	21.2	7.8
45-54	6.5	10.0	24.9	29.8	21.4	7.4
55-64	8.7	9.8	22.3	28.0	22.4	8.8
65+	8.7	10.9	21.2	28.6	21.8	8.8

**Table 14.** (cont.)

	Very Dissatisfied	Moderately Disssatisfied	Neutral	Moderately Satisfied	Very Satisfied	No Opinion/ Don't Know
	Percent					
Type of License						
Lifetime	7.8	14.5	26.2	32.4	13.2	5.9
Resident-- annual	6.6	8.9	25.5	27.4	22.2	9.4
Resident-- sportsman	7.6	12.1	24.7	30.8	18.7	6.1
Resident-- Short-term	3.6	12.6	28.0	18.9	19.8	17.1
Nonresident-- annual	4.1	9.0	23.1	27.2	25.6	11.0
Nonresident-- sportsman	4.4	5.1	31.4	31.4	17.5	10.2
Nonresident-- short-term	2.1	4.2	29.5	19.2	24.1	20.9



Over half of the anglers were satisfied with the quality of the information that the DEC Bureau of Fisheries provides (Table 15). Very few anglers were moderately or very dissatisfied. Satisfaction levels did not vary by region of residence, except that out-of-state anglers were less likely to have an opinion about the quality of the information (Table 15). Satisfaction also did not vary by participation consistency of the angler, gender, age, or license type purchased.

Anglers who were dissatisfied with the information provided by DEC Bureau of Fisheries were asked for suggestions for improvement. Anglers wrote in a wide variety of suggestions which we categorized by method of communication and content of information provided.

- By far the most commonly requested improvement was to the provision of stocking information (species, location, timing, number and size) on the web, in brochures, and via telephone.
- Some anglers thought DEC could do a better job publicizing where to look for information, as well as putting the information in a variety of locations (e.g., bait and tackle shops, license sale locations, state parks, boat launching and fishing access sites). For example, one angler commented “Information boxes on state land are usually empty and lack fishing brochures on local waters in those areas.” Another said “When you make new laws tell someone i.e. new minnow regulation.”
- Also commonly mentioned was reducing the complexity of regulations to make them more easily understood. For example, an angler commented “Too many different regulations in each area. You never know what are illegal and what is legal where you fish.”
- Other ideas mentioned less frequently, but by more than 20 anglers, were making the website easier to navigate and keeping it updated, have more knowledgeable people answer telephone inquiries, and produce brochures that identify species and provide maps showing access sites and good fishing locations. For example, one angler commented “Dedicated website to show the fishing locations, launch points, and different species of fish.”

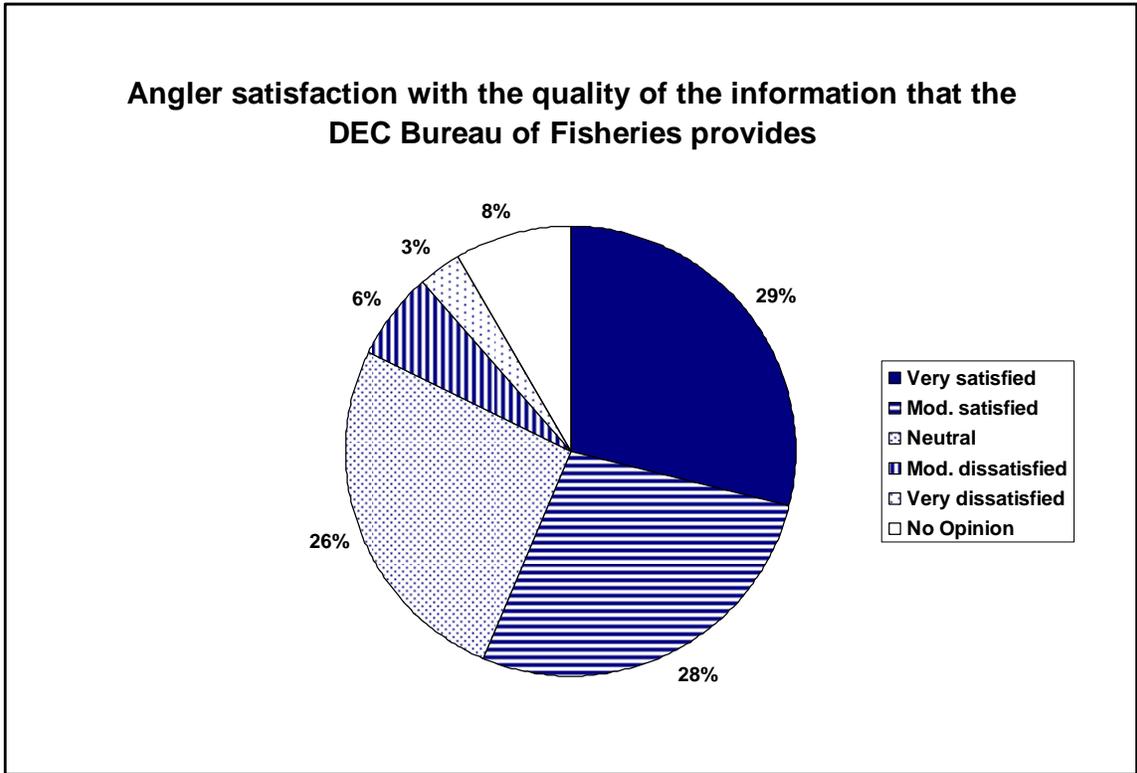
### **Suggestions for Improving Angler Satisfaction**

Anglers were asked what DEC Bureau of Fisheries might do to increase anglers’ enjoyment of their fishing trips. The list of possible actions provided on the questionnaire were divided into two types – those related to the fishing experience and those related to the fish (Table 16). Among those related to the fishing experience, the two most popular were to increase the number of fishing access sites and improve facilities at existing sites. These actions would increase the satisfaction of two-fifths of anglers and might increase the satisfaction of another two-fifths. In designing the

<b>Table 15. Angler satisfaction with the quality of the information that the DEC Bureau of Fisheries provides, overall and by region of residence, participation consistency, gender, age, and type of license purchased.</b>						
	Very Dissatisfied	Moderately Dissatisfied	Neutral	Moderately Satisfied	Very Satisfied	No Opinion/Don't Know
	Percent					
Overall	3.2	6.3	25.9	27.5	28.9	8.2
<b>Region of Residence</b>						
1	4.6	6.9	26.4	25.0	27.1	10.0
2	5.0	8.7	24.3	24.9	29.9	7.2
3	3.7	7.3	22.9	27.2	31.4	7.5
4	3.7	7.6	27.8	29.5	23.7	7.7
5	3.2	6.5	28.3	28.0	26.5	7.5
6	3.0	6.6	27.9	27.8	27.4	7.3
7	3.0	5.7	25.6	29.5	29.3	6.9
8	3.4	6.7	28.8	26.5	28.0	6.6
9	3.3	7.5	24.9	29.4	29.5	5.4
Out-of-state	2.5	3.9	24.0	24.6	31.2	13.8
<b>Participation consistency</b>						
Consistent	3.7	7.0	25.7	28.6	28.7	6.3
Intermittent	2.3	4.7	26.4	25.1	29.2	12.3
<b>Gender</b>						
Male	3.2	6.4	26.1	27.6	28.8	7.9
Female	3.1	5.6	25.0	25.6	30.9	9.8
<b>Age</b>						
16-44	2.9	6.8	27.4	28.7	27.1	7.1
45-54	3.2	6.9	26.2	28.2	29.1	6.4
55-64	3.5	6.5	23.6	29.5	30.7	6.2
65+	4.3	6.0	24.8	27.4	29.7	7.8

**Table 15.** (cont.)

	Very Dissatisfied	Moderately Dissatisfied	Neutral	Moderately Satisfied	Very Satisfied	No Opinion/Don't Know
	Percent					
Type of License						
Lifetime	2.0	7.1	30.6	29.2	25.2	5.9
Resident--annual	3.5	6.6	25.7	27.0	29.2	8.0
Resident--sportsman	3.5	7.3	27.1	29.4	27.4	5.3
Resident--Short-term	0.9	5.5	23.6	26.4	29.1	14.5
Nonresident--annual	2.8	4.1	24.0	26.8	34.0	8.3
Nonresident--sportsman	4.4	5.9	23.7	25.2	35.6	5.2
Nonresident--short-term	2.2	3.5	23.7	23.4	29.7	17.5



<b>Table 16. Angler preference for actions DEC Bureau of Fisheries might take to increase enjoyment of angler fishing trips.</b>			
<i>Actions DEC Bureau of Fisheries might take</i>	Would increase enjoyment of fishing trips	May increase enjoyment of fishing trips	Would not increase enjoyment of fishing trips
	Percent		
<i>Related to the fishing experience:</i>			
Increase the number of fishing access sites	43.5	36.7	19.8
Improve facilities at existing fishing access sites	41.6	38.8	19.6
Provide more information on fishing opportunities in NY	34.0	44.0	22.0
Make fishing regulations easier to understand	31.4	36.5	32.1
<i>Related to the fish:</i>			
Expand fishing opportunities for larger fish	41.6	40.4	18.0
Expand wild trout fishing opportunities	41.2	34.3	24.5
Make more waters open to year-round catch and release fishing	35.2	30.8	34.0
Make more waters open to year-round harvest fishing	26.0	31.7	42.3
Stock fewer but larger fish if possible	16.0	49.6	34.4

questionnaire, Bureau staff accurately anticipated possible sources of dissatisfaction mentioned above by asking if improving communication about fishing opportunities would increase satisfaction. We found this to be the case, as well as making fishing regulations easier to understand.

Most popular among actions related to the fish that would increase angler enjoyment were expanding opportunities to catch larger fish and wild trout. However, stocking fewer but larger fish was not seen as a way to increase enjoyment. Making more waters open to year-round fishing was not favored by as many anglers as other actions listed on the questionnaire.

Almost all of the actions that might increase fishing enjoyment were more likely to be favored by residents of Regions 1 through 3 than residents of other regions or out-of-state anglers (Appendix Table B-16). Additionally, half of Region 5 residents said that expanding wild trout fishing opportunities would increase their enjoyment.

Anglers were also asked to write in other ideas for actions DEC Bureau of Fisheries could take that would increase their enjoyment of their fishing trips. Only a few people (11%) wrote in an idea and most of those were elaborations on actions already

listed. For example, people listed locations where they thought additional fishing access was needed or which regulations should be made easier to understand. Several new ideas mentioned by more than just a few anglers included providing more handicapped-accessible fishing sites, increasing law enforcement (and also decreasing law enforcement), and increasing the number of stocked fish (which appears to be the opposite of the item “stock fewer but larger fish”). Anglers also had some unrealistic expectations for what the DEC Bureau of Fisheries could do, such as getting rid of invasive species and cleaning up the water so that no fish consumption health advisories are needed.

## **SECTION V: ANGLER OPINIONS ON SPECIFIC MANAGEMENT ISSUES**

### **Sale of Panfish**

New York is one of a few states that allows the sale of panfish caught by anglers. The information provided to anglers in the questionnaire regarding this issue was as follows:

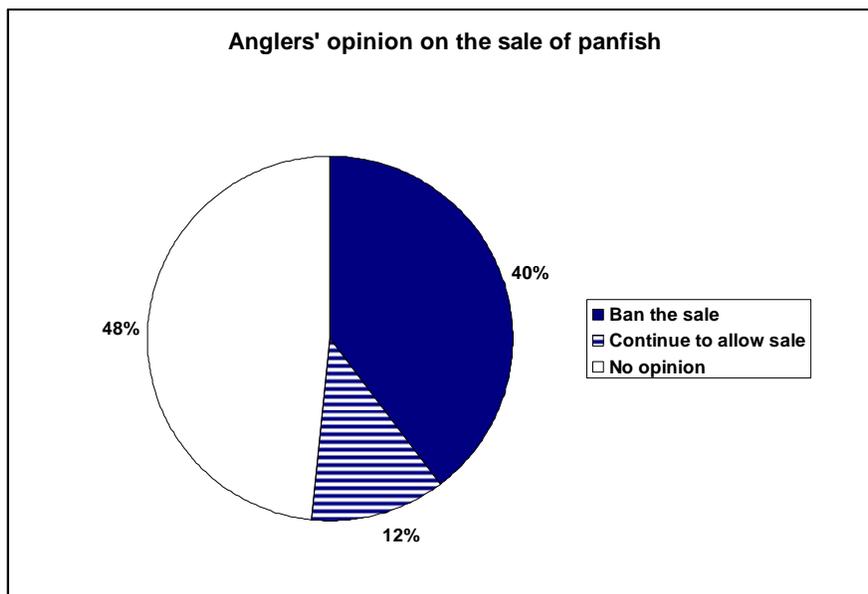
“Species that are legal for anglers to sell in New York are those which have no closed season or minimum size limit (e.g., yellow perch, bluegill, sunfish). The DEC Bureau of Fisheries placed daily limits of 50 yellow perch and 50 sunfish or bluegills for most of the State’s waters in 1996 in an effort to conserve these species. The DEC Bureau of Fisheries continues to receive correspondence from anglers who are upset over what they feel is over-harvest of panfish by anglers who are selling part or all of their catches. The scientific literature documents that angler harvest can and does affect panfish populations with the tendency being to remove more of the larger, older fish.”

Over half of the license holders who had fished in the past three years (i.e., those who were asked the questions on the sale of panfish) indicated that they would fish for panfish in 2007 (Table 17). Most would fish for them in open water only. Very few indicated that they would sell panfish in 2007. We estimated the number of people selling panfish at just under 5,000. Anglers living in Regions 7 through 9 were the most likely to fish for panfish (Appendix Table B-17). Those living in Region 5 were the most likely to use ice fishing as a method to catch panfish and were also the most likely to sell their catch.

A plurality of anglers had no opinion on the sale of panfish (Table 17). Of those who had an opinion, most (approximately 330,000) thought the sale should be banned. We estimated that 100,000 anglers thought the sale should be allowed to continue. The results did not differ to any large degree by region of residence (Appendix Table B-17).

Among those who fished for panfish in 2007 or indicated that panfish were their favorite species to fish for, more anglers had an opinion about the sale, but the

<b>Table 17. Anglers' opinion on the sale of panfish and their use of the panfish resource.</b>	
	% (and estimated number) of license holders who fished in past 3 years
<i>Fish for panfish in 2007</i>	
Yes	56.7 (473,152)
No	43.3 (361,331)
<i>Panfish fishing method</i>	
Ice fishing only	5.5 (26,023)
Open water only	68.1 (322,216)
Ice fishing and open water	26.4 (124,912)
<i>Sell panfish in 2007</i>	
Yes	1.0 (4,732)
No	99.0 (468,420)
<i>Opinion on sale of panfish</i>	
Ban the sale	39.6 (330,455)
Continue to allow sale	12.0 (100,138)
No opinion	48.4 (403,890)



proportions favoring and opposing the sale remained essentially the same (Table 18). Eighty percent of those who sold panfish in 2007 thought the sale should continue to be allowed. Among those who fished for panfish, those living in Regions 5 through 7 were more likely than those living in other regions to support the continuation of the sale (Appendix Table B-18). This was also true for Region 5 residents who did not fish for panfish.

<b>Table 18. Anglers' opinion on the sale of panfish by their use of the panfish resource.</b>				
	Fish for panfish in 2007		Panfish are favorite species	
	Yes	No	Yes	No
<i>Opinion on sale of panfish</i>	Percent			
Ban the sale	47.6	27.7	44.3	39.6
Continue the sale	13.3	10.3	15.1	11.7
No opinion	39.1	62.0	40.6	48.7
	Fishing method used to catch panfish			
	Ice fishing only	Open water only	Both	
<i>Opinion on sale of panfish</i>	Percent			
Ban the sale	45.4	46.6	50.2	
Continue the sale	17.2	11.5	16.8	
No opinion	37.4	41.9	33.0	
	Sell panfish in 2007			
	Yes	No		
<i>Opinion on sale of panfish</i>	Percent			
Ban the sale	6.8	47.9		
Continue the sale	79.6	12.6		
No opinion	13.6	39.5		

### **Brown Trout Stocking Options**

The DEC Bureau of Fisheries asked anglers their opinion on the stocking of brown trout. The information provided to anglers in the questionnaire regarding this issue was as follows:

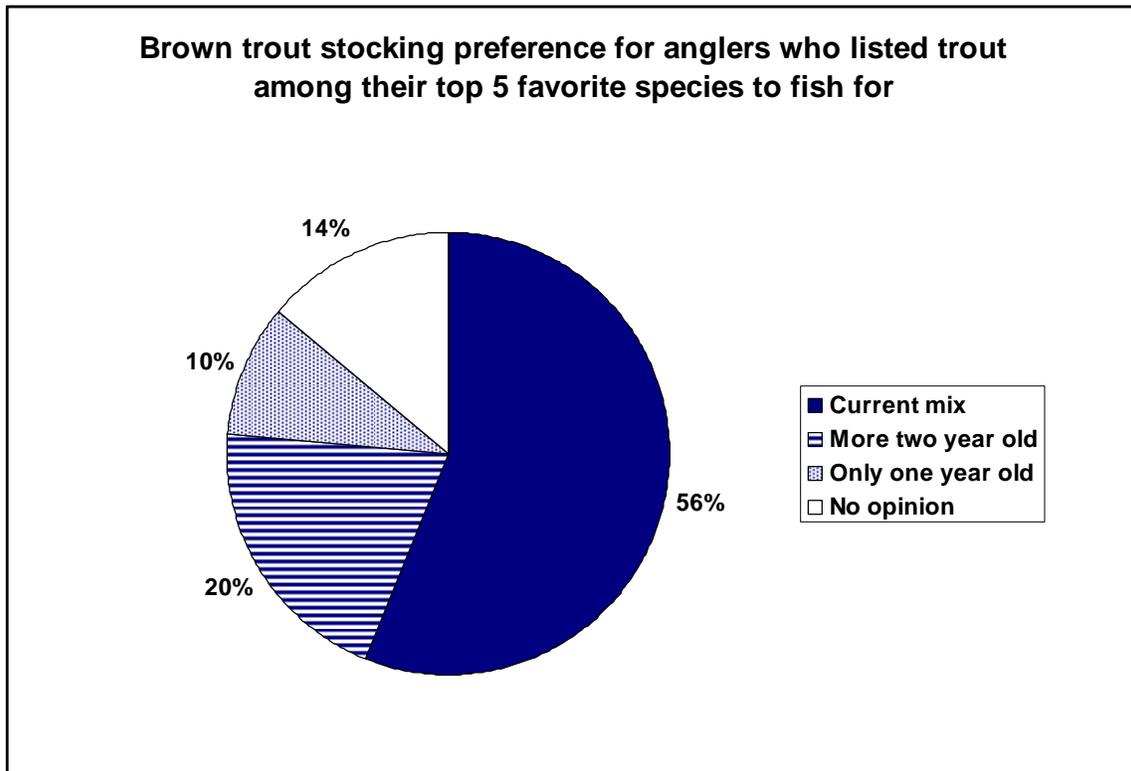
“Since 1995 the DEC Bureau of Fisheries has been stocking two year old brown trout in addition to, or instead of, the one year old brown trout traditionally stocked. Two year old brown trout average 14 inches while one year old brown trout average 8 ½ inches. Because of the additional space requirements for raising the two year old brown trout, the DEC Bureau of Fisheries must reduce the number of one year old brown trout (one 14” fish requires the same amount of

hatchery space as three 8 ½” fish). This results in fewer, but larger fish being stocked.”

Three-quarters of the license buyers who fished in the past three years had a brown trout stocking preference (Table 19). The majority wanted to see the current mix of one and

**Table 19. Anglers’ preference for the brown trout stocking program, overall and if they fished for trout or listed it as one of their top 5 favorite species to fish for.**

<i>Brown trout stocking preference</i>	Overall	Fished for trout during time period surveyed	Trout was among top 5 favorite species to fish for
	Percent		
Stock only one year old brown trout	9.3	8.9	9.5
Stock current mix of one and two year old brown trout	48.6	56.5	56.2
Stock more two year old and fewer one Year old brown trout	16.9	24.4	20.3
No opinion	25.2	10.2	14.0



two year old brown trout maintained. Of the remainder, a slightly larger percentage wanted more two year old trout stocked compared to having only one year old trout stocked. Those who fished for trout or listed it among their top five favorite species to fish for were more likely to have an opinion about stocking and more likely to prefer the current mix or more two year old brown trout. Residents of Regions 1 through 3 were more likely than residents of other regions to favor the stocking of more two year old brown trout (Appendix Table B-19). No other notable differences by region of residence were observed.

### **Angler Preferences for Amenities at Boat Launching and Fishing Access Sites**

Anglers ranked the top five amenities that they would like to see at boat launches and fishing access sites. At the top of the list were fishing piers or other shore fishing opportunities, portable toilets, and trash receptacles (Table 20). Fish cleaning stations, used fishing line receptacles, and information kiosks were next with over 50% of anglers ranking them among the top five needed amenities. Boat washing stations and septic pump out facilities were at the bottom of the list; rated among the top five by 30% or fewer anglers. Few differences existed among anglers living in different parts of the state (Appendix Table B-20). Of note was the larger number of anglers in western New York and out-of-state interested in fish cleaning stations compared with anglers living in eastern New York. Also, lower proportions of out-of-state anglers than New York residents were interested in shore fishing opportunities.

### **Angler Interest in an Internet-based Angler Diary Program**

The DEC Bureau of Fisheries is considering the development of an internet-based angler diary program where anglers can enter information about their fishing trip on any given body of water and then view compiled catch statistics from other anglers also participating in the diary program. Over three-quarters of all anglers indicated that they had access to the Internet and thus the potential to participate in this program (Table 21). As would be expected, younger anglers were more likely than older anglers (aged 65+) to have access. Access also appeared a little lower among Region 6 anglers.

Among all anglers with access to the Internet, approximately half said they would enter their information into the system, with another third being unsure (Table 21). Somewhat fewer anglers thought the information they obtained from the system would influence where they fished. Participation and subsequent influence on fishing behavior appeared to be lower among older anglers (aged 65+) than younger anglers. The system would be used by the same proportion of anglers in each region, but it might influence the fishing behavior of smaller proportions of Region 5 and 6 anglers compared to other New York anglers.

<b>Table 20. Anglers' top five preferences for amenities at DEC boat launches and fishing access sites in New York State.</b>						
<i>Amenity</i>	#1	#2	#3	#4	#5	Among top 5
	Percent					
Fishing piers or other shore fishing opportunities	38.9	11.1	12.0	10.8	8.5	81.3
Portable toilets	22.5	26.5	18.9	11.9	6.6	86.4
Trash receptacles	15.7	26.8	25.6	16.5	7.4	92.0
Fish cleaning station	8.5	10.6	9.7	12.8	14.4	56.0
Boat washing station	4.9	4.1	4.9	6.6	10.7	31.2
Used fishing line receptacle	3.5	8.6	11.3	13.0	15.3	51.7
Information kiosks	3.1	6.5	8.6	13.8	18.2	50.2
Septic pump out facility	0.8	1.8	2.3	2.9	3.7	11.5

<b>Table 21. Angler access to the Internet and interest in an internet-based angler diary program, overall and by region of residence and age.</b>					
	Access to Internet	Of those with Internet access:			
		Would enter info. into system		Info. influence fishing	
	Yes	Yes	Unsure	Yes	Unsure
Percent					
Overall	77.7	50.4	32.5	42.1	31.2
Region of residence					
1	83.7	55.5	31.0	45.3	32.1
2	83.9	48.0	34.3	49.5	25.3
3	79.5	52.8	31.7	45.5	30.8
4	75.4	48.7	33.2	42.6	29.9
5	75.8	47.0	33.7	36.7	31.4
6	69.6	46.7	34.6	32.6	35.4
7	77.8	48.7	33.9	39.8	32.5
8	76.2	48.0	34.8	41.3	31.6
9	73.5	49.9	33.0	44.0	32.7
Out-of-state	85.0	54.9	28.3	44.8	28.5
Age					
16-44	85.9	52.0	32.5	45.6	30.5
45-54	82.6	52.0	33.0	42.0	32.3
55-64	77.0	50.4	31.2	38.7	32.1
65+	54.0	43.7	34.0	33.6	32.2

## **SECTION VI: CHARACTERIZATION OF ANGLERS BY REGION OF RESIDENCE**

Another way to look at the data already presented in this report is to summarize it by DEC region of residence. (See Figure 1 for a map of DEC Regions.) This gives those interested in a specific region an easy reference for information about anglers living in that region.

### **Region 1**

- 69% of license buyers in this region fished New York waters in the past three years.
- Approximately 23,000 anglers live in this region (i.e., fished in the past three years).
- Approximately 15,000 residents fish in New York every year.
- 55% listed a warmwater gamefish as their favorite species to fish for; 33% listed a coldwater gamefish; and 4% listed a panfish species.
- Black bass and trout were the top two preferred species to fish for in New York State by residents of this region.
- 80% of anglers wanted to fish inland lakes for warmwater species; 56% wanted to fish inland trout streams; and 42% wanted to fish inland lakes for trout or salmon.
- On average, anglers were neutral to moderately satisfied with the number and size of fish they caught on their fishing trips in New York during the period in which they were surveyed.
- 47% were satisfied with Bureau efforts to restore fish populations and protect aquatic habitats.
- 52% were satisfied with the quality of the information provided by the Bureau.
- Half or more of the anglers said the enjoyment of their fishing trips would be increased by increasing the number of fishing access sites, improving facilities at existing fishing access sites, and making more waters open to year-round catch and release fishing.
- Over 80% of anglers indicated that among the top five amenities that should be provided at boat launches or fishing access sites were fishing piers or other shore fishing opportunities, portable toilets, and trash receptacles.
- 45% of anglers thought the sale of panfish should be banned; 5% thought it should be allowed to continue; and the remainder had no opinion.
- 52% of anglers wanted to see the current stocking mix of one and two year old brown trout maintained; 22% wanted more two year old and fewer one year old brown trout stocked; 6% wanted only one year old brown trout; and the remainder had no opinion.

## Region 2

- 73% of license buyers in this region fished New York waters in the past three years.
- Approximately 17,000 anglers live in this region (i.e., fished in the past three years).
- Approximately 10,000 residents fish in New York every year.
- 42% listed a warmwater gamefish as their favorite species to fish for; 42% listed a coldwater gamefish; and 6% listed a marine/ anadromous species.
- Black bass and trout were the top two preferred species to fish for in New York State by residents of this region.
- 77% of anglers wanted to fish inland lakes for warmwater species; 50% wanted to fish inland trout streams; and 39% wanted to fish inland lakes for trout or salmon.
- On average, anglers were neutral to moderately satisfied with the number and size of fish they caught on their fishing trips in New York during the period in which they were surveyed.
- 46% were satisfied with Bureau efforts to restore fish populations and protect aquatic habitats.
- 55% were satisfied with the quality of the information provided by the Bureau.
- Over 50% of anglers said the enjoyment of their fishing trips would be increased by increasing the number of fishing access sites, improving facilities at existing fishing access sites, providing more information on fishing opportunities in New York, and expanding wild trout fishing opportunities.
- Over 80% of anglers indicated that among the top five amenities that should be provided at boat launches or fishing access sites were fishing piers or other shore fishing opportunities, portable toilets, and trash receptacles.
- 32% of anglers thought the sale of panfish should be banned; 11% thought it should be allowed to continue; and the remainder had no opinion.
- 41% of anglers wanted to see the current stocking mix of one and two year old brown trout maintained; 22% wanted more two year old and fewer one year old brown trout stocked; 10% wanted only one year old brown trout; and the remainder had no opinion.

### Region 3

- 78% of license buyers in this region fished New York waters in the past three years.
- Approximately 83,000 anglers live in this region (i.e., fished in the past three years).
- Approximately 61,000 residents fish in New York every year.
- 44% listed a warmwater gamefish as their favorite species to fish for; 43% listed a coldwater gamefish; and 6% listed a marine/ anadromous species.
- Black bass and trout were the top two preferred species to fish for in New York State by residents of this region.
- 82% of anglers wanted to fish inland lakes for warmwater species; 65% wanted to fish inland trout streams; and 49% wanted to fish inland lakes for trout or salmon.
- On average, anglers were neutral to moderately satisfied with the number and size of fish they caught on their fishing trips in New York during the period in which they were surveyed.
- 48% were satisfied with Bureau efforts to restore fish populations and protect aquatic habitats.
- 59% were satisfied with the quality of the information provided by the Bureau.
- Over 50% of anglers said the enjoyment of their fishing trips would be increased by increasing the number of fishing access sites, and expanding wild trout fishing opportunities.
- Over 80% of anglers indicated that among the top five amenities that should be provided at boat launches or fishing access sites were fishing piers or other shore fishing opportunities, portable toilets, and trash receptacles.
- 41% of anglers thought the sale of panfish should be banned; 9% thought it should be allowed to continue; and the remainder had no opinion.
- 51% of anglers wanted to see the current stocking mix of one and two year old brown trout maintained; 23% wanted more two year old and fewer one year old brown trout stocked; 8% wanted only one year old brown trout; and the remainder had no opinion.

## Region 4

- 78% of license buyers in this region fished New York waters in the past three years.
- Approximately 63,000 anglers live in this region (i.e., fished in the past three years).
- Approximately 46,000 residents fish in New York every year.
- 47% listed a warmwater gamefish as their favorite species to fish for; 41% listed a coldwater gamefish; and 6% listed a panfish species.
- Black bass and trout were the top two preferred species to fish for in New York State by residents of this region.
- 83% of anglers wanted to fish inland lakes for warmwater species; 62% wanted to fish inland trout streams; 49% wanted to fish large warm water rivers; and 46% wanted to fish inland lakes for trout or salmon.
- On average, anglers were neutral to moderately satisfied with the number and size of fish they caught on their fishing trips in New York during the period in which they were surveyed.
- 43% were satisfied with Bureau efforts to restore fish populations and protect aquatic habitats.
- 54% were satisfied with the quality of the information provided by the Bureau.
- Over 45% of anglers said the enjoyment of their fishing trips would be increased by increasing the number of fishing access sites, expanding fishing opportunities for larger fish, and expanding wild trout fishing opportunities.
- Over 80% of anglers indicated that among the top five amenities that should be provided at boat launches or fishing access sites were fishing piers or other shore fishing opportunities, portable toilets, and trash receptacles.
- 38% of anglers thought the sale of panfish should be banned; 12% thought it should be allowed to continue; and the remainder had no opinion.
- 52% of anglers wanted to see the current stocking mix of one and two year old brown trout maintained; 18% wanted more two year old and fewer one year old brown trout stocked; 10% wanted only one year old brown trout; and the remainder had no opinion.

## Region 5

- 81% of license buyers in this region fished New York waters in the past three years.
- Approximately 56,000 anglers live in this region (i.e., fished in the past three years).
- Approximately 42,000 residents fish in New York every year.
- 42% listed a warmwater gamefish as their favorite species to fish for; 44% listed a coldwater gamefish; and 11% listed a panfish species.
- Black bass and trout were the top two preferred species to fish for in New York State by residents of this region.
- 80% of anglers wanted to fish inland lakes for warmwater species; 65% wanted to fish inland trout streams; 60% wanted to fish inland lakes for trout or salmon; and 58% wanted to fish back country Adirondack ponds.
- On average, anglers were neutral to moderately satisfied with the number and size of fish they caught on their fishing trips in New York during the period in which they were surveyed.
- 48% were satisfied with Bureau efforts to restore fish populations and protect aquatic habitats.
- 57% were satisfied with the quality of the information provided by the Bureau.
- Over 40% of anglers said the enjoyment of their fishing trips would be increased by increasing the number of fishing access sites, expanding fishing opportunities for larger fish, and expanding wild trout fishing opportunities.
- Over 70% of anglers indicated that among the top five amenities that should be provided at boat launches or fishing access sites were fishing piers or other shore fishing opportunities, portable toilets, and trash receptacles.
- 35% of anglers thought the sale of panfish should be banned; 18% thought it should be allowed to continue; and the remainder had no opinion.
- 53% of anglers wanted to see the current stocking mix of one and two year old brown trout maintained; 18% wanted more two year old and fewer one year old brown trout stocked; 10% wanted only one year old brown trout; and the remainder had no opinion.

## Region 6

- 79% of license buyers in this region fished New York waters in the past three years.
- Approximately 68,000 anglers live in this region (i.e., fished in the past three years).
- Approximately 50,000 residents fish in New York every year.
- 57% listed a warmwater gamefish as their favorite species to fish for; 32% listed a coldwater gamefish; and 10% listed a panfish species.
- Black bass, trout, and walleye were the top three preferred species to fish for in New York State by residents of this region.
- 76% of anglers wanted to fish inland lakes for warmwater species; 56% wanted to fish inland trout streams; and 46% wanted to fish the St. Lawrence River.
- On average, anglers were neutral to moderately satisfied with the number and size of fish they caught on their fishing trips in New York during the period in which they were surveyed.
- 47% were satisfied with Bureau efforts to restore fish populations and protect aquatic habitats.
- 55% were satisfied with the quality of the information provided by the Bureau.
- Approximately 40% of anglers said the enjoyment of their fishing trips would be increased by increasing the number of fishing access sites, improving facilities at existing fishing access sites, expanding fishing opportunities for larger fish, and expanding wild trout fishing opportunities.
- Over 80% of anglers indicated that among the top five amenities that should be provided at boat launches or fishing access sites were fishing piers or other shore fishing opportunities, portable toilets, and trash receptacles.
- 35% of anglers thought the sale of panfish should be banned; 18% thought it should be allowed to continue; and the remainder had no opinion.
- 49% of anglers wanted to see the current stocking mix of one and two year old brown trout maintained; 15% wanted more two year old and fewer one year old brown trout stocked; 10% wanted only one year old brown trout; and the remainder had no opinion.

## Region 7

- 81% of license buyers in this region fished New York waters in the past three years.
- Approximately 125,000 anglers live in this region (i.e., fished in the past three years).
- Approximately 92,000 residents fish in New York every year.
- 57% listed a warmwater gamefish as their favorite species to fish for; 29% listed a coldwater gamefish; and 11% listed a panfish species.
- Black bass, trout, and walleye were the top three preferred species to fish for in New York State by residents of this region.
- 87% of anglers wanted to fish inland lakes for warmwater species; 55% wanted to fish inland trout streams; and 41% wanted to fish inland lakes for trout or salmon.
- On average, anglers were neutral to moderately satisfied with the number and size of fish they caught on their fishing trips in New York during the period in which they were surveyed.
- 53% were satisfied with Bureau efforts to restore fish populations and protect aquatic habitats.
- 59% were satisfied with the quality of the information provided by the Bureau.
- Over 40% of anglers said the enjoyment of their fishing trips would be increased by increasing the number of fishing access sites, improving facilities at existing fishing access sites, and expanding wild trout fishing opportunities.
- Over 80% of anglers indicated that among the top five amenities that should be provided at boat launches or fishing access sites were fishing piers or other shore fishing opportunities, portable toilets, and trash receptacles.
- 38% of anglers thought the sale of panfish should be banned; 17% thought it should be allowed to continue; and the remainder had no opinion.
- 49% of anglers wanted to see the current stocking mix of one and two year old brown trout maintained; 15% wanted more two year old and fewer one year old brown trout stocked; 11% wanted only one year old brown trout; and the remainder had no opinion.

## Region 8

- 78% of license buyers in this region fished New York waters in the past three years.
- Approximately 119,000 anglers live in this region (i.e., fished in the past three years).
- Approximately 88,000 residents fish in New York every year.
- 55% listed a warmwater gamefish as their favorite species to fish for; 27% listed a coldwater gamefish; and 15% listed a panfish species.
- Black bass and trout were the top two preferred species to fish for in New York State by residents of this region.
- 83% of anglers wanted to fish inland lakes for warmwater species; 42% wanted to fish inland trout streams; 42% wanted to fish the open water of Lake Ontario; and 40% wanted to fish inland lakes for trout or salmon.
- On average, anglers were neutral to moderately satisfied with the number and size of fish they caught on their fishing trips in New York during the period in which they were surveyed.
- 49% were satisfied with Bureau efforts to restore fish populations and protect aquatic habitats.
- 54% were satisfied with the quality of the information provided by the Bureau.
- Over 40% of anglers said the enjoyment of their fishing trips would be increased by increasing the number of fishing access sites, and improving facilities at existing fishing access sites.
- Over 80% of anglers indicated that among the top five amenities that should be provided at boat launches or fishing access sites were fishing piers or other shore fishing opportunities, portable toilets, and trash receptacles.
- 42% of anglers thought the sale of panfish should be banned; 13% thought it should be allowed to continue; and the remainder had no opinion.
- 47% of anglers wanted to see the current stocking mix of one and two year old brown trout maintained; 12% wanted more two year old and fewer one year old brown trout stocked; 11% wanted only one year old brown trout; and the remainder had no opinion.

## Region 9

- 80% of license buyers in this region fished New York waters in the past three years.
- Approximately 126,000 anglers live in this region (i.e., fished in the past three years).
- Approximately 93,000 residents fish in New York every year.
- 55% listed a warmwater gamefish as their favorite species to fish for; 31% listed a coldwater gamefish; and 11% listed a panfish species.
- Black bass, trout, and walleye were the top three preferred species to fish for in New York State by residents of this region.
- 77% of anglers wanted to fish inland lakes for warmwater species; 51% wanted to fish the open water of Lake Erie; 50% wanted to fish inland trout streams; and 45% wanted to fish the Niagara River.
- On average, anglers were neutral to moderately satisfied with the number and size of fish they caught on their fishing trips in New York during the period in which they were surveyed.
- 52% were satisfied with Bureau efforts to restore fish populations and protect aquatic habitats.
- 59% were satisfied with the quality of the information provided by the Bureau.
- Over 40% of anglers said the enjoyment of their fishing trips would be increased by increasing the number of fishing access sites, improving facilities at existing fishing access sites, and expanding wild trout fishing opportunities.
- Over 80% of anglers indicated that among the top five amenities that should be provided at boat launches or fishing access sites were fishing piers or other shore fishing opportunities, portable toilets, and trash receptacles.
- 46% of anglers thought the sale of panfish should be banned; 8% thought it should be allowed to continue; and the remainder had no opinion.
- 51% of anglers wanted to see the current stocking mix of one and two year old brown trout maintained; 15% wanted more two year old and fewer one year old brown trout stocked; 10% wanted only one year old brown trout; and the remainder had no opinion.

## LITERATURE CITED

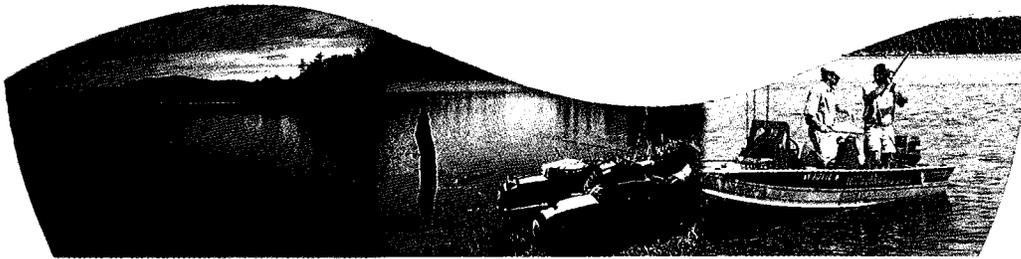
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## **Appendix A:**

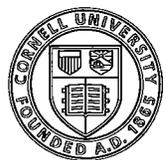
### Questionnaire



# New York State



# Freshwater Angler Survey



Cornell University  
Human Dimensions Research Unit



New York State Department of  
Environmental Conservation  
Bureau of Fisheries



# 2007 NEW YORK STATE FRESHWATER ANGLER SURVEY

Research conducted by

CORNELL UNIVERSITY

Department of Natural Resources

in cooperation with the

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

BUREAU OF FISHERIES

Dear Angler,

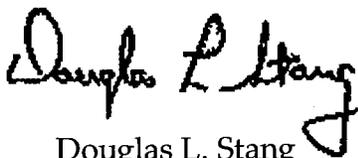
Thank you in advance for taking the time to fill out our Statewide Angler Survey. We have asked Cornell University to conduct this survey so we can learn more about your fishing experiences in New York State, your interests in different types of fishing opportunities, and your opinions about fisheries management issues. The New York State Department of Environmental Conservation (DEC) will use the information you and others provide to carry out its mission in a manner that is responsive to your needs and desires as anglers.

Your name was selected to receive this survey because license sale records indicate that you have a license that allows fishing in New York State during the study period. If you did not fish in New York State in the past few years, we ask that you complete the first question and send the questionnaire back to Cornell University to avoid receiving reminder mailings.

Please complete this questionnaire at your earliest convenience, place it in the enclosed, postage-paid envelope, and drop it in any mailbox. Your participation in this survey is voluntary, but we sincerely hope that you will take a few minutes to complete the questionnaire. The information you provide will remain strictly confidential and will never be associated with your name.

Once again, thanks for your participation. See you on the water.

Good fishing,



Douglas L. Stang  
Chief, DEC Bureau of Fisheries





*Please use blue or black ink when completing this survey and make sure that you fill in each circle completely.*

Shade Circles Like This → ●

Not Like This → ⊗ ⊙

1. In which of the past 5 years have you fished in New York State? *(Select all that apply.)*

<input type="radio"/>	2007
<input type="radio"/>	2006
<input type="radio"/>	2005
<input type="radio"/>	2004
<input type="radio"/>	2003

**STOP!!!**

If you have not fished in New York State in 2007, 2006, or 2005, please stop here and return this questionnaire to us. Place it in the enclosed, self-addressed envelope; postage has been provided.

If you have fished in New York State in 2007 OR 2006 OR 2005, please continue with Question 2.

**Fishing Preferences**

2. Please indicate the types of waters that you prefer to fish in New York State. *(Select all that apply.)*

Water Type
<input type="radio"/> Inland lakes for trout or salmon
<input type="radio"/> Inland lakes for warm water species such as bass, pike, walleye or panfish
<input type="radio"/> Inland trout streams
<input type="radio"/> Inland streams for lake run trout and salmon (Finger Lakes, Lake Champlain tributaries, etc.)
<input type="radio"/> Inland streams for warm water species
<input type="radio"/> Large warm water rivers (Susquehanna, Oswego, Seneca, Hudson, Mohawk, etc.)
<input type="radio"/> Back country Adirondack ponds
<input type="radio"/> Lake Ontario - Open water
<input type="radio"/> Lake Ontario - Tributaries for lake run trout and salmon
<input type="radio"/> Lake Erie - Open water
<input type="radio"/> Lake Erie - Tributaries for lake run trout and salmon
<input type="radio"/> St. Lawrence River
<input type="radio"/> Niagara River



3. What are your five favorite species to fish for in New York State? (Rank from 1 to 5, with #1 as your favorite.) Choose only five species to rank.

Rank	Species
<input type="checkbox"/>	Black Bass (smallmouth bass, largemouth bass)
<input type="checkbox"/>	Bullhead / Catfish
<input type="checkbox"/>	Carp
<input type="checkbox"/>	Crappie / Calico Bass
<input type="checkbox"/>	Coho / Chinook Salmon
<input type="checkbox"/>	Landlocked Atlantic Salmon
<input type="checkbox"/>	Lake Trout
<input type="checkbox"/>	Muskie
<input type="checkbox"/>	Northern Pike
<input type="checkbox"/>	Pickereel
<input type="checkbox"/>	Shad
<input type="checkbox"/>	Steelhead
<input type="checkbox"/>	Striped Bass (freshwater only)
<input type="checkbox"/>	Sunfish (bluegill, pumpkinseed, redbreast)
<input type="checkbox"/>	Tiger Muskellunge
<input type="checkbox"/>	Trout (brook, brown, rainbow)
<input type="checkbox"/>	Walleye
<input type="checkbox"/>	Yellow Perch
<input type="checkbox"/>	No Specific Type



4. How important is each of the following factors below in choosing where you will fish? (Select one level of importance for each item.)

Factor	Not Important	Somewhat Important	Important	Very Important	Extremely Important
Close to home/camp	<input type="radio"/>				
You have caught lots of fish in that body of water in the past	<input type="radio"/>				
You have caught relatively large fish in that body of water in the past	<input type="radio"/>				
Regulations for the water allow you to keep more fish	<input type="radio"/>				
You hear that fishing has been good lately on a particular body of water	<input type="radio"/>				
You want to fish different waters	<input type="radio"/>				
The water has good access	<input type="radio"/>				
The water is in an aesthetically pleasing location	<input type="radio"/>				
The water is not crowded with other anglers	<input type="radio"/>				
The water has catch and release/artificial lures regulations in place	<input type="radio"/>				
The water is stocked with fish	<input type="radio"/>				
The water contains wild fish	<input type="radio"/>				
The water does not have a contaminant advisory	<input type="radio"/>				
The water contains the species for which you desire to fish	<input type="radio"/>				
You usually fish this water and don't change waters often	<input type="radio"/>				
The water is known for its trophy fish	<input type="radio"/>				
You wish to participate in a fishing tournament	<input type="radio"/>				
The water is a vacation destination	<input type="radio"/>				

### Fishing Experiences

5. Did you go freshwater fishing in New York State, even if it was only once, between January 1 and May 31 of 2007?

- Yes (Continue with Question 6)
- No (Skip to Question 9 on page 8)

6. Please answer the questions below about all of your freshwater fishing trips **IN NEW YORK STATE** be each location only once. Include only the fishing you personally did or the dollars you personally spent. A p

Where did you fish in NY ?		How many days did you fish at each location ? (please distinguish between open water and ice fishing)			Black Bass (smallmouth, largemouth)	Yellow Perch	Walleye	Northern Pike	Pickerel	Crappie (calico bass)
Name of Water  Please be as specific as possible so lakes are not confused with streams (e.g., if fishing Oneida Lake enter "Oneida Lake", not just "Oneida," so it is not confused with the Oneida River).	County (or nearest town/village)	Approximate mileage from home (one way)	Open Water	Ice Fishing						
<b>Example:</b> Indian Lake	Hamilton	9.0	4	2	2					



## Angler Satisfaction

*(Select the response that best represents your overall satisfaction.)*

	Very Dissatisfied	Moderately Dissatisfied	Neutral	Moderately Satisfied	Very Satisfied
7. Thinking back over all of your freshwater fishing trips in New York State between January 1 and May 31, 2007, how satisfied were you with the <u>numbers</u> of fish that you caught?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Thinking back over all of your freshwater fishing trips in New York State between January 1 and May 31, 2007, how satisfied were you with the <u>size</u> of fish that you caught?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Very Dissatisfied	Moderately Dissatisfied	Neutral	Moderately Satisfied	Very Satisfied	No Opinion /Don't Know
9. How satisfied are you with the DEC Bureau of Fisheries efforts to restore fish populations and protect aquatic habitats in New York State?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. How satisfied are you with the quality of the information that the DEC Bureau of Fisheries provides (e.g., fishing brochures, DEC web site, telephone inquiries)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you indicated that you are dissatisfied with the information provided by the DEC Bureau of Fisheries, what do you feel needs to be improved?

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## Fisheries Management

11. The DEC Bureau of Fisheries is considering the development of an internet-based angler diary program where anglers can enter information about their fishing trip on any given body of water. This system would also allow anglers to view compiled catch statistics (species, number caught, average length and time fished) from other anglers participating in the diary program.

A. Do you have access to the Internet? <input type="radio"/> Yes <input type="radio"/> No <i>(If you do not have access to the Internet, skip to Question 12)</i>			
B. Would you enter your fishing information into such a system if one were available?	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unsure
C. Would the information obtained from the system influence where you fish?	<input type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Unsure



12. The DEC Bureau of Fisheries is interested in increasing the enjoyment of fishing trips taken in New York. To what extent would the following actions increase the enjoyment of the fishing trips you would take next year?

- 1= would not increase the enjoyment of fishing trips
- 2= may increase the enjoyment of fishing trips
- 3= would definitely increase the enjoyment of fishing trips

Select one number for each item below

	1	2	3
Increase the number of fishing access sites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stock fewer but larger fish if possible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide more information on fishing opportunities in NY	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improve facilities at existing fishing access sites (parking, launch ramps)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make fishing regulations easier to understand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make more waters open to year-round harvest fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make more waters open to year-round catch and release fishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expand wild trout fishing opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expand fishing opportunities for larger fish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <i>Please indicate:</i> _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. New York is one of a few states that allows the sale of panfish caught by anglers. Species that are legal for anglers to sell in NY are those which have no closed season or minimum size limit (e.g., yellow perch, bluegill, sunfish). The DEC Bureau of Fisheries placed daily take limits of 50 yellow perch and 50 sunfish or bluegills for most of the State's waters in 1996 in an effort to conserve these species. The DEC Bureau of Fisheries continues to receive correspondence from anglers who are upset over what they feel is over-harvest of panfish by anglers who are selling part or all of their catches. The scientific literature documents that angler harvest can and does affect panfish populations with the tendency being to remove more of the larger, older fish. The following questions are to gather information on how many anglers are fishing for panfish, selling panfish, and anglers' thoughts on the regulation of selling panfish.

A. Have you or will you fish for panfish in 2007? <input type="radio"/> Yes <input type="radio"/> No <i>(If No, please go to Item D)</i>			
B. How did you or will you fish for them?	<input type="radio"/> Ice Fishing	<input type="radio"/> Open water	<input type="radio"/> Both
C. Have you or will you sell any of the panfish that you catch in 2007?	<input type="radio"/> Yes	<input type="radio"/> No	
D. What regulation would you like to see on the sale of panfish caught by anglers?	<input type="radio"/> Ban the sale	<input type="radio"/> Continue to allow the sale	<input type="radio"/> No Opinion

14. Since 1995 the DEC Bureau of Fisheries has been stocking two year old brown trout in addition to, or instead of, the one year old brown trout traditionally stocked. Two year old brown trout average 14 inches while one year old brown trout average 8 ½ inches. Because of the additional space requirements for raising the two year old brown trout, the DEC Bureau of Fisheries must reduce the number of one year old brown trout (one 14" fish requires the same amount of hatchery space as three 8 ½" fish). This results in fewer, but larger fish being stocked. What is your opinion regarding this policy?

*Select only one preference:*

<input type="radio"/>	DEC should stock only the smaller one year old brown trout
<input type="radio"/>	DEC should stock the current mix of one year old and two year old brown trout
<input type="radio"/>	DEC should stock more two year old brown trout and fewer one year old brown trout
<input type="radio"/>	No Opinion

15. The DEC Bureau of Fisheries strives to construct boat launches and fishing access sites that meet the needs of anglers. To help DEC make efficient use of the funds available for these sites, please rank your top five site amenities in order of importance to you, with 1 being the most important.

Rank	Amenity
<input type="text"/>	Boat washing station
<input type="text"/>	Fish cleaning station
<input type="text"/>	Fishing piers or other shore fishing opportunities
<input type="text"/>	Information kiosks
<input type="text"/>	Portable toilets
<input type="text"/>	Septic pump out facility
<input type="text"/>	Trash receptacles
<input type="text"/>	Used fishing line receptacle



16. Normally, the DEC Bureau of Fisheries or Cornell University never associates your name with the information you provide. However, it would be extremely valuable to state fisheries managers to be able to contact a sample of anglers for updated information about specific waterways or fishing preferences. If such information is needed in the future, may Cornell University or the DEC Bureau of Fisheries contact you for further information?

Yes    No

Please use the space below for any comments you wish to make.

**Thank you for your time and effort!**

To return this questionnaire, simply place it in the enclosed, self-addressed envelope; postage has been provided.



## **Appendix B:**

Additional Tables

<b>Appendix Table B-1. Initial sample, number of respondents, and response rate (not adjusted for undeliverable questionnaires), by survey phase and region of residence/license type.</b>									
<b>Region of Residence</b>	<i>Phase 1</i>			<i>Phase 2</i>			<i>Phase 3</i>		
	Initial n	# Respondents	Response Rate	Initial n	# Respondents	Response Rate	Initial n	# Respondents	Response Rate
1	790	269	34.1	605	164	27.1	638	252	39.5
2	605	143	23.6	508	118	23.2	496	162	32.7
3	2,493	934	37.5	1,668	495	29.7	1,730	736	42.5
4	1,501	592	39.4	1,369	472	34.5	1,553	744	47.9
5	989	380	38.4	1,362	494	36.3	1,424	642	45.1
6	1,587	630	39.7	1,425	486	34.1	1,601	755	47.2
7	2,774	1,208	43.5	2,244	835	37.2	2,505	1,280	51.1
8	2,182	921	42.2	2,648	985	37.2	2,824	1,357	48.1
9	2,916	1,213	41.6	2,338	887	37.9	2,742	1,330	48.5
Out-of-state	1,163	533	45.8	2,833	1,030	36.4	1,487	676	45.5
<b>License Type</b>									
Annual Resident Fishing	4,775	1,680	35.2	6,464	2,067	32.0	2,082	1,014	48.7
Short-term Resident	86	18	20.9	495	101	20.4	37	9	24.3
Annual Resident Sportsman	10,523	4,394	41.8	6,769	2,630	38.9	12,950	6,040	46.6
Short-term Nonresident	203	65	32.0	1,801	585	32.5	621	210	33.8
Annual Nonresident Fishing	771	386	50.1	921	399	43.3	616	344	55.8
Annual Nonresident Sportsman	189	82	43.4	97	40	41.2	242	121	50.0
Lifetime	453	198	43.7	453	196	43.3	452	196	43.4

<b>Table B-2. Tests for nonresponse bias.</b>						
	Phase 1		Phase 2		Phase 3	
	Respondents	Nonrespondents	Respondents	Nonrespondents	Respondents	Nonrespondents
	Percent					
<i>Satisfaction with number of fish caught during Phase</i>						
Very or moderately dissatisfied	26.6	17.8	25.4	16.4	25.4	22.1
Neutral	24.8	22.8	24.6	28.9	26.1	15.1
Moderately satisfied	32.6	40.6	36.2	32.8	32.3	34.9
Very satisfied	16.0	18.8	13.8	21.9	16.2	27.9
	NS		(x <sup>2</sup> = 11.1, df = 3, p = .01)		(x <sup>2</sup> = 11.5, df = 3, p = .01)	
<i>Satisfaction with the size of fish caught during Phase</i>						
Very or moderately dissatisfied	23.4	26.5	21.9	18.7	20.2	16.7
Neutral	28.8	14.7	30.8	20.3	30.2	9.5
Moderately satisfied	33.0	41.2	34.4	40.7	32.6	46.4
Very satisfied	14.8	17.6	12.9	20.3	17.0	27.4
	(x <sup>2</sup> = 9.9, df = 3, p = .02)		(x <sup>2</sup> = 11.7, df = 3, p = .01)		(x <sup>2</sup> = 22.1, df = 3, p < .001)	
<i>Satisfaction with DEC efforts to restore fish populations and protect aquatic habitats</i>						
Very or moderately dissatisfied	17.6	10.7	16.6	3.7	18.0	13.7
Neutral	24.4	24.0	27.4	13.7	24.1	14.4
Moderately satisfied	29.3	38.6	26.2	29.2	31.0	38.8
Very satisfied	21.0	22.7	19.6	29.2	20.0	18.7
No opinion/Don't know	7.7	4.0	10.2	24.2	6.9	14.4
	(x <sup>2</sup> = 11.2, df = 4, p = .02)		(x <sup>2</sup> = 63.5, df = 4, p < .001)		(x <sup>2</sup> = 20.3, df = 4, p < .001)	
<i>Satisfaction with the quality of information DEC Bureau of Fisheries provides</i>						
Very or moderately dissatisfied	10.2	6.0	9.1	5.0	10.5	9.3
Neutral	26.6	15.3	27.3	9.4	25.4	7.9
Moderately satisfied	28.4	44.7	26.6	31.9	29.4	39.6
Very satisfied	28.2	30.0	28.4	38.7	28.8	33.1
No opinion/Don't know	6.6	4.0	8.6	15.0	5.9	10.1
	(x <sup>2</sup> = 24.4, df = 4, p < .001)		(x <sup>2</sup> = 36.0, df = 4, p < .001)		(x <sup>2</sup> = 26.4, df = 4, p < .001)	

<b>Table B-3. Anglers' five favorite species to fish for in New York State, for residents of Region 1.</b>						
<i><b>Favorite species</b></i>	#1	#2	#3	#4	#5	Among top 5
	Percent					
Black Bass	48.8	22.1	6.3	4.1	3.6	84.9
Trout	25.4	17.6	10.5	7.3	4.9	65.7
Walleye	1.0	2.1	3.1	7.9	5.5	19.6
Coho/Chinook Salmon	2.4	1.0	1.4	0.7	1.7	7.2
Steelhead	0.7	3.1	1.7	2.4	1.4	9.3
Yellow Perch	0.7	1.9	10.0	10.2	10.7	33.5
Northern Pike	2.6	3.8	3.8	5.2	2.6	18.0
Lake Trout	3.4	11.1	8.9	5.6	3.9	32.9
Bullhead/Catfish	0.7	2.2	2.6	5.0	4.3	14.8
Landlocked Atlantic Salmon	0.2	0.7	2.1	1.7	1.2	5.9
Crappie/Calico Bass	1.4	3.6	2.4	5.0	6.0	18.4
Striped Bass	3.1	3.8	6.0	3.8	2.6	19.3
Sunfish	1.2	4.8	8.9	11.6	11.3	37.8
Muskie	0.5	0.7	0.7	0.9	1.7	4.5
Carp	1.2	3.1	3.1	1.0	2.1	10.5
Pickrel	1.0	9.6	14.7	9.4	5.1	39.8
Tiger Muskellunge	0.0	0.7	0.7	0.5	1.2	3.1
Shad	0.0	0.5	1.0	1.4	0.7	3.6
No Specific Type	3.1	0.2	1.7	1.4	9.1	15.5

<b>Table B-4. Anglers' five favorite species to fish for in New York State, for residents of Region 2.</b>						
<i><b>Favorite species</b></i>	#1	#2	#3	#4	#5	Among top 5
	Percent					
Black Bass	37.0	23.2	12.0	5.6	3.2	81.0
Trout	29.3	13.1	4.6	8.5	6.0	61.5
Walleye	0.7	2.1	2.8	6.2	5.2	17.0
Coho/Chinook Salmon	2.4	1.0	3.1	2.8	2.1	11.4
Steelhead	1.0	6.9	1.4	2.1	1.4	12.8
Yellow Perch	1.7	4.8	5.2	7.3	9.7	28.7
Northern Pike	3.1	3.1	5.2	4.1	3.4	18.9
Lake Trout	7.0	9.4	15.0	5.9	2.1	39.4
Bullhead/Catfish	0.0	2.8	6.2	3.1	3.8	15.9
Landlocked Atlantic Salmon	1.0	1.4	4.5	1.0	1.0	8.9
Crappie/Calico Bass	1.7	7.3	6.2	6.6	6.2	28.0
Striped Bass	6.0	5.3	8.4	5.3	4.9	29.9
Sunfish	1.0	1.4	4.5	6.6	12.2	25.7
Muskie	0.0	0.3	1.0	0.3	1.4	3.0
Carp	3.8	2.1	2.4	4.5	2.4	15.2
Pickrel	0.3	7.9	5.2	8.2	5.5	27.1
Tiger Muskellunge	0.0	0.7	0.7	0.3	0.7	2.4
Shad	0.0	0.7	1.4	0.7	1.0	3.8
No Specific Type	0.7	0.3	1.0	3.1	6.8	11.9

**Table B-5. Anglers' five favorite species to fish for in New York State, for residents of Region 3.**

<i>Favorite species</i>	#1	#2	#3	#4	#5	Among top 5
	Percent					
Black Bass	38.5	22.5	11.0	7.0	4.4	83.4
Trout	33.8	16.9	10.6	7.0	5.1	73.4
Walleye	2.0	4.9	5.2	5.7	4.8	22.6
Coho/Chinook Salmon	2.2	2.4	2.8	1.6	1.5	10.5
Steelhead	2.0	3.0	2.0	2.4	1.8	11.2
Yellow Perch	1.1	4.0	9.3	12.3	11.3	38.0
Northern Pike	1.3	4.7	5.0	4.5	3.7	19.2
Lake Trout	3.3	10.8	8.6	6.8	5.2	34.7
Bullhead/Catfish	1.3	3.0	5.0	5.0	5.3	19.6
Landlocked Atlantic Salmon	0.6	2.2	2.3	2.6	2.0	9.7
Crappie/Calico Bass	1.1	4.3	6.8	7.9	5.2	25.3
Striped Bass	5.3	6.4	7.0	6.6	4.9	30.2
Sunfish	1.5	2.6	5.6	7.6	10.6	27.9
Muskie	0.1	0.4	0.3	1.4	0.6	2.8
Carp	0.5	0.5	0.5	1.1	2.0	4.6
Pickerel	1.0	4.5	6.9	5.3	7.1	24.8
Tiger Muskellunge	0.1	0.4	0.6	1.1	0.8	3.0
Shad	0.3	0.7	1.0	0.8	1.7	4.5
No Specific Type	1.4	1.0	1.0	0.9	6.3	10.6

<b>Table B-6. Anglers' five favorite species to fish for in New York State, for residents of Region 4.</b>						
<i><b>Favorite species</b></i>	#1	#2	#3	#4	#5	Among top 5
	Percent					
Black Bass	33.6	20.9	12.7	7.6	5.9	80.7
Trout	31.7	12.8	8.6	7.2	5.9	66.2
Walleye	9.5	10.5	9.4	10.6	7.6	47.6
Coho/Chinook Salmon	1.9	1.9	2.0	2.4	2.3	10.5
Steelhead	1.2	2.1	2.1	1.7	1.5	8.6
Yellow Perch	1.4	6.1	10.1	9.1	10.5	37.2
Northern Pike	2.9	10.9	8.5	9.1	7.5	38.9
Lake Trout	3.8	8.2	7.3	7.1	4.7	31.1
Bullhead/Catfish	1.9	4.0	4.7	6.1	6.9	23.6
Landlocked Atlantic Salmon	1.2	2.5	3.9	2.8	2.8	13.2
Crappie/Calico Bass	0.9	2.6	3.6	4.5	4.0	15.6
Striped Bass	3.3	6.3	5.9	4.9	4.1	24.5
Sunfish	1.0	2.7	5.6	6.6	8.0	23.9
Muskie	0.1	0.9	0.6	0.8	1.1	3.5
Carp	0.3	0.8	0.9	1.5	1.6	5.1
Pickrel	0.3	1.1	4.8	4.9	4.6	15.7
Tiger Muskellunge	0.0	0.7	1.2	1.8	1.1	4.8
Shad	0.4	0.6	1.1	0.9	1.2	4.2
No Specific Type	2.1	0.3	0.5	0.6	7.0	10.5

**Table B-7. Anglers' five favorite species to fish for in New York State, for residents of Region 5.**

<i>Favorite species</i>	#1	#2	#3	#4	#5	Among top 5
	Percent					
Black Bass	28.4	18.4	12.1	8.9	7.5	75.3
Trout	34.7	12.4	9.7	9.3	5.2	71.3
Walleye	8.2	9.5	10.5	9.3	8.4	45.9
Coho/Chinook Salmon	1.4	1.8	1.3	2.0	2.9	9.4
Steelhead	0.5	1.4	2.5	1.6	1.4	7.4
Yellow Perch	5.3	9.4	10.4	13.4	9.8	48.3
Northern Pike	3.5	10.5	11.8	11.6	9.4	46.8
Lake Trout	3.5	10.7	10.5	7.2	7.3	39.2
Bullhead/Catfish	3.0	4.9	7.3	6.7	8.6	30.5
Landlocked Atlantic Salmon	3.0	5.8	3.7	4.7	3.8	21.0
Crappie/Calico Bass	1.6	2.3	2.7	4.0	4.1	14.7
Striped Bass	0.6	1.9	2.0	1.9	2.3	8.7
Sunfish	0.4	2.3	3.5	3.3	6.0	15.5
Muskie	0.7	0.9	0.7	1.2	1.7	5.2
Carp	0.2	0.2	0.1	1.0	1.2	2.7
Pickrel	0.0	1.0	1.0	2.1	3.9	8.0
Tiger Muskellunge	0.2	0.6	1.4	1.1	1.0	4.3
Shad	0.0	0.0	0.2	0.1	0.3	0.6
No Specific Type	1.6	0.3	0.9	0.3	2.8	5.9

**Table B-8. Anglers' five favorite species to fish for in New York State, for residents of Region 6.**

<i>Favorite species</i>	#1	#2	#3	#4	#5	Among top 5
	Percent					
Black Bass	30.1	20.0	15.2	8.8	7.0	81.1
Trout	26.3	10.5	7.7	8.3	5.5	58.3
Walleye	18.3	16.9	12.5	11.8	6.5	66.0
Coho/Chinook Salmon	1.8	2.1	2.5	2.5	3.2	12.1
Steelhead	0.8	2.2	2.0	1.4	1.7	8.1
Yellow Perch	3.8	10.4	12.5	12.0	12.3	51.0
Northern Pike	5.1	12.7	14.3	12.6	11.0	55.7
Lake Trout	2.4	4.9	4.9	5.5	4.3	22.0
Bullhead/Catfish	3.8	6.6	8.1	9.1	10.2	37.8
Landlocked Atlantic Salmon	0.1	1.0	1.4	1.0	2.1	5.6
Crappie/Calico Bass	1.7	2.9	3.7	4.6	4.5	17.4
Striped Bass	0.1	0.9	1.2	2.5	1.8	6.5
Sunfish	0.8	1.9	4.2	5.5	6.1	18.5
Muskie	1.0	1.2	1.7	3.0	3.3	10.2
Carp	0.2	0.6	0.2	1.0	1.7	3.7
Pickrel	0.2	0.7	1.3	1.3	2.1	5.6
Tiger Muskellunge	0.4	0.6	1.3	1.6	1.8	5.7
Shad	0.0	0.1	0.0	0.1	0.0	0.2
No Specific Type	0.6	0.4	0.6	0.5	6.1	8.2

**Table B-9. Anglers' five favorite species to fish for in New York State, for residents of Region 7.**

<i>Favorite species</i>	#1	#2	#3	#4	#5	Among top 5
	Percent					
Black Bass	32.2	17.6	13.4	8.4	7.3	78.9
Trout	21.4	11.6	8.5	7.9	5.5	54.9
Walleye	19.2	15.4	12.6	9.6	7.1	63.9
Coho/Chinook Salmon	2.7	2.5	2.5	3.7	3.8	15.2
Steelhead	1.5	3.3	2.4	3.2	2.3	12.7
Yellow Perch	5.1	13.1	15.5	12.7	10.0	56.4
Northern Pike	3.3	8.4	8.4	9.6	8.6	38.3
Lake Trout	1.9	5.0	4.9	4.6	5.0	21.4
Bullhead/Catfish	2.6	4.0	6.5	6.8	9.4	29.3
Landlocked Atlantic Salmon	1.0	2.1	2.1	2.5	2.7	10.4
Crappie/Calico Bass	1.6	5.0	5.4	7.7	5.7	25.4
Striped Bass	0.7	1.6	2.2	1.7	2.1	8.3
Sunfish	1.8	3.6	5.1	8.5	8.7	27.7
Muskie	0.5	0.6	1.1	1.8	2.4	6.4
Carp	0.4	0.4	0.8	0.8	1.8	4.2
Pickrel	0.0	0.6	1.7	1.8	2.4	6.5
Tiger Muskellunge	0.3	0.6	1.5	1.5	1.8	5.7
Shad	0.1	0.0	0.0	0.0	0.1	0.2
No Specific Type	1.2	0.5	0.3	0.5	4.4	6.9

<b>Table B-10. Anglers' five favorite species to fish for in New York State, for residents of Region 8.</b>						
<i>Favorite species</i>	#1	#2	#3	#4	#5	Among top 5
	Percent					
Black Bass	41.8	17.7	12.1	7.1	4.8	83.5
Trout	14.7	11.6	8.3	7.3	5.8	47.7
Walleye	6.6	7.6	9.4	8.2	7.8	39.6
Coho/Chinook Salmon	3.1	3.6	3.9	3.6	3.2	17.4
Steelhead	2.4	4.8	3.1	3.4	2.9	16.6
Yellow Perch	7.3	12.3	12.7	12.6	9.4	54.3
Northern Pike	4.8	11.9	10.0	9.5	8.3	44.5
Lake Trout	5.1	5.8	6.4	5.4	4.8	27.5
Bullhead/Catfish	3.2	5.1	6.0	6.6	7.9	28.8
Landlocked Atlantic Salmon	0.6	1.3	2.5	2.5	2.0	8.9
Crappie/Calico Bass	2.1	4.2	5.5	6.6	6.3	24.7
Striped Bass	0.4	1.5	1.6	1.5	1.0	6.0
Sunfish	2.6	4.9	7.7	9.0	10.9	35.1
Muskie	0.5	0.8	1.4	1.6	1.9	6.2
Carp	0.3	0.6	0.9	2.2	3.3	7.3
Pickrel	0.3	0.9	1.8	2.7	1.2	6.9
Tiger Muskellunge	0.1	0.5	0.6	1.0	1.1	3.3
Shad	0.0	0.1	0.0	0.2	0.1	0.4
No Specific Type	1.8	0.3	0.3	0.7	6.6	9.7

<b>Table B-11. Anglers' five favorite species to fish for in New York State, for residents of Region 9.</b>						
<i><b>Favorite species</b></i>	#1	#2	#3	#4	#5	Among top 5
	Percent					
Black Bass	28.0	17.7	15.4	10.8	7.0	78.9
Trout	17.6	10.8	9.2	8.2	6.3	52.1
Walleye	21.1	15.4	11.0	9.4	6.3	63.2
Coho/Chinook Salmon	2.6	4.0	4.7	3.9	4.2	19.4
Steelhead	6.9	8.7	6.4	6.6	3.9	32.5
Yellow Perch	6.2	13.4	13.6	9.9	10.8	53.9
Northern Pike	3.3	7.0	7.2	8.4	8.1	34.0
Lake Trout	2.2	3.7	4.7	5.2	4.5	20.3
Bullhead/Catfish	1.0	1.9	3.1	3.8	5.0	14.8
Landlocked Atlantic Salmon	0.3	1.0	0.7	1.6	0.6	4.2
Crappie/Calico Bass	2.7	5.7	7.3	8.4	7.5	31.6
Striped Bass	0.6	0.8	1.8	1.9	1.8	6.9
Sunfish	1.0	2.8	4.6	6.8	8.0	23.2
Muskie	1.4	1.3	2.5	3.5	3.9	12.6
Carp	0.3	0.1	0.6	0.8	2.1	3.9
Pickrel	0.0	0.2	0.7	0.5	1.1	2.5
Tiger Muskellunge	0.2	0.6	0.6	0.9	1.0	3.3
Shad	0.0	0.1	0.1	0.0	0.1	0.3
No Specific Type	1.8	0.3	0.5	0.7	5.8	9.1

<b>Table B-12. Anglers' five favorite species to fish for in New York State, for out-of-state residents.</b>						
<i><b>Favorite species</b></i>	#1	#2	#3	#4	#5	Among top 5
	Percent					
Black Bass	24.8	11.7	7.6	7.5	5.4	57.0
Trout	16.9	12.7	13.1	8.5	6.0	57.2
Walleye	6.4	6.5	7.7	7.8	7.8	36.2
Coho/Chinook Salmon	19.3	11.1	8.5	4.3	2.5	45.7
Steelhead	12.5	15.7	8.6	5.4	3.4	45.6
Yellow Perch	1.3	4.0	5.1	8.4	6.8	25.6
Northern Pike	3.1	8.4	7.1	5.4	5.6	29.6
Lake Trout	2.6	6.2	8.4	10.0	7.4	34.6
Bullhead/Catfish	0.2	1.0	1.2	2.1	2.6	7.1
Landlocked Atlantic Salmon	5.1	6.6	5.0	5.2	3.7	25.6
Crappie/Calico Bass	0.7	1.9	4.0	4.1	2.9	13.6
Striped Bass	0.7	1.9	2.4	2.9	3.1	11.0
Sunfish	0.8	1.0	2.6	2.6	5.0	12.0
Muskie	0.8	1.8	2.6	2.5	4.3	12.0
Carp	0.1	0.3	0.4	0.3	0.7	1.8
Pickrel	0.0	0.9	1.8	1.4	1.7	5.8
Tiger Muskellunge	0.2	0.5	0.9	1.2	1.1	3.9
Shad	0.1	0.2	0.5	0.4	1.1	2.3
No Specific Type	0.8	0.2	0.6	0.8	4.2	6.6

<b>Table B-13. Water body preferences of fishing license holders who have fished in New York State in past 3 years by region of residence.</b>										
<b><i>Water Body Preferences</i></b>	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Out-of-state
	% (and estimated number) of license holders who fished in past 3 years									
Inland lakes for warm water species	79.6 (18,103)	77.4 (13,331)	81.8 (68,223)	83.4 (52,874)	80.3 (44,952)	76.2 (51,799)	86.5 (108,140)	83.3 (98,900)	76.6 (96,857)	46.3 (70,586)
Inland trout streams	55.9 (12,713)	50.5 (8,698)	64.5 (53,794)	62.0 (39,307)	64.9 (36,331)	56.0 (38,068)	54.5 (68,135)	42.0 (49,865)	49.6 (62,717)	32.3 (49,243)
Inland lakes for trout or salmon	41.7 (9,483)	39.3 (6,769)	48.7 (40,617)	45.9 (29,100)	59.8 (33,476)	36.4 (24,744)	41.1 (51,382)	40.0 (47,491)	32.5 (41,095)	29.5 (44,974)
Lake Ontario—open water	7.8 (1,774)	4.3 (741)	10.9 (9,091)	14.4 (9,129)	10.3 (5,766)	25.7 (17,470)	29.6 (37,005)	41.6 (49,390)	25.6 (32,370)	31.0 (47,261)
Inland streams for warm water species	26.1 (5,936)	25.0 (4,306)	29.3 (24,437)	29.2 (18,512)	27.4 (15,338)	28.9 (19,646)	29.6 (37,005)	29.8 (35,381)	29.0 (36,669)	7.4 (11,282)
Large warm water rivers	16.1 (3,661)	25.9 (4,461)	35.2 (29,358)	48.6 (30,811)	26.8 (15,003)	23.1 (15,703)	36.7 (45,882)	16.4 (19,471)	8.0 (10,116)	13.7 (20,886)
Lake Ontario—tributaries for lake run trout and salmon	7.6 (1,728)	7.9 (1,361)	12.8 (10,675)	12.8 (8,115)	8.8 (4,926)	15.8 (10,740)	20.9 (26,129)	29.4 (34,906)	24.3 (30,726)	35.6 (54,274)
Back country Adirondack ponds	17.9 (4,071)	15.9 (2,739)	18.8 (15,680)	32.0 (20,287)	57.6 (32,244)	35.6 (24,200)	21.6 (27,004)	16.4 (19,471)	10.3 (13,024)	10.5 (16,008)
Inland streams for lake run trout and salmon	12.3 (2,797)	18.3 (3,152)	14.1 (11,760)	15.8 (10,017)	26.7 (14,947)	11.5 (7,817)	22.5 (28,129)	27.4 (32,531)	17.0 (21,496)	20.9 (31,863)
St. Lawrence River	3.4 (773)	4.9 (844)	8.0 (6,672)	7.1 (4,501)	10.0 (5,598)	45.6 (30,998)	26.3 (32,880)	21.1 (25,051)	9.2 (11,633)	12.6 (19,209)
Lake Erie—open water	2.0 (445)	3.0 (517)	1.9 (1,585)	1.7 (1,078)	1.7 (952)	1.5 (1,020)	2.8 (3,500)	7.2 (8,548)	51.1 (64,613)	9.0 (13,721)
Niagara River	1.1 (250)	3.7 (637)	1.6 (1,334)	1.0 (634)	1.0 (560)	1.2 (816)	1.8 (2,250)	3.8 (4,512)	44.7 (56,521)	5.7 (8,690)
Lake Erie—tributaries for lake run trout and salmon	2.0 (455)	2.7 (465)	1.6 (1,334)	1.2 (761)	1.5 (840)	0.7 (476)	1.5 (1,875)	3.7 (4,393)	36.5 (46,152)	8.4 (12,806)
<b><i>Mean # of water bodies preferred</i></b>	2.6	2.6	3.2	3.5	3.7	3.6	3.7	3.6	4.1	2.6

<b>Table B-14. Water body preferences of fishing license holders who have fished in New York State in past 3 years by participation consistency.</b>		
<b><i>Water Body Preferences</i></b>	<b>Consistent</b>	<b>Intermittent</b>
	% (and estimated number) of license holders who fished in past 3 years	
Inland lakes for warm water species	79.3 (449,325)	65.3 (174,918)
Inland trout streams	55.2 (312,771)	39.6 (106,076)
Inland lakes for trout or salmon	43.0 (243,644)	31.9 (85,450)
Lake Ontario—open water	27.7 (156,952)	19.9 (53,306)
Inland streams for warm water species	28.3 (160,352)	18.0 (48,216)
Large warm water rivers	26.9 (152,419)	16.1 (43,127)
Lake Ontario—tributaries for lake run trout and salmon	24.6 (139,387)	16.6 (44,466)
Back country Adirondack ponds	23.4 (132,588)	15.8 (42,323)
Inland streams for lake run trout and salmon	21.6 (122,389)	15.7 (42,055)
St. Lawrence River	19.2 (108,790)	11.1 (29,733)
Lake Erie—open water	13.0 (73,660)	8.3 (22,233)
Niagara River	10.4 (58,928)	6.4 (17,144)
Lake Erie—tributaries for lake run trout and salmon	9.5 (53,828)	5.7 (15,268)
<b><i>Mean # of water bodies preferred</i></b>	<b>3.8</b>	<b>2.6</b>

**Table B-15. Mean angler satisfaction with the number and size of fish caught on their fishing trips in New York State during the survey period for which they responded, by region of residence, participation consistency, gender, age, and type of license purchased.**

	Number of fish caught	Size of fish caught
	Mean*	
Overall	3.3	3.3
Region of residence		
1	3.4	3.3
2	3.2	3.0
3	3.2	3.2
4	3.1	3.2
5	3.3	3.3
6	3.2	3.2
7	3.3	3.3
8	3.3	3.3
9	3.2	3.3
Out-of-state	3.5	3.6
Participation consistency		
Consistent	3.3	3.4
Intermittent	3.2	3.3
Gender		
Male	3.3	3.3
Female	3.2	3.2
Age		
16-44	3.3	3.4
45-54	3.3	3.4
55-64	3.3	3.3
64+	3.2	3.3
Type of License		
Lifetime	3.2	3.3
Resident—annual	3.2	3.3
Resident—sportsman	3.3	3.3
Resident—short-term	3.2	3.0
Nonresident—annual	3.5	3.6
Nonresident—sportsman	3.5	3.6
Nonresident—short-term	3.5	3.6
*Measured on a 5-point scale where 1 = very dissatisfied to 5 = very satisfied.		

**Table B-16. Angler preference for actions DEC Bureau of Fisheries might take to increase enjoyment of angler fishing trips by region of residence.**

<i>Actions DEC Bureau of Fisheries might take</i>	Would increase enjoyment of fishing trips									
	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Out-of-state
	Percent									
<i>Related to the fishing experience:</i>										
Increase the number of fishing access sites	52.1	52.6	52.9	48.5	44.8	38.6	44.3	42.9	48.0	31.9
Improve facilities at existing fishing access sites	49.9	50.9	47.0	44.4	37.6	39.6	42.7	43.5	47.4	30.6
Provide more information on fishing opportunities in New York	45.8	51.4	42.4	33.6	31.0	30.4	31.7	33.7	36.2	28.7
Make fishing regulations easier to understand	31.2	34.4	30.7	30.9	31.6	34.1	34.2	30.2	32.9	27.7
<i>Related to the fish:</i>										
Expand fishing opportunities for larger fish	49.1	49.7	48.4	46.9	43.5	38.2	38.6	36.3	38.9	43.7
Expand wild trout fishing opportunities	48.0	51.2	50.7	46.9	49.9	40.5	40.3	34.1	40.1	35.6
Make more waters open to year-round catch and release fishing	57.1	45.6	42.4	37.2	33.0	30.5	32.3	34.6	33.1	33.7
Make more waters open to year-round harvest fishing	29.2	35.0	32.7	30.0	28.0	24.7	26.6	24.6	26.4	19.1
Stock fewer but larger fish if possible	20.1	27.4	19.8	19.1	17.6	17.1	14.6	13.9	13.0	14.8

<b>Table B-17. Anglers' opinion on the sale of panfish and their use of the panfish resource by region of residence.</b>										
	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Out-of- state
% (and estimated number) of license holders who fished in past 3 years										
<i>Fish for panfish in 2007</i>										
Yes	52.0 (11,826)	40.6 (6,993)	58.2 (48,540)	54.8 (34,742)	56.8 (31,797)	58.5 (39,767)	68.3 (85,387)	71.2 (84,534)	65.6 (82,948)	30.2 (46,041)
No	48.0 (10,916)	59.4 (10,231)	41.8 (34,862)	45.2 (28,656)	43.2 (24,183)	41.5 (28,211)	31.7 (39,631)	28.8 (34,193)	34.4 (43,497)	69.8 (106,413)
<i>Panfish fishing method</i>										
Ice fishing only	1.4 (166)	3.1 (217)	4.5 (2,184)	8.2 (2,849)	15.3 (4,865)	7.0 (2,784)	5.7 (4,867)	2.4 (2,029)	3.3 (2,737)	7.3 (3,361)
Open water only	87.2 (10,312)	78.4 (5,482)	66.3 (32,182)	64.8 (22,513)	41.6 (13,228)	61.2 (24,337)	66.0 (56,355)	73.7 (62,302)	71.7 (59,474)	78.2 (36,004)
Ice fishing and open water	11.4 (1,348)	18.5 (1,294)	29.2 (14,174)	27.0 (9,380)	43.1 (13,704)	31.8 (12,646)	28.3 (24,164)	23.9 (20,204)	25.0 (20,737)	14.5 (6,676)
<i>Sell panfish in 2007</i>										
Yes	0.0 (0)	0.7 (49)	0.4 (194)	0.4 (139)	3.1 (986)	2.1 (835)	1.3 (1,110)	0.7 (592)	0.4 (332)	0.8 (368)
No	100.0 (11,826)	99.3 (6,944)	99.6 (48,346)	99.6 (34,603)	96.9 (30,811)	97.9 (38,932)	98.7 (84,277)	99.3 (83,942)	99.6 (82,616)	99.2 (45,673)
<i>Opinion on sale of panfish</i>										
Ban the sale	45.3 (10,302)	31.8 (5,477)	40.7 (33,945)	37.7 (23,901)	35.0 (19,593)	34.9 (23,724)	38.0 (47,507)	41.7 (49,509)	45.8 (57,912)	38.0 (57,932)
Continue to allow sale	4.9 (1,114)	10.6 (1,826)	9.0 (7,506)	12.0 (7,608)	18.5 (10,356)	18.1 (12,304)	16.8 (21,003)	13.0 (15,434)	8.0 (10,116)	8.3 (12,654)
No opinion	49.8 (11,326)	57.6 (9,921)	50.3 (41,951)	50.3 (31,889)	46.5 (26,031)	47.0 (31,950)	45.2 (56,508)	45.3 (53,783)	46.2 (58,418)	53.7 (81,868)

**Table B-18. Anglers' opinion on the sale of panfish by whether or not they fished for panfish in 2007, by region of residence.**

	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Out-of-state
Percent										
<b><i>Fished for panfish in 2007</i></b>										
Opinion on sale of panfish										
Ban the sale	53.1	41.2	49.4	46.2	42.1	42.8	43.3	46.6	53.2	53.9
Continue the sale	5.0	10.7	9.9	12.9	19.7	21.1	18.2	13.4	8.2	8.0
No opinion	41.9	48.1	40.7	40.9	38.2	36.1	38.5	40.0	38.6	38.1
<b><i>Did not fish for panfish in 2007</i></b>										
Opinion on sale of panfish										
Ban the sale	35.0	24.8	27.2	26.5	24.8	23.4	25.0	27.8	29.2	30.2
Continue the sale	5.1	10.9	7.2	10.8	16.7	14.0	13.5	12.0	7.5	8.3
No opinion	59.9	64.3	65.6	62.7	58.5	62.6	61.5	60.2	63.3	61.5

<b>Table B-19. Anglers' preference for the brown trout stocking program, overall and by region of residence.</b>											
<b><i>Brown trout stocking preferences</i></b>	Overall	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Out-of-state
	% (and estimated number) of license holders who fished in past 3 years										
Stock only one year old brown trout	9.3 (77,607)	6.1 (1,387)	10.1 (1,740)	7.9 (6,589)	9.5 (6,023)	10.1 (5,654)	9.8 (6,662)	10.6 (13,252)	11.2 (13,297)	9.9 (12,518)	6.8 (10,367)
Stock current mix of one and two year old brown trout	48.6 (405,559)	51.6 (11,735)	41.1 (7,079)	51.1 (42,618)	52.0 (32,967)	52.6 (29,445)	48.9 (33,241)	48.7 (60,884)	47.3 (56,158)	50.8 (64,234)	43.7 (66,622)
Stock more two year old and fewer one year old brown trout	16.9 (141,028)	22.5 (5,117)	21.5 (3,703)	22.7 (18,932)	17.5 (11,095)	17.8 (9,964)	15.5 (10,536)	15.4 (19,253)	12.1 (14,366)	15.4 (19,472)	18.6 (28,356)
No opinion	25.2 (210,290)	19.8 (4,503)	27.3 (4,702)	18.3 (15,262)	21.0 (13,314)	19.5 (10,916)	25.8 (17,538)	25.3 (31,630)	29.4 (34,906)	23.9 (30,220)	30.9 (47,108)

**Table B-20. Angler preferences for amenities at DEC boat launches and fishing access sites in New York State, by region of residence.**

<i>Amenity</i>	Region 1		Region 2		Region 3		Region 4		Region 5	
	#1	Among top 5								
	Percent									
Fishing piers or other shore fishing opportunities	43.5	88.2	46.7	85.0	38.8	82.4	36.6	84.0	32.7	77.2
Portable toilets	16.7	80.6	15.0	85.0	18.8	84.0	20.9	86.0	24.8	84.7
Trash receptacles	18.2	88.9	15.0	93.0	20.9	93.6	14.6	92.0	13.7	90.7
Fish cleaning station	3.2	41.8	4.5	51.6	4.9	50.5	6.6	49.1	4.8	46.4
Boat washing station	2.7	27.5	2.4	20.6	4.9	28.9	7.0	40.9	8.4	41.8
Used fishing line receptacle	4.9	57.7	2.1	62.0	3.8	59.2	3.3	48.6	3.5	52.7
Information kiosks	3.9	59.5	4.5	53.7	2.1	54.5	4.9	51.8	4.6	49.4
Septic pump out facility	0.2	10.1	0.3	12.2	0.8	13.2	0.9	13.6	0.7	13.8

<i>Amenity</i>	Region 6		Region 7		Region 8		Region 9		Out-of-state	
	#1	Among top 5	#1	Among top 5						
	Percent									
Fishing piers or other shore fishing opportunities	40.1	84.1	41.3	84.5	42.1	85.8	47.0	88.4	22.2	69.3
Portable toilets	21.2	86.6	21.6	87.2	21.8	88.8	18.8	86.6	26.5	89.0
Trash receptacles	15.8	93.7	14.2	93.1	14.0	92.5	10.0	92.0	17.7	91.4
Fish cleaning station	5.7	58.5	5.7	58.2	5.9	54.8	10.3	66.1	16.5	63.5
Boat washing station	4.5	31.1	5.3	34.0	4.6	30.1	3.2	28.7	4.4	32.8
Used fishing line receptacle	3.4	51.3	4.3	53.2	3.3	53.7	1.9	49.9	3.6	52.8
Information kiosks	3.4	50.8	2.7	49.8	2.4	52.1	2.0	49.1	3.3	49.7
Septic pump out facility	0.8	13.9	0.7	11.4	0.9	13.8	0.6	11.8	1.0	13.1