

**A SUMMARY OF NEW HAMPSHIRE BLACK BASS TOURNAMENT DATA  
(1996-2005)**

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## Introduction

Black bass (*Micropterus dolomieu*, smallmouth bass and *M. salmoides*, largemouth bass) did not occur in New Hampshire until the mid-1860's, when bass were first stocked through private efforts (Noon 1999). Since this initial introduction, the number of waters that currently support populations of black bass totals approximately 216. The fisheries provided by these populations are highly utilized by New Hampshire's anglers with smallmouth and largemouth bass ranking among the top four species fished for by anglers (Responsive Management 2004).

Fishing competitively for black bass is an activity that has intensified substantially over the last decade. Prior to conducting a fishing tournament, a fishing tournament permit must be obtained from the New Hampshire Fish and Game Department (NHFGD) per New Hampshire Code of Administrative Rule Fis 503.02a. The annual number of bass tournament permits (defined in New Hampshire Code of Administrative Rule Fis 503.06) issued by the NHFGD has ranged from a low of 303 in 1992 to a high of 508 in 2005 (Figure 1). Bass tournament effort on water bodies with three or more permitted tournaments per year has ranged from a low of 36,724 angler hours in 1996 to a high of 73,051 angler hours in 2000 (Figure 2).

One method used by the NHFGD to monitor black bass population-related trends for waters that receive bass tournament angling pressure is through a reporting requirement that is established by New Hampshire Code of Administrative Rule Fis 503.04. This regulation states that any person conducting a fishing tournament shall submit a written report (Appendix I) to the NHFGD within 30 days after completion of the fishing tournament.

The intent of this report is to provide a summary of data obtained from permitted bass tournament reports for the years 1996–2005. Additionally, water body specific permitted bass tournament data from 1996-2005 were statistically compared among years to examine potential negative population level trends in black bass populations in water bodies that typically have three or more permitted bass tournaments per year.

## Methods

### ***Summary of permitted bass tournament report data for all water bodies with permitted bass tournaments (2001-2005)***

Tournament report data from permitted bass tournaments were compiled and summarized for all bodies of water that had permitted bass tournaments from 2001-2005. Data were compared among years when available. Data included in the analyses were:

- 1) Total number of tournaments held;
- 2) Number of sponsors that held tournaments by sponsor's State of origin;
- 3) Number of tournaments held by sponsor's State of origin;

- 4) Number of non-typical tournament sponsors and number of tournaments held;
- 5) Average number of tournaments per sponsor;
- 6) Total and maximum number of tournaments held by in-state and out-of-state sponsors;
- 7) Total and average number of participants in tournaments;
- 8) Number of tournaments and corresponding number of boats participating in tournaments;
- 9) Total angling effort in hours for tournaments;
- 10) Number of day, night, one-day and two-day tournaments;
- 11) Total number and largest weight (lbs) of largemouth and smallmouth bass entered during tournaments<sup>1</sup>;
- 12) Number of tournaments per month;
- 13) Number of tournaments and average number of participants per tournament during the catch-and-release period;
- 14) Total number of water bodies that hosted tournaments and average number of tournaments per water body.

***Summary of permitted bass tournament report data for water bodies that typically have three or more permitted bass tournaments per year (1996-2005)***

Bass Tournament Report data were compiled and summarized for each body of water that typically have three or more permitted bass tournaments per year. Trend data were examined separately for lakes and rivers. Data included were:

- 1) Bass tournament effort (angler hours);
- 2) Bass tournament pressure (angler hours/surface acre/year);
- 3) Bass tournament catch rates (fish/hour) of smallmouth bass and largemouth bass entered for weigh-in<sup>1</sup> during the tournament;
- 4) Average size (weight; lbs) of smallmouth bass and largemouth bass entered for weigh-in<sup>1</sup> during the tournament.
- 5) Average number of boats per tournament (2001-2005) and number of tournaments held.

<sup>1</sup> Most bass tournament sponsors establish a per person limit on the number of bass that can be weighed-in and a minimum entry length, which typically is 12 inches but can range from 10 inches to 14 inches. Accordingly, bass that are caught and culled are not accounted for in this report.

Bass Tournament Report data were also compiled for each body of water that typically have three or more permitted bass tournaments per year in order to statistically analyze changes over time. A one-way ANOVA (or a Kruskal-Wallis one-way ANOVA on ranks, when applicable) was used for all factors (with the exception of using a Chi-square test to compare the number of tournaments held per year) with year as the treatment. When a significant difference was found, the appropriate post-hoc test was used to determine which years accounted for the significant difference. Statistical analyses were performed separately for each water body. The level of significance for statistical testing was set at  $P < 0.10$  unless otherwise noted. Prior to analysis, a square root transformation

was applied to catch rate (fish/hour) data (Zar 1984). Factors examined across years by water body included:

- 1) Bass tournament catch rates (fish/hour) of smallmouth bass, largemouth bass and for both bass species combined, that were entered for weigh-in<sup>1</sup> during the tournament;
- 2) Average and largest size (weight; lbs) of smallmouth bass and largemouth bass entered for weigh-in<sup>1</sup> during the tournament;
- 3) Bass tournament effort (angler hours);
- 4) Number of permitted tournaments per year;
- 5) Number of boats per tournament (2001-2005)

It should be noted that some yearly totals/summaries found in this report's tables were generated by summing a row or column of data (for example, Table 7 "Bass tournament effort"), while others were generated via raw data calculations (for example, in Table 11 "Catch rates of smallmouth bass", the 10-year summary by water body was calculated by summing total catch across years for a particular water body divided by total effort for that water body across years; additionally, yearly catch rate for a water body was calculated by dividing total catch by total effort in angler hours rather than averaging individual tournament catch rate data). In comparison, statistical analyses always used raw data listed individually by tournament for each water body by year.

## **Results**

### ***Summary for all water bodies with permitted bass tournaments (2001-2005)***

In 2005, 99 different sponsors held 455 permitted bass tournaments in New Hampshire (Table 1). Number of sponsors holding bass tournaments by State of origin varied by year (Table 1), as did the number of tournaments held by a sponsor's State of origin (Table 2). The average number of tournaments held per sponsor (regardless of State of origin) was 4.2 in 2001, 4.4 in 2002, 4.4 in 2003, 4.5 in 2004, and 4.6 in 2005. The maximum number of tournaments held by an in-state sponsor was 11 in 2001, 12 in 2002, 10 in 2003, 12 in 2004, and 13 in 2005. The maximum number of tournaments held by an out-of-state sponsor was 10 in 2001, 12 in 2002, 7 in 2003, 6 in 2004, and 8 in 2005. Non-typical sponsors of bass tournaments held four tournaments in 2001, eight in 2002, two in 2003, five in 2004, and six in 2005.

A total of 9,390 anglers participated in permitted bass tournaments in 2001, 8,282 in 2002, 8,501 in 2003, 9,078 in 2004, and 8,835 in 2005 (numbers do not represent individual anglers). Average number of participants per tournament was 32 in 2000, 20 in 2001, 19 in 2002, 21 in 2003, 21 in 2004, and 20 in 2005. Accordingly, number of boats participating in tournaments varied by year (Table 3), as did total tournament angler effort (Figure 2). Number (and percentage) of day, night, one-day and two-day tournaments also varied by year (Table 4), as did total number of bass and largest (weight; lbs) bass entered in tournaments (Table 5).

Number of tournaments held each year varied by month with the majority occurring during July, August and September (Figure 3). During the catch and release period (May 15 – June 15), number of tournaments held and average number of participants also varied by year (Table 6). Tournaments were held on 58 different water bodies in both 2000 and 2001, 51 in 2002, 53 in 2003, 50 in 2004, and 47 in 2005. Mean number of bass tournaments per water body was 8 during 2000, 2001, 2002 and 2003, 9 in 2004, and 10 in 2005.

***Comparisons among lakes that typically have three or more permitted bass tournaments per year (1996-2005)***

Winnepesaukee Lake ranked highest in total bass tournament effort (186,136 angler hours) during the 10-year period (Table 7). Other lakes receiving high bass tournament effort during the 10-year period included: Winnisquam Lake (42,357 total angler hours), the Squam Lakes (31,564 total angler hours), Pawtuckaway Lake (24,431 total angler hours), Ossipee Lake (19,677 total angler hours), and Bow Lake (16,162 total angler hours). Pawtuckaway Lake received the most pressure from bass tournaments during the 10-year period (2.71 angler hours/acre/year; Table 8). Other waters receiving high bass tournament pressure during the 10-year period included: Hopkinton Lake (2.32 angler hours/acre/year), Big Island Pond (2.08 angler hours/acre/year), Highland Lake in Stoddard (1.98 angler hours/acre/year), Northwood Lake (1.86 angler hours/acre/year), and Milton Three Ponds (1.82 angler hours/acre/year). In comparison, bass tournament pressure derived from combining bass tournament data from all years and all lakes that typically have three or more permitted bass tournaments per year was 0.56 angler hours/acre/year.

Winnepesaukee Lake ranked highest in total number of permitted tournaments held (704 tournaments) during the 10-year period (Table 9). Other lakes receiving high numbers of tournaments during the 10-year period included: Winnisquam Lake (235 tournaments), the Squam Lakes (185 tournaments), Bow Lake (144 tournaments), Pawtuckaway Lake (133 tournaments), and Ossipee Lake (122 tournaments). Winnepesaukee Lake also ranked highest in average number of boats per tournament (16 boats/tournament) over the five-year period from 2001-2005 (Table 10). Other lakes with a high average number of boats per tournament during the five-year period included: Massabesic Lake (12 boats/tournament), Winnisquam Lake (11 boats/tournament), Ossipee Lake (11 boats/tournament), and Milton Three Ponds (10 boats/tournament). In comparison, average number of boats per tournament derived by combining data from all years and all lakes that typically have three or more permitted bass tournaments per year was 8 boats/tournaments.

The catch rate for smallmouth bass during the 10-year period was highest (0.31 fish/hour) in Wentworth Lake (Table 11), whereas Balch Pond provided the top catch rate (0.37 fish/hour) for largemouth bass (Table 12). Other lakes that provided high catch rates for smallmouth bass during the 10-year period included: Winnepesaukee Lake (0.26 fish/hour), the Squam lakes (0.25 fish/hour), Merrymeeting Lake and Mascoma Lake

(0.23 fish/hour), and Waukegan Lake (0.21 fish/hour). Other lakes that provided high catch rates for largemouth bass during the 10-year period included: Wicwas Lake (0.31 fish/hour), Highland Lake in Stoddard (0.27 fish/hour), Big Island Pond (0.26 fish/hour), Massabesic Lake (0.24 fish/hour), and Deering Reservoir, Hopkinton Lake, and Turkey Pond (0.23 fish/hour). In comparison, when the catch data for all years and all lakes that typically have three or more permitted bass tournaments per year were combined, the statewide catch rate for lakes was 0.19 fish/hour for smallmouth bass and 0.13 fish/hour for largemouth bass.

Newfound Lake had the heaviest average weight of smallmouth bass during the 10-year period (2.63 lbs), which was 0.70 pounds heavier than the 1.93 pound average weight calculated from data for all years and all lakes that typically have three or more permitted bass tournaments per year (Table 13). Other waters in which the average weight of smallmouth bass during the 10-year period was considerably heavier than the statewide average weight included Merrymeeting Lake (2.30 lbs), Lake Winnisquam (2.27 lbs), Monomonac (2.23 lbs), and Crystal Lake (2.10 lbs). Crystal Lake (Gilmanton) provided the heaviest average weight of largemouth bass during the 10-year period (2.87 lbs), which was 0.76 pounds heavier than the 2.11 pound average weight calculated from data for all years and all lakes that typically have three or more permitted bass tournaments per year (Table 14). The Squam Lakes (2.53 lbs), Turkey Pond (2.52 lbs), Suncook Lake (2.43 lbs), and Bow Lake (2.38 lbs) were other waters in which the average weight of largemouth bass during the 10-year period was considerably larger than the statewide average weight.

### ***Individual summaries for lakes with three or more permitted bass tournaments per year (1996-2005)***

#### *Balch Pond (Wakefield, NH/Maine)*

Total bass tournament effort ranked nineteenth over the 10-year period (5,522 angler hours) and ranged from a low of 64-angler hours/year to a high of 906-angler hours/year (Table 7). Bass tournament pressure ranked seventeenth over the 10-year period (0.78 hours/acre/year) and was above the statewide value (Table 8). Total number of permitted bass tournaments held ranked eighteenth over the 10-year period (58 tournaments) and ranged from a low of one to a high of ten (Table 9). Average number of boats per tournament ranked seventh (out of nine) over the five-year period of 2001-2005 (7 boats/tournament) and was slightly below the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked second lowest (0.02 fish/hour) and was well below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked highest (0.37 fish/hour) (Table 12). The 10-year average weight of smallmouth bass ranked nineteenth (1.51 lbs) and was 0.42 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked fourteenth (2.12 lbs) and was 0.01 pounds greater than the statewide average (Table 14).

No bass tournament data analyzed were significantly different among years (Table 15).

Balch Pond is an interstate water body, located both in New Hampshire and Maine. The only public access (fee to launch) is located in New Hampshire, but tournament anglers can potentially access the lake via private launches in Maine. Regardless of what state boats launch from, tournaments can legally be held on this water body if event sponsors have a fishing tournament permit from either the state of New Hampshire or Maine. Tournament sponsors obtaining a permit from Maine are not held to the NHFGD data-reporting requirement previously described. Accordingly, data from tournaments which only receive permits from Maine may be not be accounted for in this report.

*Big Island Pond (Hampstead, Derry)*

Total bass tournament effort ranked thirteenth over the 10-year period (10,630 angler hours) and ranged from a low of 520-angler hours/year to a high of 2,204-angler hours/year (Table 7). Bass tournament pressure ranked third over the 10-year period (2.08 angler hours/acre/year) and was more than three times the statewide value (Table 8). Total number of permitted bass tournaments held ranked fourteenth over the 10-year period (74 tournaments) and ranged from a low of 3 to a high of 12 (Table 9). Average number of boats per tournament ranked fifth (out of nine) over the five-year period of 2001-2005 (9 boats/tournament) and was above the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked second lowest (0.02 fish/hour) (Table 11). The 10-year catch rate of largemouth bass ranked fourth (0.26 fish/hour) and was twice the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked twenty-third (1.46 lbs) and was 0.47 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked lowest (1.57 lbs) and was 0.54 pounds below the statewide value (Table 14).

Largemouth bass average weights were significantly different among years ( $P = 0.06$ ; Table 15). Post-hoc tests showed largemouth bass average weights were significantly higher in 2002 vs. 1998 (Table 14).

*Bow Lake (Strafford, Northwood)*

Total bass tournament effort ranked sixth over the 10-year period (16,162 angler hours) and ranged from a low of 685-angler hours/year to a high of 2,860-angler hours/year (Table 7). Bass tournament pressure ranked ninth over the 10-year period (1.39 angler hours/acre/year) and was more than twice the statewide value (Table 8). Total number of permitted bass tournaments held ranked fourth over the 10-year period (144 tournaments) and ranged from a low of 8 to a high of 22 (Table 9). Average number of boats per tournament ranked seventh (out of nine) over the five-year period of 2001-2005 (7 boats/tournament) and was below the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked eighth (0.18 fish/hour) and was just below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked thirteenth (0.11 fish/hour) and was less than the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked thirteenth (1.72 lbs) and was 0.21 pounds less than the

statewide value (Table 13). The 10-year average weight of largemouth bass ranked fifth (2.38 lbs) and was 0.27 pounds greater than the statewide value (Table 14).

Smallmouth bass average weight ( $P = 0.03$ ), and smallmouth bass and largemouth bass largest weights were significantly different among years ( $P = 0.01$  and  $P = 0.004$ , respectively; Table 15). Post-hoc tests suggested differences in smallmouth bass average weights between years were not strong, but if a significant difference existed it would be that values were higher in 1997 vs. 2002. (Table 13). Post-hoc tests showed smallmouth bass largest weights were significantly higher in 1998 vs. 2000, and largemouth bass largest weights were significantly higher in 2004 vs. 1996 and in 2001 vs. 1996 and 1997.

#### *Conway Lake (Eaton, Conway)*

Total bass tournament effort ranked eighteenth over the 10-year period (5,566 angler hours) and ranged from a low of 160-angler hours/year to a high of 1,240-angler hours/year (Table 7). Bass tournament pressure ranked seventh lowest (0.43 angler hours/acre/year) and was less than half the statewide value (Table 8). Total number of permitted bass tournaments held ranked eighth lowest over the 10-year period (48 tournaments) and ranged from a low of two to a high of nine (Table 9). Average number of boats per tournament ranked sixth (out of nine) over the five-year period of 2001-2005 (8 boats/tournament) and was equal to the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked seventh (0.19 fish/hour) and was equal to the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked seventh (0.21 fish/hour) and was almost twice the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked tenth (1.81 lbs) and was slightly below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked thirteenth (2.18 lbs) and was slightly greater than the statewide value (Table 14).

Smallmouth bass catch rates ( $P = 0.02$ ), largemouth bass average weights ( $P = 0.04$ ), and number of tournaments held per year ( $P = 0.06$ ) were significantly different among years (Table 15). Post-hoc tests showed smallmouth bass catch rates were significantly higher in 2002 vs. 2000, 2004, and 2005 (Table 11). Post-hoc tests suggested differences in largemouth bass average weights between years were not strong, but if a significant difference existed it would be that values were higher in 1999 vs. 1996 (Table 14). Examination of data suggested differences in number of tournaments held per year resulted from more tournaments being held in 2001 and 2002 than in other years (Table 9).

#### *Crystal Lake (Gilmanton)*

Total bass tournament effort ranked lowest over the 10-year period (2,572 angler hours) and ranged from a low of 0 angler hours/year (boat ramp closed for some or all of 2002) to a high of 499 angler hours/year (Table 7). Bass tournament pressure ranked twentieth during the 10-year period (0.58 angler hours/acre/year) and was slightly above the statewide value (Table 8). Total number of permitted bass tournaments held ranked third lowest over the 10-year period (28 tournaments) and ranged from a low of zero (boat



ramp closed for some or all of 2002) to a high of six (Table 9). Average number of boats per tournament ranked eighth (out of nine) over the five-year period of 2001-2005 (6 boats/tournament) and was below the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked tenth (0.16 fish/hour) and was below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked fourteenth (0.10 fish/hour) and was less than the statewide value (Table 12). The 10-year average weight of smallmouth ranked fifth (2.10 lbs) and was 0.17 pounds greater than the statewide value (Table 13). The 10-year average weight of largemouth ranked highest (2.87 lbs) and was 0.76 pounds greater than the statewide value (Table 14).

No bass tournament data analyzed were significantly different among years (Table 15). Bass tournament effort of zero in 2002 was not included in the analysis due to potential ramp closure for some or all of that year.

#### *Deering Reservoir (Deering)*

Total bass tournament effort ranked seventh lowest over the 10-year period (4,496 angler hours) and ranged from a low of 152 angler hours/year to a high of 1,073 angler hours/year (Table 7). Bass tournament pressure ranked eighth over the 10-year period (1.43 angler hours/acre/year) and was over twice the statewide value (Table 8). Total number of permitted bass tournaments held ranked sixth lowest over the 10-year period (35 tournaments) and ranged from a low of one to a high of seven (Table 9). Average number of boats per tournament ranked seventh (out of nine) over the five-year period of 2001-2005 (7 boats/tournament) and was below the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked eleventh (0.15 fish/hour) and was below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked fifth (0.23 fish/hour) and was almost twice the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked third lowest (1.39 lbs) and was 0.54 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked eighteenth (1.98 lbs) and was 0.13 pounds below the statewide value (Table 14).

Largemouth bass average weights ( $P = 0.008$ ) were significantly different among years (Table 15). Post-hoc tests showed largemouth bass average weights were significantly higher in 2004 vs. 1996 and 1997 (Table 14).

#### *Great East Lake (Wakefield, NH/Maine)*

Total bass tournament effort ranked sixth lowest over the 10-year period (4,495 angler hours) and ranged from a low of 0 angler hours/year (no tournaments permitted by NHFGD in 2005; see below) to a high of 783 angler hours/year (Table 7). Bass tournament pressure ranked twenty-first over the 10-year period (0.51 angler hours/acre/year) and was below the statewide value (Table 8). Total number of permitted bass tournaments held ranked twenty-first over the 10-year period (54 tournaments) and ranged from a low of 0 (no tournaments permitted by NHFGD in 2005; see below) to a high of 10 (Table 9). Average number of boats per tournament ranked eighth (out of nine) over the five-year period of 2001-2005 (6 boats/tournament) and was below the

statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked thirteenth (0.13 fish/hour) and was below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked eighth (0.20 fish/hour) and was greater than the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked lowest (1.10 lbs) and was 0.83 pounds less than the statewide value (Table 13). The 10-year average weight of largemouth bass ranked seventeenth (1.99 lbs) and was 0.12 pounds below the statewide value (Table 14).

No bass tournament data analyzed were significantly different among years (Table 15).

Great East Lake is an interstate water body, located both in New Hampshire and Maine. The only public access appropriate for bass tournaments is located in Maine, but tournament anglers can potentially access the lake via private launches in New Hampshire. Regardless of what state boats launch from, tournaments can legally be held on this water body if event sponsors have a fishing tournament permit from either the state of New Hampshire or Maine. Tournament sponsors obtaining a permit from Maine are not held to the NHFGD data-reporting requirement previously described. Accordingly, data from tournaments which only receive permits from Maine may be not be accounted for in this report.

#### *Highland Lake (Stoddard, Washington)*

Total bass tournament effort ranked eighth over the 10-year period (14,064 angler hours) and ranged from a low of 1,032-angler hours/year to a high of 1,965-angler hours/year (Table 7). Bass tournament pressure ranked fourth over the 10-year period (1.98 angler hours/acre/year) and was over three times the statewide value (Table 8). Total number of permitted bass tournaments held ranked eighth over the 10-year period (104 tournaments) and ranged from a low of 7 to a high of 15 (Table 9). Average number of boats per tournament ranked sixth (out of nine) over the five-year period of 2001-2005 (8 boats/tournament) and was equal to the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked second lowest (0.02 fish/hour) and was well below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked third (0.27 fish/hour) and was more than twice the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked twentieth (1.49 lbs) and was 0.44 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked twentieth (1.96 lbs) and was 0.15 pounds below the statewide value (Table 14).

Largemouth bass average weights ( $P = 0.08$ ) and smallmouth bass largest weights ( $P = 0.07$ ) were significantly different among years (Table 15). Post-hoc tests suggested largemouth bass average weights were higher in 2001 vs. 1998 (Table 14), and smallmouth bass largest weights were higher in 1996 vs. 2004.

#### *Hopkinton Lake (also known as Stumpfield Marsh; Hopkinton)*

Total bass tournament effort ranked fifteenth over the 10-year period (9,106 angler hours), and ranged from a low of 340 angler hours/year to a high of 1,1286 angler

hours/year (Table 7). Bass tournament pressure ranked second highest over the 10-year period (2.32 angler hours/acre/year) and was over four times the statewide value (Table 8). The acreage for this water body was listed incorrectly in past reports (prior to using 2002 data), but has been corrected and all data re-analyzed. Total number of permitted bass tournaments held ranked thirteenth over the 10-year period (75 tournaments) and ranged from a low of 4 to a high of 11 (Table 9). Average number of boats per tournament ranked sixth (out of nine) over the five-year period of 2001-2005 (8 boats/tournament) and was equal to the statewide average (Table 10). The 10-year catch rate of largemouth bass ranked fifth (0.23 fish/hour) and was almost twice the statewide value (Table 12). The 10-year average weight of largemouth bass ranked third lowest (1.84 lbs) and was below the statewide average (Table 14).

Largemouth bass largest weights were significantly different among years ( $P = 0.03$ ; Table 15). Post-hoc tests showed largemouth bass largest weights were significantly higher in 2001 vs. 2002 and also in 2000 vs. 2002.

#### *Lovell Lake (Wakefield)*

Total bass tournament effort ranked twenty-second over the 10-year period (5,108 angler hours) and ranged from a low of 321-angler hours/year to a high of 712-angler hours/year (Table 7). Bass tournament pressure ranked fourteenth (0.95 angler hours/acre/year) and was close to twice the statewide value (Table 8). Total number of permitted bass tournaments held ranked nineteenth over the 10-year period (57 tournaments) and ranged from a low of four to a high of eight (Table 9). Average number of boats per tournament ranked eighth (out of nine) over the five-year period of 2001-2005 (6 boats/tournament) and was below the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked eleventh (0.15 fish/hour) and was slightly lower than the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked ninth (0.18 fish/hour) and was above the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked twelfth (1.75 lbs) and was 0.18 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked tenth (2.25 lbs) and was 0.14 pounds greater than the statewide value (Table 14).

No bass tournament data analyzed were significantly different among years (Table 15).

#### *Mascoma Lake (Enfield, Lebanon)*

Total bass tournament effort ranked eighth lowest over the 10-year period (4,725 angler hours) and ranged from a low of 252-angler hours/year to a high of 946-angler hours/year (Table 7). Bass tournament pressure ranked sixth lowest over the 10-year period (0.42 angler hours/acre/year) and was below the statewide value (Table 8). Total number of permitted bass tournaments held ranked seventh lowest over the 10-year period (37 tournaments) and ranged from a low of two to a high of six (Table 9). Average number of boats per tournament ranked sixth (out of nine) over the five-year period of 2001-2005 (8 boats/tournament) and was equal to the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked fourth (0.23 fish/hour) and was greater than the

statewide value (Table 11). The 10-year catch rate of largemouth bass ranked fourth lowest (0.07 fish/hour) and was slightly more than half the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked ninth (1.92 lbs) and was 0.01 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked fifth lowest (1.92 lbs) and was 0.19 pounds below the statewide value (Table 14).

Largemouth bass catch rates ( $P = 0.07$ ), largemouth bass average weights ( $P = 0.05$ ), and largemouth bass largest weights ( $P = 0.04$ ) were significantly different among years (Table 15). Post-hoc tests showed largemouth bass catch rates were significantly higher in 2001 vs. 1999 (Table 12). Post-hoc tests suggested differences in largemouth bass average weights between years were not strong, but if a significant difference existed it would be that values were higher in 1996 vs. 2001 (Table 14). Post-hoc tests showed largemouth bass largest weights were significantly higher in 2005 vs. 2000 and in 1997 vs. 2000.

#### *Massabesic Lake (Auburn, Manchester)*

Total bass tournament effort ranked fourteenth over the 10-year period (10,302 angler hours) and ranged from a low of 254-angler hours/year to a high of 1,809-angler hours/year (Table 7). Bass tournament pressure ranked fifth lowest over the 10-year period (0.36 angler hours/acre/year) and was well below the statewide value (Table 8). Total number of permitted bass tournaments held ranked ninth lowest over the 10-year period (49 tournaments) and ranged from a low of two to a high of seven (Table 9). Average number of boats per tournament ranked second (out of nine) over the five-year period of 2001-2005 (12 boats/tournament) and was above the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked fifth lowest (0.07 fish/hour) and was well below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked sixth (0.22 fish/hour) and was almost twice the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked fourteenth (1.71 lbs) and was 0.22 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked ninth lowest (1.98 pounds) and was 0.13 pounds below the statewide value (Table 14).

No bass tournament data analyzed were significantly different among years (Table 15).

#### *Merrymeeting Lake (New Durham)*

Total bass tournament effort ranked second lowest over the 10-year period (2,645 angler hours) and ranged from a low of 104-angler hours/year to a high of 456-angler hours/year (Table 7). Bass tournament pressure ranked second lowest over the 10-year period (0.24 angler hours/acre/year) and was less than half the statewide value (Table 8). Total number of permitted bass tournaments held ranked fourth lowest over the 10-year period (32 tournaments) and ranged from a low of one to a high of five (Table 9). Average number of boats per tournament ranked lowest over the five-year period of 2001-2005 (5 boats/tournament) and was below the statewide average (Table 10). The 10-year catch

rate of smallmouth bass ranked fourth (0.23 fish/hour) and was greater than the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked lowest (0.01 fish/hour) and annual catch rates were consistently low (Table 12). The 10-year average weight of smallmouth bass ranked second highest (2.30 lbs) and was 0.37 pounds greater than the statewide value (Table 13). The 10-year average weight of largemouth bass ranked twelfth (2.19 lbs) and was 0.08 pounds above the statewide value (Table 14). However, these results should be interpreted with caution, as the 10-year sample size of largemouth bass used for calculations of average weights was small (N = 17).

No bass tournament data analyzed were significantly different among years (Table 15).

#### *Milton Three Ponds (Milton, NH/Maine)*

Total bass tournament effort ranked seventh over the 10-year period (15,744 angler hours) and ranged from a low of 360-angler hours/year to a high of 2,915-angler hours/year (Table 7). Bass tournament pressure ranked sixth over the 10-year period (1.82 angler hours/acre/year) and was over three times the statewide value (Table 8). The acreage for this water body was listed incorrectly in past reports (prior to using 2002 data), but has been corrected and all data re-analyzed. Total number of permitted bass tournaments held ranked tenth over the 10-year period (89 tournaments) and ranged from a low of two to a high of fifteen (Table 9). Average number of boats per tournament ranked fourth (out of nine) over the five-year period of 2001-2005 (10 boats/tournament) and was above the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked fifth lowest (0.07 fish/hour) and was well below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked tenth (0.17 fish/hour) and was above the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked eleventh (1.80 lbs) and was 0.13 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked fifteenth (2.08 lbs) and was 0.03 pounds below the statewide average (Table 14).

Number of bass tournaments held per year was significantly different among years (P = 0.05; Table 15). Examination of data showed the difference in number of bass tournaments held among years was related to only two tournaments being held in 2003 (Table 9).

Milton Three Ponds is an interstate water body, located both in New Hampshire and Maine. There is a public access at a marina in Maine (fee to launch) and a public launch in New Hampshire. Regardless of what state boats launch from, tournaments can legally be held on this water body if event sponsors have a fishing tournament permit from either the state of New Hampshire or Maine. Tournament sponsors obtaining a permit from Maine are not held to the NHFGD data-reporting requirement previously described. Accordingly, data from tournaments which only receive permits from Maine may be not be accounted for in this report.

### *Monomonac Lake (Rindge, NH/Massachusetts)*

Total bass tournament effort ranked eleventh over the 10-year period (11,935 angler hours) and ranged from a low of 396-angler hours/year to a high of 2,241-angler hours/year (Table 7). Bass tournament pressure ranked twelfth over the 10-year period (1.14 angler hours/acre/year) and was just over twice the statewide value (Table 8). Total number of permitted bass tournaments held ranked eleventh over the 10-year period (86 tournaments) and ranged from a low of three to a high of 16 (Table 9). Average number of boats per tournament ranked sixth (out of nine) over the five-year period of 2001-2005 (8 boats/tournament) and was equal to the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked lowest (0.01 fish/hour) and annual catch rates were consistently low (Table 11). The 10-year catch rate for largemouth bass ranked eighth (0.20 fish/hour) and was greater than the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked fourth (2.23 lbs) and was 0.20 pounds above the statewide value (Table 13). The high average weights of smallmouth bass in 1996, 2003 and 2004 were calculated using small sample sizes (N = 6, 4, and 7, respectively). The 10-year average weight of largemouth bass ranked sixth (2.31 lbs) and was 0.20 pounds greater than the statewide value (Table 14).

Largemouth bass catch rates ( $P = 0.004$ ), catch rates for all bass ( $P = 0.006$ ), largemouth bass average weights ( $P = 0.003$ ), smallmouth bass largest weights ( $P = 0.009$ ), and number of tournaments per year ( $P = 0.02$ ) were significantly different among years (Table 15). Post-hoc tests showed largemouth bass catch rates were significantly higher in 2003 vs. 2000 (Table 12) and catch rates for all bass were significantly higher in 2005 vs. 2000 and 2001, and in 2003 vs. 2000. Post-hoc tests suggested differences in largemouth bass average weights between years were not strong, but if a significant difference existed it would be that values were higher in 2000 vs. 1997 (Table 14). Post-hoc tests showed smallmouth bass largest weights were significantly higher in 1996 vs. 1997 and 2000 (it should be noted that sample sizes during these years were low;  $\leq 3$  per year). Number of tournaments held per year varied considerably (Table 9).

Monomonac Lake is an interstate water body, located both in New Hampshire and Massachusetts. The only public access (fee to launch) is located in New Hampshire, but tournament anglers can also access the lake via private launches in Massachusetts. Regardless of what state boats launch from, tournaments can legally be held on this water body if event sponsors have a fishing tournament permit from either the state of New Hampshire or Massachusetts. Tournament sponsors obtaining a permit from Massachusetts are not held to the NHFGD data-reporting requirement previously described. Accordingly, data from tournaments which only receive permits from Massachusetts may not be accounted for in this report.

### *Newfound Lake (Hebron, Bristol)*

Total bass tournament effort ranked ninth during the 10-year period (13,657 angler hours) and ranged from a low of 496-angler hours/year to a high of 2,180-angler hours/year (Table 7). Bass tournament pressure ranked fourth lowest over the 10-year period (0.33

angler hours/acre/year) and was well below the statewide value (Table 8). Total number of permitted bass tournaments held ranked twelfth over the 10-year period (86 tournaments) and ranged from a low of 3 to a high of 13 (Table 9). Average number of boats per tournament ranked fifth (out of nine) over the five-year period of 2001-2005 (9 boats/tournament) and was above the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked sixth (0.20 fish/hour) and was just above the statewide value (Table 11). The 10-year average weight of smallmouth bass ranked highest (2.63 lbs) and was 0.70 pounds greater than the statewide value (Table 13).

Smallmouth bass average weights ( $P = 0.096$ ), smallmouth bass largest weights ( $P = 0.02$ ), and number of tournaments per year ( $P = 0.07$ ) were significantly different among years (Table 15). Post-hoc tests showed smallmouth bass average weights were higher in 2002 vs. 1997 (Table 13) and smallmouth bass largest weights were significantly higher in 2003 vs. 1997. Number of tournaments per year was variable with a low of three occurring in 1996 (Table 9).

#### *Northwood Lake (Northwood)*

Total bass tournament effort ranked tenth over the 10-year period (12,792 angler hours) and ranged from a low of 594-angler hours/year to a high of 1,808-angler hours/year (Table 7). Bass tournament pressure ranked fifth over the 10-year period (1.86 angler hours/acre/year) and was more than three times the statewide value (Table 8). Total number of permitted bass tournaments held ranked seventh over the 10-year period (116 tournaments) and ranged from a low of 5 to a high of 15 (Table 9). Average number of boats per tournament ranked seventh (out of nine) over the five-year period of 2001-2005 (7 boats/tournament) and was below the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked twelfth (0.14 fish/hour) and was below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked tenth (0.17 fish/hour) and was above the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked seventeenth (1.62 lbs) and was 0.31 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked eleventh (2.22 lbs) and was 0.11 pounds above the statewide value (Table 14).

No bass tournament data analyzed were significantly different among years (Table 15).

#### *Ossipee Lake (Ossipee, Freedom)*

Total bass tournament effort ranked fifth over the 10-year period (19,677 angler hours) and effort ranged from a low of 321 angler hours/year to a high of 3,510 hours/year (Table 7). Bass tournament pressure ranked eighteenth over the 10-year period (0.64 angler hours/acre/year) and was above the statewide value (Table 8). Total number of permitted bass tournaments held ranked sixth over the 10-year period (122 tournaments) and ranged from a low of 3 to a high of 16 (Table 9). Average number of boats per tournament ranked third (out of nine) over the five-year period of 2001-2005 (11 boats/tournament) and was above the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked eleventh (0.15 fish/hour) and was below the statewide

value (Table 11). The 10-year catch rate of largemouth bass ranked eleventh (0.14 fish/hour) and was just above the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked sixth (2.09 lbs) and was 0.16 pounds heavier than the statewide value (Table 13). The 10-year average weight of largemouth bass ranked seventh (2.30 lbs) and was 0.19 pounds heavier than the statewide value (Table 14).

Number of boats per tournament ( $P = 0.01$ ) and number of tournaments per year ( $P = 0.09$ ) were significantly different among years (Table 15). Post-hoc tests showed number of boats per tournament were significantly higher in 2004 vs. 2001 (Table 10). Number of tournaments per year was lowest in 1996 and 2000 (Table 9).

#### *Pawtuckaway Lake (Nottingham)*

Total bass tournament effort ranked fourth over the 10-year period (24,431 angler hours) and ranged from a low of 736-angler hours/year to a high of 3,592-angler hours/year (Table 7). Bass tournament pressure ranked highest over the 10-year period (2.71 angler hours/acre/year) and was over four times the statewide value (Table 8). Total number of permitted bass tournaments held ranked fifth over the 10-year period (133 tournaments) and ranged from a low of 5 to a high of 21 (Table 9). Average number of boats per tournament ranked fifth (out of nine) over the five-year period of 2001-2005 (9 boats/tournament) and was above the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked fourth lowest (0.06 fish/hour) and was well below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked sixth (0.22 fish/hour) and was above the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked second lowest (1.36 lbs) and was 0.57 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked sixth lowest (1.94 lbs) and was 0.17 pounds below the statewide value (Table 14).

Smallmouth bass catch rates ( $P = 0.001$ ), largemouth bass average weights ( $P < 0.001$ ), smallmouth bass largest weights ( $P = 0.005$ ), largemouth bass largest weights ( $P = 0.001$ ), and number of tournaments per year ( $P = 0.05$ ) were significantly different among years (Table 15). Post-hoc tests showed smallmouth bass catch rates were significantly higher in 2001 vs. 1997 (Table 11), and largemouth bass average weights were significantly higher in 2005 vs. 1996 and 1998, and in 2004 vs. 1998 (Table 14). Post-hoc tests showed smallmouth bass largest weights were significantly higher in 2003 vs. 1997, and largemouth bass largest weights were significantly higher in 1999 vs. 1996 and 1998, and in 2005 vs. 1996. Number of tournaments per year was lowest in 1999 and 2002 and highest in 2001 (Table 9).

#### *Spofford Lake (Chesterfield)*

Total bass tournament effort ranked fourth lowest over the 10-year period (4,413 angler hours) and ranged from a low of 0 angler hours/year (no tournaments held in 1997) to a high of 968 angler hours/year (Table 7). Bass tournament pressure ranked nineteenth over the 10-year period (0.62 angler hours/acre/year) and was above the statewide value (Table 8). Total number of permitted bass tournaments held ranked fifth lowest over the



10-year period (34 tournaments) and ranged from a low of zero (no tournaments held in 1997) to a high of six (Table 9). Average number of boats per tournament ranked sixth (out of nine) over the five-year period of 2001-2005 (8 boats/tournament) and was equal to the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked seventh lowest (0.13 fish/hour) and was below the statewide value (Table 11). The 10-year catch rate for largemouth bass ranked sixth (0.22 fish/hour) and was almost twice the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked sixth lowest (1.47 lbs) and was 0.46 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked second lowest (1.70 lbs) and was 0.41 pounds below the statewide value (Table 14).

Smallmouth catch rates ( $P = 0.04$ ), largemouth bass average weights ( $P = 0.07$ ), and smallmouth bass largest weights ( $P = 0.06$ ) were significantly different among years (Table 15). Post-hoc tests suggested differences in smallmouth bass catch rates between years were not strong, but if a significant difference existed it would be that values were higher in 2005 vs. 1998. Post-hoc tests suggested largemouth bass average weights were higher in 2005 vs. 1999, and smallmouth bass largest weights were higher in 1996 vs. 1998.

*Squam Lakes (Big and Little; Center Harbor, Moltonborough, Sandwich, Holderness, Ashland)*

Total bass tournament effort ranked third over the 10-year period (31,564 angler hours) and ranged from a low of 1,911-angler hours/year to a high of 5,197-angler hours/year (Table 7). Bass tournament pressure ranked twenty-second over the 10-year period (0.44 angler hours/acre/year) and was below the statewide value (Table 8). Total number of permitted bass tournaments held ranked third over the 10-year period (185 tournaments) and ranged from a low of 11 to a high of 28 (Table 9). Average number of boats per tournament ranked sixth (out of nine) over the five-year period of 2001-2005 (8 boats/tournament) and was equal to the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked third (0.25 fish/hour) and was well above the statewide value (Table 11). The 10-year catch rate for largemouth bass ranked sixteenth (0.08 fish/hour) and was below the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked ninth (1.92 lbs) and was just below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked second (2.53 lbs) and was 0.42 pounds greater than the statewide value (Table 14).

Smallmouth bass catch rates ( $P = 0.03$ ), largemouth bass catch rates ( $P < 0.001$ ), catch rates for all bass ( $P = 0.002$ ), smallmouth bass average weights ( $P = 0.06$ ), smallmouth bass largest weights ( $P = 0.006$ ), bass tournament effort ( $P = 0.06$ ), and number of tournaments per year ( $P = 0.03$ ) were significantly different among years (Table 15). Post-hoc tests showed smallmouth bass catch rates were significantly higher in 2001 vs. 1999 (Table 11) and largemouth bass catch rates were significantly higher in 2002 vs. 1996, 1997, 1998, and 1999, in 2003 vs. 1996, 1998, and 1999, and in 2005 vs. 1996, 1997, 1998, and 1999 (Table 12). Post-hoc tests showed catch rates for all bass were significantly higher in 2001 vs. 1999, in 2002 vs. 1999, and in 2005 vs. 1999. Post-hoc

tests showed smallmouth bass average weights appeared higher in 1999 vs. 2003 (Table 13). Post-hoc tests showed smallmouth bass largest weights were higher in 1999 vs. 2005 and in 2001 vs. 2005. Bass tournament effort was lowest in 2000 and highest in 2004 (Table 7). Number of tournaments per year was lowest in 1998 and highest in 2003 (Table 9).

*Sunapee Lake (Sunapee, New London, Newbury)*

No permitted bass tournaments have been held on Sunapee Lake since 2001. Total bass tournament effort ranked fifth lowest over the 10-year period (4,432 angler hours) with effort ranging from a low of 0 angler hours/year to a high of 1,474 angler hours/year (Table 7). Bass tournament pressure ranked lowest over the 10-year period (0.11 angler hours/acre/year) and was far below the statewide value (Table 8). Total number of permitted bass tournaments held ranked second lowest over the 10-year period (24 tournaments) and ranged from a low of zero to a high of nine (Table 9). Average number of boats per tournament ranked lowest over the five-year period of 2001-2005 (5 boats/tournament; data only for 2001 since no tournaments were held in 2002-2005) and was below the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked seventh (0.19 fish/hour) and was equal to the statewide value (Table 11). The 10-year average weight of smallmouth bass ranked twenty-first (1.48 lbs) and was 0.47 pounds less than the statewide value (Table 13).

Number of tournaments per year ( $P < 0.001$ ) was significantly different among years (Table 15) because no tournaments were held from 2002-2005 (Table 9). Statistical analyses were not performed on number of boats per tournament data due to low sample size (Table 10).

*Suncook Lakes (Barnstead)*

Total bass tournament effort ranked sixteenth over the 10-year period (8,135 angler hours) and ranged from a low of 422-angler hours/year to a high of 1,227-angler hours/year (Table 7). Bass tournament pressure ranked tenth over the 10-year period (1.21 angler hours/acre/year) and was more than twice the statewide value (Table 8). Total number of permitted bass tournaments held ranked twelfth over the 10-year period (79 tournaments) and ranged from a low of 5 to a high of 12 (Table 9). Average number of boats per tournament ranked seventh (out of nine) over the five-year period of 2001-2005 (7 boats/tournament) and was below the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked ninth (0.17 fish/hour) and was just below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked tenth (0.17 fish/hour) and was above the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked eighteenth (1.60 lbs) and was 0.33 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked fourth (2.43 lbs) and was 0.32 pounds greater than the statewide value (Table 14).

No bass tournament data analyzed were significantly different among years (Table 15).

### *Swain's Pond (Barrington)*

Total bass tournament effort ranked twenty-third over the 10-year period (4,889 angler hours) and ranged from a low of 56-angler hours/year to a high of 867-angler hours/year (Table 7). Bass tournament pressure ranked tenth over the 10-year period (1.21 angler hours/acre/year) and was more than two times the statewide value (Table 8). Total number of permitted bass tournaments held ranked twentieth over the 10-year period (55 tournaments) and ranged from a low of 1 to a high of 10 (Table 9). Average number of boats per tournament ranked lowest over the five-year period of 2001-2005 (5 boats/tournament) and was below the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked third lowest (0.04 fish/hour) and was well below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked ninth (0.18 fish/hour) and was above the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked fourth lowest (1.42 lbs) and was 0.51 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked sixteenth (2.03 lbs) and was 0.08 pounds below the statewide value (Table 14).

Largemouth bass catch rates ( $P = 0.04$ ), catch rates for all bass ( $P = 0.06$ ), smallmouth bass largest weights ( $P = 0.07$ ), and number of tournaments per year ( $P = 0.04$ ) were significantly different among years (Table 15). Post-hoc tests suggested differences in largemouth bass catch rates and in catch rates for all bass between years were not strong, but if a significant difference existed it would be that values for both were higher in 2002 vs. 1997 (Table 12). Post-hoc tests suggested smallmouth bass largest weights were higher in 2005 vs. 2003 (sample sizes for these years were only one and two, respectively). Number of tournaments per year was variable among years (Table 9).

### *Turkey Pond (Concord)*

Total bass tournament effort ranked third lowest over the 10-year period (2,676 angler hours) and ranged from a low of 126 angler hours/year to a high of 505 angler hours/year (Table 7). Bass tournament pressure ranked sixteenth over the 10-year period (0.79 angler hours/acre/year) and was greater than the statewide value (Table 8). Total number of permitted bass tournaments held ranked lowest over the 10-year period (23 tournaments) and ranged from a low of one to a high of four (Table 9). Average number of boats per tournament ranked fifth (out of nine) over the five-year period of 2001-2005 (9 boats/tournament) and was above the statewide average (Table 10). The 10-year catch rate of largemouth bass ranked fifth (0.23 fish/hour) and was almost twice the statewide value (Table 12). The 10-year average weight of largemouth bass ranked third (2.52 lbs) and was 0.41 pounds greater than the statewide value (Table 14).

No bass tournament data analyzed were significantly different among years (Table 15).

### *Waukegan Lake (Meredith, Center Harbor)*

Total bass tournament effort ranked twelfth over the 10-year period (10,731 angler hours) and ranged from a low of 432-angler hours/year to a high of 1,973-angler hours/year

(Table 7). Bass tournament pressure ranked eleventh over the 10-year period (1.18 angler hours/acre/year) and was over twice the statewide value (Table 8). Total number of permitted bass tournaments held ranked ninth over the 10-year period (97 tournaments) and ranged from a low of 3 to a high of 16 (Table 9). Average number of boats per tournament ranked seventh (out of nine) over the five-year period of 2001-2005 (7 boats/tournament) and was below the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked fifth (0.21 fish/hour) and was greater than the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked twelfth (0.13 fish/hour) and was equal to the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked fifteenth (1.68 lbs) and was 0.25 lbs below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked sixth lowest (1.94 lbs) and was 0.17 pounds below the statewide value (Table 14).

Smallmouth bass catch rates ( $P = 0.01$ ) and smallmouth bass average weights ( $P = 0.01$ ) were significantly different among years (Table 15). Post-hoc tests showed smallmouth bass catch rates were significantly higher in 2000 vs. 1996, 1997 and 1998 (Table 11). Post-hoc tests suggested differences in smallmouth bass average weights between years were not strong, but if a significant difference existed it would be that values were higher in 1998 vs. 2005 (Table 13).

#### *Webster Lake (Franklin)*

Total bass tournament effort ranked twenty-first over the 10-year period (5,202 angler hours) and ranged from a low of 197-angler hours/year to a high of 657-angler hours/year (Table 7). Bass tournament pressure ranked fifteenth over the 10-year period (0.85 angler hours/acre/year) and was greater than the statewide value (Table 8). Total number of permitted bass tournaments held ranked seventeenth over the 10-year period (59 tournaments) and ranged from a low of three to a high of seven (Table 9). Average number of boats per tournament ranked eighth (out of nine) over the five-year period of 2001-2005 (6 boats/tournament) and was below the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked fourteenth (0.10 fish/hour) and was below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked ninth (0.18 fish/hour) and was above the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked seventh (1.99 lbs) and was 0.06 pounds greater than the statewide value (Table 13). The 10-year average weight of largemouth bass ranked eighth (2.27 lbs) and was 0.16 pounds greater than the statewide value (Table 14).

Smallmouth bass catch rates were significantly different among years ( $P = 0.08$ ; Table 15). Data suggested smallmouth bass catch rates were higher in 1996 vs. 2005 (Table 11).

#### *Wentworth Lake (Wolfeboro)*

Total bass tournament effort ranked seventeenth over the 10-year period (7,936 angler hours) and ranged from a low of 304-angler hours/year to a high of 1,506-angler hours/year (Table 7). Bass tournament pressure ranked third lowest over the 10-year

period (0.26 angler hours/acre/year) and was less than half the statewide value (Table 8). Total number of permitted bass tournaments held ranked sixteenth over the 10-year period (66 tournaments) and ranged from a low of 3 to a high of 11 (Table 9). Average number of boats per tournament ranked sixth (out of nine) over the five-year period of 2001-2005 (8 boats/tournament) and was equal to the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked highest (0.31 fish/hour) and was almost twice the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked second lowest (0.05 fish/hour) and was far below the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked sixteenth (1.63 lbs) and was 0.30 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked fourth lowest (1.86 lbs) and was 0.25 pounds lower than the statewide value (Table 14).

Largemouth bass catch rates ( $P < 0.0001$ ), smallmouth bass largest weights ( $P = 0.02$ ), and largemouth bass largest weights ( $P = 0.03$ ) were significantly different among years (Table 15). Post-hoc tests showed largemouth bass catch rates were significantly higher in 2005 vs. 1996, 1997, and 1998 (Table 12). Post-hoc tests showed smallmouth bass largest weights were significantly higher in 1997 vs. 2005 and largemouth bass largest weights were significantly higher in 2003 vs. 1999.

Beginning in 2003, largemouth bass catch rates began to increase greatly compared to past years. The boat launch for Wentworth Lake is located on Crescent Lake, which is known for its excellent largemouth bass population and connects to Wentworth Lake via a channel. It is uncertain if higher largemouth bass catch rates in recent years are related to higher numbers of largemouth bass entering Wentworth Lake from Crescent Lake, bass composition in Wentworth Lake becoming dominated by largemouth as a result of natural processes, and/or tournament directors allowing anglers to weigh-in bass caught in both water bodies.

#### *Wicwas Lake (Meredith)*

Total bass tournament effort ranked twentieth over the 10-year period (5,346 angler hours) and effort ranged from a low of 160-angler hours/year to a high of 699-angler hours/year (Table 7). Bass tournament pressure ranked seventh over the 10-year period (1.63 angler hours/acre/year) and was almost three times the statewide value (Table 8). Total number of permitted bass tournaments held ranked fifteenth over the 10-year period (69 tournaments) and ranged from a low of 2 to a high of 10 (Table 9). Average number of boats per tournament ranked lowest over the five-year period of 2001-2005 (5 boats/tournament) and was below the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked second lowest (0.02 fish/hour) and was well below the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked second highest (0.31 fish/hour) and was over twice the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked fourteenth (1.71 lbs) and was 0.22 pounds below the statewide value (Table 13). The 10-year average weight of largemouth bass ranked eighth lowest (1.97 lbs) and was 0.13 pounds lower than the statewide value (Table 14).

Largemouth bass average weights ( $P = 0.01$ ) were significantly different among years (Table 15). Post-hoc tests suggested differences in largemouth bass average weights between years were not strong, but if a significant difference existed it would be that values were higher in 1997 vs. 2000 (Table 14).

*Winnepesaukee Lake (Alton, Wolfeboro, Tuftonboro, Gilford, Laconia, Meredith, Center Harbor, Moltonborough)*

Total bass tournament effort ranked highest over the 10-year period (186,136 angler hours) and effort ranged from a low of 8,304-angler hours/year to a high of 25,663-angler hours/year (Table 7). Despite this high effort, bass tournament pressure ranked sixth lowest (0.42 angler hours/acre/year) and was below the statewide value (Table 8). Total number of permitted bass tournaments held ranked highest over the 10-year period (704 tournaments) and ranged from a low of 35 to a high of 88 (Table 9). Average number of boats per tournament ranked highest over the five-year period of 2001-2005 (16 boats/tournament) and was double the statewide average (Table 10). The 10-year catch rate of smallmouth bass ranked second highest (0.26 fish/hour) and was well above the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked sixth lowest (0.08 fish/hour) and was below the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked eighth (1.94 lbs) and was 0.01 pounds greater than the statewide value (Table 13). The 10-year average weight of largemouth bass ranked twelfth (2.19 lbs) and was 0.08 pounds greater than the statewide value (Table 14).

Largemouth bass catch rates ( $P = 0.004$ ), smallmouth bass average weights ( $P = 0.03$ ), largemouth bass largest weights ( $P = 0.007$ ), and number of tournaments per year ( $P = 0.002$ ) were significantly different among years (Table 15). Post-hoc tests suggested differences in largemouth bass catch rates between years were not strong, but if a significant difference existed it would be that values were higher in 2002 vs. 1996 (Table 12). Post-hoc tests showed smallmouth bass average weights were significantly higher in 2004 vs. 1998 (Table 13). Post-hoc tests suggested differences in largemouth bass largest weights between years were not strong, but if a significant difference existed it would be that values were higher in 2002 vs. 1998. Number of tournaments per year was lower in 1996 when compared to other years (Table 9).

*Winnisquam Lake (Sanbornton, Meredith, Laconia, Belmont)*

Total bass tournament effort ranked second over the 10-year period (42,357 angler hours) and effort ranged from a low of 2,846 angler hours/year to a high of 6,167 angler hours/year (Table 7). Bass tournament pressure ranked thirteenth over the 10-year period (0.99 angler hours/acre/year) and was almost twice the statewide value (Table 8). Total number of permitted bass tournaments held ranked second over the 10-year period (235 tournaments) and ranged from a low of 13 to a high of 34 (Table 9). Average number of boats per tournament ranked third (out of nine) over the five-year period of 2001-2005 (11 boats/tournament) and was above the statewide average (Table 10). The 10-year

catch rate of smallmouth bass ranked sixth (0.20 fish/hour) and was just above the statewide value (Table 11). The 10-year catch rate of largemouth bass ranked third lowest (0.06 fish/hour) and was less than half the statewide value (Table 12). The 10-year average weight of smallmouth bass ranked third (2.27 lbs) and was 0.34 pounds greater than the statewide value (Table 13). The 10-year average weight of largemouth bass ranked ninth (2.26 lbs) and was 0.15 pounds greater than the statewide value (Table 14).

Largemouth bass average weights ( $P = 0.03$ ), largemouth bass largest weights ( $P = 0.06$ ), and number of tournaments per year ( $P = 0.06$ ) were significantly different among years (Table 15). Post-hoc tests suggested differences in largemouth bass average weights between years were not strong, but if a significant difference existed it would be that values were higher in 2004 vs. 2000 (Table 14). Post-hoc tests suggested largemouth bass largest weights were higher in 2005 vs. 1996. Number of tournaments per year was relatively high with the exception of 1996 and 1998 (Table 9).

#### ***Comparisons among rivers that typically have three or more permitted bass tournaments per year (1996-2005)***

Among all rivers that typically have three or more permitted bass tournaments per year, the Connecticut River ranked highest in total bass tournament effort over the 10-year period (82,515 angler hours; Table 16). The Connecticut River ranked highest in total number of permitted bass tournaments held (327 tournaments) during the 10-year period (Table 17). The Connecticut River also ranked highest in average number of boats per tournament (15 boats/tournament) over the five-year period from 2001-2005 (Table 18). The catch rate of smallmouth bass during the 10-year period was highest in the Merrimack River (0.17 fish/hour; Table 19), while the catch rate of largemouth bass was highest in the Nashua River (0.17 fish/hour; Table 20). In comparison, when catch rate data for all years and all rivers that typically have three or more permitted bass tournaments per year were combined, the catch rate of smallmouth bass was 0.14 fish/hour (Table 19) and of largemouth bass was 0.12 fish/hour (Table 20). Average weight of smallmouth bass during the 10-year period was highest in the Nashua River (1.95 lbs; Table 21). However, smallmouth bass average weight values for the Nashua River were based on only five years of data and had a small sample size ( $N = 39$ ). Average weight of largemouth bass during the 10-year period was highest in the Nashua and Connecticut Rivers (2.03 lbs; Table 22). In comparison, when weight data were combined for all years and all rivers that typically have three or more permitted bass tournaments per year, the average weight of smallmouth bass was 1.76 pounds (Table 21) and of largemouth bass was 2.01 pounds (Table 22).

***Individual river summaries for rivers that typically have three or more permitted bass tournaments per year (1996-2005)***

*Connecticut River*

Total bass tournament effort ranked highest over the 10-year period (82,515 angler hours) and ranged from a low of 3,018-angler hours/year to a high of 15,316-angler hours/year (Table 16). Total number of permitted bass tournaments held ranked highest over the 10-year period (327 tournaments) and ranged from a low of 9 to a high of 60 (Table 17). Average number of boats per tournament ranked highest over the five-year period of 2001-2005 (15 boats/tournament) and was above the statewide average (Table 18). The 10-year catch rate of smallmouth bass ranked second (0.15 fish/hour) and was slightly higher than the statewide value (Table 19). The 10-year catch rate of largemouth bass ranked second (0.12 fish/hour) and was equal to the statewide value (Table 20). The 10-year average weight of smallmouth bass ranked second (1.82 lbs) and was 0.06 pounds greater than the statewide value (Table 21). The 10-year average weight of largemouth bass ranked highest (2.03 lbs) and was 0.02 pounds greater than the statewide value (Table 22).

Smallmouth bass average weights ( $P < 0.001$ ), smallmouth bass largest weights ( $P = 0.02$ ) and number of tournaments per year ( $P < 0.001$ ) were significantly different among years (Table 15). Post-hoc tests showed smallmouth bass average weights were significantly higher in 2004 vs. 1997 and 1998, and in 2005 vs. 1997, 1998, and 1999 (Table 21). Post-hoc tests suggested differences in smallmouth bass largest weights between years were not strong, but if a significant difference existed it would be that values were higher in 2005 vs. 1996. Number of tournaments per year was lower during 1996-1999 when compared to 2000-2005 (Table 17).

*Merrimack River*

Total bass tournament effort ranked lowest over the 10-year period (13,860 angler hours) and ranged from a low of 704-angler hours/year to a high of 1,797-angler hours/year (Table 16). Total number of permitted bass tournaments held ranked second over the 10-year period (112 tournaments) and ranged from a low of 4 to a high of 14 (Table 17). Average number of boats per tournament ranked lowest over the five-year period of 2001-2005 (7 boats/tournament) and was below the statewide average (Table 18). The 10-year catch rate of smallmouth bass ranked highest (0.17 fish/hour) (Table 19). The 10-year catch rate of largemouth bass ranked lowest (0.09 fish/hour) (Table 20). The 10-year average weight of smallmouth bass ranked lowest (1.45 lbs) and was 0.31 pounds below the statewide value (Table 21). The 10-year average weight of largemouth bass ranked lowest (1.84 lbs) and was 0.17 pounds less than the statewide value (Table 22).

Smallmouth bass largest weights were significantly different among years ( $P = 0.003$ ; Table 15). Post-hoc tests showed smallmouth bass largest weights were significantly greater in 2002 vs. 2005, and in 2004 vs. 1999, 2001, and 2005.



## *Nashua River*

Total bass tournament effort ranked second over the 10-year period (14,573 angler hours) and ranged from a low of 316-angler hours/year to a high of 2,428-angler hours/year (Table 16). Total number of permitted bass tournaments held ranked lowest over the 10-year period (86 tournaments) and ranged from a low of 3 to a high of 12 (Table 17). Average number of boats per tournament ranked second over the five-year period of 2001-2005 (11 boats/tournament) and was equal to the statewide average (Table 18). The 10-year catch rate of smallmouth bass ranked lowest (0.003 fish/hour) and was well below the statewide value (Table 19). The 10-year catch rate of largemouth bass ranked highest (0.17 fish/hour) (Table 20). The 10-year average weight of smallmouth bass ranked highest (1.97 lbs) and was 0.21 pounds higher than the statewide value (Table 21). However, smallmouth bass average weight values for the Nashua River were based on only five years of data and had a small sample size (N = 39). The 10-year average weight of largemouth bass ranked highest (2.03 lbs) and was 0.02 pounds above the statewide value (Table 22).

Largemouth bass average weights were significantly different among years ( $P = 0.001$ ; Table 15). Post-hoc tests suggested differences in largemouth bass average weights between years were not strong, but if a significant difference existed it would be that values were higher in 2005 vs. 1998 (Table 22). Statistical analyses were not performed for smallmouth bass average and largest weights due to low sample sizes.

## **Summary**

Statistical analyses of black bass tournament data for lakes and river that typically have three or more permitted bass tournaments per year did not show any consistent significant negative trends to indicate that bass tournaments (or other factors) were having a harmful impact on black bass populations in the water bodies examined. Variability observed in water body specific bass tournament data over time likely resulted from environmental parameters acting on black bass growth and year-class strength, which in turn can influence bass tournament catch rates and weights.

## **Acknowledgments**

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Table 1. Number of sponsors that held permitted bass tournaments by year and state of origin.

Year	NH	MA	ME	NY	VT	RI	CT	Total Number Sponsors	Total Number Tournaments Held
2001	51	48	2	3	8	1	0	113	462
2002	43	43	2	1	3	1	3	96	426
2003	46	38	3	1	3	1	1	93	412
2004	50	40	1	1	3	2	1	98	440
2005	55	33	2	1	4	2	2	99	455

Table 2. Number (and percentage) of permitted bass tournaments held by year and sponsors' state of origin.

Year	NH	MA	ME	NY	VT	RI	CT	Total Number Tournaments Held
2001	283 (61.3%)	154 (33.3%)	10 (2.2%)	4 (0.9%)	10 (2.2%)	1 (0.2%)	0	462
2002	267 (62.7%)	134 (31.5%)	11 (2.6%)	2 (0.5%)	4 (0.9%)	1 (0.2%)	7 (1.6%)	426
2003	271 (65.8%)	118 (28.6%)	12 (2.9%)	1 (0.2%)	5 (1.2%)	1 (0.2%)	4 (1.0%)	412
2004	314 (71.4%)	107 (24.3%)	1 (0.2%)	6 (1.4%)	4 (0.9%)	2 (0.5%)	6 (1.4%)	440
2005	341 (74.9%)	87 (19.1%)	2 (0.4%)	7 (1.5%)	9 (2.0%)	2 (0.4%)	7 (1.5%)	455

Table 3. The number (and percentage) of permitted bass tournaments held and corresponding number of boats participating in these tournaments during 2000 - 2005.

Number of Boats	Number of Permitted Bass Tournaments Held					
	2000	2001	2002	2003	2004	2005
≤ 5	30 (6%)	165 (36%)	148 (35%)	122 (30%)	142 (32%)	157 (35%)
6 to 10	185 (39%)	178 (39%)	176 (41%)	202 (49%)	182 (41%)	188 (41%)
11 to 15	173 (37%)	69 (15%)	55 (13%)	39 (9%)	60 (14%)	44 (10%)
16 to 20	32 (7%)	18 (4%)	12 (3%)	13 (3%)	9 (2%)	23 (5%)
21 to 25	4 (<1%)	7 (2%)	7 (2%)	7 (2%)	12 (3%)	13 (3%)
26 to 30	3 (<1%)	2 (<1%)	6 (1%)	5 (1%)	12 (3%)	10 (2%)
31 to 40	7 (1%)	7 (2%)	6 (1%)	7 (2%)	7 (2%)	6 (1%)
41 to 50	12 (3%)	6 (1%)	6 (1%)	4 (<1%)	7 (2%)	6 (1%)
51 to 60	7 (1%)	4 (<1%)	8 (2%)	6 (1%)	5 (1%)	4 (<1%)
61 to 70	6 (1%)	3 (<1%)	0	3 (<1%)	1 (<1%)	3 (<1%)
71 to 80	3 (<1%)	0	0	0	1 (<1%)	0
81 to 90	0	1 (<1%)	0	0	1 (<1%)	1 (<1%)
91 to 100	0	0	0	2 (<1%)	1 (<1%)	0
101 to 150	10 (2%)	1 (<1%)	1 (<1%)	1 (<1%)	0	0
>150	0	0	0	0	0	0

Table 4. Number (and percentage) of day, night, one-day and two-day permitted bass tournaments held by year.

Year	Day Tournaments	Night Tournaments	One-Day Tournaments	Two-Day Tournaments	Total Number Tournaments Held
2001	449 (97.2%)	13 (2.8%)	443 (95.9%)	19 (4.1%)	462
2002	415 (97.4%)	11 (2.6%)	410 (96.2%)	16 (3.8%)	426
2003	403 (97.8%)	9 (2.2%)	387 (93.9%)	25 (6.1%)	412
2004	431 (98.0%)	9 (2.1%)	426 (96.8%)	14 (3.2%)*	440
2005	447 (98.2%)	8 (1.8%)	441 (96.9%)	14 (3.1%)	455

\* One was a three-day tournament.

Table 5. Total number and largest size (lbs) of largemouth and smallmouth bass entered in permitted bass tournaments by year.

Year	Number Largemouth Entered	Number Smallmouth Entered	Largest Largemouth Entered (lbs)	Largest Smallmouth Entered (lbs)
2001	10,348	11,997	7.99	5.10
2002	9,894	12,707	7.71	5.70
2003	9,843	15,099	7.80	5.38
2004	11,203	13,625	7.60	5.58
2005	10,794	11,405	7.93	5.54

Table 6. Number (and percentage) of permitted bass tournaments held and mean number of participants per tournament during the catch and release period (May 15 – June 15) by year.

Year	Number Tournaments Held	Mean Number Participants Per Tournament	Total Number Tournaments Held
2000	25 (5.0%)	20.0	-
2001	18 (3.9%)	16.5	462
2002	17 (4.0%)	14.1	426
2003	14 (3.4%)	11.4	412
2004	9 (2.1%)	13.8	440
2005	7 (1.5%)	13.4	455

Table 7. Permitted bass tournament effort (angler hours) over a 10-year period (1996-2005) on lakes that typically have three or more permitted bass tournaments per year.

Lake	Surface Acres	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Total	Rank
Balch Pond	704	64	302	548	370	632	789	906	725	562	624	5,522	19
Big Island Pond	510	1,385	520	768	640	751	928	1,243	213	1,978	2,204	10,630	13
Bow Lake	1,160	685	1,198	1,394	2,215	1,987	1,281	1,676	1,531	1,335	2,860	16,162	6
Conway Lake	1,299	200	462	128	160	232	912	913	498	821	1,240	5,566	18
Crystal Lake (Gilmanton)	441	168	44	499	161	487	371		217	260	365	2,572	31
Deering Reservoir	315	418	152	220	180	481	491	798	1,073	152	531	4,496	25
Great East Lake	885	393	384	758	558	783	635	450	330	204	0	4,495	26
Highland Lake (Stoddard)	712	1,192	1,595	1,032	1,233	1,178	1,306	1,399	1,915	1,965	1,249	14,064	8
Hopkinton Lake	392	480	841	340	1,116	1,102	1,082	888	1,082	1,047	1,128	9,106	15
Lovell Lake	538	712	571	344	684	502	353	626	387	321	608	5,108	22
Mascoma Lake	1,115	361	368	392	739	272	364	946	473	558	252	4,725	24
Massabesic Lake	2,900	960	254	1,078	1,809	1,074	512	834	696	1,549	1,536	10,302	14
Merrymeeting Lake	1,111	434	456	241	112	366	195	104	267	115	352	2,642	30
Milton Three Ponds	863	1,548	1,563	2,915	2,162	2,058	2,506	660	360	700	1,272	15,744	7
Monomonac Lake	1,048	396	652	1,074	2,241	1,846	1,588	888	560	1,112	1,578	11,935	11
Newfound Lake	4,106	496	1,131	2,134	579	2,029	648	874	2,180	1,958	1,628	13,657	9
Northwood Lake	687	594	1,196	846	1,617	1,168	1,626	1,433	1,331	1,173	1,808	12,792	10
Ossipee Lake	3,092	321	1,517	1,501	2,070	586	1,256	2,925	3,510	3,337	2,654	19,677	5
Pawtuckaway Lake	900	3,272	3,261	3,592	736	3,368	2,087	1,328	1,224	3,025	2,538	24,431	4
Spofford Lake	707	894	0	300	240	662	968	434	264	488	163	4,413	28
Squam Lakes	7,173	2,096	2,281	3,256	3,538	1,911	4,004	2,656	4,188	5,197	2,437	31,564	3
Sunapee Lake	4,085	1,474	1,184	228	264	1,142	140	0	0	0	0	4,432	27
Suncook Lakes	672	422	530	781	567	957	1,227	867	1,205	967	612	8,135	16
Swains Lake	405	575	748	728	772	540	867	56	164	327	112	4,889	23
Turkey Pond	339	168	347	250	331	505	126	288	325	208	128	2,676	29
Waukewan Lake	913	830	1,016	432	1,167	899	894	1,320	1,973	1,042	1,158	10,731	12
Webster Lake	612	197	493	563	446	480	646	566	642	657	512	5,202	21
Wentworth Lake	3,017	505	1,121	532	790	736	304	496	1,506	1,197	749	7,936	17
Wicwas Lake	328	160	691	456	499	440	683	656	502	699	560	5,346	20
Winnepesaukee Lake	44,586	8,304	15,978	14,387	18,833	23,084	19,542	19,734	25,663	21,677	18,934	186,136	1
Winnisquam Lake	4,264	2,846	3,125	4,002	5,262	5,445	3,231	5,548	6,167	3,532	3,199	42,357	2
<b>Statewide Total</b>	<b>89,879</b>	<b>32,550</b>	<b>43,981</b>	<b>45,719</b>	<b>52,091</b>	<b>57,703</b>	<b>51,562</b>	<b>51,512</b>	<b>61,171</b>	<b>58,163</b>	<b>52,991</b>	<b>507,443</b>	

Table 8. Permitted bass tournament pressure (angler hours/acre/year) over a 10-year period (1996-2005) on lakes that typically have three or more permitted bass tournaments per year.

Lake	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Summary	Rank
Balch Pond	0.09	0.43	0.78	0.53	0.90	1.12	1.29	1.03	0.80	0.89	<b>0.78</b>	17
Big Island Pond	2.72	1.02	1.51	1.25	1.47	1.82	2.44	0.42	3.88	4.32	<b>2.08</b>	3
Bow Lake	0.59	1.03	1.20	1.91	1.71	1.10	1.44	1.32	1.15	2.47	<b>1.39</b>	9
Conway Lake	0.15	0.36	0.10	0.12	0.18	0.70	0.70	0.38	0.63	0.95	<b>0.43</b>	23
Crystal Lake (Gilmanton)	0.38	0.10	1.13	0.37	1.10	0.84		0.49	0.59	0.83	<b>0.58</b>	20
Deering Reservoir	1.33	0.48	0.70	0.57	1.53	1.56	2.53	3.41	0.48	1.69	<b>1.43</b>	8
Great East Lake	0.44	0.43	0.86	0.63	0.88	0.72	0.51	0.37	0.23	0.00	<b>0.51</b>	21
Highland Lake (Stoddard)	1.67	2.24	1.45	1.73	1.65	1.83	1.96	2.69	2.76	1.75	<b>1.98</b>	4
Hopkinton Lake	1.22	2.15	0.87	2.85	2.81	2.76	2.27	2.76	2.67	2.88	<b>2.32</b>	2
Lovell Lake	1.32	1.06	0.64	1.27	0.93	0.66	1.16	0.72	0.60	1.13	<b>0.95</b>	14
Mascoma Lake	0.32	0.33	0.35	0.66	0.24	0.33	0.85	0.42	0.50	0.23	<b>0.42</b>	24
Massabesic Lake	0.33	0.09	0.37	0.62	0.37	0.18	0.29	0.24	0.53	0.53	<b>0.36</b>	25
Merrymeeting Lake	0.39	0.41	0.22	0.10	0.33	0.18	0.09	0.24	0.10	0.32	<b>0.24</b>	28
Milton Three Ponds	1.79	1.81	3.38	2.51	2.38	2.90	0.76	0.42	0.81	1.47	<b>1.82</b>	6
Monomonac Lake	0.38	0.62	1.02	2.14	1.76	1.52	0.85	0.53	1.06	1.51	<b>1.14</b>	12
Newfound Lake	0.12	0.28	0.52	0.14	0.49	0.16	0.21	0.53	0.48	0.40	<b>0.33</b>	26
Northwood Lake	0.86	1.74	1.23	2.35	1.70	2.37	2.09	1.94	1.71	2.63	<b>1.86</b>	5
Ossipee Lake	0.10	0.49	0.49	0.67	0.19	0.41	0.95	1.14	1.08	0.86	<b>0.64</b>	18
Pawtuckaway Lake	3.64	3.62	3.99	0.82	3.74	2.32	1.48	1.36	3.36	2.82	<b>2.71</b>	1
Spofford Lake	1.26	0.00	0.42	0.34	0.94	1.37	0.61	0.37	0.69	0.23	<b>0.62</b>	19
Squam Lakes	0.29	0.32	0.45	0.49	0.27	0.56	0.37	0.58	0.72	0.34	<b>0.44</b>	22
Sunapee Lake	0.36	0.29	0.06	0.06	0.28	0.03	0.00	0.00	0.00	0.00	<b>0.11</b>	29
Suncook Lakes	0.63	0.79	1.16	0.84	1.42	1.83	1.29	1.79	1.44	0.91	<b>1.21</b>	10
Swains Lake	1.42	1.85	1.80	1.91	1.33	2.14	0.14	0.40	0.81	0.28	<b>1.21</b>	10
Turkey Pond	0.50	1.02	0.74	0.98	1.49	0.37	0.85	0.96	0.61	0.38	<b>0.79</b>	16
Waukewan Lake	0.91	1.11	0.47	1.28	0.98	0.98	1.45	2.16	1.14	1.27	<b>1.18</b>	11
Webster Lake	0.32	0.81	0.92	0.73	0.78	1.06	0.92	1.05	1.07	0.84	<b>0.85</b>	15
Wentworth Lake	0.17	0.37	0.18	0.26	0.24	0.10	0.16	0.50	0.40	0.25	<b>0.26</b>	27
Wicwas Lake	0.49	2.11	1.39	1.52	1.34	2.08	2.00	1.53	2.13	1.71	<b>1.63</b>	7
Winnepesaukee Lake	0.19	0.36	0.32	0.42	0.52	0.44	0.44	0.58	0.49	0.42	<b>0.42</b>	24
Winnisquam Lake	0.67	0.73	0.94	1.23	1.28	0.76	1.30	1.45	0.83	0.75	<b>0.99</b>	13
<b>Statewide Summary</b>	<b>0.36</b>	<b>0.49</b>	<b>0.51</b>	<b>0.58</b>	<b>0.64</b>	<b>0.57</b>	<b>0.57</b>	<b>0.68</b>	<b>0.65</b>	<b>0.59</b>	<b>0.56</b>	

Table 9. Number of permitted bass tournaments held over a 10-year period (1996-2005) on lakes that typically have three or more permitted bass tournaments per year.

Lake	Surface Acres	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Total	Rank
Balch Pond	704	1	4	6	4	8	8	10	6	5	6	58	18
Big Island Pond	510	9	5	5	4	7	8	9	3	12	12	74	14
Bow Lake	1,160	8	12	14	17	18	13	15	12	13	22	144	4
Conway Lake	1,299	2	4	2	2	2	6	9	4	8	9	48	23
Crystal Lake (Gilmanton)	441	2	1	4	2	6	5		2	2	4	28	28
Deering Reservoir	315	3	1	2	1	4	4	7	7	2	4	35	25
Great East Lake	885	4	5	8	6	10	8	5	4	4	0	54	21
Highland Lake (Stoddard)	712	8	11	7	7	9	9	13	14	15	11	104	8
Hopkinton Lake	240	4	9	4	9	8	8	7	5	10	11	75	13
Lovell Lake	538	6	6	5	6	6	5	8	5	4	6	57	19
Mascoma Lake	1,115	4	3	3	6	3	3	4	4	5	2	37	24
Massabesic Lake	2,900	4	2	4	7	6	4	6	4	6	6	49	22
Merrymeeting Lake	1,111	5	4	3	1	5	3	1	4	2	4	32	27
Milton Three Ponds	863	6	10	13	11	12	15	5	2	6	9	89	10
Monomonac Lake	1,048	4	3	8	16	10	10	7	5	8	15	86	11
Newfound Lake	4,106	3	6	13	5	12	5	6	12	13	11	86	11
Northwood Lake	687	5	12	9	13	10	13	13	12	14	15	116	7
Ossipee Lake	3,092	3	15	12	10	6	15	16	15	14	16	122	6
Pawtuckaway Lake	900	11	11	15	5	14	21	7	13	17	19	133	5
Spofford Lake	707	5	0	3	2	6	6	4	2	4	2	34	26
Squam Lakes	7,173	14	16	11	13	12	21	22	28	26	22	185	3
Sunapee Lake	4,085	6	9	2	2	3	2	0	0	0	0	24	29
Suncook Lakes	672	5	5	7	6	9	12	8	10	9	8	79	12
Swains Lake	405	7	8	8	9	4	10	1	2	4	2	55	20
Turkey Pond	339	1	3	3	3	4	3	2	2	1	1	23	30
Waukegan Lake	913	7	8	3	12	9	10	11	16	11	10	97	9
Webster Lake	612	3	5	6	6	6	7	7	7	6	6	59	17
Wentworth Lake	3,017	5	8	5	7	7	3	4	11	9	7	66	16
Wicwas Lake	328	2	8	6	6	5	10	8	7	9	8	69	15
Winnepesaukee Lake	44,586	35	70	61	88	77	80	76	73	67	77	704	1
Winnisquam Lake	4,264	13	22	16	26	32	21	34	28	23	20	235	2
<b>Statewide Total</b>	<b>89,727</b>	<b>195</b>	<b>286</b>	<b>268</b>	<b>312</b>	<b>330</b>	<b>348</b>	<b>325</b>	<b>319</b>	<b>329</b>	<b>345</b>	<b>3,057</b>	

Table 10. Average number of boats per permitted bass tournament over a five-year period (2001-2005) on lakes that typically have three or more permitted bass tournaments per year.

Lake	Surface Acres	2001	2002	2003	2004	2005	5-Year Average	Rank
Balch Pond	704	7	7	7	7	7	7	7
Big Island Pond	510	7	8	7	11	13	9	5
Bow Lake	1,160	7	8	7	7	8	7	7
Conway Lake	1,299	10	6	8	7	8	8	6
Crystal Lake (Gilmanton)	441	5		6	6	5	6	8
Deering Reservoir	315	8	7	9	5	8	7	7
Great East Lake	885	5	7	6	4		6	8
Highland Lake (Stoddard)	712	9	7	8	8	7	8	6
Hopkinton Lake	392	8	7	12	8	7	8	6
Lovell Lake	538	4	6	5	6	7	6	8
Mascoma Lake	1,115	7	11	7	7	7	8	6
Massabesic Lake	2,900	8	9	11	16	16	12	2
Merrymeeting Lake	1,111	5	7	4	4	6	5	9
Milton Three Ponds	863	12	9	11	8	11	10	4
Monomonac Lake	1,048	10	8	7	9	7	8	6
Newfound Lake	4,106	7	8	10	9	10	9	5
Northwood Lake	687	7	8	7	6	8	7	7
Ossipee Lake	3,092	5	11	12	15	11	11	3
Pawtuckaway	900	7	10	6	11	12	9	5
Spofford Lake	707	10	7	8	8	6	8	6
Squam Lakes	7,173	10	6	8	11	6	8	6
Sunapee Lake	4,085	5					5	9
Suncook Lakes	672	7	7	7	7	5	7	7
Swains Lake	405	6	4	5	6	4	5	9
Turkey Pond	339	5	9	10	13	8	9	5
Waukewan Lake	913	5	7	8	6	7	7	7
Webster Lake	612	6	5	6	7	5	6	8
Wentworth Lake	3,017	6	7	9	9	7	8	6
Wicwas Lake	328	4	5	5	5	5	5	9
Winnepesaukee Lake	44,586	15	16	18	17	15	16	1
Winnisquam Lake	4,264	10	11	14	10	11	11	3
<b>Statewide Average</b>	<b>89,879</b>	<b>7</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	



Table 11. Catch rates (fish/hour) of smallmouth bass entered for weigh-in during permitted bass tournaments over a 10-year period (1996-2005) on lakes that typically have three or more permitted bass tournaments per year. Data do not include bass culled before weigh-in.

Lake	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Summary	Rank
Balch Pond	0.05	0.03	0.01	0.02	0.03	0.04	0.01	0.01	0.01	0.003	0.02	18
Big Island Pond	0.01	0.03	0.01	0.005	0.03	0.03	0.02	0.00	0.02	0.02	0.02	18
Bow Lake	0.19	0.19	0.20	0.16	0.20	0.19	0.16	0.20	0.23	0.16	0.18	8
Conway Lake	0.11	0.19	0.09	0.14	0.02	0.17	0.40	0.19	0.12	0.12	0.19	7
Crystal Lake (Gilmanton)	0.19	0.05	0.10	0.10	0.14	0.21		0.25	0.17	0.16	0.16	10
Deering Reservoir	0.05	0.02	0.16	0.09	0.16	0.09	0.10	0.21	0.03	0.08	0.15	11
Great East Lake	0.21	0.11	0.17	0.13	0.07	0.28	0.04	0.05	0.08		0.13	13
Highland Lake (Stoddard)	0.05	0.03	0.05	0.01	0.02	0.02	0.02	0.01	0.02	0.02	0.02	18
Lovell Lake	0.11	0.10	0.16	0.21	0.13	0.18	0.15	0.19	0.15	0.19	0.15	11
Mascoma Lake	0.21	0.26	0.25	0.22	0.12	0.18	0.26	0.26	0.19	0.13	0.23	4
Massabesic Lake	0.11	0.11	0.05	0.06	0.05	0.08	0.08	0.13	0.08	0.03	0.07	15
Merrymeeting Lake	0.18	0.25	0.15	0.14	0.29	0.30	0.19	0.29	0.27	0.18	0.23	4
Milton Three Ponds	0.08	0.10	0.07	0.06	0.07	0.10	0.05	0.04	0.13	0.04	0.07	15
Monomonac Lake	0.02	0.01	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.02	0.01	19
Newfound Lake	0.28	0.18	0.12	0.17	0.16	0.10	0.35	0.27	0.19	0.25	0.20	6
Northwood Lake	0.16	0.08	0.14	0.13	0.10	0.13	0.15	0.16	0.16	0.17	0.14	12
Ossipee Lake	0.11	0.12	0.18	0.26	0.13	0.16	0.14	0.17	0.12	0.11	0.15	11
Pawtuckaway Lake	0.02	0.01	0.05	0.07	0.04	0.09	0.11	0.05	0.07	0.09	0.06	16
Spofford Lake	0.10		0.03	0.11	0.13	0.12	0.21	0.17	0.19	0.14	0.13	13
Squam Lakes	0.23	0.17	0.24	0.23	0.20	0.26	0.24	0.28	0.28	0.23	0.25	3
Sunapee Lake	0.26	0.13	0.31	0.27	0.12	0.16					0.19	7
Suncook Lakes	0.11	0.15	0.17	0.11	0.28	0.26	0.15	0.15	0.11	0.09	0.17	9
Swains Lake	0.03	0.06	0.02	0.05	0.06	0.06	0.04	0.04	0.03	0.01	0.04	17
Waukegan Lake	0.16	0.14	0.10	0.21	0.34	0.23	0.30	0.20	0.17	0.23	0.21	5
Webster Lake	0.13	0.08	0.13	0.15	0.09	0.06	0.12	0.13	0.10	0.07	0.10	14
Wentworth Lake	0.27	0.29	0.30	0.35	0.42	0.50	0.31	0.34	0.30	0.18	0.31	1
Wicwas Lake	0.00	0.01	0.002	0.01	0.02	0.04	0.06	0.02	0.01	0.02	0.02	18
Winnepesaukee Lake	0.26	0.31	0.25	0.26	0.26	0.24	0.25	0.27	0.26	0.23	0.26	2
Winnisquam Lake	0.19	0.22	0.22	0.20	0.16	0.22	0.23	0.20	0.18	0.17	0.20	6
<b>Statewide Summary</b>	<b>0.16</b>	<b>0.19</b>	<b>0.17</b>	<b>0.19</b>	<b>0.18</b>	<b>0.18</b>	<b>0.20</b>	<b>0.22</b>	<b>0.19</b>	<b>0.16</b>	<b>0.19</b>	

Table 12. Catch rates (fish/hour) of largemouth bass entered for weigh-in during permitted bass tournaments over a 10-year period (1996-2005) on lakes that typically have three or more permitted bass tournaments per year. Data do not include bass culled before weigh-in.

Lake	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Summary	Rank
Balch Pond	0.50	0.19	0.28	0.32	0.41	0.46	0.33	0.38	0.53	0.39	0.37	1
Big Island Pond	0.23	0.32	0.35	0.27	0.30	0.34	0.28	0.32	0.20	0.22	0.26	4
Bow Lake	0.09	0.08	0.12	0.09	0.08	0.10	0.15	0.14	0.12	0.12	0.11	13
Conway Lake	0.16	0.11	0.14	0.06	0.22	0.21	0.24	0.19	0.27	0.24	0.21	7
Crystal Lake (Gilmanton)	0.10	0.07	0.09	0.09	0.09	0.18		0.12	0.07	0.08	0.10	14
Deering Reservoir	0.27	0.28	0.15	0.16	0.20	0.25	0.21	0.26	0.16	0.20	0.23	5
Great East Lake	0.26	0.11	0.21	0.25	0.17	0.20	0.21	0.18	0.32		0.20	8
Highland Lake (Stoddard)	0.28	0.26	0.22	0.22	0.28	0.29	0.29	0.28	0.27	0.29	0.27	3
Hopkinton Lake	0.27	0.18	0.19	0.22	0.19	0.23	0.32	0.21	0.28	0.22	0.23	5
Lovell Lake	0.18	0.19	0.20	0.12	0.16	0.16	0.15	0.18	0.37	0.23	0.18	9
Mascoma Lake	0.07	0.05	0.03	0.01	0.07	0.11	0.12	0.03	0.08	0.10	0.07	17
Massabesic Lake	0.25	0.31	0.17	0.29	0.20	0.17	0.27	0.18	0.16	0.20	0.22	6
Merrymeeting Lake	0.00	0.002	0.03	0.00	0.01	0.01	0.02	0.01	0.00	0.00	0.01	20
Milton Three Ponds	0.15	0.13	0.16	0.15	0.13	0.21	0.25	0.18	0.18	0.22	0.17	10
Monomonac Lake	0.22	0.19	0.15	0.14	0.12	0.18	0.27	0.33	0.29	0.28	0.20	8
Northwood Lake	0.18	0.18	0.20	0.17	0.12	0.16	0.21	0.19	0.17	0.17	0.17	10
Ossipee Lake	0.15	0.11	0.11	0.11	0.14	0.18	0.17	0.10	0.16	0.16	0.14	11
Pawtuckaway Lake	0.14	0.14	0.19	0.39	0.20	0.27	0.22	0.34	0.21	0.29	0.22	6
Spofford Lake	0.25		0.21	0.33	0.23	0.22	0.16	0.24	0.22	0.15	0.22	6
Squam Lakes	0.04	0.05	0.06	0.04	0.07	0.09	0.12	0.10	0.09	0.09	0.08	16
Suncook Lakes	0.12	0.15	0.13	0.11	0.17	0.21	0.15	0.18	0.19	0.22	0.17	10
Swains Lake	0.14	0.12	0.17	0.15	0.25	0.28	0.45	0.34	0.20	0.21	0.18	9
Turkey Pond	0.26	0.26	0.35	0.23	0.17	0.26	0.22	0.17	0.30	0.17	0.23	5
Waukegan Lake	0.13	0.17	0.17	0.10	0.10	0.14	0.12	0.11	0.14	0.13	0.13	12
Webster Lake	0.14	0.14	0.15	0.13	0.19	0.19	0.31	0.17	0.19	0.22	0.18	9
Wentworth Lake	0.00	0.004	0.00	0.005	0.007	0.01	0.01	0.09	0.09	0.24	0.05	19
Wicwas Lake	0.19	0.26	0.26	0.35	0.34	0.28	0.26	0.37	0.36	0.34	0.31	2
Winnepesaukee Lake	0.04	0.05	0.07	0.07	0.07	0.10	0.11	0.10	0.10	0.13	0.09	15
Winnisquam Lake	0.05	0.07	0.04	0.04	0.06	0.07	0.09	0.06	0.07	0.05	0.06	18
<b>Statewide Summary</b>	<b>0.12</b>	<b>0.10</b>	<b>0.12</b>	<b>0.11</b>	<b>0.11</b>	<b>0.15</b>	<b>0.15</b>	<b>0.13</b>	<b>0.14</b>	<b>0.16</b>	<b>0.13</b>	

Table 13. Average weight (pounds) of smallmouth bass entered for weigh-in during permitted bass tournaments over a 10-year period (1996-2005) on lakes that typically have three or more permitted bass tournaments per year. Data do not include bass culled before weigh-in.

Lake	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Average	Rank
Balch Pond	1.71	1.44	1.48	1.88	1.75	1.25	1.40	1.35	0.94	1.59	1.51	19
Big Island Pond	1.69	1.24	1.36	1.70	1.75	1.63	1.26		1.42	1.36	1.46	23
Bow Lake	1.90	2.11	1.71	1.83	1.46	2.00	1.62	1.73	1.83	1.48	1.72	13
Conway Lake	1.83	1.70	1.82	1.99	1.36	1.85	1.79	1.97	1.73	1.69	1.81	10
Crystal Lake (Gilmanton)	2.18	1.31	1.93	2.49	1.90	2.00		2.14	2.68	1.96	2.10	5
Deering Reservoir	1.58	1.50	1.55	1.41	1.73	1.45	1.42	0.91	0.98	1.48	1.39	25
Great East Lake	1.41	1.62	0.77	0.91	1.50	0.93	2.19	1.82	1.33		1.10	27
Highland Lake (Stoddard)	1.45	1.49	1.86	1.60	1.59	1.43	1.29	1.35	1.29	1.29	1.49	20
Lovell Lake	1.82	1.74	1.71	1.71	1.74	2.09	1.66	2.03	2.01	1.59	1.75	12
Mascoma Lake	2.06	2.36	1.78	1.96	1.96	1.85	1.76	1.70	1.64	1.95	1.92	9
Massabesic Lake	1.86	1.40	1.59	1.36	1.64	1.87	1.64	1.73	2.01	1.60	1.71	14
Merrymeeting Lake	2.50	2.57	1.80	3.08	2.21	2.20	2.27	2.22	1.98	2.17	2.30	2
Milton Three Ponds	1.80	1.83	1.73	1.67	1.58	1.98	2.02		1.91	1.60	1.80	11
Monomonac Lake	3.05	1.19	2.05	2.14	1.92	1.97	1.96	2.98	2.67	2.67	2.23	4
Newfound Lake	2.24	2.16	2.48	2.71	2.57	2.54	3.04	2.69	2.56	2.72	2.63	1
Northwood Lake	1.57	1.57	1.43	1.68	2.06	1.33	1.53	1.57	1.53	1.55	1.62	17
Ossipee Lake	1.86	1.91	2.40	1.45	2.25	2.49	2.36	2.24	2.35	1.84	2.09	6
Pawtuckaway Lake	1.17	1.09	1.14	1.41	1.11	1.32	1.53	1.42	1.45	1.40	1.36	26
Spofford Lake	1.43		1.20	2.00	1.71	1.84	0.90	1.67	1.49	1.24	1.47	22
Squam Lakes	1.88	1.73	1.66	2.09	2.02	2.04	1.85	1.71	1.94	1.93	1.92	9
Sunapee Lake	1.27	1.56	1.46	1.38	1.76	1.67					1.48	21
Suncook Lakes	2.15	2.04	1.54	1.64	1.40	1.46	1.65	1.74	1.54	1.69	1.60	18
Swains Lake	1.70	1.41	1.32	1.24	1.46	1.54	1.50	1.08	1.42	2.51	1.42	24
Waukewan Lake	1.85	1.94	2.02	1.90	1.70	1.67	1.55	1.63	1.55	1.55	1.68	15
Webster Lake	2.15	2.24	2.17	2.02	2.15	2.09	1.50	1.55	2.07	2.39	1.99	7
Wentworth Lake	1.91	1.55	1.53	1.58	1.91	1.74	1.87	1.51	1.41	1.45	1.63	16
Wicwas Lake		1.54	1.15	1.67	1.64	1.75	1.80	1.76	1.78	1.44	1.71	14
Winnepesaukee Lake	2.01	1.77	1.74	1.87	1.92	1.96	1.98	1.97	2.04	1.88	1.94	8
Winnisquam Lake	2.28	2.15	2.13	2.20	2.35	2.34	2.15	2.35	2.32	2.58	2.27	3
<b>Statewide Average</b>	<b>1.94</b>	<b>1.84</b>	<b>1.77</b>	<b>1.87</b>	<b>1.92</b>	<b>1.94</b>	<b>1.96</b>	<b>1.96</b>	<b>2.09</b>	<b>1.92</b>	<b>1.93</b>	

Table 14. Average weight (pounds) of largemouth bass entered for weigh-in during permitted bass tournaments over a 10-year period (1996-2003) on lakes that typically have three or more permitted bass tournaments per year. Data do not include bass culled before weigh-in.

Lake	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Average	Rank
Balch Pond	1.72	2.37	2.08	1.77	1.97	2.06	1.99	2.11	1.86	1.75	2.12	14
Big Island Pond	1.37	1.40	1.26	1.42	1.54	1.73	1.68	1.50	1.73	1.71	1.57	26
Bow Lake	2.05	2.08	1.87	1.84	2.35	2.23	2.66	2.73	2.50	2.44	2.38	5
Conway Lake	1.50	1.96	2.32	2.40	1.89	2.56	2.03	2.12	2.13	2.10	2.18	13
Crystal Lake (Gilmanton)	3.06	2.46	2.61	3.20	2.50	3.03		2.40	3.55	3.31	2.87	1
Deering Reservoir	1.40	1.45	2.01	1.80	1.87	2.12	1.93	1.95	2.31	2.13	1.98	18
Great East Lake	1.84	2.24	1.76	2.03	2.41	1.82	2.06	1.57	1.78		1.99	17
Highland Lake (Stoddard)	1.73	1.83	1.65	2.04	1.90	2.15	2.05	2.01	1.86	1.98	1.96	20
Hopkinton Lake	1.87	1.66	1.94	2.02	1.97	1.99	1.20	1.95	1.93	1.98	1.84	24
Lovell Lake	1.92	1.99	2.71	2.64	2.01	2.27	2.35	2.39	1.75	2.38	2.25	10
Mascoma Lake	2.67	2.26	2.52	2.38	1.24	1.41	1.57	1.71	1.95	2.64	1.92	22
Massabesic Lake	1.97	1.64	1.48	1.80	1.76	2.51	2.14	1.82	2.01	2.35	1.98	18
Merrymeeting Lake		3.88	1.74		3.05	1.13	2.19	2.40			2.19	12
Milton Three Ponds	1.96	1.82	2.33	1.94	2.10	2.22	2.12	2.16	2.30	1.90	2.08	15
Monomonac Lake	2.20	1.80	2.46	2.51	2.73	2.45	2.34	2.28	2.17	2.01	2.31	6
Northwood Lake	2.07	2.08	2.03	2.50	2.31	2.10	2.28	2.04	2.32	2.31	2.22	11
Ossipee Lake	2.59	1.98	2.46	1.99	2.18	2.40	2.28	2.32	2.17	2.57	2.30	7
Pawtuckaway Lake	1.62	1.72	1.54	1.87	1.75	1.93	2.25	1.97	2.14	2.24	1.94	21
Spofford Lake	1.35		1.51	2.00	1.71	1.96	1.29	1.77	2.04	2.36	1.70	25
Squam Lakes	2.33	2.87	2.55	2.18	2.67	2.47	2.65	2.37	2.46	2.57	2.53	2
Suncook Lakes	2.38	2.40	2.36	2.63	2.31	2.09	2.48	2.48	2.36	2.54	2.43	4
Swains Lake	2.07	1.83	2.16	2.35	1.85	2.02	2.40	1.98	1.92	1.98	2.03	16
Turkey Pond	1.78	2.21	2.29	2.94	2.13	2.59	2.95	2.96	2.82	2.77	2.52	3
Waukegan Lake	1.80	1.88	1.63	1.89	1.90	2.18	2.19	1.92	1.99	1.83	1.94	21
Webster Lake	2.65	2.04	2.36	2.46	2.27	2.67	1.78	2.39	2.25	2.38	2.27	8
Wentworth Lake				1.41	1.82	3.30	1.26	1.87	1.78	1.90	1.86	23
Wicwas Lake	2.21	2.39	2.22	1.84	1.82	2.16	1.82	1.82	1.89	1.93	1.97	19
Winnepesaukee Lake	2.14	2.30	1.99	2.13	2.27	2.23	2.32	2.21	2.16	1.98	2.19	12
Winnisquam Lake	1.89	2.00	2.22	2.47	2.15	2.25	2.33	2.22	2.37	2.58	2.26	9
<b>Statewide Average</b>	<b>1.82</b>	<b>1.98</b>	<b>1.94</b>	<b>2.14</b>	<b>2.09</b>	<b>2.18</b>	<b>2.17</b>	<b>2.17</b>	<b>2.17</b>	<b>2.14</b>	<b>2.11</b>	

Table 15. Statistical testing of permitted bass tournament data among years within water bodies on lakes and rivers that typically have three or more permitted bass tournaments per year (1996-2005). P-values are presented and significant differences among years are shown in bold (level of significance for statistical testing was set at  $P < 0.10$ ). See text for statistical testing details.

Waterbody	Smallmouth Bass Catch Rate (Fish/Hour)	Largemouth Bass Catch Rate (Fish/Hour)	All Bass Catch Rate (Fish/Hour)	Smallmouth Bass Average Weight	Largemouth Bass Average Weight	Smallmouth Bass Largest Weight	Largemouth Bass Largest Weight	Effort (angler hours)	Number of boats per tournament	Number of tournaments per year
Balch Pond	0.14	0.60	0.63	0.60	0.34	0.85	0.19	0.50	0.99	0.36
Big Island Pond	0.19	0.87	0.84	0.23	<b>0.06</b>	0.92	0.59	0.51	0.94	0.21
Bow Lake	0.16	0.17	0.14	<b>0.03</b>	0.14	<b>0.01</b>	<b>0.004</b>	0.56	0.85	0.42
Connecticut River	0.24	0.78	0.75	<b>&lt;0.001</b>	0.19	<b>0.002</b>	0.58	0.77	0.51	<b>&lt;0.001</b>
Conway Lake	<b>0.02</b>	0.66	0.42	0.56	<b>0.04</b>	0.14	0.28	0.69	0.44	<b>0.06</b>
Crystal Lake (Gilmanton)	0.25	0.61	0.19	0.79	0.42	0.30	0.51	0.25	0.92	0.26
Deering Reservoir	0.34	0.85	0.96	0.54	<b>0.008</b>	0.19	0.31	0.84	0.72	0.21
Great East Lake	0.18	0.66	0.67	0.11	0.66	0.61	0.60	0.77	0.47	0.16
Highland Lake (Stoddard)	0.33	0.33	0.38	0.55	<b>0.08</b>	<b>0.07</b>	0.29	0.23	0.62	0.63
Hopkinton Lake		0.74			0.17		<b>0.03</b>	0.55	0.68	0.62
Lovell Lake	0.21	0.24	0.25	0.51	0.10	0.82	0.13	0.49	0.77	0.99
Mascoma Lake	0.87	<b>0.02</b>	0.94	0.11	<b>0.05</b>	0.26	<b>0.04</b>	0.66	0.56	0.95
Massabesic Lake	0.59	0.93	0.88	0.60	0.33	0.24	0.70	0.55	0.22	0.90
Merrimack River	0.41	0.41	0.39	0.73	0.25	<b>0.003</b>	0.23	0.74	0.41	0.43
Merrymeeting Lake	0.35	0.55	0.41	0.64	0.48	0.20	0.61	0.65	0.77	0.73
Milton Three Ponds	0.17	0.55	0.79	0.25	0.47	0.87	0.71	0.82	0.91	<b>0.05</b>
Monomonac Lake	0.36	<b>0.004</b>	<b>0.006</b>	0.24	<b>0.003</b>	<b>0.009</b>	0.88	0.32	0.18	<b>0.02</b>
Nashua River	0.97	0.92	0.91		<b>0.01</b>		0.62	0.95	0.91	0.39
Newfound Lake	0.18			<b>0.096</b>		<b>0.02</b>		0.88	0.96	<b>0.07</b>
Northwood Lake	0.42	0.67	0.38	0.14	0.18	0.74	0.33	0.74	0.32	0.69
Ossipee Lake	0.43	0.18	0.45	0.44	0.93	0.26	0.97	0.14	<b>0.01</b>	<b>0.09</b>
Pawtuckaway Lake	<b>0.001</b>	0.96	0.97	0.84	<b>&lt;0.001</b>	<b>0.005</b>	<b>0.001</b>	0.61	0.48	<b>0.05</b>
Spofford Lake	<b>0.04</b>	0.65	0.50	0.41	<b>0.07</b>	<b>0.06</b>	0.17	0.15	0.45	0.34
Squam Lakes	<b>0.03</b>	<b>&lt;0.001</b>	<b>0.002</b>	<b>0.06</b>	0.37	<b>0.006</b>	0.17	<b>0.06</b>	0.27	<b>0.03</b>
Sunapee Lake	0.84			0.76		0.71		0.24		<b>&lt;0.001</b>
Suncook Lakes	0.52	0.26	0.65	0.25	0.32	0.63	0.44	0.48	0.51	0.78
Swains Lake	0.53	<b>0.04</b>	<b>0.06</b>	0.45	0.51	<b>0.07</b>	0.58	0.29	0.79	<b>0.04</b>
Turkey Pond		0.39			0.33		0.56	0.56	0.52	0.88
Waukegan Lake	<b>0.01</b>	0.47	0.32	<b>0.01</b>	0.25	0.65	0.50	0.76	0.63	0.30
Webster Lake	<b>0.08</b>	0.89	0.98	0.67	0.55	0.50	0.78	0.87	0.82	0.99
Wentworth Lake	0.16	<b>&lt;0.001</b>	0.24	0.46	0.21	<b>0.02</b>	<b>0.03</b>	0.98	0.94	0.55
Wicwas Lake	0.30	0.36	0.42	0.71	<b>0.01</b>	0.95	0.85	0.98	0.85	0.66
Winnepesaukee Lake	0.27	<b>0.004</b>	0.87	<b>0.03</b>	0.26	0.41	<b>0.007</b>	0.91	0.89	<b>0.002</b>
Winnisquam Lake	0.36	0.27	0.35	0.88	<b>0.03</b>	0.34	<b>0.06</b>	0.46	0.69	<b>0.06</b>

Table 16. Permitted bass tournament effort (angler hours) over a 10-year period (1996-2005) on rivers that typically have three or more permitted bass tournaments per year.

River	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Total	Rank
Connecticut River	3,018	4,519	4,375	4,437	11,165	15,316	8,652	8,537	10,325	12,171	82,515	1
Merrimack River	704	1,585	1,572	1,797	1,755	1,718	1,363	1,353	1,669	344	13,860	3
Nashua River	452	898	1,834	1,606	2,428	2,211	1,603	316	1,823	1,402	14,573	2
<b>Statewide Total</b>	<b>4,174</b>	<b>7,002</b>	<b>7,781</b>	<b>7,840</b>	<b>15,348</b>	<b>19,245</b>	<b>11,618</b>	<b>10,206</b>	<b>13,817</b>	<b>13,917</b>	<b>110,948</b>	

Table 17. Number of permitted bass tournaments held over a 10-year period (1996-2005) on rivers that typically have three or more permitted bass tournaments per year.

River	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Total	Rank
Connecticut River	9	13	19	20	43	53	31	35	44	60	327	1
Merrimack River	7	14	10	12	14	14	13	13	11	4	112	2
Nashua River	5	9	9	10	12	10	8	3	13	7	86	3
<b>Statewide Total</b>	<b>21</b>	<b>36</b>	<b>38</b>	<b>42</b>	<b>69</b>	<b>77</b>	<b>52</b>	<b>51</b>	<b>68</b>	<b>71</b>	<b>525</b>	

Table 18. Average number of boats per permitted bass tournament over a five-year period (2001-2005) on rivers that typically have three or more permitted bass tournaments per year.

River	2001	2002	2003	2004	2005	5-Year Average	Rank
Connecticut River	17	16	15	15	13	15	1
Merrimack River	8	7	7	9	6	7	3
Nashua River	14	13	7	9	13	11	2
<b>Statewide Average</b>	<b>13</b>	<b>12</b>	<b>10</b>	<b>11</b>	<b>11</b>	<b>11</b>	

Table 19. Catch rates (fish/hour) of smallmouth bass entered for weigh-in during permitted bass tournaments over a 10-year period (1996-2005) on rivers that typically have three or more permitted bass tournaments per year. Data do not include bass culled before weigh-in.

River	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Summary	Rank
Connecticut River	0.07	0.12	0.12	0.18	0.13	0.13	0.22	0.16	0.17	0.20	0.15	2
Merrimack River	0.12	0.19	0.18	0.16	0.25	0.13	0.21	0.09	0.12	0.08	0.17	1
Nashua River	0.00	0.00	0.02	0.00	0.0004	0.001	0.0006	0.00	0.001	0.00	0.003	3
<b>Statewide Summary</b>	<b>0.07</b>	<b>0.12</b>	<b>0.11</b>	<b>0.14</b>	<b>0.12</b>	<b>0.11</b>	<b>0.18</b>	<b>0.15</b>	<b>0.15</b>	<b>0.18</b>	<b>0.14</b>	

Table 20. Catch rates (fish/hour) of largemouth bass entered for weigh-in during permitted bass tournaments over a 10-year period (1996-2005) on rivers that typically have three or more permitted bass tournaments per year. Data do not include bass culled before weigh-in.

River	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Summary	Rank
Connecticut River	0.15	0.12	0.10	0.15	0.10	0.09	0.11	0.14	0.14	0.12	0.12	2
Merrimack River	0.11	0.07	0.05	0.05	0.08	0.07	0.14	0.13	0.09	0.13	0.09	3
Nashua River	0.22	0.27	0.17	0.16	0.17	0.12	0.10	0.22	0.19	0.14	0.17	1
<b>Statewide Summary</b>	<b>0.15</b>	<b>0.13</b>	<b>0.11</b>	<b>0.13</b>	<b>0.11</b>	<b>0.09</b>	<b>0.11</b>	<b>0.14</b>	<b>0.15</b>	<b>0.13</b>	<b>0.12</b>	

Table 21. Average weight (pounds) of smallmouth bass entered for weigh-in during permitted bass tournaments over a 10-year period (1996-2005) on rivers that typically have three or more permitted bass tournaments per year. Data do not include bass culled before weigh-in.

River	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Average	Rank
Connecticut River	1.63	1.47	1.45	1.51	1.64	1.80	1.82	1.95	1.90	1.99	1.82	2
Merrimack River	1.67	1.30	1.70	1.39	1.05	1.34	1.44	1.63	1.56	1.47	1.45	3
Nashua River			2.10		1.03	0.89	1.12		2.33		1.97	1
<b>Statewide Average</b>	<b>1.65</b>	<b>1.38</b>	<b>1.63</b>	<b>1.48</b>	<b>1.49</b>	<b>1.73</b>	<b>1.77</b>	<b>1.91</b>	<b>1.93</b>	<b>1.99</b>	<b>1.76</b>	

Table 22. Average weight (pounds) of largemouth bass entered for weigh-in during permitted bass tournaments over a 10-year period (1996-2005) on rivers that typically have three or more permitted bass tournaments per year. Data do not include bass culled before weigh-in.

River	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	10-Year Average	Rank
Connecticut River	2.12	2.49	1.85	1.93	2.06	2.01	1.92	1.92	2.01	2.13	2.03	1
Merrimack River	1.78	1.64	1.76	1.50	1.30	1.77	1.72	2.10	1.89	1.55	1.84	2
Nashua River	1.69	1.60	1.80	1.69	1.73	2.11	1.96	1.99	2.29	2.25	2.03	1
<b>Statewide Average</b>	<b>1.98</b>	<b>2.03</b>	<b>1.81</b>	<b>1.82</b>	<b>1.93</b>	<b>2.00</b>	<b>1.89</b>	<b>1.95</b>	<b>2.15</b>	<b>2.32</b>	<b>2.01</b>	

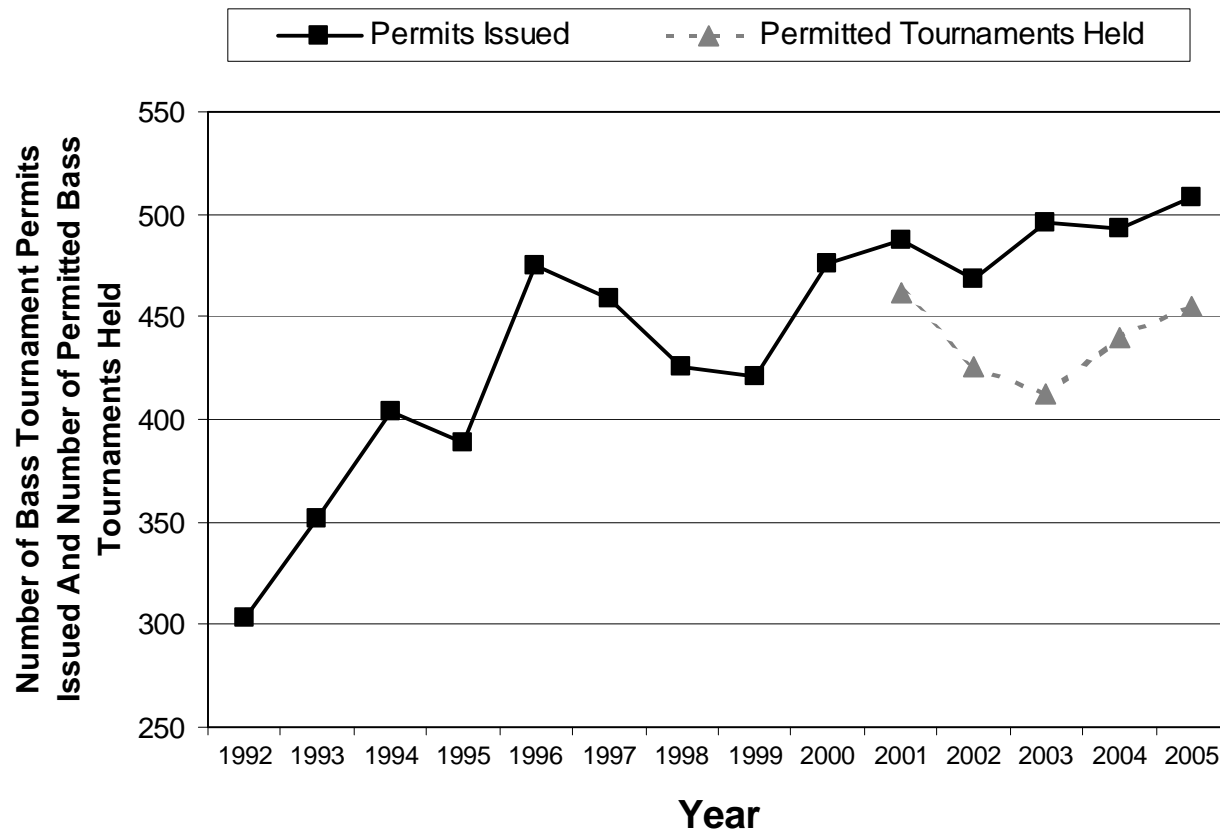


Figure 1. Number of bass tournament permits issued from 1992 – 2005 in New Hampshire (does not account for tournaments that were later cancelled) and number of permitted bass tournaments held from 2001 – 2005 (accounts for tournaments that were cancelled).



◆ Water Bodies With >3 Tournaments Per Year - ▲ - All NH Water Bodies

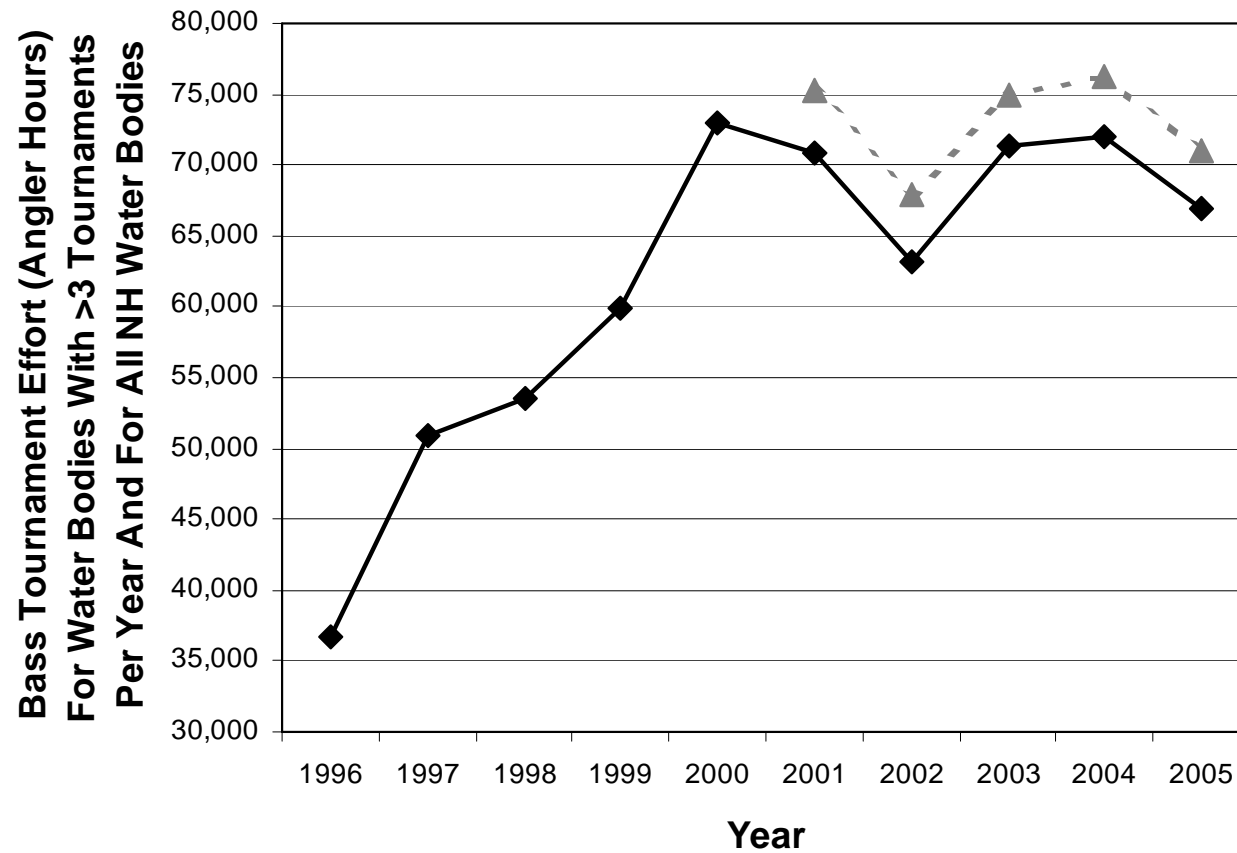


Figure 2. Permitted bass tournament effort (angler hours) in New Hampshire from 1996 – 2005 for lakes and rivers that typically have three or more permitted bass tournaments per year and from 2001 – 2005 for all New Hampshire water bodies.

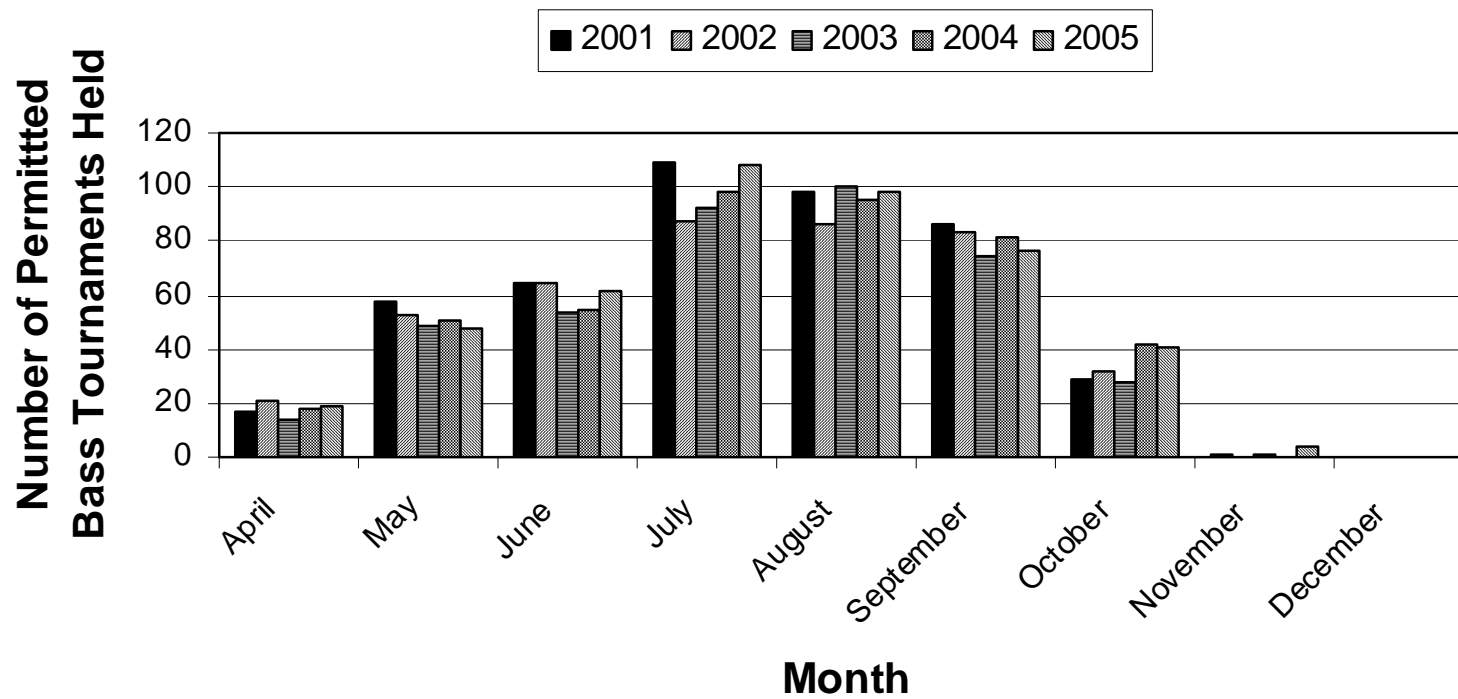


Figure 3. Number of permitted bass tournaments held in New Hampshire by month during 2001 - 2005.

Appendix Table I. New Hampshire Fish and Game Department Fishing Tournament Record Form.

<b>CLUB NAME:</b>			
<b>CONTACT NAME AND ADDRESS:</b>			
<b>TOURNAMENT LOCATION:</b>			
<b>TOURNAMENT DATE:</b>		? Please fill in one sheet for each date of your contest	
<b>TOURNAMENT HOURS:</b>	<b>START:</b>	<b>END:</b>	
<b>TOTAL NUMBER OF PARTICIPANTS:</b>		<b>TOTAL TOURNAMENT HOURS:</b>	
<b>TOTAL ANGLER HOURS:</b>		<b>MINIMUM BASS LENGTH:</b>	
<b>TOTAL NUMBER OF LARGEMOUTH ENTERED IN TOURNAMENT:</b>		<b>TOTAL NUMBER OF SMALLMOUTH ENTERED IN TOURNAMENT:</b>	
<b>TOTAL NUMBER OF LARGEMOUTH RELEASED ALIVE:</b>		<b>TOTAL NUMBER OF SMALLMOUTH RELEASED ALIVE:</b>	
<b>TOTAL WEIGHT OF ALL LARGEMOUTH:</b>		<b>TOTAL WEIGHT OF ALL SMALLMOUTH:</b>	
<b>AVERAGE WEIGHT OF LARGEMOUTH:</b>		<b>AVERAGE WEIGHT OF SMALLMOUTH:</b>	
<b>WEIGHT OF LARGEST LARGEMOUTH:</b>		<b>WEIGHT OF LARGEST SMALLMOUTH:</b>	
<b>TOTAL TOURNAMENT WEIGHT:</b>		<b>MAXIMUM NUMBER OF BASS ALLOWED TO BE WEIGHED IN PER ANGLER:</b>	
<b>WINNING WEIGHT:</b>			
<b>COMMENTS:</b> Please use the comments section to give us any other relevant information, ie: weather, conditions, etc			