**** Sebago Region Fisheries Newsletter****

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Current and past editions of our newsletter, as well as pictures of fish caught in the region may be viewed on the Department's home page (www.MEFISHWILDLIFE.com)

Splake Since 1999, the Region A fisheries team has been systematically evaluating all splake stocking programs in the region. Initial assessment efforts indicated highly variable performance of stocked splake from water to water and even from year to year. A number of management issues were identified as factors contributing to variable performance, including inconsistent and small size of splake at time of stocking, warm surface water temperatures at time of stocking, and stocking rates. These factors contributed to higher mortality (i.e., predation, temperature shock, etc.) and lower quality fisheries. Changes were adopted to address these concerns and recent assessment efforts demonstrate a considerable improvement in several Region A splake fisheries. In other waters splake have not improved to provide satisfactory fisheries and it is our recommendation to suspend splake stocking on those waters. Below is a brief summary of findings and proposed management by water. Many of the proposed management changes are subject to the Department's internal peer review process, as well as public input. Consequently, public and internal input could change the management that is actually implemented.

Canton Lake (Canton) A season-long winter angler survey in 2005 indicated only a single splake was caught. The harvested splake was stocked in the spring of 2004. Marginal summer water quality is believed to be the factor most responsible for poor splake performance. Brown trout are also stocked and are providing a good fishery. It is our recommendation to cancel splake stocking and continue to manage Canton for brown trout.

Bryant Pond (Woodstock) A season-long winter angler survey in 2004, as well as netting in 1999, indicate this water is producing a very popular winter fishery for splake. The fishery is characterized by low natural mortality, high angler return rates of stocked splake, and exceptionally good growth. Age 2 splake average 15.7" long and 1.4 pounds. Age 3 splake average 19" long and 2.5 pounds. Excellent water quality, an abundance of smelt forage, and a lack of warm water predators/competitors have enabled the creation of this premier splake fishery. This water is also managed for stocked salmon and brook trout, and smelt. No stocking changes are proposed.

Colcord Pond (Porter) An experimental splake stocking program was initiated in 1998 because salmon and lake trout stocking did not prove highly successful. Assessment efforts indicate splake did not create fishing opportunity beyond that already provided by salmon and lake trout. Splake experienced below average growth and survival. Poor performance, in conjunction with the discovery of a wild competing population of lake trout prompted a recommendation to suspend splake stocking on Colcord Pond. Salmon stocking will continue, pending further evaluation.

Bear Pond (Waterford) Highly variable splake fishing best describes this water, as documented by numerous netting studies and angler surveys. This water continues to support a remnant togue population (last stocked in 1995), as well as a popular spring dip net fishery for smelt. This water is also managed for salmon. The size and condition of sampled splake, salmon, and togue indicate a lack of smelt forage. Although stocking has been reduced this measure has not addressed growth concerns. The spring dip net fishery is regulated under a midnight closure. Limited public access extended by the landowner further limits the harvest of spawning smelt. Therefore, additional restrictions to the spring dip net fishery will not be pursued at this time to enhance forage for salmon and splake. Instead, we plan to initiate an experimental stocking program using legal-size fall yearling splake. Under this stocking strategy splake will be vulnerable to winter harvest shortly after stocking, reducing opportunity for smelt predation, and increasing smelt availability for use as salmon forage. This same approach has proved very successful on Big Wood Pond in Jackman. Additional 12 – 14 inch fall yearling brook trout will also be stocked to enhance the winter fishery.

Indian Pond (Greenwood) This water is open to fishing only during the open water fishing season and consistently produces splake over 6 pounds. Although no stocking

changes are proposed, future stocking will be adjusted as needed to maintain high growth rates and large size quality.

Keewaydin Lake (Stoneham) Assessment efforts indicate splake growth and abundance is relatively poor compared to other waters. Competition from stocked fish (salmon/brook trout) and existing warm water fisheries, marginal late summer water quality, and limited smelt forage are factors limiting the success of the spring yearling splake program. We propose to suspend splake stocking and instead stock fall yearling (12 – 14 inches long) brook trout, which should provide good winter returns. Salmon stocking, using larger size fall yearlings will remain the focus of management. This salmon stocking program provides more desirable year-round angling opportunities in this water than brook trout or splake.

North Pond (Buckfield) Splake provided a very popular, but very short-lived fishery in the early 1990's. An angler survey completed this past winter produced only a handful of splake, in not particularly good condition. Numerous stocking changes have been undertaken over the years to improve splake growth and survival, without success. Marginal summer water quality, competition/predation from warm water fish, and a lack of suitable forage are factors limiting splake performance. Our proposal is to suspend the spring yearling splake and brook trout stocking programs and replace them with a larger fall yearling-based stocking program consisting of rainbow trout and brook trout. The larger size rainbows are expected to provide improved year-round fisheries and the larger fall yearling brook trout (12 – 14 inches long) will enhance the winter/spring fishery.

Shagg Pond (Woodstock) This water is open only during the open water fishing season. Splake are performing very well, surviving to produce a multi-age class fishery, and even producing an occasional trophy. Management changes since 1999 appear to have increased splake abundance, growth, and condition for all age classes, except age 1+. A reduction in stocking is proposed to address this growth concern.

Stanley Pond (Hiram) Stocking changes to increase splake abundance and angler catch rates have not met with success. A season-long winter angler survey in 2004 indicates angler return rates of stocked brook trout and splake were very light. While growth and condition of stocked SPK is good, low angler use and catch do not justify continuation of the splake stocking program. Moderate competition/predation from warm water fish species, and a lack of smelt forage are factors that likely limiting the success of the spring yearling splake and advanced fall fingerling brook trout programs. Proposed management will shift to a fall yearling based stocking program to reduce anticipated predation losses and improve angler returns. Existing splake stocking will be suspended and replaced with a fall yearling rainbow trout stocking program. Larger fall yearling brook trout will replace smaller brook trout stocked in the spring and fall. Rainbows are expected to provide improved year-round fishing opportunities, while larger fall yearling brook trout will enhance the winter and spring fisheries.

Trickey Pond (Naples) Only recently has a very popular splake fishery developed in response to discussed program changes, which included increased splake stocking. The splake fishery is characterized by excellent growth rates, but only moderate catch rates. Heavy predation by bass is believed to be a significant source of splake mortality. Because this water is also managed for quality salmon, and a recreational smelt fishery, no stocking changes are being proposed until additional open water census data is available to better understand the influence of open water fishing on stocked splake and salmon. A partial open water census is planned for this spring. FB

New Kids-Only Fishing Initiatives New kids-only fishing opportunities were recently created in the Towns of Limerick and Brunswick.

A small impoundment on Leavitt Brook (Limerick) sandwiched between the Enterprise Road (entrance to the F.R. Carroll facility) and the first downstream dam is restricted to persons under 16 years of age. This section will be managed under a 2 trout daily limit. A no size or bag limit on bass will be established to address an illegal stocking of bass.

Coffin Pond, owned by the Town of Brunswick, is also being managed as a "Kids-only" water, with similar regulations as Leavitt Brook, except there are no size limits on stocked fish. Coffin Pond will be stocked for the first time this spring. FB

Bass Management Last spring we initiated an ambitious multi-year bass sampling program in southern Maine to collect baseline population information on our key regional bass waters. One important goal of the project is to identify waters providing, or having the potential to provide trophy bass fisheries, and to then develop appropriate regulations to enhance/maintain size quality. Over a three week period during the bass spawning season, night time electrofishing surveys were completed on 6 waters: Upper Range Pond (Poland), Parker Pond (Casco), North Pond (Norway), Lower Moose Pond (Denmark), Middle Moose (Bridgton), and Trickey Pond (Naples).

Length of shoreline sampled was based on the proportion of available habitat types present. We still have some technical "problems" to work out with the new electrofishing boat, including generator malfunctions and some lighting problems. Some logistical problems related to sampling in large lakes must also be addressed. As an interesting side note, we caught well over 1,000 bass in the few waters sampled and very few large trophy-size fish were captured (see Table 1).

Six additional waters will be sampled this spring including Crystal Lake (Harrison), Crescent Lake (Casco), Auburn Lake (Auburn), Wilson Lake (Acton), Coffee Pond (Casco), and Bear Pond (Waterford). FB

Table 1. 2004 Bass Electrofishing Results

Water	Shock Time (min)	No. largemouth Bass + (% ≥ 19 in.)	No. Smallmouth Bass+ (% ≥ 19 in.)
Parker P	60	153 (<1%)	13 (0%)
Trickey P	67	29 (3%)	258 (0%)
North P	66	151 (<1%)	0
Upper Range P	55	125 (0%)	120 (<1%)
Moose P (Lower)	56	78 (10%)	27 (0%)
Moose P (Middle)	83	54 (0%)	182 (0%)

Cushman Pond…The Good…The Bad Last summer, MDIFW regional biologists conducted an extensive sampling effort on Cushman Pond in Lovell. Our sampling focused on two main objectives: (1) to evaluate brook trout stocking changes initiated in 2002 to improve the trout fishery; and (2) to investigate a report of an illegal bass introduction.

In 2000, we sampled Cushman Pond and found a high proportion of smaller sized brook trout in relatively poor condition, and very few large, older-age trout. Based on reports from shorefront property owners, this water isn't heavily fished and consequently the harvest of brook trout is low. We suspected that annual stockings of brook trout in both the spring and the fall, in conjunction with low angler harvest, created conditions that didn't favor the development of a quality trout fishery. In 2002, the fall stocking was eliminated in an effort to reduce the population size, and improve brook trout growth and survival. The results of our recent sampling effort are encouraging. The brook trout are longer, heavier, and in better condition than those observed in 2000, and we observed a 5-fold increase in the percentage of trout over 12 inches in length (Table 2). Furthermore, brook trout up to 18 inches long were also netted in 2004! Good news indeed.

Table 2. Brook Trout Data from Cushman Pond Sampling, 2000 and 2004.

Year	Sample Size	Mean Length (in.)	Mean Weight (lbs.)	Condition	% of Fish ≥ 12”
2000	22	9.8	0.5	0.94	4.5%
2004	21	11.6	0.67	0.98	23.8%

Francis and I also spent most of the day and a good part of the night investigating a report of bass being illegally introduced into the pond. A commercial diver hired to remove milfoil had reported seeing a bass earlier in the year. We sampled the entire shoreline with SCUBA during the morning; set three nets by mid-day (for bass and brook trout), which were pulled at dusk; and resampled the entire shoreline with the electrofishing boat after dark. The good news is that no adult or juvenile bass were found! Thus far, it appears very few bass were illegally stocked and they likely have not spawned successfully. Armed with traps nets and an electrofishing boat, we plan to return this spring in an effort to eradicate the bass. Lets hope we are successful in eradicating the illegal introduction of bass, which threatens the viability of this quality trout fishery.

The bad news…region A fisheries staff will be spending an increasing amount of time "responding and reacting" to senseless illegal stockings. This growing workload will mean fewer Departmental resources available for the development of new fishery management programs and initiatives. JP

Smelt Introductions

Management Overview MDIFW biologists often stock smelt eggs to create or augment existing populations for forage. More recently, smelt eggs have been stocked to establish new smelt populations for the purpose of developing sport and commercial opportunities, as well as, to provide new donor sources for future transfers. Smelt introductions are conducted by transferring wild egg stock, because propagation of smelt under hatchery conditions has not yet been entirely successful. The potential for introducing new diseases or parasites during live smelt transfers from wild sources has prompted the Department to enact a policy of allowing egg transfers only. This greatly reduces the risks because eggs can be easily treated in the field for external parasites. Stocking smelt into new waters has the same potential risks as introducing any new species to a system, and should be used cautiously and conservatively to avoid significant ecological impacts. In addition, fishery biologists commonly use smelt egg transfers to augment existing smelt populations. Short-term use of this technique is acceptable, and several instances of apparent improvement in smelt abundance and salmonid growth have been noted. On the other hand, long-term abundance issues indicate a deeper problem that needs to be addressed to avoid committing to a long-term artificial feeding program.

Ongoing smelt egg transfers. For the past few years, region A staff have been stocking smelt eggs collected at Bryant Pond (Greenwood) into Stanley Pond (Hiram), and into an undisclosed pond in York County. Historically, Stanley Pond supported strong smelt runs and a small landlocked salmon fishery, but the smelt population disappeared in the early to mid 1990’s, and management shifted over to brook trout and splake. So far, it appears the introductions in Stanley Pond have been unsuccessful, which we suspect is related to high predation pressures on the juvenile smelt from yellow perch and other predators. On the other hand, we did find a small number of smelt eggs in the York County pond last year indicating some limited success. Our intent on this pond is to create a new donor source in southern Maine where smelt waters are very limited.

Experimental saltwater smelt egg transfer In addition, we are working closely with Sebago Lake Anglers

Association (SLAA) and Southern Maine Technical College (SMTC) with an experimental introduction of saltwater smelt eggs into Sebago Lake. This spring will mark the fourth introduction by SLAA members, which have stocked an estimated ½ -3 million eggs each year. This year both organizations have made improvements to their transport and holding facilities and their goal is to transfer greater numbers of eggs this season. In addition, Brian Tarbox of SMTC is working on DNA analysis techniques to differentiate between saltwater and freshwater smelt populations, which if successful would give us a means of evaluating whether egg introductions have made a contribution to the lake population. The DNA analysis project will be funded by donations from the Windham Rotary's Sebago Lake Ice Fishing Derby.

Experimental live smelt transfer In 1996, an 11 member Smelt Working Group comprised of one legislator, MDIFW staff, recreational smelt anglers, and commercial smelt dealers was created to discuss smelt management and provide recommendations to MDIFW's Commissioner. A few members of the Group felt the Department should reconsider the use of live smelt transfers as a method for establishing new populations, and the Group recommended conducting an experimental project to test the effectiveness of this technique. Live smelt transfers were to be conducted on 2-3 waters in both regions A and B. Region A staff and a couple local commercial dealers conducted multiple year transfers on two regional waters, Ingalls Pond (Bridgton) and Bunganut Pond (Lyman), which historically supported smelt populations. We finished evaluating the live transfers this year, and both appear to have failed in producing viable smelt populations. Region B transfers were also considered to be unsuccessful. Although our experimental transfers were not successful, we do concur with the commercial dealers that they can be successful in the right circumstances. However, our experience indicates that far more eggs can be transferred with less effort, costs, and manpower. JP

Sebago Ice Fishing Derby, 2005 This year's Sebago Lake fishing derby produced a lower catch of lake trout than last year while exhibiting a significant improvement in size quality. The final count of registered togue was 453, a 63% reduction from last year's catch. Average lengths have increased over an inch while average weight has increased almost a pound since 2003. Table 3 illustrates the improvement in size quality in derby-caught togue over the last three years.

Table 3. Mean Size and Condition of Togue Harvested on Sebago Lake – Ice Fishing Derby

Year	Mean Length (in)	Mean Weight (lbs)	*K-Factor
2005	21.5	3.39	0.92
2004	20.1	2.63	0.86
2003	20.4	2.52	0.80

*"K" or fish condition, usually ranges between 0.5 and 1. The higher the "K" the more robust the fish.

The winning togue in 2005 was a 22.34 lb monster whose weight exceeded 2004's winner by over 3.5 lbs! 2004 and 2003 winners were 18.8 and 14.4 pounds, respectively. Reductions in togue harvest and increases in average size and winning togue suggest that liberalized togue regulations may be easing the predation pressure on smelt, and Department efforts to rebuild smelt stocks have met with some success. BL

A Study Of Spring Yearling Brook Trout Stocked In Two Southern Maine Ponds. Angler reports and available data indicate stocked spring yearling brook trout may not be providing acceptable levels of returns in waters where bass abound. In response, regional fishery staff are gearing up to implement several studies focusing on fishing pressure, brook trout harvest, and potential predation on newly stocked brook trout by bass. The evaluation of fishing pressure and harvest will be addressed with a spring creel census at Trickey Pond in Naples and on Thomas Pond in Raymond. Fish age and growth data will be taken as well as data reflecting angler effort and angler success rates. Potential predation on newly stocked brook trout by bass will also be examined through several nights of boat electrofishing soon after the trout are stocked. These studies will help regional fishery biologists determine whether new management strategies should be considered in cases where brook trout are stocked into ponds that contain bass. BL

Pike Update The capture of a 13-pound pike at the "Station" last winter represents the forth confirmed pike taken on Sebago. This latest catch was the first mature female observed on the lake. We have yet to document that pike are spawning successfully in Sebago Lake.

Rainbow Trout Study The rainbow study is winding down. The last of the fieldwork associated with the brown trout comparison will be completed this year. The brook trout field assessment will be completed in 2006. Preliminary results indicate that rainbows can enhance trout angling opportunities on some waters. We have begun to plan in anticipation of the possibility that rainbows may become a welcome addition to our stocking arsenal.

Region A's Noteworthy Fish List Below is a list of just a few trophy fish caught in Region A waters during the 2005 ice fishing season. BL

Angler's Name	Weight & Fish	Location
Greg Ledoux	9.5 lbs salmon	Trickey P.
Roger Lavallee	5 lb largemouth bass	Highland L.
Steve Emerson	22.34 lbs lake T.	Sebago L.
Roger Reed	21.60 lbs lake T.	Sebago L.
Unknown	5.5 lbs brown T.	Hancock P.
Zack Cunningham	8 lbs lake T.	Worthley P.
Greg Massey	7.5 lbs lake T.	Middle Range P.