
**Recreational Fisheries Advisory Council
Minutes of the 2016 RFAC Meeting**

Area 3

Date Prepared: March 2017

Halifax & Lunenburg Counties

The RFAC meeting for Area 3 was held on November 9th, 2016 at the Best Western Plus, Bridgewater, Nova Scotia. Nova Scotia Department of Fisheries and Aquaculture, Inland Fisheries Division staff present were: Jason LeBlanc, John MacMillan, Andrew Lowles, Mike McNeil and Darryl Murrant. There were 16 people in attendance. There were representatives from DFO including Greg Stevens and Brad Yeaton. The meeting was chaired by John MacMillan.

2016 Regulation Changes and Proposed Changes for 2017

Jason reviewed the regulatory change protocol that has been followed for several years. Regulatory changes may be proposed from government or the public. The regulations are reviewed internally and some are presented at the RFAC and published under the proposed changes in the Angler's Handbook. At the following RFAC, proposed changes and data relevant to those changes are presented for input from anglers. A decision is then made with DFO on the implementation of proposed regulations.

John presented the results of the River Denys study. The River Denys sea trout fishery and population was previously assessed in 2008 and 2010 as well as 2016. Regulations were changed in 2012 and included a change in the season opening to 1 May, a reduction in the daily bag limit to three trout and a size limit that allowed for the retention of one trout over 35cm. The preliminary results of the 2016 study indicated that the regulations improved the quality of the sea trout fishery. The percentage of large trout (>30cm) caught by anglers increased from 47% to 70% and the percentage of very large trout (>35cm) caught by anglers increased from 17% to 29%. Improvement in the quality of the sea trout fishery has also been observed in the West River of Antigonish after that system was designated a Special Trout Management Area. Reducing harvest can improve seatrout fisheries.

The practice of catch and release has increased from 25% in 1980 to 60% in 2010. John reviewed tips to improve survival rate of released fish. Ten out of ten fish prefer water and it is important to keep air exposure to a minimum. When unhooking a fish try to keep the fish in the water. Photos can be stressful and if you decide to take a picture, keep air exposure to a minimum (10 seconds). If the fish has swallowed the hook deeply or is bleeding, consider adding fish to your creel or cut the line and release immediately. Cutting the line can reduce mortality significantly. Water Temperature is also related to handling mortality. In May, cool water temperatures can benefit survival and as water temperatures warm to 20C there is a greater incidence of release mortality. Handling your catch with

wet hands instead of using a net is beneficial. The type of net used can impact release mortality. The use of knotted coarse mesh can damage fish by removal of protective slime and scales. If the use of nets is warranted or preferred the use of rubberized nets or knotless mesh can reduce harm to your catch.

Currently regulations in Special Trout Management Areas vary in bag limit, season, and size limit. A more consistent approach is needed to reduce the complexity of regulations on Sea trout fisheries. For all Special Management Areas that have a bag limit of more than one trout, proposed changes include a change in the bag limit to 3 trout with a size limit of 35cm that allows for the retention of one large (>35cm) trout. Changes to a season opening to 1 May will also be considered in the future.

John reviewed proposed changes in bag limit and size limit that were published in the Angler Handbook for STMAs in RFA 3 (Musquodoboit River, Petite River, and LaHave River). The audience was generally supportive of changes to the bag limit and size. The 1 May opening date was discussed in regards to the LaHave River. Trout anglers reported that the upstream migration occurs early (April) compared to in more northern regions and a delay in the opening to 1 May would result in a loss of opportunity. It was suggested that anglers generally appreciate standardization of regulations and river specific management but can often be confusing when areas are managed for multiple species. In the case of the LaHave, speckled trout, smallmouth bass and Atlantic salmon. Additionally, an angler asked if the regulations applied to Texas and Indian lakes. There were also concerns about the impact of invasive smallmouth bass and pickerel in this system that may limit the success of regulations.

Freshwater Fisheries Research Cooperative

The Freshwater Fisheries Research Cooperative (FFRC) was established several years ago to facilitate applied research with universities. This initiative was set up to address fisheries management questions and address the research interests of anglers and the Inland Fisheries Division. In 2016, a total cash investment of 35k dollars was made toward FFRC projects and a total in-kind was 99k dollars. In-kind contributions were associated with labour, supervisory, and equipment from partners. In 2016, the following four FFRC partnerships received funding: 1) Evaluation of stream restoration, Kris Hunter, St FX University, 2) Impacts of Aluminum toxicity on salmon and trout, Dr. Shannon Sterling, Dalhousie University, and 3) Evaluation of angler catches in the Upper Medway River, Amanda Lavers, Mersey Tobetic Research Institute.

Kris Hunter, Saint Xavier University, 2016 was year six of an eleven-year study on water chemistry, habitat and electrofishing results to evaluate the impacts of commonly used in-stream restoration initiatives to improve habitat for trout and salmon. The eight sites were monitored on an annual basis to assess habitat and fish populations. This year, three of the eight sites were restored and monitoring will continue for another five years post-restoration. Long term studies are needed to evaluate annual natural fluctuations in order to obtain a true picture of the impacts of restoration.

Dr. Shannon Sterling, Dalhousie University is evaluating the toxicity levels of Aluminum and PH in streams in the Southern Uplands of Nova Scotia. The information to be produced by this survey is important for planning the initiatives to restore wild salmonid populations, such as terrestrial liming, habitat restoration and increasing habitat connectivity. The purpose is to identify streams in the Southern Upland regions that have high aluminum levels and the data collection will focus on key periods in the life cycle for salmon and trout (smolt stage in May, etc.). This project is a part of the West River Sheet Harbour Project where a lime doser is in place to improve water quality by reducing acidity.

Amanda Lavers, Mersey Tobetic Research Institute, conducted an angler creel survey in the Upper Medway system. Anglers expressed concern about overfishing and the spread of invasive smallmouth and pickerel in the Upper Medway region as these lands have been turned over from Bowater Mersey to the Province and they are now more accessible. Volunteer angler check points were established on main access roads in May and June. These data will allow for comparison of the results of similar surveys in Keji Park and in the Tangier Grand Lakes Wilderness Area, as well as, provide a baseline for the evaluation of any future changes in regulations in this region.

A question was asked about the Ali study and how long it will take before the results are available. John responded that this is a three-year study and the results will be made available after next year (year three).

Hatchery Report / Trout & Salmon Enhancement

Following a viewing of the video about hatchery operations, which is found on the Departmental web site, Darryl Murrant, Manager of Fisheries Enhancement, gave a brief overview of the provincial fisheries enhancement programs. The Dept. of Fisheries & Aquaculture operates three hatcheries; Fraser's Mills Hatchery in Antigonish Co., McGowan Lake Hatchery in Queens Co., and Margaree Hatchery in Inverness County. Spring and fall stocking lists were made available and Steve noted they are both on the Departmental web site, <http://novascotia.ca/fish/sportfishing/hatchery-stocking/>

In an effort to sustain the very popular recreational trout fishery, each spring the hatcheries stock approximately 200 lakes across Nova Scotia. Most of these are stocked with brook trout; additionally, over 20 lakes are provided with Rainbow trout from the Fraser's Mills Hatchery. In recent years much of this stocking activity has been directed to lakes in populated centers, providing recreational angling opportunities to an increasingly urban population and helping to maintain an important sportfishing industry. There are now over 25 wheelchair accessible, barrier-free facilities in Nova Scotia. Most are located on sites that receive trout from the hatcheries. Last year trout were made available to support 63 of the Department's Learn to Fish projects. As well, approximately 50 trout fishing derbies, sponsored by volunteer organizations, received trout from the hatcheries.

Fall Trout Stocking

Trout stocking with finger-sized juvenile trout is carried out in October and November. Lakes stocked in the fall are typically more remote than the spring-stocked lakes, but still have significant fishing pressure. These fish are presumed to grow for a season before becoming large enough to contribute to the creel. Approximately 175 lakes receive brook trout in the fall. Most brown trout stocking takes place at that time of year. The majority of brown trout stocking takes place in rivers where the fingerlings have access to estuaries where they can grow quickly.

Winter Trout Stocking

Nova Scotians are encouraged to remain active all year and many do so by getting out and enjoying time ice fishing for trout. Twenty lakes, including the Bras d'Or Lakes, are stocked with either rainbow or speckled trout in November and December, in anticipation of the winter season. Several other lakes which are stocked in the spring remain open year round, as well.

Darryl mentioned that since last year three stocked lakes were open year-round. Hutt Lake and Becks Lake, Lunenburg Co., for speckled trout and Beaver Dam Lake, Shelburne Co., for rainbow trout and speckled trout.

Ron Seney asked if Sucker Lake had been stocked yet for the winter fishery. He indicated that last year the lake was fished heavily before it iced over and asked if it could be stocked a bit later in 2017.

Atlantic Salmon Enhancement Program

2016 was the tenth year that the Department of Fisheries & Aquaculture has been working to support the Atlantic salmon and enhance the fishery. Unfortunately stocking of salmon is not considered as an option by DFO in rivers in RFA3. On Cape Breton Island, the Margaree Hatchery provided fall parr for Margaree River, Baddeck River and Middle River. It is unlikely that the fall salmon season on the Middle River and Baddeck River (both stocked 2010-2016) would have been permissible without the stocking program. On the mainland, Fraser's Mills Hatchery provided fry and fall parr for West River Antigonish. With assistance from many volunteers, successful broodstock collections took place on for West River Antigonish, West River Pictou (Fish Friends), Middle River, Baddeck River, Mabou River and Margaree River. In addition to providing brook trout for local watersheds and selected sites on Cape Breton Island, the Margaree hatchery typically supplies 130,000-160,000 parr each fall and 30,000-40,000 Atlantic salmon smolt in the spring, for the Margaree River.

Broodstock salmon from Baddeck River, Middle River, Mabou River as well as the Margaree River are now held at Margaree Hatchery to provide eggs for next year's production. Broodstock from West River Antigonish and West River Pictou (Fish Friends) are held at Fraser's Mills Hatchery.

Paul Mariner raised concerns about predation on smolts from striped bass. Darry Murrant suggested that sampling by DFO on the Miramichi river indicated that predation was low. Greg Stevens added that during the striped bass spawning period they do not feed much and when smolts are migrating there is also an abundance of other forage such as gaspereau and smelts. This research can be found at <http://waves-vagues.dfo-mpo.gc.ca/Library/365977.pdf>

Community Based Enhancement Facilities

Several community- based fishery organizations operate small scale hatcheries or incubation boxes. Trout eggs are delivered to these in late winter. The fry hatch in early spring and when they have developed to the point where they can begin feeding on their own, they are released. This usually takes place in early to mid-May. There are long running operations in New Waterford, Port Morien, Coxheath, Isle Madame and Mulgrave. For the past few years a unit has been set up on the Medway River.

Fish Friends

Fish Friends is an educational program, sponsored by the Nova Scotia Salmon Association and maintained through the hard work of many dedicated volunteer organizations. Aquarium units are set up in participating school class rooms and teachers are provided with educational material about the trout and salmon life cycle. Children get to watch the eggs hatch, and the fry develop. They feed them for a few weeks and then release them into a local stream. Last year the hatcheries were able to provide eggs to approximately 70 Fish Friends projects.

Promotion and Development Programs

Former Sportfish Development Officer, Andrew Lowles reviewed several provincial programs in place to promote fishing within Nova Scotia. There are two demographics that are underrepresented and continue to be a focus of Nova Scotia's recreational angling community: young people and women. These two demographics are deliberately targeted through the delivery of two programs: **Learn to Fish** and **Becoming and Outdoor Woman**. The Learn to Fish (L2F) Program focuses on exposing young anglers across the province to recreational angling. This year was the largest year ever for the Learn to Fish Program, seeing more than 3,000 students in 2016, nearly doubling our efforts over the past 3 years. The program was delivered in school classrooms, but has been extended to include high school students. Again, this year, Andrew visited IWK Children's Hospital, Scouts and Guides Canada, and 4-H groups. As last season's effort was lacking representation from certain areas of the province, additional effort was made to more evenly spread across the province this year. This was successfully achieved with increased representation from RFA 1 (Cape Breton).

Andrew wants to thank the provincial hatcheries; Frasers Mills and McGowan Lake, for their efforts in meeting the increased stocking demands associated with the growth of the program. Andrew also wants to thank the Hants West Wildlife Association and Mark Weare, along with his volunteers for their continued support of the program.

A question was asked about whether we try to monitor the effectiveness of the program. Andrew indicated that it is difficult to re-connect with participants but that we are exploring ways to assess the program's success.

Becoming an Outdoor Woman (BOW) was again a great success. Hatchery Technicians, Marielle Turner and Rebecca Blank, instructed several modules at the fall BOW program. Thanks to Don Taylor for his continued support of the program and volunteering his time. In February 2016, Winter BOW was a great success in Cape Breton. The Ice Fishing portion of the program was increased to include a 3rd session as well as Saturday evening Fly Tying. Andrew thanked Gordie MacKinnon and Cole Porter for their continued support of the program.

Andrew will be continuing to manage the Anglers Handbook and Summary of Regulations in 2017. The National Sportfish Survey was distributed by mail and a trial online version this year. Data is returned to Fisheries and Oceans for sorting, formatting and will be returned to Nova Scotia Department of Fisheries and Aquaculture in early 2017.

Nova Scotia has initiated a commissioned report to evaluate the Sportfishing Industry in the province, as well as to make suggestions on growing the industry. This report will evaluate the current fisheries and infrastructure resources available within the province and compare these to other fishing destinations in Canada and the eastern United States.

Vinal Smith suggested from a guiding perspective he has seen an increase in guiding for fishing compared to hunting.

Funding Programs

Nova Scotia Sportfish Habitat Fund

Jason LeBlanc reviewed the Nova Scotia Sportfish Habitat Fund, which received a budget of \$273k in 2016, based on 2015 licence revenues. Twenty-four community groups were involved in 2016. Total funds to Adopt-a-Stream were \$237k in addition to \$100k in funding from the Nova Scotia Liquor Commission. Two other projects received funding in 2016; \$18k to the West River Sheet Harbour Lime doser project, and 20k to the West River Sheet Harbour helicopter liming project. The Sportfish Habitat Fund provides money to projects that improve angler access to the resource such as boat ramps and fishing piers, and encouraged anglers to review the on-line application and consider submitting projects before the March 1 deadline.

Amy Weston provided an update on Adopt a Stream activities for 2016.

Atlantic Salmon Conservation Foundation

Jason also reviewed projects funded by the Atlantic Salmon Conservation Foundation. Several projects were supported by the Fund and included: 1) acid rain mitigation plans for the 13 priority watersheds for Southern Upland Salmon in Nova Scotia, 2) improving fish passage on lower Chéticamp River (Phase II), 3) initial South River watershed planning and restoration including the installation of a temperature device, 4) LaHave River watershed project, 5) ongoing enhancement of the Mabou and Inverness watersheds, 6) Sackville Rivers Association river restoration, and 6) West River Sheet Harbour liming and counting fence projects.

Discussion/Agenda Items from the Floor

There was considerable discussion on standardization of regulations. Generally, standardization is seen as favorable but there was some confusion as to the actual regulations above Wentzel's Lake to the point that Conservation officers were not enforcing them. It even prevented people from angling in the area because they weren't sure what the rules were. Greg Stevens, DFO Science, stated that there was a discrepancy between the legal Variation Order, the regulation summary in Anglers' Handbook and the map in the Handbook. It will be remedied next year.

Gary Josey was concerned that some of the pool closures on the Lahave River (eg. above Wentzells) have negatively impacted angling for smallmouth bass.

It was expressed that the proposed delay in opening dates on rivers in this region would put an end to any sea trout angling in the lower sections of the rivers and estuaries, as the trout have all moved up stream by May 1st.

Concern was expressed regarding the possible extinction of Atlantic Whitefish. What can be done to reduce the smallmouth bass and pickerel population in the Petit Riviere? Jason outlined some possible methods but indicated it would be virtually impossible to eradicate them. What is the status of the population in Anderson Lake? Can hatcheries play a role in saving them? Greg Stevens indicated that this had been discussed internally at DFO but was not in position to say much more than that. Can they

be stocked in the Tusket River? Greg indicated that there were challenges to survivability in the Tusket River, as well.

The question, why are there bag limits on smallmouth bass and pickerel was posed. Jason reiterated the policy regarding these species and stated angling by itself will not eliminate them. However, the Department will consider changes to nag limits for chain pickerel to increase harvest.

There was displeasure expressed, by several attendees, regarding the angling closure on the Medway River. It was felt the closure was not necessary as the impact of angling trout or smallmouth bass would not impact salmon as there are very few salmon in the river.

The subject of e-licenses was raised. There were general questions as to when and what type of license would be available. They are seen in most other provinces and work well. Jason indicated that 2018 is the projected date for implementation of the e-license in Nova Scotia. Currently, license vendors are being consulted to ensure a smooth transition to the new format.

Greg Stevens was asked about the status of a marine species license. He stated that DFO was attempting to introduce one for ground fish in Newfoundland and Labrador. Consultation is on-going as is a regulatory review. The hope is to have something in place by 2019. There are benefits to the angling community to having a license in that it provides a voice during discussions about access to the fish stocks.

Ron Sweeny from Lunenburg Wildlife Association mentioned that the winter rainbow trout fishery was so popular that when the association puts on an ice fishing clinic with Lunenburg Recreation there weren't many fish left. So was requesting additional stocking as possible prior to freeze-up.

Vinal Smith asked if the Department was considering expanding our hatcheries and why we use rainbow trout for winter fisheries. Darryl Murrant indicated not at this time and that we use rainbow trout to provide some variety for anglers, they grow well in hatchery environments and they generally have low impact in lakes.

Jason LeBlanc asked anglers to be on the lookout for a newly introduced large, freshwater snail called the Chinese mystery snail. Very little is known about its current distribution in Nova Scotia or potential impacts to native species. It is thought that it has been illegally introduced or via aquarium trade. Anglers can report possible occurrences of this snail to our Department.



Photos courtesy of the Lake George Association and Ontario Invading Species Awareness Program

