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

Area 2

Date Prepared: February 2017

Antigonish, Guysborough & Pictou Counties

The RFAC meeting for Area 2 was held on November 8th, 2016 at the Holiday Inn Express, Stellarton, Nova Scotia. Nova Scotia Department of Fisheries and Aquaculture, Inland Fisheries Division staff present were: John MacMillan, Andrew Lowles, Fisheries Biologists, Steve Thibodeau, Supervisor, Fraser's Mills Fish Hatchery, Jason LeBlanc, Manager of Resource Management, Darryl Murrant, Manager of Fisheries Enhancement and Ralph Heighton, Coastal Resource Coordinator. There were 30 people in attendance including Craig MacDonald, Jerod Crawford and Miles Jackson, Conservation & Protection officers, Fisheries and Oceans Canada. There were representatives from the Antigonish Rivers Association, Pictou County Rivers Association, St. Mary's River Association and the St. Mary's ATV Club. The meeting was chaired by Stephen Thibodeau.

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 and provided some comparisons with data he collected on the East River, Pictou. 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 2 (South River estuary (tidal), Guysborough River, and West River Pictou). The audience was generally supportive of changes. Matt Dort requested that the section upstream from Springville Bridge on East River as well as the current upper section of the West River be open on 1 April. John indicated that the changes to bag limit would include the entire river and the upper sections of both would be open 1 April. Matt also requested that the proposal for a night fishing season on the East River be withdrawn as there are potential issues related to enforcement. DFO enforcement have been working with Pictou County Rivers Association and have issued charges for violations on the East River and Pictou County.

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 Tobeatic Research Institute.

Guest Speaker

Kris Hunter, St. Francis Xavier University, gave a talk on a habitat restoration / monitoring project he is leading. 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 Tobeatic 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.

Hatchery Report / Trout & Salmon Enhancement

Following a viewing of the video about hatchery operations, which is found on the Departmental web site, Steve Thibodeau, Supervisor of the Fraser's Mills fish hatchery, 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 a local group had requested MacKeen Lake, Guysborough be open year-round for speckled trout angling. He would check internally with John MacMillan and follow up with DFO to see if there were any concerns and if not would put the request forward for 2017. The lake is stocked each spring with catchable-sized trout from Fraser's Mills hatchery.

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. 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.

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 and more recently a unit has been operating 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 Friend 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.

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.

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.

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

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 in an effort to ensure a smooth transition to the new format.

Two questions regarding Kris Hunter's presentation were: Who decides what structures are put in place? What caused the stream widening in the first place? Chris responded that Amy Weston and Bob Rutherford, from Adopt-A-Stream selected the design of the structures. Generally, 4-5 were installed in each 100m of the study sections. Past agriculture and forestry practices are believed to be the main causes of the widening of the stream in question.

Questions regarding Antigonish Trout Management areas were: Why can't the boundary on South River be expanded upstream to the TCH Hwy 104? It was explained that the tidal boundary can't be moved from its' current location. Why can't the West River STMA be expanded to include the rest of the Ohio River. The Department is trying to strike the right balance between angling regulations that encourage fly fishing and C&R and allowing opportunities for local residents, especially kids, who traditionally begin angling with bait.

Kris Hunter asked about survival rates to stocked parr and is their contribution to the fishery assessed? What is the budget of the hatcheries? How are new salmon rivers selected? Darryl Murrant responded that the survival of both salmon parr and smolt is difficult to assess and quite variable from year to year and river to river. All Atlantic salmon assessment is carried out by DFO. All salmon parr and smolt released have adipose fins removed so the fish can be identified when they return from the sea as adults. These fish do show up during regular broodstock collection. For instance, over the years, on the Margaree River, 15%-25% of the adults observed are adipose fin-clipped. The annual operating budget for the hatcheries is approximately \$1,200,000. Generally, new rivers in the Atlantic Salmon Enhancement Program require an open salmon season, an active volunteer group or association willing to assist and preferably, are small enough that the enhancement work can make an appreciable difference to the fishery.

DFO Conservation & Protection Officers stated they generally liked the more standardized regulations as they are less confusing to the anglers. The new regulations on the East River took a while to take hold with local anglers and they had to advise 40-50 of them in the early part of the season and later on issued a few Summary Offence Tickets, \$687.50 each. They put as much time on the local rivers as possible but their resources are stretched. As general comment, they did not find any anglers during salmon season that did not have a salmon license, even on rivers which were open for Brown trout angling.

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