## Newsletter of the AFS-OC



## **President's Message**

Like many Ontario Chapter members, I have been checking the Weather Network on a regular basis attempting to understand our daily weather during another bizarre Ontario winter. A second consecutive winter with marginal ice conditions on many of our lakes, and a current lack of snow has me wondering whether we will have much water available to recharge our local aquifers, or even facilitate a high water event this spring to help with critical habitat forming processes in our watersheds. I have also recently been battling an internal debate on whether to get ahead of the curve, and start to sell my ice fishing gear before others realize that ice fishing may not be a regular activity in parts of the province in the future (I may have a dull 8" auger available in case anyone is interested...). Despite this, I am optimistic that we will have several weeks of cold weather to allow for safe ice conditions, and perhaps even a little bit of snow! This month, the AFS-OC will be hosting (continued on Page 2)

## Ontario Chapter's AGM - What's Old is New Again



The Ontario Chapter ExComm is pleased to announce that we have returned to YMCA Geneva Park in Orillia for the 2013 Annual Meeting & Conference. You can expect to hear great talks organized around an interesting theme, mixed with student talks and posters. Plus there will be lots of time to engage friends and colleagues in interesting conversation. This year's theme is "Management of Fisheries in the Age of Austerity". The keynote speaker is Dr. Steven Cooke from Carleton University and the current President of the Canadian Aquatic Resources Section. As usual, student oral poster presentations will be judged and the best will receive the E.J. Crossman Award. The best student poster presentation will receive the O.B.F.N. Award. The Student Subunit is organizing an ice-fishing derby to be held before the Business Meeting (see page 4), and the current President of the North Central Division, Gary Whelan, will also be attending. For further details check out the Chapter website at http://www.afs-oc.org.

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Newsletter Editor: Bill Gardner, E-mail: newsletter@afs-oc.org

Newsletter of the AFS-OC

#### President's Message (continued from Page 1)

our Annual Meeting and Conference February 27 to March 1 at Geneva Park in Orillia. The Student Subunit will be hosting an ice fishing derby on Lake Couchiching (that auger may be useful yet...), in conjunction with the requisite talks, posters, and social activities. Even the odd ball hockey game has been known to occur at this venue. As usual, we will be supporting student participation through discounted registration rates, the E.J. Crossman Award for the best student oral presentation, and O.B.F.N. Award for best student poster.

We will also begin the annual call for a new President-Elect, as our incumbent (Ann Rocchi) transitions into President in September. If you or someone you know is interested in becoming more involved with the AFS-OC, this is a great opportunity. For more information, please contact Ann Rocchi (president-elect@afs-oc.org) or myself (president@afs-oc.org), either of us will be happy to share our experiences to-date. I have always found that the strength of the AFS-OC Annual Meeting is the atmosphere that is created where ideas are shared and friendships are made or renewed, usually over a beverage or two. So, mark the upcoming AGM on your calendar and please consider helping out!



## **Lake Sturgeon Movement**

by Kim Tremblay, A/OFRC

In 2011 and 2012, the Anishinabek/Ontario Fisheries Resource Centre (A/OFRC) worked with the Mississauga #8 First Nation to assess the health of the Lake Sturgeon population in the Mississagi River.

In 2011, a total of 154 Lake Sturgeon were captured. Thirteen of the individuals were recaptures from previous studies: 12 were originally tagged in the Mississagi River from previous spawning surveys (2001 or 2008) but one Lake Sturgeon was first tagged by a commercial fisher in 2009 with the USFWS in the Detour Upper Peninsula, MI, Lake Huron (see figure to left).

In 2012, a total 140 Lake Sturgeon were captured. Twelve of these individuals were recaptures from previous spawning surveys. Of these fish, 1 was originally tagged in 2001 and 10 were originally tagged in 2008 at the Mississagi River. The other Lake Sturgeon was first tagged in June of 2000 by a trapnet commercial fisher and the OMNR close to Sarnia (see figure to left). In twelve years, the estimated 23 year old male Lake Sturgeon had doubled its weight (5670 g to 14 000g) and had travelled at least 500 km.

For more info on A/OFRC's Lake Sturgeon projects visit the website at: <a href="http://www.aofrc.org/">http://www.aofrc.org/</a>

#### **Upcoming Conferences**

AFS-OC Annual Meeting & Conference 44th Annual IAAAM Conference 56<sup>th</sup> Annual Conference on Great Lakes Research 143<sup>rd</sup> American Fisheries Society Annual Meeting

#### Date

February 27-March 1, 2013 April 21-24, 2013 June 2-6, 2013

September 8-12, 2013

#### Website

http://www.afs-oc.org/ http://www.iaaam.org http://www.iaglr.org/conference

http://www.afs2012.org

FERRIJARY 2013

# The Lateral Line

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## Book Review by Brian Morrison

## May the Rivers Never Sleep - Bill and John McMillan

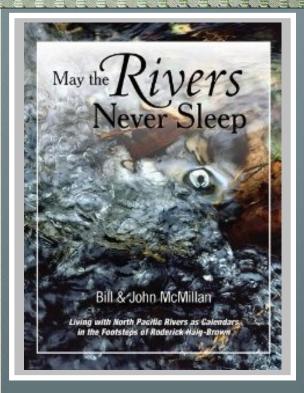
A didactic book written by father/son fisheries biologists Bill and John McMillan where they share their view of rivers, salmon, steelhead, and the Pacific Northwest. The two have found a common bond in rivers, and this bond is clearly reflected in their writing and photography. Few people are so enamored with the life and history of rivers and wild salmon.

The essence of May the Rivers Never Sleep is the physical and biological tapestry of river time—month by month, a concept fostered by the Canadian Roderick Haig-Brown. Haig-Brown, likened to Thoreau, was a pioneering fisheries conservationist and identified emerging issues around population growth, industry, and exploitation. His early book *The Western Angler* (1939) was also used as a text in universities to train fisheries scientists in this then emerging field. Well-respected anglers and conservationists in their own right, Bill and John have spent thousands of hours viewing rivers and fish, above and below water. Their revelations from snorkeling in rivers have led to its spread as a tool of science to protect fish, rivers, and related wildlife. The essays and stunning photographs in this book reflect Bill and John's lives largely spent on rivers as anglers, naturalists, and scientists—men struck by the wonder of the life of rivers. Pick up this book and be transported to the lush rivers of the Pacific Northwest anytime, anywhere.

# Searching for information on Asian Carp?

The United States Fish and Wildlife Service (USFWS) has constructed a website that details the work being done by all of the US agencies who are tasked with assessing and potentially dealing with Asian Carps. This Coordinating Committee website provides upto-date information on Asian Carps in US waters of the Great Lakes. For more information please visit the website at:

http://www.asiancarp.org/background.asp



The Ontario chapter is proud to be associated with:



http://www.ontariofishes.ca

## **History Bytes**

Membership in the Ontario Chapter costs \$5 USD per year. All AFS-OC members must also be AFS parent society members. During its 16 year existence, membership in the Southern Ontario Chapter (AFS-SOC) was also \$5 USD per year. All AFS-SOC members were required to be parent society members as well. For the 25 years that the Northwest Ontario Chapter (NOW-AFS) was in existence, membership cost was \$5 USD for parent society members and \$10 CAD for non-parent society members.

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## **AFS-OC AGM Ice Fishing Derby**

Each year students and fisheries professionals take to the ice to enjoy ice-fishing during down time at the AGM. This year the Student Subunit is upping the ante and hosting a friendly fishing derby complete with prizes (TBA)!

The 2013 AGM will be held at YMCA Geneva Park which is located on Lake Couchiching north of Orillia. Lake Couchiching is famous for big bass but also contains popular winter fisheries for jumbo Yellow Perch, Northern Pike, Walleye, and Lake Whitefish.

#### The rules for derby include:

- Participants must use practices that adhere to the Ontario Fishing Regulations.
- All those registered at the AFS-OC AGM may participate.
- The derby will be free to enter for AFS-OC members.
- You must supply your own rod/tackle but augers will be available to drill holes.
- Participants may only enter fish captured on Lake Couchiching.
- Participants can fish from the first day of registration to the beginning of the business meeting.
- Entrees must be accompanied by a photo of the fish with a total length measurement (mm).
- The winners will be announced during the business meeting.
- Catch and release is encouraged but a fish fry is also welcome!
- Each person is responsible for their own safety, so please BE SAFE.

## Looking for an angling club to join?

There are many fishing clubs in Ontario that provide recreational angling opportunities. For students this might be a great way to gain some experience and build your network.

To find a fishing club near you check out the following website: <a href="http://www.fishingclubs.net/Canada/Ontario">http://www.fishingclubs.net/Canada/Ontario</a>

#### The Fisheries Blog

This blog was started in 2011 by three fisheries professionals as an outlet to share short, topical fisheries stories among themselves and their fisheries colleagues.

For more info check out the website at: http://thefisheriesblog.blogspot.ca



Photo above: AFS-OC President Brian Morrison

Photo below: Installing a PIT antenna on a dam in the Credit River. Photo courtesy of Lisa O'Connor.







Photo left: Hydro dam at International Falls, MN. Photo courtesy of Bill Gardner

Photo right: Base camp for the Turkey Lakes' Watershed study. Photo courtesy of Environment Canada.



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## Featured Institution: Carleton University

By: Rachel Hamilton, Communications and Outreach Coordinator, Fish Ecology and Conservation Physiology Lab, Carleton University

Carleton University is an academic and research institution nestled between the Rideau River and Rideau Canal in Ottawa, Ontario. The numerous rivers, lakes, and streams in the surrounding area, including the notable Ottawa River, provide opportunities for faculty to incorporate aquatic themes into their teaching and research programs. With the campus located in the heart of the nation's capital, Carleton University also encourages interactions between those in the university community and government, industry, and non-profit organizations.

At Carleton University, the Department of Biology and Institute of Environmental Science offer undergraduate courses that cover aquatic and fisheries topics. Specialized courses like Fish Ecology, Conservation and Management provide hands-on experience, including fish collection and habitat measurement. The capstone event for that class is a trip to DFO headquarters to display posters for DFO science staff. Aquatic studies are often integrated in broader-themed courses. For example, in Environmental Science and Management, field components include visits to the St. Lawrence River to discuss hydropower development and transportation. Carleton participates in Ontario University Programs in Field Biology, which provides opportunities for students to travel and learn about ecosystems outside of Canada. For example, Ecology and Conservation of Tropical Ecosystems is a two-week field intensive course in the Bahamas where students study coastal and marine ecology unique to the area. Undergraduates can also take advantage of exchange programs with neighboring University of Ottawa, which offers courses such as Freshwater Ecology and Field Biology.

At the senior level, undergraduates conducting honours thesis research work closely with faculty members on focused topics including aquatic sciences. Students will gain practical experience conducting individual projects in preparation for graduate school and future employment. In the past few years, several fisheries-

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Photo above: Carleton University students seine netting. Photo courtesy of Rachel Hamilton



Photo above: Carleton University logo. Photo courtesy of Carleton University.

Photo above: . Carleton University students electrofishing. Photo courtesy of Rachel Hamilton



**Upcoming Ontario Chapter Events** 

Date

Website

2013 AFS-OC Annual Meeting & Conference

February 27-March 1, 2013

http://www.afs-oc.org

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#### Featured Institution (continued from page 5)

undergraduate theses have been published as scientific peerreviewed articles in journals such as North American Journal of Fisheries Management, Hormones and Behaviour, and Fisheries Research. Examples of relevant thesis projects include community ecology of reef fish, catch-and-release angling science, and radiotracking studies of fish in the Ottawa area.

Carleton University's graduate program also offers exciting research opportunities. Carleton University and the University of Ottawa have integrated biology programs that provide greater opportunities for graduates to use equipment, facilities, and participate in training through the Ottawa-Carleton Institute for Biology. Access to a variety of research services and faculty expertise has enabled graduate students to explore a large range of topics in fish biology including ecology, physiology, behaviour, conservation, and management. Graduate students often conduct field work locally, including at the Queens University Biological Station, in other provinces and in international locations. Some of these projects include monitoring fish movements in Toronto Harbour, studying migration of Sockeye Salmon and Lake Sturgeon, and examining the physiology and behaviour of Bonefish. Local, provincial, and national governmental agencies have been involved with graduate projects including the Department of Fisheries and Oceans, Ontario Ministry of Natural Resources, Environment Canada, the City of Ottawa, and the National Capital Commission. Non-governmental organizations such as Muskies Canada, Bonefish and Tarpon Trust, and the Canadian Wildlife Federation have also supported Carleton's graduate research. With opportunities for research and collaboration, and an encouraging leaning environment, Carleton students are provided with the tools they need to be successful in the future.

For more information about the programs offered by Carleton University, please visit <a href="http://www.carleton.ca">http://www.carleton.ca</a>

#### Albino Sea Lamprey

On May 24<sup>th</sup>, 2012 a male albino Sea Lamprey was captured during spawning in the Humber River by staff of DFO's Sea Lamprey Control Centre. This male, 337mm in length and weighing 92 grams was in the process of building a nest and spawning with a female and another male. The albino lamprey was captured and preserved. According to Braem and King (1971) albinism in Great Lakes Sea Lampreys is an incredibly rare event (two albinos reported among millions of adults collected between the mid-1950's and 1970).



Photo above: Albino Sea Lamprey. Photo courtesy of Ryan Booth

Photo below: Albino Sea Lamprey nest building in Humber River, 2012. Photo courtesy of Ryan Booth



**Upcoming Ontario Chapter Training** 

Date

Website

To Be Announced

TBA

http://www.afs-oc.org

Newsletter Editor: Bill Gardner, E-mail: newsletter@afs-oc.org

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# The Lateral Line

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#### **Student Subunit News**

By Lee Gutowsky, President, OC-Student Subunit

AFS-OC students had a strong presence at the 2013 Canadian Conference for Fisheries Research in Windsor. Our group (too many to list!) delivered presentations, networked, and relaxed in the professional atmosphere that we've come to enjoy about CCFFR. In addition, the AFS-OC Subunit hosted a student colloquium that received strong attendance (up to 80 participants!) by both fisheries professionals and students. Fisheries Society of the British Isles (FSBI) Treasurer Dr. Gordon Copp began the event with a presentation on the FSBI/CCFFR student exchange program. Next, the panel of experts (see below) fielded questions from the audience. Their sage advice included the following:

- It is an asset to attend different academic institutions
- Augment your resume by obtaining specialized tools that you can offer to your employer, such as having specialized or additional training in GIS, genetics, etc.
- Volunteer with an assortment and diverse number of organizations, and not just in fisheries
- If you admire a particular individual and/or company, write them a letter stating that you want to volunteer for them and/or participate on their research, etc.
- Mobility is an asset in the natural resource sciences field, for example there are many job opportunities in the north.
- Consider consulting as a rewarding career choice. For example, contrary to academic research, consulting projects are actually completed.
- Write a phenomenal cover letter addressing how you meet the qualifications for that job.
- On your resume, include all transferable skills obtained from previous volunteer or employment experience.
- The exact same wording from the job description should be in your cover letter. Remember that the first person to sort through the pile of resumes will likely be from human resources and will be looking for those exact words from the job description.
- Include references in your resume/CV, not "References available upon request". Be sure to ask for permission and a favorable letter from your references.

#### **AFS-OC Online Store**

Looking for gifts for the boss, the intern, that special someone? Look no further than the Ontario Chapter online store. Check it out at: <a href="http://afs-oc.org/cgi-bin/online/storepro.php">http://afs-oc.org/cgi-bin/online/storepro.php</a>



The Ontario Ecology, Ethology and Evolution Colloquium (OE3C 2013), an AFS-OC sponsored event for students will be held at the University of Western Ontario on May 2-4, 2013

http://www.uwo.ca/biology/OE3C2013

(continued from left)

• Learn to be adaptive and don't be afraid to reinvent yourself.

Many thanks to Professor Lynda Corkum (University of Windsor), Jason Barnucz (DFO), Dr. Nigel Lester (OMNR), John Fitzsimons (Golder Associates Ltd.), and Dr. Jon Midwood (Post Doc, Fish Ecology and Conservation Physiology Lab) for sharing their perspectives and advice.

# The OC Student Subunit is now on Twitter (@afs\_oc\_su).

We post jobs, science news, politics, and what's happening in AFS. If you don't use Twitter but would still like to receive these updates, simply visit and "Like" our new Facebook page (bitly link: <a href="http://on.fb.me/XHxlxd">http://on.fb.me/XHxlxd</a>). The updates appear on the Facebook Page and on your Facebook News Feed. Additional subunit news, featured student research and photos, awards, and useful documents can be found on our website: <a href="https://www.afs-oc-subunit.org">www.afs-oc-subunit.org</a>.

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# **Dog River Lake Trout Expedition 2012**

By Sarah Hogg, OMNR

Lake Trout (*Salvelinus namaycush*) stocks in Lake Superior declined dramatically after the Sea Lamprey population explosion in the 1950s. Long-term rehabilitative stocking was begun in the 1960s to address this issue, and agencies have greatly reduced stocking in recent years due to wild reproduction. Prior to the decline, several different forms of Lake Trout existed in the lakes, referred to as leans, siscowets and humpers. One of the lean forms entered rivers to spawn rather than using the reefs and shoals normally associated with the species. River spawning populations were historically associated with at least a dozen rivers along the north-eastern shore of Lake Superior, but of these, only the Dog (University) and Montreal Rivers are known to support river-spawning stocks today. Much is unknown about these recovering stocks.

Since Loftus described the spawning population of Lake Trout in the Dog River in 1958, only a few attempts have been made to assess its status due to the relatively remote location of the river. These expeditions confirmed the presence of unclipped (wild) Lake Trout in the river however no direct evidence of spawning was observed. Genetic work completed on the contemporary stock showed that it is genetically distinct from remnant basin spawning Lake-Trout and those in the Montreal River, although similar to a hatchery strain (Mishibishu) used for rehabilitative stocking. Nevertheless, this demonstrates the stock is a reproductively isolated population of a unique ecotype.

A MNR field crew visited the Dog River in fall 2012 an attempt to assess the population and spawning site characteristics. Lake Trout were found to be abundant in the lagoon near the mouth of the river upon field crew arrival on Oct 12th. Over a period of 4 days, 70 Lake Trout were captured from the lagoon via angling. Fishes were PIT tagged and sampled for length and weight in addition to having tissue samples removed for genetic and stable isotope analysis. Accounts by Loftus indicated the Lake Trout ascended several steep rapids to

Continued on Page 9



Photo above: Dennison Falls, natural barrier of the Dog River, Lake Superior. Photo courtesy of Sarah Hogg

Photo Below: Dog River Lagoon in Lake Superior. Photo courtesy of Sarah Hogg



## **Executive Committee Vacancies**

Are you interested in becoming more involved with the Ontario Chapter? We will be looking to fill the executive positions of President-Elect and Vice President for September 2013 and the position of Newsletter Editor for the December 2013 newsletter deadline. If you are interested in learning more about these positions check out the website at: <a href="http://www.afs-oc.org">http://www.afs-oc.org</a> or email Brian Morrison at: <a href="mailto:president@afs-oc.org">president@afs-oc.org</a>

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#### Dog River Lake Trout (continued from page 8)

spawn about 3.5 km upstream at the base of Dennison Falls. In 2012, only one Lake Trout (a ripe male) was captured near Dennison Falls. No additional fish or eggs were detected in the area. Unfortunately, water temperatures and the condition of fish captured (mainly postspawn males) indicated that the peak spawning period had been missed, limiting the ability to locate spawning sites.

MNR field crews plan to return to the site in fall 2013 to track the movement of PIT tagged fish through the river and collect temperature loggers installed in 2012. Temperature information gathered in 2012 combined with information from local contacts should enable crews to better predict the timing of the Lake Trout spawning run.

The maintenance of this unique and genetically distinct ecotype of Lake Trout is important both from a captive-rearing and stocking perspective as well as for meeting fish community objectives for the rehabilitation of Lake Superior Lake Trout. Funding for this project was provided by the Canada-Ontario Agreement to the Upper Great Lakes Management Unit.





Photo above: Dr. Nick Jones and Mr. Bob McNeely, both OMNR staff, insert a PIT tag into a Lake Trout. Photo courtesy of Sarah Hogg

Photo left: The Crew (l to r) Steve Chong, Sarah Hogg, Bob McNeely and Nick Jones. Photo courtesy of Sarah Hogg

#### **Snakeheads sold in Canada**

A recent article from the Toronto Star described how Snakeheads were sold, illegally, to an undercover USFWS agent in Markham, ON. Chapter member Becky Cudmore was interviewed for the article.

For more information see:

http://www.thestar.com/news/canada/2012/11/14/frankenfish\_undercover\_sting\_lands\_markham\_snakehead\_fish\_dealer\_in\_jail.html

## Atlantic Salmon in the St. Marys River

A recent article appeared in the local Sault Ste. Marie on-line newspaper, Sootoday.com, that detailed the success of the Atlantic Salmon stocking program in the St. Marys River and upper Lake Huron. For more information visit: <a href="http://www.sootoday.com/content/news/details.asp?c=51757">http://www.sootoday.com/content/news/details.asp?c=51757</a>



# **Annual General Meeting February 27th – March 1st, 2013**

Join us for our 2013 Annual Meeting & Conference at the YMCA Geneva Park Conference Center, on the shores of Lake Couchiching in Orillia.

# Management of Fisheries in the Age of Austerity



Students are eligible for the E.J. Crossman Award for Best Student Oral Presentation. The OBFN Award for Best Student Poster will also be presented.

For additional information, contact Brian Morrison (president@afs-oc.org).

Registration is now open <u>online</u>. Special early registration rates are available until 12 noon February 13th. Chapter members and students are eligible for discounted rates.

www.afs-oc.org