



Message from the President



Now that we have appointed two new newsletter co-editors, Siobhan Ewert and Kim LeBrun, I am now just getting to write my first President's Message after becoming the AFS-OC President. And looking at this, it may also be my last since our President,-Elect Lee Gutowsky, will be taking over in September.

First, I'd like to thank Siobhan and Kim for accepting the role of co-editors and welcome them to the ExComm. The ExComm have been working, rather quietly since we haven't sent out a newsletter in a while, to expand our chapter membership and to provide our members with interesting events and training opportunities. As of writing this message, our chapter currently has 152 members and it seems a few new members get added every month.

I'd like to say that I was a little overwhelmed when I was asked to run for President of the chapter, these are some big shoes to fill when you look at who has taken on the role before me. However, once I joined the ExComm, I realized the impressive support that we

have and I'd like to send out a thank you to the members that have helped out with everything this past year.

Coming up with a topic for my first message has been difficult, but I've decided that this year's AGM is a good place to start. This year's theme, *Moving Forward Following a Wave of Change*, was inspired by the changes that we have seen in federal environmental legislation over the last few years and how those of us in fisheries management have managed to continue to move forward. The presentations at the AGM confirmed my thoughts and show that we are all finding our way and continuing despite the concerns created by these changes. The loss of electricity at Geneva Park on our first day of presentations proves that we in the biology field have the capability of adapting quickly and using the resources we have at hand to get things done. From research to applied sciences, the AFS-OC represents a broad spectrum of experience and every AGM reignites my passion for being in the fisheries sciences and

always inspires me to look at my career how I can implement what I learned. Whenever I attend the AGM, the word "synergies" is always floating around in my head. The beauty of science is the many different streams we can follow and the way those streams are connected. It is very similar to how our beloved watercourses connect the landscape.

Now that the dust has started to settle following some of these changes and we have all had some time to get into the field, I'm hoping that our membership will continue to move forward and display the kind of resourcefulness shown at the AGM. I am proud to call myself a member of this chapter and I've enjoyed being the President. I thank everyone for being so friendly. Now, go and follow your passion and start thinking about what you can bring to next year's AGM.

Sean Stuart

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2015 AFS-OC Annual General Meeting

The 2015 Ontario Chapter Annual General Meeting and Conference was again hosted by the YMCA—Geneva Park in Orillia from February 26th to 28th. This year’s theme was **“Moving Forward Following a Wave of Change.”**

This year’s attendance saw 63 registrants attend the 2-day annual meeting, of which 25 were student representatives. The weekend was filled with amazing and insightful presentations covering a wide range of topics such as *“Impacts of dredging on fish species at risk in Lake St. Clair”* prepared by Jason Barnucz, and *“Stream restoration for Endangered Species”* presented by Heather Amirault. Our Keynote speaker, Gary Whelan of the Michigan Department of Natural Resources, fought through power interruptions and incisive alarms to entertain participants with his discussion on *“America’s Experiment with Voluntary Landscape Scale Aquatic Habitat Protection and Rehabilitation: Some thoughts about the first 10 years of the National Fish Habitat Partnership (NFHP)”*.

Twelve students presented orally and ten posters were displayed at the meeting. Miranda Chen was awarded the E.J. Crossman Award for best oral presentation, and the Ontario B.A.S.S. Nation (OBN) Award was shared jointly by Natalie Rook and Jennifer Magel. Award winner thank you messages can be found on page 3.

During coffee breaks, participants were able to check out some of the “Tools of the Trade” organized by Bill Gardner. Notes on this exposition are included on page 6.

We would like to thank the very generous support of our meeting sponsors!

We hope to see you all at Geneva Park for next year’s AGM—February 25-27th, 2016.



AFS-OC Social—Ripley’s Aquarium

On April 26th members of the American Fisheries Society Ontario Chapter attended a social held at the Ripley’s Aquarium in Toronto. The social was a great success, there were members with a variety of backgrounds present, from academia to consulting. All of the members that came out to the event toured the aquarium together and got to know one another on a personal and professional level. We had lots of conversation about possible areas where the aquarium could improve upon in terms of

education, awareness and conservation. We also talked about each of our experiences working with several of the species found throughout the aquarium. The social was a great example of an easy-going and entertaining event to help bring members together outside of a formal setting. I encourage other AFS members to come out to future socials and take advantage of the great network that this society has created. Lastly, a big thank you goes out to AFS for helping to fund this event.



Montgomery Fielding



AFS-OC AGM—2015 Award Winners

Miranda Chen—received the E.J. Crossman Award for best student talk entitled *“Panic at the Cisco: Predicting the effects of climate change on Cisco distributions in Ontario”* at 2015 AFS-OC Annual Meeting & Conference.

Thank you to the American Fisheries Society – Ontario Chapter (AFS-OC) for honouring me with the E.J. Crossman Award this Annual Meeting 2015! It was a privilege to present my research to like-minded individuals who represent both academia and industry and be able to share that passion with others who also care about our Ontario fish communities. The fish of Ontario inland lakes have been studied at length since the 1960s, with many prodigious scientists leading the way. Dr. Edwin J. Crossman was one of those pioneers. As a graduate student studying in the field of aquatic biology, I recognize that Dr. Crossman’s

contribution to the field has been unparalleled. To receive this award named after a forerunner in Ichthyology is humbling beyond words. The classic book *Freshwater Fishes of Canada* by Dr. Bev Scott and Dr. Crossman has been fundamental for my research in examining fish distributions and knowing the biology of freshwater Ontario fish. My project examined the impacts of climate change on the distributions of an important forage prey fish, cisco (*Coregonus artedii*) in Ontario. With a rapidly changing climate, there is a need to further understand and predict how our fish community dynamics may be altered. The



AFS-OC President Sean Stuart and 2015 E.J. Crossman Award Winner Miranda Chen.

AFS-OC Annual Meeting provided the perfect opportunity to meet and mingle with fellow scientists and discuss the importance of maintaining our diverse freshwater fish communities. Thank you

again to AFS-OC for encouraging me to continue pursuing research in freshwater ecology and I look forward being a part of the AFS-OC family for many more years to come!

Miranda Chen



Lee Gutowsky (2nd from left) and Jason Barnucz (second from right) with 2015 Ontario B.A.S.S. Nation (OBN) co-winners Jennifer Magel (far left) and Natalie Rook (far right).

Jennifer Magel—co-winner of the Ontario B.A.S.S. Nation (OBN) award for Best Student Poster Presentation for her poster on *“Do Physical habitat complexity and predator cures influence the baseline and stress-induced glucocorticoid responsiveness of the Checkered Puffer?”*, at the 2015 AFS-OC AGM.

Natalie Rook—co-winner of the Ontario B.A.S.S. Nation (OBN) award for Best Student Poster Presentation for her poster on *“Recolonization Trends in Fish Communities Following the Restoration of a Great lakes Coastal Wetland”*, at the 2015 AFS-OC AGM.

“It was a great experience attending the AFS-OC conference and having my work recognized with the OBN poster award amongst that of so many other talented students. Thank you for this honour, it means a lot!”

Jennifer Magel

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AFS-OC — Travel Grant Recipient

Lauren Overdyk—recipient of the travel bursary for the 2015 Ontario Ecology, Ethology and Evolution Colloquium (OE3C) Coerence

Firstly, I would like to thank the American Fisheries Society—Ontario Chapter for the opportunity to attend the OE3C Conference 2015 with their travel bursary. As a graduate student, presenting your work is an important part of receiving feedback from your peers, and can be a daunting task. This was my first conference oral presentation, and I couldn't have picked a better environment than the OE3C 2015 to do so. As a predominantly graduate

student focused conference, I found the auditoriums welcoming and I was excited to share my work with fellow students and learn what they have been dedicating their time to. As a presenter in the Aquatic Ecology session, I had the opportunity to learn how damselflies autotomize, how change in emissions are affecting mercury levels in fish, how Coho salmon are the bullies of the west coast fish systems, and the potential fanatic shift of Walleye and Smallmouth bass in Ontario

Lakes. I enjoyed the opportunity to submerge myself in other novel fish research and take a break from my own species—Lake Whitefish. The conference was an important networking opportunity and a great way for students to get together. The graduate students of York University that organized the conference were incredibly dedicated, helpful and engaging, making the two days of the conference extremely enjoyable. I greatly appreciate the opportunity to present at this conference, and the opportunity to experience some exceptional graduate student research.

Thank you again AFS-OC and the hard working graduate students at York University!

Lauren Overdyk

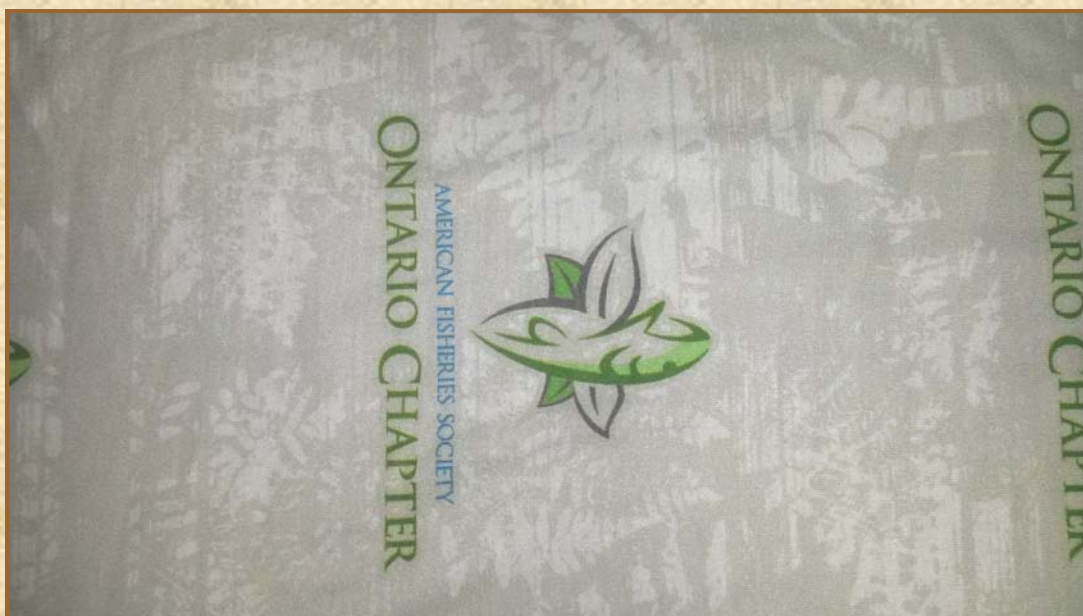


INTRODUCING.....

AFS-OC BUFFS®

These promotional BUFFS® are sporting the AFS-OC logo, and are High UV protective.

To order, contact Brian Morrison (education@afs-oc.org) or any member of the AFS-OC Executive Committee .



AFS-OC BUFFS® are also available for purchase through the Online Store at:

<http://www.afs-oc.org/shop/>



Habitat: Heavily vegetated ponds, wetlands, bogs, or pools of small creeks and quiet shallow areas of cool lakes and streams with vegetation and mud/organic substrates.

Reproduction: Central Mudminnows spawn in the early spring in shallow, weedy areas and spawn when the water temperature reaches 13°C. Eggs and sperm are released and the fertilized eggs then stick to the surrounding submerged vegetation.

No parental care is given to the eggs/young.

Diet: Central Mudminnows commonly feed upon small crustaceans, insect larvae and mollusks. They also feed on

zooplankton.

Prey: Mudminnows are commonly eaten by grass pickerel, sunfishes, northern pike, and catfishes. It is also preyed upon by foxes, birds and snakes when caught out of water.

Maximum Age: 9

Ontario Average: 7.5cm

Ontario Record: 14.0cm (Also the world record)

DID YOU KNOW?

Central Mudminnows are a tolerant fish, which are able to breathe air using their swim bladders which aids them in surviving in low oxygenated

Central Mudminnow

Umbra limi

waters. This is why mudminnows will survive winter kills, where as others fish species will not.

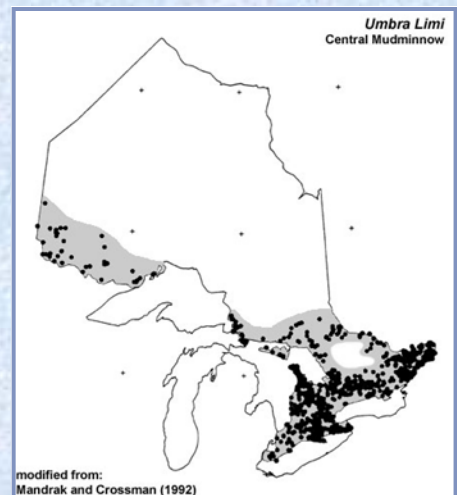
Being able to breathe air during harsh conditions allows the mudminnow to stay active throughout the winter months. This is an advantage to the mudminnow and their young since they can prepare for breeding in the early spring and their young are more developed for their first winter.

Central Mudminnows are often found near other groups of mudminnows, therefore demonstrating social versus

solitary behaviour.

When threatened-Central Mudminnows flee into soft sediment and ooze. They do this by burying themselves tail first into the mud.

Central Mudminnow have recently been found to be more closely related to pikes.



Looking for a new career, then look no further. Below you will find a quicklink to AFS-OC's Employment Opportunities Website.

<http://www.afs-oc.org/members/employment-opportunities/>

Tour hundreds of lakes throughout Canada without leaving your chair! This website provides details on fish communities, lake bathymetry and boat launch locations all at the click of a button.

<http://www.anglersatlas.com/>

Calculate the Economic Value of the services and benefits that nature can provide with David Suzuki Foundation website.

<http://naturalcapital.davidsuzuki.org/index.php>

Search for information on over 70,000 plants, animals and ecosystems through Canada and the United States with NatureServe Explorer.

<http://explorer.natureserve.org/index.htm>

Helpful Websites

View Geoscience data all over Canada—compiled by the Mines and Minerals Division of OSG Earth

<http://www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearch>

Google Earth Pro is now FREE!

<http://www.google.ca/earth/download/gep/agree.html>



C.A.R.S. Update

The Canadian Aquatic Resources Section of the AFS has a mandate to promote conservation, application of the best science available and to educate governments and professionals on sound fisheries and aquatic management. It is there to also identify major issues that require comment and to provide ways to connect fisheries and aquatic professionals across Canada.

Over the past year, CARS ExComm has been focusing their activities on trying to ensure that there is strong communications between CARS members in general and our active chapters specifically. These chapters include the Ontario Chapter and Mid-Canada Chapter and the two international chapters: the Atlantic International Chapter (encompassing Maine, New Brunswick, PEI and NS), and the Washington-BC Chapter. This has been done by providing our minutes and inviting presidents of the various chapters to take part in our ExComm meetings.

Over the last year, the CARS website has been updated, as has our Facebook Page and Twitter feeds. The intent is to ensure good information on activities and issues are presented to our members and supporters.

From an educational perspective we support CCFRR and the Clemens-Rigler Fund to support student travel. We also run the Larkin Award that is awarded with a cash prize for exceptional work at the Masters and PhD level. In addition to these awards, CARS hosted a major symposium at AFS 2014 in Quebec City on Fisheries and Aquatic Sciences in Canada. We are also working on a book in the same theme hopefully to come out in 2016 entitled, "Freshwater fisheries in Canada: historical and contemporary perspectives on the resources and their management".

To recognize the amazing women and men that have contributed to our fisheries and aquatic science in Canada, CARS last year initiated a

program entitled, "Legends of Canadian Fisheries Science and Management". The inauguration will be approximately 5-6 people per year but in 2014 we inducted 15 people (<http://cars.fisheries.org/legends-of-canadian-fisheries-science-and-management-announced-at-afs-2014-in-quebec-city/>). This past spring, 6 additional exceptional legends were inaugurated including Dr. Harold Harvey, University of Toronto and Dr. John Casselman, Queens University.

CARS is active at the Federal level as well. We have taken an active role in discussions with the Federal government over changes to the Federal Fisheries Act and to the Fisheries Protection Policies. We have provided input in conjunction with AFS International and the Alaska Division on the KSM Mine proposal in northwestern British Columbia. In addition,

we were co-signatory to a major letter of concern related to the new Federal Aquaculture Activities Regulations.

Finally, in order to ensure a strong Canadian fisheries sciences voice and to become more active Federally and Provincially, we are in the process of creating a CARS Policy review sub-committee to address major policy issues affecting Canadian fisheries and aquatic environments. This is with the support and encouragement of AFS. Our hope is to ensure that the concerns and information of Canadian fisheries and aquatic scientists is heard and used in decision-making in Canada.

*Jack Imhof
CARS President*



Check out the new CARS website: <http://cars.fisheries.org>

Or visit us on Twitter: <https://twitter.com/CARSAFS>

Or Facebook: <https://www.facebook.com/groups/128974560454398/>



Introducing Your New *Lateral Line* Co-editors

Our names are **Kim** and **Siobhan**, and we are the new co-editors for *The lateral Line*. We are excited at the prospect of taking on this role and sharing with you all the fish and aquatic ecosystem related information out there waiting for us to absorb. Our goal will be to **inspire** you, impart **knowledge**, learn as you **learn**, and **share** with you through the pulling together of this newsletter. So let us introduce ourselves.

Full Name:

Kim LeBrun

Current Workplace/Title:

MMM Group Limited, Aquatic Ecologist

Past Workplaces:

Parish Geomorphic Ltd.—
Fluvial Systems Analyst

Saugeen valley Conservation Authority—Landuse Planner

Ministry of Natural Resources and Forestry (MNRF) Guelph District—Wildlife Technician/Summer Student

MNRF Lake Ontario Management Unit—wildlife Technician/Summer Student

Education:

H.BSc. And Environmental Sciences, Sir Wilfrid Laurier University, Waterloo, Ontario

Where we came from:

Prince Edward County, Ontario

Current Locale:

Guelph, Ontario

5-10 year plan:

Senior Aquatic Ecologist/Project Coordinator

My Story:

My interest in fish started at the age of 10 when I was teaching myself to swim. Until I figured out how to float, I spent a lot of time with my eyes below the water’s surface and instantly became intrigued by how fish were able to swim right from birth. Originally, I wanted to tour the works as a Marine Biologist, just like my favourite TV show character Dr. Roberts (throw back to *Danger Bay*). I wanted to work with dolphins and whales and have the salt water rushing through my veins. As I got older though I realized my entire life up to that point was wrapped up in freshwater fish, so why not stick to what I know. Flash forward nine years and I am graduating with my honours degree and a few summer’s worth and an undergrad course of fisheries related experience behind me. As most of us know, you take what you can get job-wise after graduating, so I accepted a Landuse Planner position with the SVCA where I learned a lot about the *Fisheries Act*, permitting for in/near water works, and assessing natural hazards. From there I moved into the Fluvial Systems Analyst position at Parish Geomorphic Ltd. where I spent my summers (and some winters) in watercourses

throughout Ontario and the northern United States measuring channel processes and replicating/reproducing fish habitat through natural channel design principles. Skip ahead another few years and I am now working at something I love; investigating, mapping and mitigating for works in or near watercourses supporting fish and their habitat! I get to travel to some really remote and rugged locations where watercourses are generally pristine with only a few linear interferences (hydro cuts and roadways), as well as getting to wander through some of our southern Ontario watercourses, learning where the fish area and what I can do to help enhance their habitat conditions. I may be a small fish in a big pond, but when you love what you do, it’s all good.



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Introducing Your New Lateral Line Co-editors (continued)

Full Name:

Siobhan Pamela Ewert (Nee Murray)

Current Workplace/Title:

Credit Valley Conservation



Authority, Watershed Monitoring Technician

Past Workplaces:

Ministry of Environment—Biomonitoring Technician

Hamilton Conservation—Fisheries Technician

NRSI—Aquatic Biologist

Education:

Fish and Wildlife Technician, EcoSystem Management

Technician, Sir Sanford Fleming College

Where we came from:

Scarborough, Ontario (grew up in Burlington, Ontario)

Current Locale:

Campbelleville, Ontario

5-10 year plan:

Ecologist for a Conservation Authority



My Story:

My passion has always been fish, but I have been involved in terrestrial monitoring assessments more recently. I started out working at the MOE, collecting data for the Sport Fish Contaminant Guide. I then worked at Hamilton Conservation for two years, where I did mostly electrofishing and benthic invertebrate collections and identification. From there I started at the CVC, on the electrofishing crew, while working this contract I was also involved in the Atlantic Salmon restoration project (involving the rotary screw trap and VIE tagging). In between contracts at CVC, I did a small stint at NRSI, mostly conducting habitat surveys for potential wind turbine sites. I then returned to CVC to the electrofishing crew and later joined the terrestrial monitoring group. Through this position, I became more involved in vegetation monitoring surveys of forest, wetland, grassland and riparian areas. As part of the terrestrial monitoring group, I have also been involved in salamander, frog, bird, and insect monitoring.

“Tools of the Trade” Exposition—Equipment Palooza

This year’s AGM hosted a “Tools of the Trade” exposition where in all types of field equipment and gear were put on display for members and AGM attendees to peruse and ask questions about.

It was affectionately dubbed the “Equipment Palooza” by your ExComm. This exhibit brought together as much of the field gear that we use in our jobs on a regular basis that we could fit into one room. Such equipment include:

- five different backpack electrofishers (Smith-Root LR-12, LR-20, LR-24, Halltech HT-2000, and an

ETS ABP-2)

- A variety of gill net types such as Nordic nets, 14” mesh nets for Lake Sturgeon, and Riverine Index Nets.
- hoop nets, fyke nets, trammel nets, trap nets, drift nets, and several types of trawl nets.

Also available was a wide assortment of limnological and benthic sampling equipment. This included several different dredges, discrete and integrated water samplers, a wide variety of temperature data loggers, and even a Schindler/Patalas plankton trap!

The room was open for the duration of the meeting and at several times groups of people could be found picking up equipment and discussing the use of the equipment or reliving stories of past field projects. Oh the memories!

I would like to thank Jay Barnucz, Robin Gaspardy, Dave Marson and Katie Easterling for the loan of equipment and also to everyone who helped to set up the room.

Bill Gardner



Sir Timothy Hunt—2001 Nobel Prize winner in Physiology or Medicine.

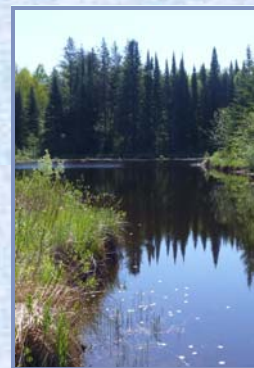
<http://www.theguardian.com>

Sir Hunt found himself the object of some unwanted attention recently when he was quoted as

saying what some perceived as derogatory, sexist and very outdated comments regarding females in science.

XX-chromosomes around the world took to Twitter in response to Sir Hunt’s comments by

posting pictures of themselves at work with the hashtag “#distrctinglysexy”. Allegedly Hunt later apologized for his offensive comments and resigned from his post (Honorary) at the University College of London.



“On the Hook!”

Recent articles published in the news.



“Eel-like fish once threatened to ruin multibillion-dollar Great Lakes Fishing Industry.”

www.ifpress.com/2015/06/03

This article discusses the recent finding of Sea Lamprey larvae in Komoka Creek, a

tributary of the Thames River, located west of London. These larvae were found during survey efforts completed in 2013.

These Sea Lamprey larvae represent a potential threat to the \$7-billion dollar fishing

industry of the Great Lakes. Lampricide treatments that will eliminate these invasive species is currently being considered as a potential treatment in this watercourse.

Ontario Nature’s view of the changes to the Endangered Species Act

<http://www.ontarionature.org>

Caroline Schultz—Executive Director of Ontario Nature—Presented an interesting announcement regarding

Ontario’s Divisional Court that upheld a provincial regulation which allows major industries to be exempt from the Endangered Species Act, stating that is “allows them to kill species at risk and destroy their habitat.”

The article continues to describe how this legal set up appears to allow industries to continue to kill, harm and threaten endangered species provided that the harm is “minimized”.



Invasive Grass Carp Found on Toronto’s Waterfront

<http://trca.on.ca/news-media/news/releases/210108>

Two Asian Grass Carp have been found within a contained pond in Tommy Thompson Park along Toronto’s Waterfront. Toronto and Region Conservation (TRCA)

staff discovered the first live Grass Carp Monday, July 27 while relocating fish from the pond as part of the construction of a nine hectare wetland.

The second Grass Carp was found in an isolated section of the same pond Tuesday, July 28 as part of a

collaborative search effort by TRCA, Ontario Ministry of Natural Resources and Forestry, and Fisheries and Oceans Canada. As with the first discovery, the second Grass Carp was immediately sent to a Fisheries and Oceans Canada laboratory in Burlington for further investigation.

Photo Theme of the Issue—Landscape

For each issue we will have a page dedicated to photographs submitted by AFS-OC members, taken during the course of their careers. Photos will be published by Theme. This Issue—your co-editors have provided some landscape photos.



Photo taken by—Siobhan Ewert. Riparian Vegetation in Caledonia



Photo taken by—Siobhan Ewert. Creek outside of Hillsburgh, Ontario.



Photo taken by—Kim LeBrun, Arva Mill Dam along Highway 9, Arva Ontario.



Photo taken by—Kim LeBrun, Thanksgiving weekend 2011, Stoney Lake, Lakefield.



Photo taken by—Kim LeBrun, Town of Cobalt, Ontario..

View of a Historic Headframe used to haul Silver and Cobalt up from the mines below.



Photo taken by—Siobhan Ewert. Grasslands—Upper Credit Conservation Area, Caledon.



Photo taken by—Siobhan Ewert. Waterfall at Snows Creek, north of Georgetown



Next Issue's Theme—Fishing and Family

Now's its your turn. If you have some photos that have been taken during family fishing trips, snapshots of their first catch, or great family memories you would like to share with our membership, please email your newsletter co-editors at newsletter@afs-oc.org. Include the name of the photographer, where the image was taken, and a little caption to accompany the photo and we will try to incorporate it in the next newsletter.

Photo taken by—Kim LeBrun, Thanksgiving weekend 2011. This beauty was tempted by a worm and hook by my Nephew Gage Cross (left) with Dad, Andrew Cross (right) had to help land it!

