



NEWSLETTER

Volume 9, Number 1
May 1997

The Annual Meeting - Another Huge Success

The Frost Centre was once again the perfect backdrop for our Annual Meeting. The support of MNR was essential to the success of the meeting and we gratefully acknowledge their continued generous support. Richard Pope of Tarandus did a splendid job of organizing the meeting and Sir Sandford Fleming students, who turned out in record numbers, showed us that student spirit is alive and well. The theme of the meeting was New Perspectives on Wetlands as Fish Habitat and many of our speakers provided us with new thoughts and results from their research.

Issues for the Future

At the annual meeting we raised the issue of doing with less as the Ministry of Natural Resources downsizes and diverts their responsibilities for plan review to the municipalities. What can, or should we be doing to ensure that fish are looked after under this new planning regime? Is the available information being used in a way that will best provide for appropriate planning decisions. Our compatriots in the bird world provide valuable data for management or assessment purposes, through their volunteer bird counts - why can't we do some of the same? Further, we have a lot of expertise within the chapter spread over the province. Shouldn't we be using it to ensure that those who are now responsible have some help in making their decisions?

Over the next few months, the Excom will be assessing what we can do - but we will need everyone's help. If you are interested, *let us know now*. As our plans progress, we will keep you informed and hope that you will consider becoming involved beyond the realm of reading about it here. Volunteering is important to developing your experience, providing you with new perspectives and new opportunities. But more importantly, it is the provision of expertise - much needed expertise - that is so essential to those around us. Be it prevention or rehabilitation, fish are part of our environment (let's challenge the birders!!)

Deborah Martin-Downs, President

NEXT YEAR'S MEETING

NEXT YEAR'S ANNUAL MEETING IS TENTATIVELY BOOKED FOR
FEBRUARY 20-22, 1998 AT THE FROST CENTRE

MARK YOUR CALENDERS!!!

For those of you who could not attend this year's Annual Meeting, the following abstracts will give you an idea of what you missed:

Trimble, K., AFS SOC Natural Channel Systems Committee Representative. **Scientific Soundness and Socio-Economic Realities in Habitat Rehabilitation**

Rehabilitation projects must balance data requirements for scientifically sound design with uncertainty and socio-economic constraints. Rehabilitation projects either work with natural processes or fight them (physical, chemical, biological). Such is the case with Natural Channel Design. Projects which anticipate and design to fit the natural tendencies of valley systems (e.g. succession, potential fish communities, geomorphologic patterns, etc.) have a greater chance of achieving the expected results with lower costs in the short and long terms. This approach, if incorporated into site constraints, creates the "softest" possible design with the greatest possible range of ecological and social objectives realized. The cost of anticipating natural process increases the budget allocation at the study and design stages of projects and decreases it at implementation and maintenance stages. The AFS SOC must promote this approach in order to maintain sufficient involvement of ecologists in rehabilitation design projects, and to prevent unnecessary reduction of the range of ecological and social benefits to be derived.

Miller, M., OALA, Environment and Resources Manager, Aggregate Producers' Association of Ontario. **Opportunities for Aquatic Resource Development in Aggregate Extraction Areas in Southern Ontario: A Response to the AFS Position Statement.**

Aggregate extraction sites in southern and central Ontario often involve underwater dragline extraction, river or creek diversions, or extraction in close proximity to rivers and streams supporting viable fish populations. In recent years, many fisheries issues have been explored by the industry and several examples of rehabilitation, especially to wetland habitat, have been designed and installed. Several sites were profiled and discussed in relation to their response to the AFS position statement. This talk also introduced the Abandoned Pits and Quarries Rehabilitation Fund, including the key areas for rehabilitation and research in 1997.

Kerr-Upal, M., Recreational Fisheries Institute of Canada and D. Lassila, North American Wetlands Council and the Recreational Fisheries Institute of Canada. **Wetland and Fish Habitat Conservation: An Opportunity To Build Ecosystem Management.**

Fish habitat conservation is an opportunity for wetland organizations and agencies to build strength and momentum for wetland conservation. Bridging the traditional gap between wetland and fish habitat conservation is a key step toward achieving integrated resource management within an ecosystem approach. The high level of public and industry interest in recreational fisheries is an opportunity to keep new resources of public support for wetland conservation across the country.

Kerr-Upal, M., Recreational Fisheries Institute of Canada and D. Lassila, North American Wetlands Council and the Recreational Fisheries Institute of Canada. **Wetland and Fish Habitat Conservation: A Bibliographic Database.**

Wetlands are the core of biological productivity in aquatic environments, and are among the most threatened and socio-economically valuable life support system in the world. Fish communities are prolific in wetlands, and are a primary contributor to biological diversity in wetland ecosystems. The Recreational Fisheries Institute of Canada and the North American Wetlands Council (Canada) are developing a bibliographic database documenting the linkage between wetlands and fish communities. This compilation of information will provide a foundation for conservation strategies and help meet knowledge requirements for integrated resource management. The new information database will be a valuable reference for assessing risks to biological diversity, selecting environmental indicators for monitoring, and for use by a wide range of resource and development sectors.

Roy, M., Proctor & Redfern Limited, 45 Green Belt Drive, North York, Ontario, M3C 3K3. **Solar Aquatics™ Greenhouse-based Sewage and Septage Treatment.**

The Solar Aquatic™ System is a patented technology that relies upon ecologically diverse aquatic environments to treat sewage using natural bio/geo/chemical processes common to streams, rivers and marshes. A greenhouse enclosure controls the environmental conditions of temperature, light, humidity and evapo-transpiration. Part of the treatment takes place in translucent solar tanks which allow light to be transmitted through the wastewater column. Constructed marshes are then used for treating nutrients, synthetic organics and metal extraction. A diversity of aquatic and non-aquatic plants, zooplankton, phytoplankton (algae), mollusks, and snails are integral components of the system. Synergistic uses of the Solar Aquatic technology include reuse of the non-potable final effluent in natural habitat restoration, pond and stream rejuvenation and in the aquaculture industry. Horticultural, ornamental and marshland restoration projects are also possible with the use of the solar tanks and marshes for plant production. The greenhouse facility provides a welcoming atmosphere for educational programs and eco-tourism. The talk discussed the role of Solar Aquatic™ Systems in the treatment of wastewater, including performance data from the P&R demonstration facility in operation at the Ontario Science Centre in North York. P&R are currently preparing a report on the intensive 12-month monitoring phase of the demonstration facility for the Ministry of Environment and Energy's Environmental Technologies Program.

Edwards, P., Ministry of Natural Resources. **Creation of Channels and Ponds Within Cattail Marshes on the Bay of Quinte.**

Bay of Quinte Wetlands are dominated by dense stands of monoculture cattails. The goal of this project was to increase the amount of submergent vegetation and the interspersion of open water and emergent vegetation within sections of local marshes. This would create diversified spawning and nursery habitat for several species of fish and feeding and breeding areas for marsh birds and herptiles. Channels approximately 3m wide and 0.75-1m deep were dug in August 1992 using a floating backhoe. In 1994, fish use of the natural and artificial channels and the solid cattail stands was compared based on catch per unit effort using windemere traps. Fisheries assessment revealed that catch per unit effort and species richness were greater in the artificial channels than in either the natural channels or the cattails. Observations (based on vocalizations) of marsh birds carried out in 1994, found no significant difference in the use of channels and dense cattails for certain species. The lifespan of the artificial channels is unknown, continued maintenance is likely to be required. A plan for a new and improved channel/pond project in a Bay of Quinte cattail marsh has been drafted.

Theijtsmeijer, T., McMaster University. **Wetlands and Fish Habitat in Cootes Paradise**

Cootes Paradise is a 250ha. wetland located at the western end of Lake Ontario. It is subject to a number of stresses, including heavy nutrient and sediment loading, and a large carp population. These problems are being addressed through the Hamilton Harbour remedial action plan. The most ambitious of these includes the exclusion of carp through the implementation of a carp barrier. The purpose of my M.Sc. is to examine the relationship between fish and the wetland, and to examine the change in the fish community as a result of the exclusion of carp. Three field seasons are now complete (1994-1996) and a total of 40 of the 130+ species present in Lake Ontario have been captured. Of the 130 species, only about a dozen are unlikely to be present at some time during the year. The majority of the captured species (31) can be considered to have the status within Cootes Paradise of rare (<1%). Utilization of the Cootes Paradise appears to be primarily as a spawning and nursery habitat, with young of the year of 32 of the species being captured. The fish community of Cootes Paradise is dynamic. The species make up of the community is constantly changing over the course of the year. This is a function of which species are currently spawning, and which young of the year fish are present. In the late fall (November) the majority of fish have left the marsh. As the season progresses, various species enter spawn and leave, while offspring (young of the year) remain. By late August, the majority of the fish found are young of the year (80%). By mid October, the marsh is empty again. The marsh shore is dominated by pumpkinseed and carp, while the open water is dominated by gizzard shad, and white perch. Seasonally, significant numbers of adult spottail shiners, brown bullheads and alewife appear, in associations with their spawning times. There are also abundant species, associated with subhabitats of the broader habitat categories.

Tu, C., Gartner Lee Limited. **The Collection of Fish and Fish Habitat Data by Volunteers - Stony Lake, Lakefield, Ontario.**

Gartner Lee Limited was retained by the Trent-Severn Waterway (TSW) to organize a group of volunteer cottagers from Stony Lake and:

1. Teach them the significance of fish and fish habitat protection in relation to shoreline development and water quality; and
2. To have them collect and map the field data themselves.

With the withdrawal of provincial (MNR) and federal (TSW) services, there is a need to foster a commitment from the cottagers and other lake users towards long-term environmental co-management of Stony Lake. The considerable muskellunge, walleye and bass fishery in this lake was the focus of the data collection efforts with specific interest on documenting the use of Stony Lake's wetlands as spawning grounds for muskellunge and nursery habitat for young-of-the-year. This new information has been transferred onto a Geographic Information System and will supplement the MNR data used by the County of Peterborough in their evaluation of shoreline development applications.



Top and Middle: The post-meeting social where refreshments and good conversation flow freely.

Bottom: Down to business at the annual meeting





Top: The Fleming Contingent - an excellent turnout from Sir Sandford Fleming College.

Bottom-Right: John Knight, Professor from the Fish and Wildlife Department at SSFC pours another pint.

Bottom-Left: How do you work one of these things? - I'm a biologist not a bartender!!



UP-COMING EVENTS!

Ontario Streams Workshops

On the weekend of June 20-22, 1997, hundreds of people will gather on the banks of the Grand River for *River Rendezvous '97*, the largest ever celebration of rivers in Ontario.

The presentations, workshops and exhibits at this event will cover every aspect of river restoration, presented by top people in the field from across North America. Seminar topics will include: river theory, river management, stream classification, watershed evaluation, identification of aquatic and terrestrial watershed life, fund-raising for community stream stewardship, biomass assessment techniques, habitat inventory, and legal and procedural "facts-of-life". Watershed tours will be offered to provide a "hands-on" examination of stream/habitat enhancement and remediation techniques.

River Rendezvous '97 will bring together non-government, government and private organizations with a common interest to expand stream and river improvement projects across the province through education, information and communication.

This event is being hosted by *Ontario Streams* a not-for-profit organization dedicated to fostering and supporting projects which enhance the health of streams and watersheds across Ontario. *Ontario Streams* is a network providing the expertise of biologists, river keepers, landscape architects, aquatic ecologists and naturalists to local residents and communities who share a concern about the present and future well-being of their streams.

We are inviting commercial suppliers of water quality and fisheries monitoring

technologies, professional engineering and environmental firms, as well as consultants and contractors who have demonstrated an interest in river restoration to display their products and services at this landmark event. Indoor booth space is now available to interested exhibitors.

We hope you will decide to be part of this exciting event. Please contact our coordinator as early as possible to register or book booth space:

Kim Mandzy
River Rendezvous '97 Coordinator
4 Sandalwood Place
Don Mills, ON M3B 1L6
phone/fax: 416-445-3366
e-mail:mandzy@total.net

1997 Electrofishing Training

The Principles and Techniques of Electrofishing Course will be offered again this year. Fish and Wildlife Branch in partnership with the Canadian Natural Resources Training Centre of Sir Sandford Fleming College will be offering the course twice this spring at the Leslie M. Frost Natural Resource Centre, Dorset.

This course is required certification (MNR Policy F1.3.01.01) for all field staff leading an electrofishing team. It also allows successful trainees to instruct others in backpack and crew member roles. The course will be similar to previous courses and MNR certificates will be issued to all successful participants.

Listed below are some course details:

DATES: Course 1 - May 27-30
 Course 2 - June 10-13

COURSE CONTENT:

Includes theory and hands-on practice in: backpack, stream-side and boat electrofishing; basic CPR technique; and electrofishing and water safety

COURSE FEES:

MNR Employees: \$157.20
Non-MNR Personnel: \$390.50

Fees cover instruction and course materials. Room and board at the Centre will be charged back to the appropriate MNR Division user day allocation for MNR personnel. Room and board charges for non-MNR participants are included in the course fee. Payment is acceptable by Cheque (payable to SSFC), VISA and Mastercard. For further course information and registration forms, please call:

Barb Elliot @ (705) 878-9309
E-mail: belliot@fleming.on.ca

To register by phone please call (with VISA or Mastercard): (705) 749-5530 ext. 1502

Enrolment is limited to approximately 30 participants for each course so it is recommended that you register as soon as possible.

Other Events and Conferences

June 1-5, 1997 - 40th Annual Conference on Great Lakes Research, Buffalo, NY. Co-hosted by Buffalo State College and Univ. of Buffalo. TEL: 313/647-1673; FAX 313/647-2748.

June 3-4, 1997 - Pathogens and Diseases of Fish in Aquatic Ecosystems: Implications in Fisheries Management Symposium. Sheraton Airport Hotel, Portland, Oregon. Contact Ray Brunson; Pacific Northwest Fish Health Protection Committee; 3704 Griffin Lane S.E., Suite 101; Olympia, WA 98501; 360/753-9046; FAX 360/753-9403.

June 10-13, 1997 - Aquaculture Canada '97. Radisson Hotel, Quebec City, Quebec. Contact Aquaculture Association of Canada, Box 1987, St. Andrews, NB E0G 2X0; 506/529-4766.

June 18-19th, 1997 - Design and Construction of Fish Habitat Workshop. Richmond Hill, Ontario. See details in enclosed flyer or contact Deborah Martin-Downs at (905) 477-8400 ext. 225.

**American Fisheries Society
Southern Ontario Chapter
EXCOM Members**

President:	Deborah Martin-Downs
(T)	(905) 477-8400
(F)	(905) 477-1456
E-Mail	dmdowns@ibm.net
Past President:	Doug Clark
(T)	(905) 877-3767
(F)	(905) 877-3767
E-Mail	ecotec@aztec-net.com
President Elect:	Don Speller
(T)	(905) 840-6563
(F)	(905) 840-6128
E-Mail	dspeller@idirect.com
Vice-President:	Cindy Mitton-Wilkie
(T)	(416) 235-5230
(F)	(416) 325-8070
E-Mail	mitton@mto.gov.on.ca
Secretary:	Dave Gibson
(T)	(905) 704-2227
(F)	(905) 704-2044
E-Mail	gibsonda@mto.gov.on.ca
Treasurer:	Barry Myler
(T)	(905) 840-6563
(F)	(905) 840-6128
E-Mail	tarandus@idirect.com

SOLD OUT!

'Natural' Channel Design: Perspective and Practice and Stream Analysis and Fish Habitat Design: A Field Manual - have sold out! We will no longer be carrying copies of either of these publications. For copies of the 'Natural' Channel Design, please contact Patti Young at the Credit Valley Conservation Authority at (905) 670-1615.

American Fisheries Society Recommendation for Honorary Membership

The following two individuals have been nominated for Honorary Membership in the American Fisheries Society:

Candidate: Richard A. Ryder

Richard Ryder received his B.Sc. and M.S. degrees from the University of Michigan. He has had a long and distinguished record of accomplishments in service and research. He is internationally recognized for his contributions in aquatic productivity, fish dynamics, and percid biology, particularly walleye. His pioneering work on MEI set the stage for future work on harvestable surplus based on water quality and other associated parameters.

Dick spent his entire professional career with the Ontario Ministry of Natural Resources. He started as a District Biologist in 1954, had a series of appointments as a Research Scientist, and in 1971 was appointed as the Senior Research Scientist in charge of the Productivity Unit in Thunder Bay. He remained in this position until his retirement in 1996. Dick has authored more than 80 scientific papers, and has served as the Associate Editor and on the Editorial Board of the *Journal of Ecological Health and Medicine*, and *Aqua Fennica*. He served on the Steering Committee or was a Chair of a Working Group for the Workshop on Ecosystem Approach to the Integrity of the Great Lakes in Turbulent Times, European Inland Fisheries Advisory Commission (Lake Working Group), International Large River Symposium, Muskie Symposium, International Joint Commission (Working Group for Indicators of Ecosystem Quality), and the United Nations Food and Agriculture Organization (Conceptual aspects and methods for a comparative lake approach to fisheries management). He also served on the Board of Technical Experts for the Great Lakes Fishery Commission and as a Scientific Advisor to this International Commission.

Service to the profession has not been neglected during his distinguished career. Dick served as President of the Canadian Conference for Fisheries Research in 1987-88 and chaired numerous committees prior to and since his term as President. From 1980-81, Dick served as President of the American Fisheries Society. Prior to that he had served on numerous committees and had served as President of the North Central Division AFS in 1973-74.

Candidate: Dr. William Beverley (Bev) Scott

Dr. Scott received his Baccalaureate degree from the University of Toronto in 1942. Following World War II, where he served as a Captain in the Royal Canadian Corps of Signals, he returned to his graduate studies at the University of Toronto and was granted a Doctor of Philosophy degree in Zoology in 1950.

Dr. Scott occupied numerous prestigious positions both at the Royal Ontario Museum as well as at the University of Toronto including Curator of Ichthyology and Herpetology (ROM) 1950-1977; Associate Director (ROM) 1973-1975; Professor, Dept. of Zoology, (U of T) 1968-1982; Executive Director, The Huntsman Marine Laboratory, 1976-1982. Since 1982, Dr. Scott has been active in the role of Senior Scientist at the Huntsman Marine Science Centre. He has also received numerous awards including the prestigious Canada Centennial Medal (1967), the Canadian Silver Jubilee Medal (1977), two honorary Doctor of Science degrees from Canadian universities, and the Award of Excellence from the American Fisheries Society. Dr. Scott was also appointed a Fellow of the Royal Society of Canada (1983-1997); President of the Canadian Council for Freshwater Fisheries Research (1972); Professor Emeritus (U of T) 1983-1997, and Honorary Life Member, Canadian Society of Zoology (1993). He served as President of the American Society of Ichthyologists and Herpetologists in 1973.

He has conducted field research throughout Canada, as well as the Western North Atlantic Ocean and the Caribbean Sea. Dr. Scott was also engaged in research at many of the major museums including, among others, the British Museum, London; the American Museum of Natural History, New York; the Museum of Comparative Zoology (Harvard), Cambridge, Massachusetts; the U.S. Natural History Museum, Washington, D.C.; and the National Museums of Canada, Ottawa.

Dr. Scott made a major contribution to the American Fisheries Society by his long-term service as a member of the Names of Fishes Committee from 1954 to 1992. During his tenure on this standing committee, four editions of "Common and Scientific Names of Fishes from the United States and Canada" were published. Dr. Scott is senior author of two classic publications that describe the fishes of vast regions of North America. The first is the "*Freshwater Fishes of Canada*" the standard authority for Canadian fish biology and distribution. The second treatise is "*Atlantic Fishes of Canada*" which plays a similar role for the fishes of the northwest Atlantic Ocean.

To support the nomination of these individuals please sign in the appropriate place below:

I, the Undersigned member of the American Fisheries Society, hereby nominate **Mr. Dick Ryder** for Honorary Membership: _____

I, the Undersigned member of the American Fisheries Society, hereby nominate **Dr. William Beverley Scott** for Honorary Membership: _____

Please fax or mail your completed nomination form to:

AFS-SOC

c/o Tarandus Associates Limited

18 Regan Road, Unit 24

Brampton, Ontario

L7A 1C2

Telephone (905) 840-6563

Fax (905)840-6128

NEWS BRIEFS AND OTHER BITS AND PIECES

Watershed Report Card Update

On April 1st, Doug Clark gave an update presentation on the Watershed Report Card at the Rivers & Streams Technical Committee (of the American Fisheries Society (AFS)) meeting in Rock Island, Illinois. This update presentation was in response to very positive feedback received following an overview presentation Doug gave at last years meeting. The purpose of the meeting was to provide technical and state/province reports on various watershed or river/stream initiatives being conducted by the various AFS Chapters represented at the meeting. Several copies of the Bronze level were distributed to many academic institutions as well as state and federal agencies. This includes South Dakota State University, University of Nebraska, Illinois Dept. of Natural Resources, Iowa Dept. of Natural Resources, Missouri Dept. of Conservation, Kansas Wildlife & Parks, and the U.S. Fish & Wildlife Service.

Fisheries Act, CEAA and You

On January 21, 1997, the Southern Ontario Chapter of the American Fisheries Society hosted its second evening workshop. The topic of the evening was the Fisheries Act, Canada Environmental Act (CEAA) and You. Ed DeBruyn of the Department of Fisheries and Oceans lead off the evening with an entertaining talk on the Fisheries Act, the Policy for the Management of Fish Habitat and the fisheries related triggers for a federal Environmental Assessment. Then, Bill Bien from Environment Canada gave detailed presentations on the triggers for a federal Environmental Assessment, the CEAA process and other (non fisheries related) environmental issues that are screened under CEAA. The evening was well attended and enjoyed by all.

Hope to see you at future AFS-SOC Events.

TRUE FISH STORY

While ice fishing on Lake Simcoe, I noticed some dead line underneath my hut. Being an environmentally aware soul, I snagged the line to remove it from the lake. However, it soon became clear that there was a large fish attached to the terminal end of the line. After landing the 2 kg whitefish, I retrieved the remainder of the line and landed a tip up rig! Obviously, an unlucky angler was snoozing when the whitefish hit. Shortly thereafter, it had the misfortune of swimming under my hut. Believe it or not...

Dave Featherstone

WE WANT YOUR INPUT!

Your contributions and comments on the newsletter are extremely important and always welcome. We would like to include a variety of columns and comments, such as a student's column or present research column for example. Please send in whatever contributions and suggestions you might have. Remember, this is your newsletter and we are counting on members to give us input to make this newsletter a vital part of the Southern Ontario Chapter.

Contact the Editors at:
AFS-SOC NEWSLETTER
c/o Tarandus Associates Limited
18 Regan Road, Unit 24
Brampton, Ontario
L7A 1C2
Telephone: (905) 840-6563
Facsimile: (905) 840-6128

E-Mail: tarandus@idirect.com

Your Co-Editors Are:
Tara L. Boisvenue
Barry Myler
Richard Pope

AFS Governing Board Meeting

March 20 - 23, 1997

Bethesda, Maryland

Doug Clark attended the AFS Governing Board Meeting on behalf of Dana Kinsman, CARS President. Unfortunately voting privileges were not given to CARS at the meeting as the proxy was not a member of the CARS Executive Committee. Following are highlights of the meetings.

- the Parent Society produced a hard-hitting response to a recent advertisement in the New York Times by the National Cattlemen's Beef Association. The ad praised two cattlemen for winning conservation awards based on their sound streamside grazing practices and further implied that "using cattle to protect the creeks - bringing them in to control vegetation" constitutes a sound grazing practice.
- the Parent Society is producing a position statement on the human use of fish and other living aquatic resources, in consideration of current animal rights concerns.
- the Parent Society is working toward making AFS certification mandatory for all fisheries professionals in the U.S.
- the Parent Society is currently examining fisheries resource management on a watershed basis. During the meeting a recruitment sheet was circulated for the creation of a new Watershed Section.
- the Parent Society is considering a proposed increase in publication subscription rates even though the rate increase could result in a potential subscription/membership decrease of approximately 3%. An observation to the Governing Board was made by D. Clark that the current annual recruitment rate for the Society is less than 2% and therefore a potential loss of 3% would result in a net decrease in Society membership. Furthermore, he pointed out that this action contravenes Strategies A.3 ("Ensure that AFS services and products are affordable, viable, and beneficial to most members") and C.5 ("Encourage AFS membership among fisheries administrators and managers") of the 1996-1997 Annual Program of Work presented by AFS President Chuck Coutant in the March issue of Fisheries.
- the Parent Society anticipates that they will be operating under a balanced budget for 1997.
- An eleven to ten vote allowed for the decision to hire a new Development Manager for the Society. The recommendation to hire a Development Manager for the Society came from an Organizational Audit of the Society prepared by an external consultant.

FISHERIES SCIENTIST CERTIFICATION

The following information was taken from the American Fisheries Society web page.

The American Fisheries Society, through its Board of Professional Certification, offers professional certification to anyone who meets specific educational and experience requirements. Two tiers of certification are available:

Tier I: **Associate Fisheries Scientist** - An applicant without experience who satisfies coursework and degree requirements (indicated below).

Tier II: **Certified Fisheries Scientist** - In addition to satisfying coursework and degree requirements, an applicant must have qualifying experience (see below).

The requirements for the Certified Fisheries Scientist Program are:

- Four courses in fisheries and aquatic sciences, two of which must be directly related to fisheries science (e.g., fisheries science, ichthyology, fisheries management, fish ecology, fish culture, fish disease, etc.): other biological science courses that when added to the credit hours of the fisheries and aquatic science courses must total 30 semester hours or 45 quarter hours; either 15 semester hours or 22 quarter hours of physical sciences; either six semester hours or nine quarter hours of mathematics and statistics; and either six semester hours or nine quarter hours of communications; *and*
- A Bachelor of Science or a Bachelor of Arts degree plus five years of full-time qualifying experience; *or*
- A Master of Science or Master of Arts degree plus four years of full-time qualifying experience; *or*
- A Doctor of Philosophy degree plus two years of full-time qualifying experience.

For complete information and an application form, contact American Fisheries Society, 5410 Grosvenor Lane, Suite 110; Bethesda, MD 20814-2199; 301/897-8616; Fax 301/897-8096; main@fisheries.org.

The Recreational Fisheries Institute of Canada

Something You Should Know About

Did you know that...

- there are more than 1000 species of fish in Canada?
- 6.5 million people enjoy fishing for food and recreation in Canada each year?
- recreational fisheries provides 160,000 jobs in Canada and contributes \$8 billion to our economy annually?

However...

- hundreds of recreational fish stocks are in jeopardy;
- human destruction of fish habitat, pollution, over-exploitation and neglect are the leading causes of fisheries decline;
- national participation in recreational fishing is declining and the governments are reducing conservation funds and staff.

The Recreational Fisheries Institute of Canada (RFIC) was established to develop and implement the private sector leadership role needed to conserve fish and to ensure continuing benefits for the pursuit of angling. The RFIC is a registered Canadian charity governed by a Board of Directors that will not replace or usurp provincial, regional or local fishing clubs and conservation groups. Instead the RFIC is a volunteer-oriented, non-profit corporation, directed and controlled by anglers. It is a focal point for anglers, industry and conservation groups across Canada to work on a united front towards achieving recreational fisheries conservation and securing the future of fishing in Canada.

Our Mission

To conserve Canada's recreational fisheries and their aquatic environments to the social, cultural and economic benefit of Canadians

What have we done?

- RFIC is working with the federal fisheries minister and departmental staff to ensure recreational fisheries conservation responsibilities are not neglected as governments downsize and look for ways to cut spending.
- RFIC is cooperating with the Federal/Provincial Fisheries Ministers to develop a proposal for private sector leadership of Canada's fisheries resources. RFIC is encouraging the development of a national policy and conservation program endorsed and supported by governments, the private sector and beneficiaries of the fisheries resource with a pledge to implement it.
- Encourage governments, corporations, the fishing industry and private sector stakeholders to address fish habitat conservation.
- In partnership with other agencies, RFIC has implemented Kid Fish Canada projects across Canada where children are given the opportunity to experience fishing and learning the values of aquatic environments.
- RFIC has initiated a study which will clarify the linkages between wetlands and fisheries habitat in Canada. A comprehensive, bibliographic compilation (with abstracts) of literature that documents these linkages will be available as a user-friendly, searchable database for a nominal cost.
- RFIC has conducted a survey of government, industry and recreational angler awareness levels of the potential risks of global climate change to recreational fisheries across Canada.

You can help us in many ways. Informing anglers about the Institute and encouraging their support is a good first step. RFIC needs volunteers with many skills in all parts of the country. The RFIC needs professional input and assistance on the policies, programs, and projects needed to conserve fisheries and aquatic environments in Canada. We have undertaken projects on wetlands and fisheries and are working daily with governments and other conservation groups on behalf of fisheries resources. Shortly we will establish a web-site to communicate our efforts and provide opportunities for anglers, industry and fisheries managers to exchange information.

If you have any questions or would like more information, please contact Manjit Kerr-Upal at 95 Cameron Avenue, Ottawa, Ontario, K1S 0W8 or manjit@igs.net.

ARE YOU DELINQUENT??

If you, or a friend, are on the list below you are no longer a member of AFS, and you should be! There are many benefits of being a member including keeping up with the latest research, discounts on publications, networking opportunities (like now), and increasing your professional profile at the chapter, divisional or parent level. Help keep the good work of the AFS alive by maintaining your membership. If you know one of these folks, please encourage them to join us again:

Anna Boyd
Frank Hicks
Sharon Ford
Blake Konkle
Lloyd Mohr
Alex Plomp
Bruce Sandilands
Jack Imhof
Ken Cornelisse
Ronald Griffiths
James MacLean
Rudolf Muller
Norman Quinn

Timothy Carey
C.N. Cores
Jayaran Muthana
Kevin Reid
Douglas Spry
Austin Carroll
Chris Davis
Kristine Mason
Paul McKee
Alex Palilionis
Cindy Rejwan
Warren Yerex
Patrice Simon

MOVING?

Please help us keep our membership list current by notifying the Chapter of your new address. Change of address information should be sent to:

Shawn Taylor
Membership Coordinator
M.M. Dillon Limited
Box 1850, Station A
Willowdale, Ontario
M2N 6H5