



RYBA

Newsletter of the Minnesota Chapter of the American Fisheries Society

**Year 2004 No. 4
December Issue**

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President's Message

by Loren Miller

Two ways to get involved

A call to all members to get involved in two major activities of our chapter, the annual meeting and policy discussions during the upcoming legislative session. Although it seems like we just finished up in St. Cloud, and that the do-nothing session just ended, it is already time to think about submitting abstracts for the meeting and preparing for our representatives to get back to the task of legislating.

This year's meeting should be another great one with our usual line-up of great talks and activities. We head back

north for a meeting in Grand Rapids. Joining us again this year will be the Minnesota Chapter of the Society for Conservation Biology, which appreciates our help in showing them how to organize an effective meeting while it is building in strength. If you have attended in the past, we welcome you back. If you haven't attended, please consider making this meeting your first. Also I hope that you will consider presenting a talk or poster. Remember that this is the perfect place to try out a talk if it's been a few years. Maybe you'll try taking it to the next stage at a Midwest Conference or the Parent Society meeting. Also, you don't need that final data point to present. Sometime a presentation with preliminary results will lead to input that improves the final interpretation of your study. The sharing of scientific information is a primary responsibility of our Society, and a primary benefit of membership, so do your part to give and take by attending the meeting and presenting.

As we approach the beginning of another legislative session, it is important that we rapidly respond to legislative proposals affecting aquatic resources by providing sound scientific information. As usual, our representatives to the Fish and Wildlife Legislative Alliance keep us updated on the latest legislative activities. (Thanks Don Pereira and Bruce Vondracek for years of good service – Bruce is stepping down this year as a FWLA representative). This past year the Chapter established a new way to communicate to all members about legislative issues. Many of us are limited in the types of advocacy issues we can address from work e-mail accounts. To circumvent this, Donna Dustin has established a Yahoo Group that allows registered users to post and receive messages. Sign-up has been light so far but we didn't really get going until the session was winding down. Please join today so that we can maximize member input into policy discussion as the next session gets going. See the Chapter website for instructions on joining.

RYBA editor: David Anderson
 The Chapter publishes **RYBA** four times yearly (February, May, September, and December). Past issues can be found at the Chapter website: www.fw.umn.edu/mnafsf
 Please direct comments or submissions to:
david.anderson@dnr.state.mn.us

The views and opinions expressed herein are not necessarily those of the Minnesota Chapter.

Officer Reports

President Elect

Tim Brastrup

Annual MN Chapter Meeting - The annual chapter meeting will be held at the Sawmill Inn, Grand Rapids, MN, from March 14 – 16, 2005. Registration will begin Monday evening along with a social. The approximate cost for registration will be \$30-32 and around \$20 for the banquet. Details on lodging will be posted on the Chapter website as they become available.

Call for Papers and Posters - Please send abstracts to Tim Brastrup, DNR Area Fisheries, 1601 Minnesota Drive, Brainerd, MN 56401, or preferably by email at tim.brastrup@dnr.state.mn.us by **Friday, January 14, 2005**. Please include the title of the presentation, presenter(s) name, email address and telephone number. If you have questions you may reach Tim at work (M-F 7:00–4:30): 218-833-8636 or at home: 218-829-3420.

Committee Reports

Continuing Education

By Phil Talmage and Mike Duval

Population Dynamics/Mark-Recapture Workshop – The workshop, scheduled for January 18-20 in Duluth, is now full. A waiting list is being created, in case openings become available. If you would like to add your name to the waiting list, contact the Continuing Education Committee.

Future Needs Survey - The Minnesota Chapter of the American Fisheries Society is updating continuing education needs and interests of our membership. This updated information will be used to guide development of future continuing education workshops sponsored by the Chapter. Please complete the survey on page 13, or download a copy from the Chapter website.

Membership

By Calub Shavlik

In 2004 the Minnesota Chapter of the American Fisheries Society had 242 members of which 56 were non-paying students. These numbers are slightly higher than the 2003 membership count. Sixty-five percent of the members are parent society members and this number could increase since the annual meeting was held in Madison, Wisconsin.

Another memo will be sent in mid-December to the 39 active members of 2003 that did not renew in 2004. This might result in a last minute increase in membership. During 2005, we need to recruit new members to reach or surpass the numbers of 2004.

Try to convince colleagues or friends that are currently working in the field or are interested in fisheries issues in Minnesota of the benefits of belonging to the chapter. If you or someone you know wants to join, refer to the chapter website or contact Donna Dustin for instruction.

Fund Raising for the 2005 Meeting

By Brian Borkholder

As in years past, the Fund Raising Committee requests that Chapter members consider donating items for the annual raffle. Raffle proceeds are critical for the operational budget of the Chapter. For continued raffle success, we need to have quality items to persuade members to open up their tight wallets! Examples of member-donated items from previous years have included bottles of home-brewed beer, home-made wine, artwork and prints, craft items, fish shirts, hats, duck decoys, and even a week at a family lakeshore cabin. No matter how large or small your donation, every bit helps support the Chapter's goals.

Additionally, if members could either approach local vendors for donations, or pass on contact information to the Fund Raising Committee, that would also be appreciated. Experience has shown that individuals who frequent a local merchant are more successful at soliciting donations than an impersonal letter in the mail. Remember, the Chapter is a 501(c)(3) organization so all donations are tax deductible.

If you have any questions, or would like to further assistance with contacting local vendors in your area, please contact Tom Burri or Brian Borkholder. Thank you, and see you in March!

Students

By Anne Cooper

Attention Students and Student Advisers! - Please encourage your students, both graduate and undergraduates, to attend and present posters or papers at the 2005 MN AFS meeting in March. The upcoming meeting is an excellent opportunity to gain professional experience by presenting or volunteering to judge papers and posters. The deadline for abstracts is January 14. Funds are available to offset the costs for students. Please contact Anne Cooper (amcoop@umn.edu) with questions concerning student issues.

Awards

By John Hiebert

ATTENTION CHAPTER MEMBERS! Do you know someone who has gone above and beyond the call of duty to accomplish the Chapter's goals? Let that person know how much you appreciate their hard work by nominating them for a Special Recognition Award. What about someone who has made a life-long commitment to Minnesota's fisheries? Nominate them for the prestigious Award of Excellence. There are a lot of people out there working hard to make the world a better place for fish - don't let their efforts go unnoticed!

ATTENTION STUDENTS! Do you want to learn how to give a better presentation or put together a better poster? If so, volunteer to judge papers or posters at the upcoming Chapter meeting. It is a great learning experience and a great way to get involved. All chapter members are eligible to judge papers or posters. To nominate someone for an award or to volunteer to judge papers or posters please contact John Hiebert at 651-296-2548 or john.hiebert@dnr.state.mn.us.

Newsletter and Website**By Dave Anderson**

This spring I'll be leaving my DNR position to teach high school biology in Thailand. I will also have to turn over my AFS duties to a willing volunteer. The roles of newsletter editor and webmaster don't have to be done by the same person, but I have found it convenient to do both. Please contact Loren Miller or me if you are interested.

Esocid Technical Committee**By Rod Pierce**

The Esocid Technical Committee (along with the Hoosier Muskie Hunters Chapter of Muskies Inc.) is helping sponsor a memorial symposium in honor of Dr. Ed Crossman. The Crossman Muskellunge Symposium is intended to help build better communication and working partnerships between management agencies and anglers. The symposium will be held in Indianapolis during 28-30 October 2005, with the technical portion to include presented papers and posters. Titles/topics that have management applications will be given preference, and proceedings from the session will be published in *Environmental Biology of Fishes*. Abstracts can be submitted to Dr. Jim Diana at jimd@umich.edu. Mark this one on your calendar and plan to attend!

Also, our winter meeting is scheduled in conjunction with the Midwest F&W Conference for Tuesday December 14, 2:00-5:00PM, EST, Council Room., Indianapolis, IN, Westin Hotel, 50 South Capitol Ave. IN.

Centrarchid Technical Committee**By Cindy Tomcko**

Minutes of the Centrarchid Technical Committee
North Central Division of the American Fisheries Society

Eric Weimer, Chair, weimerer@hotmail.com
Keith Hurley, President-elect
Cindy Tomcko, Secretary, cindy.tomcko@dnr.state.mn.us
Don Kline, Treasurer

Chair Eric Weimer opened the Centrarchid Technical Committee summer meeting with 12 members in attendance, in Madison, WI, at the 134th AFS 2004 Annual Meeting on August 21, 2004.

The Secretary's report from the December 2003 meeting was posted on the CTC page of the NCD AFS website. It was moved and seconded to accept the report as written. The treasurer was unable to attend the meeting. Eric summarized our financial status.

OLD BUSINESS:

Black bass database: Craig Paukert finished a draft of the paper. Mike McInerny agreed to revise it.

Lepomis symposium: AFS sent acceptance letters to authors. Papers may be published in the fall.

CTC webpage: Keith Hurley agreed to continue to coordinate submissions with Don Pereira, NCD webmaster.

Poster reprint: MN, SD, IN, and MI fisheries education coordinators expressed interest in purchasing bluegill and largemouth bass posters. Eric estimated we'd print about 12,000 posters per species. Previous costs were \$0.11-0.12 apiece and present costs were estimated at \$0.13/apiece. To save shipping costs, posters will be shipped to the chair, who will bring and distribute them at the next meeting. Members voted to increase poster price to \$0.15/poster to fund future poster projects.

Grey literature update: MN, SD, KS, NE, and IA have submitted grey literature lists. Cindy Tomcko agreed to update the previous list when the soft copy has been located.

NEW BUSINESS:

President-elect: Keith Hurley was nominated and elected unanimously. Keith is a biologist for Nebraska Fisheries.

2004 annual meeting: We will hold our annual meeting at the 65th AFS Midwest Fish and Wildlife Conference in Indianapolis, IN.

2005 summer meeting: Members discussed keeping the summer meeting. Mike McNerny liked the casual exchange. Brad Parsons emphasized that technical committees were established to foster informal exchanges of in-process work. Many members liked the management/research updates. Members agreed we should continue to meet, even if only state representatives attended. Keith Hurley suggested a continuing education emphasis at the next meeting, such as a discussion of new techniques. Steve Fischer suggested looking into a joint physiology meeting for Centrarchid, Esocid, and Walleye Technical Committees. Steve also recommended we expand the Lepomis emphasis, to include people interested in black bass. He suggested we sponsor a black bass symposium when the Midwest AFS meeting is in Michigan in 2005 called 'Human dimensions/conflict resolution in black bass management'. We discussed producing a quarterly report, but rather than do that, members agreed that it is enough to produce reports after our meetings, making them available on the CTC website within the NCD site, in NCD's Mainstream, and in chapter newsletters. Eric will contact Pat Small, WI representative, to reserve the Wyalusing Park, WI facilities for two days in July 2005 and will look into doing a joint meeting with the Ictalurid and/or Walleye Technical Committees. The theme of the meeting will be 'Bioenergetics'.

Representatives' updates:

SD and ND – Eric Weimer described his work on the movement and habitat use of 200+ mm bluegill over 13 months. Battery strength allowed 6-7 mo. of tracking. He found bluegill moved little in winter, in contrast to Craig Paukert's finding that bluegill were very mobile. Craig worked on Pelican Lake, which was entirely vegetated. Like Craig, Eric found large bluegill were dependent on aquatic vegetation. In the winter, fish tended to remain within a densely vegetated basin. Bluegill moved to deep water prior to spawning, supposedly to feed on zooplankton. Angler fishing depth was recorded using Vexlar locators, both at traditional and non-traditional locations. Anglers generally choose to fish deeper, thus avoiding dense vegetation and making fishing easier.

Eric compared the success of putting single and saddle external transmitters on bluegill and yellow perch. Neither tag worked well for yellow perch. Eric found the '2% rule' of tag/fish size was valid for bluegill, thus a 4 oz. transmitter was suitable on a 200 mm bluegill. Single transmitters worked better than saddle transmitters on bluegill. Single transmitters were attached below and to one side of the dorsal fin.

Bluegill learned to compensate for the unbalanced weight of the single transmitters. Saddle tags were supposed to more evenly distribute weight, but did not. Also bluegill may not have the musculature to support a saddle transmitter, as the bluegill frequently ripped off the saddle transmitters, resulting in a high wounding rate.

South Dakota decreased their current bag limit to 10 bluegill in test lakes. They will consider lowering the bag limit statewide if it successfully improves bluegill size structure or maintains quality size structure.

MN – Cindy Tomcko is examining the effect on bluegill population dynamics of varying levels of submerged aquatic vegetation. She's trying to find if there is an 'optimal' level of vegetation, if too little or too much vegetation has negative effects on bluegill populations. The bluegill population dynamics she will evaluate are growth, recruitment, size structure, mortality, age of maturity, and production.

Mike McNerny is creating a database of crappie population dynamics. He is also exploring the prevalence of white/black crappie hybrids using genetic methods to estimate the effect hybrids have on the crappie growth information in his database.

Pete Jacobson is presently publishing a report on the effect on bluegill growth of reducing the MN statewide bag limit from 30 to 10 bluegill. Two of 4 treatment compared to 4 control lakes responded to the reduced bag with faster growth rates, larger sizes at maturity, and better size structure.

IN – Ed Braun reported Indiana is analyzing bluegill food habits and available zooplankton in 6 lakes, 3 with fast and 3 with slow bluegill growth. Indiana is also starting to study smallmouth bass in Lake Michigan.

NE – Nebraska is starting a study of angler motivation, catch-and-release, and harvest attitudes. They are also studying whether they can reduce the number of fish sampled during assessments from 10 fish/10 mm group, as has been done for the previous 9 years, to 5 fish/10 mm, thus saving 500 man-hours. They found the new protocol allowed them to detect significant differences in bluegill and crappie lengths, ± 3 mm, thus providing support to adopt the new protocol.

Mark Porath and Keith Hurley are in the process of publishing a paper on growth of bluegill in Nebraska lakes, as affected by water body type, supplemental feeding, harvest regulations, and presence of shad.

Nebraska has found overly dense populations of black bass, which it has removed with rotenone. But past cold winters have provided a 'natural' experiment. The cold temperatures extirpated shad in two lakes, with a resulting increase in bass recruitment and bluegill growth.

KS – Sports writers have been criticizing white crappie creel limits, saying there's not enough exploitation to require a limit. In response, Kansas will be starting a study of exploitation rates where creel limits are reduced from 50 to 18-20 white crappie. Kansas will also test a 10" length limit on crappie, though tournament organizers are complaining that a length limit is unnecessary.

Zebra mussels have been found recently in some Kansas lakes.

MI – Jim Breck is studying the relationship of bluegill growth and lake characteristics. Jim is also doing lab research on bass growth (length and weight) under varying conditions.

Michigan is looking at the effect on bass of allowing early season catch-and-release. They will concurrently try to increase enforcement and stop illegal harvest.

MO – Missouri is studying how the presence of shad and vegetation affects bluegill communities. They are also studying the status of black bass recruitment in northern reservoirs. Joe Bonneau finished writing the bluegill management plan that Missouri is presently implementing.

Ictalurid Technical Committee

Dennis Topp provided the following agenda items for the December 12, 2004 meeting in Indianapolis. Questions should be directed to Lynn Schlueter (committee chair) from North Dakota.

Ictalurid Meeting Agenda

Review Minutes from last year's meeting

Treasurer's report

Election of officers (two year term beginning in 2005)

Old business

1. Southern Delegates
2. Status of southern AFS chapters organization of a catfish committee
3. Summer meeting

New business

1. Mission Statement
2. AFS Website
3. Organizing "Cat-a-thon" conference

North Central Division News

NCD Voting

By Mike Brown

We have had a low voter turnout thus far for the NCD officer positions posted in the fall Mainstream. Due to the late posting of the Mainstream, the voting deadline will be extended to December 8. Voting is accomplished by the paper ballot from the Mainstream (ballot attached) or by a simple email to Steve Fischer SFischer@hach.com. So that we have an adequate turnout please contact your chapter members and encourage them to vote as soon as possible. Thanks for your help!

Of Interest

Hutton Mentorships

By Brian Borkholder

Hutton Mentor Applications are due 15 February 2005! Members are encouraged to go to <http://www.fisheries.org> and complete a mentor application soon. But don't stop there! Get out and do a bit of recruiting. The Hutton Program will not be successful if we fail to get the word out to the area high schools. Contact a science teacher at your local high school, meet with them for 15 minutes to describe the program (bring along printed materials from the Parent Society's website), and have them do the recruiting for you. This is the best way of ensuring that mentors and students are identified from the same

area. Take advantage of this opportunity to influence the lives of the fish biologists that will be charged with managing the local waters during your future retirement adventures! Contact Christine Fletcher at (301) 897-8616 ext. 213, or at hutton@fisheries.org.

New Lakeshore Development Category Proposed Submitted by Mike North (Wildlife Society Representative)

Introduction

At its January 2004 meeting, the Environmental Quality Board (EQB) asked its staff to examine the mandatory category threshold levels in the environmental review rules (Mn Rules parts 4410.4300 and 4410.4400). Board members wanted to know if the thresholds are still appropriately placed to balance environmental protection and public benefit with administrative burden.

Potential Changes: Creating a New Lakeshore Development Category

Based on the issues described above the following actions are being considered:

- Working with the Minnesota Lakes Association and other stakeholders, develop revised or new mandatory EAW and EIS categories specifically taking into account the environmental impacts of modern lakeshore developments;
- As part of developing the categories, consider the issue of who should be the RGU where the lake lies in multiple counties; and
- In the appropriate forum, consider revising the EAW form to better address the environmental impacts of modern lakeshore developments.

Background information

History

During the 2004 legislative session bills were introduced in the House and Senate directing the EQB to develop special Environmental Review categories for lakeshore development. Although the legislation did not pass during the session, Senator Sams and Representative Ozment wrote a letter to the EQB asking the EQB to develop lakeshore categories without waiting for a legislative directive to do so. EQB has also been contacted by the Minnesota Lakes Association, urging the EQB to adopt lakeshore categories.

Current Thresholds

While there are no existing mandatory categories directed specifically at lakeshore developments, the following mandatory category thresholds may apply to lakeshore projects:

Mandatory Environmental Assessment Worksheet

Residential Development in unincorporated areas (4410.4300, Subp. 19, item A): 50 or more unattached or 75 or more attached (in groupings of 4 or more units per building) units if wastewater is treated on-lot (by ISTS), by a series of centralized septic systems, or by a single centralized septic system that is not owned by either the homeowners collectively or by a unit of government; 100 or more unattached or 150 or more attached (in groupings of 4 or more units per building) units if wastewater is treated either by a public sewer and wastewater treatment facility or by a single centralized septic tank system owned by the homeowners collectively or by a unit of government.

Residential Development in incorporated areas (4410.4300, Subp. 19 B-D): 100 or more unattached or 150 or more attached (in groupings of 4 or more units per building) units; or 250 or more unattached or 375 or more attached units if the project is consistent with an adopted comprehensive plan that meets the conditions specified in the EQB rules (at 4410.4300, subp. 19, item D). (Note: a certification of the Plan to the EQB may be required).

Mixed Residential and Commercial Developments (4410.4300, subp. 32): If a project combines residential units and any commercial components (such as hotel/motels, restaurants, retail space, etc.) the commercial components must be taken into account as well as the residential units, and the effect is that review will be required for fewer residential units as the commercial space increases. The exact method of calculation is prescribed in the rules.

Marinas (4410.4300, subpart 25): Construction or expansion of a marina or harbor that results in a 20,000 or more square foot total or increase in water surface area used temporarily or permanently for docks, docking, or maneuvering of watercraft. A “marina” is defined to include an area for the concentrated mooring of 5 or more watercraft with at least one ancillary service such as storage, fueling, launching, repair, sanitary pumpout, or restaurant service.

Campgrounds & RV Parks (4410.4300, subpart 20): Construction of, or expansion by, 50 or more sites of a seasonal or permanent recreational development accessible by vehicle.

Land Use Conversion (4410.4300, subp. 32): Residential development where the lot size is less than 5 acres, golf courses and other development resulting in the permanent conversion of 80 or more acres of forest, naturally vegetated, native prairie or agricultural land (except for agricultural land in the Twin Cities metropolitan urban service area). (Where some residential lots are under and some over 5 acres, only those under 5 acres are counted toward the 80 acre threshold.)

Forestry; harvesting (4410.4300, subp. 28 B): Clearcutting 80 or more contiguous acres of forest, any part of which is within a shoreland area and within 100 feet of the ordinary high water mark of a lake or river.

Protected Waters & Wetlands (4410.4300, subp. 27): Projects impacting 1 or more acres of a DNR-protected water or wetland require an EAW.

Mandatory Environmental Impact Statement

Residential Development in unincorporated areas (4410.4400, Subp. 14 A): 100 or more unattached or 150 or more attached (in groupings of 4 or more units per building) units if wastewater is treated on-lot (by ISTS), by a series of centralized septic systems, or by a single centralized septic system that is not owned by either the homeowners collectively or by a unit of government; 400 or more unattached or 600 or more attached (in groupings of 4 or more units per building) units if wastewater is treated either by a public sewer and wastewater treatment facility or by a single centralized septic tank system owned by the homeowners collectively or by a unit of government.

Residential Development in incorporated areas (4410.4400, Subp. 14 B–D): 400 or more unattached or 600 or more attached (in groupings of 4 or more units per building) units; or 1,000 or more unattached or 1,500 or more attached units if the project is consistent with an adopted comprehensive plan that meets the conditions specified in the EQB rules (at 4410.4300, subp. 19, item D). (Note: a certification of the Plan to the EQB may be required).

Mixed Residential and Commercial Developments (4410.4400, subp. 21): If a project combines residential units and any commercial components (such as hotel/motels, restaurants, retail space, etc.) the commercial components must be taken into account as well as the residential units, and the effect is that review will be required for fewer residential units as the commercial space increases. The exact method of calculation is prescribed in the rules.

Marinas (4410.4400, subpart 19): Construction or a new or expansion of an existing marina, harbor, or mooring project on a state or federally designated wild and scenic river.

Protected Waters & Wetlands (4410.4400, subp. 20): Projects that eliminate a DNR-protected water or wetland require an EIS.

Issues Associated with Lakeshore Development

As undeveloped lakeshore has diminished, shoreland areas once considered less desirable or more difficult to develop are now being proposed for development. These areas are often low-lying and marshy, with shallow water offshore and frequent beds of aquatic vegetation. These same features often make these areas especially important to the ecology of the lake.

Another change being seen is the increase in higher-density residential projects (more units per acre) in shorelands. A type of special concern appears to be projects where most of the units are not actually on the lakeshore, but have legal access collectively through a few lots on the shore. There is a concern that such developments will result in over use of the lake, and this concern is increased when the lake also has an established public access.

Another concern that has been raised over lakeshore development is the situation where a lake lies in more than one county. In such cases, since only the county in which the development is proposed is assigned as the RGU for the environmental review, residents of the other county have sometimes felt that their concerns were not given sufficient attention by the RGU.

Concerns have also been expressed over whether the existing EAW form adequately covers lake issues and whether county governments are well-enough equipped to deal with the present issues over lakes, but, of course, those concern cannot be addressed through reform of mandatory categories.

Rationale

The EQB staff has noted that over the past several years the number of citizens' petitions on lakeshore projects has increased noticeably and that the types of projects involved are the very types described as of concern by the legislators and the MN Lakes Association.

While development of Minnesota's lakeshores is nothing new, especially for permanent or seasonal residential development, the diminishing amount of undeveloped lakeshore has led to noticeable changes in the types of development projects being proposed and in the nature of the lakeshores under consideration for development. The increasing pressure of these new developments has led to a recognition that the existing mandatory review categories may not be adequate anymore to ensure the needed review of today's lakeshore development projects.

EQB has also been contacted by the Minnesota Lakes Association and concerned legislators urging the EQB to adopt lakeshore categories.

Upcoming Events

2004 Midwest Fish and Wildlife Conference

Indianapolis, IN

December 12-15, 2004

Details available at <http://www.in.gov/dnr/midwest2004/>

MN AFS Annual Meeting

March 14-16, 2005

Grand Rapids, MN

See Page 2 for more details

Shallow Lakes Forum

March 30-31, 2005

Alexandria, MN

Contact Shannon.Fisher@dnr.state.mn.us for more details

MN Chapter AFS Continuing Education Survey

The Minnesota Chapter of the American Fisheries Society is updating continuing education needs and interests of our membership. This updated information will be used to guide development of future continuing education workshops sponsored by the Chapter. Historically, the Chapter has received little response to these kinds of inquiries. With the revised Professional Certification procedures recently implemented by the parent society, it is now more important than ever to pursue professional development. This survey is your vehicle for influencing what’s offered, so take a moment to fill it out and return it to the Continuing Education Committee at: Michael Duval, MnDNR, Regional Fisheries Office, 1601 Minnesota Drive, Brainerd, MN 56401
 Or via email: michael.duval@dnr.state.mn.us

Instructions: Please review the following list of continuing education topics and indicate those proposed courses for which you would be interested in attending. You may select as many proposed courses as interest you, and you are encouraged to insert others that would be beneficial to your professional development. For the courses you select, please prioritize them by indicating your highest priority numerically beginning with “1” and so on through to your lowest preference. *(please note: this survey can also be found on the Chapter website)*

Topic Area and Proposed Course	Rank	Topic Area and Proposed Course	Rank
Biology		Statistics	
Population dynamics		Refresher statistics	
Fish Community Ecology		Spatial statistics	
Non-indigenous species		Fisheries/culture math	
Diseases/parasites		Non-parametric tests	
Genetics		Multi-variate statistics	
Other:		Other:	
Management		GIS/Computers	
Hab. enhancement/restoration		ArcView primer	
Watershed processes		Kriging and interpolation	
Limnology/Lake ecology		GIS applications for fisheries	
Lake reclamation		Other:	
Land protection strategies		Fish culture	
Other:		Disease control	
Techniques/technology		Hatchery techniques	
Standard sampling methods		Pond management	
Instream flow		Reclamation techniques	
Fish/critter ID		Other:	
Plant ID		Population Modeling	
Hydroacoustics		Population estimation	
Rosgen methodology		F.A.S.T. and other models	
Age and growth		Other:	
Tags and tagging		Human Dimensions/Socioeconomics	
Remote sampling		Public involvement	
Aquatic plant restoration		Conflict management	
Survey/study design		Natural resources economics	
Other:		Facilitation/mediation skills	
Contaminants		Environmental policy & law	
Environmental contaminants		Leadership training	
Other:		Sampling opinions/attitudes	
		Other:	

Comments:

Chapter Officers

President	Loren Miller	lmm@umn.edu	612-624-3019
President-elect	Tim Brastrup	tim.brastrup@dnr.state.mn.us	218-833-8636
Past President	John Hiebert	mottled_sculpin@hotmail.com	651-296-2548
Secretary-Treasurer	Donna Dustin	donna.dustin@dnr.state.mn.us	218-847-1579; fax 218-847-1588

Excom Members

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Open	Thomas Howes	tomhowes@fdlrez.com	218-878-8009

Committee Chairs*Standing Committees*

Awards	John Hiebert	mottled_sculpin@hotmail.com	651-296-2548
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Membership	Calub Shavlik	calub.shavlik@dnr.state.mn.us	218-547-1683
Nominations	Greg Busacker	greg.busacker@dot.state.mn.us	651-284-3759
Public Education	Eric Altena	eric.altena@dnr.state.mn.us	763-675-3301
Resolutions	Jeff Weiss	jeffrey.weiss@dnr.state.mn.us	507-467-2442
Students	Anne Cooper	amcoop@umn.edu	612-624-0744

Special or Ad Hoc Committees

Fishing Round Table	Mark Hove	mark_hove@umn.edu	612-624-3019
Fund Raising	Tom Burri	tom.burri@dnr.state.mn.us	218-286-5220
	Brian Borkholder	brianborkholder@fdlrez.com	218-878-8004
FWLA Delegates	Bruce Vondracek	bvondrac@umn.edu	612-624-3421
	Don Pereira	don.pereira@dnr.state.mn.us	651-772-7962
Historian	Jeff Sluiter	jsluiter@yahoo.com	952-432-6992
Continuing Education	Mike Duval	michael.duval@dnr.state.mn.us	218-833-8612
	Ray Valley	ray.valley@dnr.state.mn.us	651-793-6539
	Phil Talmage	phil.talmage@dnr.state.mn.us	218-286-5220
MN TWS Representative	Mike North	michael.north@dnr.state.mn.us	218-833-8726
Procedure Manual	Mike McInerny	mike.mcinerny@dnr.state.mn.us	320-234-2562
MN Science Fair	Brian Nerbonne	brian.nerbonne@dnr.state.mn.us	507-831-2919
Newsletter & Website	David Anderson	david.anderson@dnr.state.mn.us	763-675-3301
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