



RYBA

Newsletter of the Minnesota Chapter of the American Fisheries Society

Year 1999 No. 2
May Issue

President's Message

by Paul Radomski

In my last president's column for my term I would like to say I enjoyed the opportunity to serve this Chapter. Chapter membership is at an all-time high--good recruitment--and it is full of decent, hardworking individuals. There are many people I should thank. I appreciated the people that helped pull-off the Tri-Chapter meeting in La Crosse last January. Kurt Welke, WI Chapter, set up the local arrangements and did a stellar job in dealing with last minute details. I thank Mike Hansen, WI Chapter President, and Neal Mundahl for working on setting up the schedule and format of this meeting. I thank Dr. Calvin Fremling for his outstanding banquet presentation on the Mississippi River. I am thankful of the people involved with the fundraising event--the students and Henry VanOffelen.

Even as an anti-social person, I have found that I enjoyed the company of the Chapter Officers and Committee Chairs. I have added five new committees; they include Fishing Roundtable, fundraising, FWLA, Historian, and Salmonid NCD TC. The Committee Chairs have already

done a lot of hard work this year. You shall be pleasantly surprised at what they will accomplish with their spare time. Laurie Sovell, Continuing Education co-chair, has really done the Chapter a great service. Doug Kingsley, Membership Chair, has kept things running so smoothly we take him for granted. Don Pereira and Bruce Vondracek have impressed me with the outcome of our membership on the Fish and Wildlife Legislative Alliance (FWLA). If you see your Committee Chairs please go out of your way to thank all of them for their hard work. The Chapter officers and committee chairs are listed on the last page of this newsletter.

We are asking your opinion on various issues in this newsletter. First, what shall we do with the budget surplus. The Chapter is sitting on over \$10,000; this is money above our other \$10,000 operating account. I would like to see this put to good use, and my preference would to put it into student education. The spring EXCOM Meeting included discussions on an University-managed scholarship and donations. Please respond to Henry Van Offelen on this important issue. Second, Larry Kallemeyn and Tom Jones have submitted a draft Position Statement on Fish Stocking. Please review it carefully and submit comments and changes you would like to see made to Larry. Last, please vote on the resolution on the Upper Mississippi River Wildlife and Fish Refuge issue. Send your vote to Todd Marwitz.

Below you will find the outline for what we would like to accomplish by the next annual business meeting. We hope you find this acceptable. If there is a problem or something you think the Chapter should assist you with, please feel free to talk to me about it. On certain days I can be quite friendly and helpful. Thank you.

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Quote of the Issue

"You cannot hope to build a better world without improving the individuals. To that end each of us must work for his own improvement, and at the same time share a general responsibility for all humanity." Marie Curie, Polish scientist.

Annual Action Agenda, 1999-2000

Mission Statement: The Minnesota Chapter of the American Fisheries Society supports the conservation of North America's fisheries and aquatic systems by promoting professional excellence in fisheries science, management, and education.

This action agenda represents the Chapter initiatives during my term. The following action items are based upon the Minnesota Chapter Strategic Plan and the strategic plan is referenced parenthetically.

Item 1: Sponsor one or two continuing education workshops during the year (Goal A).
Responsibility: Laurie Sovell and Gerry Grant, Continuing Education Committee Co-Chairs.

Item 2: Organize annual chapter meeting. Publicize it extensively and aggressively (Strategy A.2).
Responsibility: Mark Hove, President-Elect.

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The Chapter publishes **RYBA** four times a year (Jan., May, Sept., and Nov.).
Deadlines for article submission are: April 15, Aug. 15, Oct. 15, and Dec. 15.
Necessary Burbot Legal Language: The views and opinions expressed herein are not necessarily those of the Minnesota Chapter. Printed on butchered trees.

Item 3: Develop and publicize a fish stocking position paper (Strategy C.1). Responsibility: Larry Kallemeyn and Tom Jones.

Item 4: Continue involvement in development of public policy that affects fish and fisheries (Goal D). This includes membership in the Fish and Wildlife Legislative Alliance (FWLA) and participating at the DNR Fishing Roundtable (Strategy D.4). Responsibility: Bruce Vondracek and Don Pereira, FWLA Delegates; Mark Hove, Fishing Roundtable Delegate.

Item 5: Develop an article highlighting fisheries work in a high-profile popular press outlet (Strategy C.6). Responsibility: Melissa Drake.

Item 6: Assist in planning and sponsoring a Red River Riparian Project workshop on Riparian Management in Cities/Municipalities (Goal D). Responsibility: Henry Van Offelen.

Item 7: Refine Chapter display and place in the DNR building at the Minnesota State Fair (Strategy H.4). Responsibility: John Hiebert, Public Education Committee Chair.

Item 8: Publish 4 chapter newsletters and distribute to chapter members through the mail and the chapter website. Responsibility: Paul Radomski, Newsletter Editor; Jingyin Li, Webmaster.

Item 9: Develop and implement a 5-year financial plan to implement specific Chapter activities and use chapter revenues appropriately. Responsibility: Henry Van Offelen, Long Range Planning Chair, and Tom Burri, Fundraising Co-Chair.

Officer and Excom Reports

President-Elect - by Mark Hove
Planning for our next annual meeting is underway. I spoke with several chapter members at the La Crosse meeting about ideas for the meeting in 2000. Most of

those I spoke with and the majority of our Executive Committee liked the idea of meeting with another professional society at a central location. I approached the Minnesota chapters of the Society of American Foresters (SAF) and The Wildlife Society (TWS) with the idea of a joint meeting. SAF was interested in the idea but next year they will celebrate their centennial (!) anniversary and plan meet alone to reflect on their history and discuss the future. TWS would like to meet with our chapter again. Martha Minchak (TWS President-elect) and I have begun discussing meeting locations and dates. Presently, we are reviewing bids from hotels in St. Cloud and the Twin Cities. Several people expressed interest in returning to the University of Minnesota for a meeting so I am also exploring this option. We are considering holding the meeting in late January 2000. This time falls between the Midwest Fish and Wildlife Conference (December 1999) and the Fisheries Training Session (tentatively in Feb. 2000). This date also avoids testing period conflicts for many of our student members. If you would like to share your suggestions for the meeting in 2000 please contact me by phone at (612) 624-3019, or via email at Mark.Hove@fw.umn.edu.

Open - by Brian Borkholder

This past March the Supreme Court upheld the lower court decisions regarding the treaty of 1837. The Mille Lacs and Fond du Lac Bands of Minnesota, along with six Wisconsin Bands, have retained rights to hunt, fish, and gather within lands ceded to the Federal Government. This affects much of east central Minnesota. It was a close decision, and in the end a single vote proved to be deciding.

In April, the eight Bands began exercising fishing rights within the 1837 Ceded Territory for the 1999 fishing season. 55,000 pounds of walleye have been allocated to the Bands on Mille Lacs Lake. While this sounds like an excessive amount to those of us used to dealing with somewhat smaller, less productive bodies of water, consider that State licensed anglers harvested over

300,000 pounds of walleye last year from Mille Lacs Lake. For the 1998 fishing season, the Bands harvested slightly more than 31,000 pounds of walleye from the 40,000 pounds allocated.

There will no doubt be difficulties and adjustments as the MN DNR, the various Bands, and the Great Lakes Indian Fish and Wildlife Commission set off on the "Co-operative Management" highway. This is relatively new for Minnesota. Wisconsin has been involved with this issue for close to 15 years. There will have to be some patience and compromise for all parties involved. While the Bands and the State have been working closely for the last two years on the management of Mille Lacs Lake and other, smaller lakes, this decision establishes this working relationship as permanent. A lot of good biology has resulted from this effort, and will no doubt continue as a result of the Supreme Court's decision. Paul Radomski and Rick Bruesewitz have done excellent jobs with the various models they have been working on. While I understand what the models mean, don't ask me to explain them. I get somewhat glassy-eyed as they expound on the assumptions made, jack-knifing, parameters, etc.

Committee Reports

Awards Committee - by Julie Westerlund

The Awards Committee would like to congratulate this year's winners of MN Chapter AFS awards. The following awards were presented at the January Tri-Chapter meeting in LaCrosse, Wisconsin:

The Award of Excellence was given to Paul "Jack" Wingate, manager of the DNR's Fisheries Research Unit. Jack was honored for his promotion of the chapter and it's goals. Jack leads the Minnesota DNR in encouraging fisheries staff to actively participate in Chapter functions, and understands that communication among professionals and career development through the society will result in improved resource management. Jack promotes the goals of

the chapter by motivating staff in the pursuit of good science, and his involvement in Minnesota's Large Lake Program, Fisheries Technical Committees, and in the 1837 Treaty Litigation has demonstrated his integrity and foresight in fisheries management. Congratulations, Jack, on winning the Chapter's highest award!

The Best Paper Award went to Rod Pierce for his presentation entitled "Effects of Discontinuing Walleye Stocking on Fish Populations in Lake Thirteen, Minnesota." Rod's coauthor is Cindy Tomcko. Rod and Cindy are Fisheries Research Biologists for the MN DNR in Grand Rapids.

The Special Recognition Award was presented to Jerry Grant, who was honored for his contributions to the Chapter as a student member while at the University of Minnesota. In addition to helping out at chapter meetings, Jerry worked extensively on the 1997 Abstract Book and was Student Representative to the Executive Committee in 1995-1996. Jerry is currently a Fisheries Research Biologist for the MN DNR in Brainerd.

The Awards Committee is seeking nominations for awards to be given in 2000. Please keep this in mind as you encounter examples of fisheries excellence and special contributions to the Chapter in the coming year! The Award of Excellence recognizes either long term excellence in the fishery profession or outstanding performance in an activity that furthers the goals of the Minnesota Chapter of the AFS. The recipient of the award may be any individual or group, and is not limited to AFS membership. To make a nomination, please submit one to two pages that describes how and why the nominee is worthy of the award, and include a description of the individual or group's accomplishments or contribution to the field of fishery science.

Special Recognition Awards may be presented to individuals who have made special contributions to the chapter. This includes personal time and services or special projects that advance the goals of

the chapter. Eligibility extends to all chapter members in good standing. Nominations should describe the special service to the chapter in one or two paragraphs.

Nominations will be accepted from any Minnesota Chapter member between now and December. Please send nominations to Julie Westerlund at 1200 Warner Road, St. Paul, MN 55106 or julie.westerlund@dnr.state.mn.us.

Membership Committee - by Doug Kingsley

During 1998 we had 176 MN Chapter AFS members renew their membership (81% of 1997 members). That's slightly lower than the 86% of 1996 members who renewed in 1997. We had 40 (19%) who didn't renew their membership in 1998, slightly higher than the 14% of 1996 members who didn't renew their membership in 1997. We wound up gaining 41 new and 2 "intermittent" members in 1998, compared to 65 new in 1997. Intermittent members are those who paid dues in 1996, didn't pay dues in 1997, and rejoined in 1998.

Despite the somewhat disappointing renewal of memberships and recruitment of new members in 1998, we still managed to make net gains from 175 members at the end of 1996 to 216 in 1997, and 219 in 1998. Hopefully we can continue or improve that trend in 1999. If you haven't renewed either through the parent society or with the chapter, be sure to do so.

Due to the Chapter's solid financial status, a motion was passed at the annual business meeting in January to relieve students of the Chapter membership dues requirement. Students who choose not to pay Chapter dues will not receive a mailed copy of the newsletter. Instead, they will have to receive the newsletter from the Chapter's internet web site. Students can opt to pay membership dues and continue to receive newsletter mailings.

This will be the last newsletter that students will receive by mail unless they

choose to pay annual dues. Please pay careful attention to the three letter affiliation code on this newsletter mailing label. Students should be sure I have listed their affiliation as STU. Non-students should make sure I haven't listed their affiliation as STU. If anyone knows someone I've listed incorrectly please help make sure they are made aware of that, and that someone lets me know. Finally, if anyone knows students who might be interested in joining the Chapter, but have put it off because of the dues requirement, please bring this latest change to their attention and encourage them to join dues free. Membership forms can be found elsewhere in the newsletter.

If I have listed anyone's affiliation code incorrectly or have them listed as UNK (unknown), if anyone finds an error in their address on the mailing label, or if anyone has a change of address please be sure to bring it to my attention. My phone number is listed in the newsletter under Committee Chairs (218/732-4153). My address is: 301 S Grove Ave, Park Rapids, MN 56470.

Following are the affiliation codes that I'm currently using in our membership database:

- STU - student
- FED - federal
- ACA - academic
- EPA - Environmental Protection Agency
- PRI - private
- DNR - Dept. of Natural Resources
- TRI - tribal
- DOT - Dept. of Transportation
- RET - retired
- DAG - Dept. of Agriculture
- SPE - special (parent society, other Chapters or organizations)
- PCA - Pollution Control Agency
- UNK - unknown

Thanks for your help.

Resolutions Committee - by Todd Marwitz

I would like to use this opportunity to solicit resolutions from the Chapter membership. Resolutions are a formal expression of the Society's views and can

be a form of advocacy. They can be either internal, relating to AFS matters only, or external, relating to state, regional, national, or international issues outside of the AFS. For a resolution to receive committee attention, it should be submitted with background information necessary for evaluation of its accuracy and importance. Resolutions seeking action from the parent Society must carry national or international significance. Please e-mail or snail-mail any resolution, or ideas for a resolution, to me at the addresses listed below.

A proposed resolution urging the U.S. Fish and Wildlife Service to place a greater emphasis on fisheries within the Upper Mississippi River Wildlife and Fish Refuge was reviewed and submitted to the EXCOM for a vote. It was passed by the EXCOM and is now up for acceptance by the Chapter membership. The proposed resolution, along with a ballot, can be found in this issue of **RYBA**. Please take the time to read it and vote. Your ballot should be sent to me at 1801 S. Oak St., Lake City, MN 55041, or you can e-mail (todd.marwitz@dnr.state.mn.us) your vote using one of the following statements: "I support the resolution" or "I do not support the resolution". Feel free to provide additional comments regarding this resolution, as well.

FWLA Delegate - by Don Pereira and Bruce Vondracek

Primary legislative contact personnel for the FWLA are Gary Botzek (legal counsel and primary lobbyist) and Lance Ness (FWLA President). Both of these individuals spend a considerable amount of time during the session trying to support, oppose, or amend specific, proposed bills that may impact the environment, natural resource management, and sporting activities. As one would expect, much of this legislation pertains to issues that have no consequences for conservation (e.g., dead beat dads can't get a fishing or hunting license), or deal only with wildlife or terrestrial resources. Under such cases, Don and Bruce simply observe and offer no professional opinion to the ensuing

discussion (or at least we try not to).

The FWLA met 25 March 1999. We produced a report from this meeting, and Bruce presented it at the Spring EXCOM meeting. The legislative subgroup of the FWLA also met on April 7, with the full group meeting on April 29. If the chapter sees anything urgent to be brought forward to the FWLA, let us know ASAP.

Continuing Education Committee - by Laurie Sovell

Overview of Ethics Workshop

The Chapter hosted 35 participants from Minnesota and Wisconsin at the Continuing Education workshop "*The Fine Lines of Ethics: Ecology, Tradition, Money and Conscience*" as part of the annual meeting in LaCrosse, Wisconsin on January 5 1999. We were fortunate to have Brian Stenquist design and facilitate this "open space" workshop. Christine Moffitt, President-elect for the parent Society, also traveled from Idaho to participate in the workshop. The workshop began with a brief background session on the topic of ethics, which was followed by thoughts from our Chapter President. Participants were then asked to identify issues of interest, and lead small-group discussions that took place in the afternoon. Discussion topics ranged from 'Reactive science vs. proactive policy' to 'Gender-based value systems' and 'Should we extend economic principles by selling fish populations, lakes and resources?'. Course evaluations suggested that the open space format facilitated open dialog and interactions within small-groups. A number of participants thought that additional background information and pre-selected topics may have provided additional structure to the day. The Continuing Education Committee is currently working to complete the accreditation process for workshop participants.

Upcoming Opportunities

The following three topics were identified as the potential focus of upcoming workshops through a survey of chapter members conducted at the 1999 annual meeting:

Disseminating information to the Public
Biostatistics
Natural Resource Policy, Values, and Economics

We expect to offer the next workshop on one of these topics in conjunction with the Minnesota Chapter's 2000 annual meeting, and will keep you updated as plans progress. In the meantime, our committee is exploring a proposal to work with the Society of American Foresters (SAF) to hold a joint continuing education event this summer on riparian land management. This course would include discussion of riparian land management from a fisheries and forestry perspective, improving participants' appreciation for the diversity of management goals and practices that exist. If this joint course is fully instituted, a flier describing the course will be sent to MN AFS members and DNR Area Fisheries Offices this spring. For more information, please contact Laurie Sovell at (507) 389-1925.

Changing Personnel

Mark Hove, who has served on the Continuing Education Committee since fall 1994, is stepping down to take on the duties of Chapter President-elect. Thanks to Mark for an excellent job and for all the energy he has offered to the Chapter's continuing education efforts. We welcome Jerry Grant to the committee, who will work with Laurie Sovell to keep offering you interesting and informational opportunities. Jerry is a Fisheries Research Biologist with the Minnesota DNR in Brainerd.

Nomination Committee - by Melissa Drake

It is time to start thinking about who you would like to nominate for chapter officers and Excom representatives.

Rivers and Streams NCD Rep - by Dennis Topp

The winter meeting of the North Central Division Rivers and Streams Technical Committee was held in Rock Island, Illinois on April 6 and 7. There were

representatives from 9 state chapters at the meeting, with attendance totaling at least 30 people. The minutes from the meeting will be available in about two weeks through a link at the NCD home page. Much of the discussion at the meeting surrounded dam issues. We have had about 100 inquiries from potential presenters for the symposium on dam removal and fish passage that we are sponsoring at the Midwest Fish and Wildlife Conference this December in Chicago. Information on the symposium is available through a link at the NCD home page, or through me. The first call for papers has been announced.

We have asked Luther Aadland, from MN DNR Ecological Services to be one of the invited speakers at the symposium. Other possible guest speakers that we are considering are Mark Gaboury from British Columbia, Steve Gebhardt from Connecticut, and John Schuman from Florida.

We also discussed the idea of putting together a "professionally produced" educational video on dam removal. Stephanie Lindloff, who is the small dams program coordinator with the River Alliance of Wisconsin, noted that her group was considering the same type of project. The committee decided that we will participate as technical advisors on the project, and will help locate potential funding sources. We envision the project to include a handbook along with the video. This dam video will include social testimonials, ecological effects, local involvement, destruction techniques, etc. If you have any suggestions for the direction of this project, please give me a holler.

Salmonid NCD TC Rep - by Pat Rivers

The annual summer meeting will again be held in LaCrosse in 1999 jointly with the Esocid Technical Committee. The STC agreed to sponsor a Trout and Trout Angler workshop in 2000. Human dimensions research as it relates to trout fishing and management in the Upper Midwest will be a significant part of this workshop. Progress of action plans of a

similar workshop held in 1988 will also be evaluated.

Topic areas for the Midwest Fish and Wildlife Symposium on Trout Management within the Native Range were discussed. Some of the topic areas considered include: genetics management with wild stock transfer, human dimensions considerations for native species, native species range reclamation, exotic species, fish passage (Great Lakes), effects of urban development on trout fisheries, watershed management, and species-specific habitat management.

The following talks were given at the last meeting:

Twin Cities Urban Trout Program- K. Bigalke; Trout Movement in the Oconto River System- R. Langhurst; Land use Changes in the Kickapoo River Valley- D. Vetrano; Large Woody Debris for Salmonids in the Midwest- R. DuBois; Review of Hooking Mortality of Salmonids in Streams- R. DuBois; Restoration of Rapid Creek - an Urban Trout Program- J. Erickson; Genetic Evaluation of Wild Rainbow Trout in Missouri- J. Koppelman; Re-establishing Native Brook Trout Communities in Wisconsin- E. Avery; Green Bay Urban Trout Management: An Educational Display- L. Meyers; Brown Trout Population Fluctuations in Southeast Minnesota- C. Anderson; A Review of Trout Management in Southeast Minnesota Streams- B. Thorn; Management for Large Brown Trout by Experimental Regulations- M. Ebberts; A Year-long Angler Use and Preference Survey to Develop Trout Management Options- J. Erickson

News From Southeastern Minnesota: New experimental regulations are in effect for nine southeast Minnesota trout streams. The winter catch-and-release was also expanded, as well as the addition of a region wide catch-and-release season from April 1 to the traditional opener (April 17 this year).

A channel restoration project is underway on the Whitewater River. The project will return flow to the historic river channel, which was diverted in the 1950's

to create waterfowl habitat. The project will add three miles of trout water back to the Whitewater River as well as maintain the waterfowl areas. Flows will be redirected into the historic channel in late summer or early fall.

The Lake City fisheries staff are considering re-introducing sculpin to streams where they were historically found. The Bell Museum fish collection should aid in identifying these streams.

Minutes of Chapter Meetings

Minutes of the 32nd Annual Meeting of the Minnesota Chapter of the American Fisheries Society, January 6, 1999. Yacht Club Resort, LaCrosse, WI. Submitted by Kevin Stauffer

Meeting was called to order by Bruce Vondracek, President. The first order of business was to approve minutes from the 31st annual meeting. There was no discussion offered from the floor. Minutes were approved by unanimous vote. Prior to the vote, it was determined that a quorum was in place with 64 chapter members in attendance. Vondracek recognized past-presidents that were in attendance. The past-presidents were Ira Adelman, Tim Goeman, Greg Busacker, Jack Wingate, Don Pereira, Bill Thorn, Larry Kallemeyn, Carl Richards, and Howard McCormick.

President's Report

NCD News - Vondracek reported on the North Central Division (NCD) retreat that he attended. Two major items discussed were Continuing Education and professional certification. The recent changes to certification and re-certification processes will place more emphasis on Continuing Education. The NCD would like to be a clearing house for the process and planning of Continuing Ed, and provide support to the Chapters. One of the topics discussed was the possibility of incorporating workshops into the technical sessions at the Midwest conference, rather than having the workshops before or after the conference. This may increase attendance and improve

opportunity since it would eliminate additional travel expense and time away from the job. The NCD directors also want to elevate professional certification as an important issue to agency administrators. Currently, few agencies require or consider professional certification as a job requirement or desired qualification for fisheries professionals.

Annual Action Agenda - Vondracek gave status and summary report of progress made during the past year.

Action Agenda Accomplishments:

Item 1: Sponsor 1 or 2 continuing education workshops. Done -A watershed workshop was held in January of 1998 and was very successful. Approximately 70 people attended the workshop and Chapter profits exceeded \$3,500. A second workshop was held prior to this annual meeting. The topic was Ethics in Fisheries. Attendees commented that it was an excellent and thought provoking workshop.

Item 2: Organize a tri-state meeting with Wisconsin and Iowa - Done.

Item 3: Develop a position paper on fish stocking. Status - Larry Kallemeyn and Tom Jones are heading this effort and a draft is in progress.

Item 4: Become more involved in the development of public policy affecting fish and fisheries. Status - the MN Chapter joined the Fish and Wildlife Legislative Alliance (FWLA). Vondracek and Don Pereira represented the Chapter. Both felt it was a positive step in becoming more active in public policy development.

Item 5: Develop an article highlighting fisheries work and/or AFS for publication in high-profile popular press outlet (e.g. Outdoor Life) authored by an AFS member. Status - no articles have been published since last year when two of Tim Goeman's articles were published (one was republished in the Western edition of Field & Stream). Melissa Drake will chair a committee and work with anyone interested to develop additional articles and ideas.

Item 6: Plan and coordinate a Rivers, Watersheds and Fisheries workshop in NW Minnesota. Done. Chapter members including Dennis Topp, Julie

Westerlund, Henry VanOffelen and Tim Schlagenhaft led a workshop at the Local Water Planners Conference held at U of M -Crookston on July 21-23, 1998. Item 7: Restructure the AFS display and place the display in the DNR building at the State Fair. Done. Linda Bylander and Steve Quinn restructured the display. Item 8: Publish action agenda in the Chapter newsletter and on the Chapter homepage. Done.

Committee Reports

Secretary/Treasurer - Stauffer reported that the checking account balance is currently \$6,961.20 and the CD has a balance of \$10,986.62. Estimated balance of CD at next rollover (7/99) is \$11,650.00. Checking account activity for 1998 was as follows:

Income:

1998 Annual Meeting = \$4,181.95

1999 Annual Meeting = \$614.00

Chapter Dues = \$1,610.00

Continuing Ed = \$7,338.18

Interest = \$127.67

T-shirt sales = \$3,374.00

Times-Mirror (article) = \$800.00

Total Income = \$18,045.80

Expense:

1998 Annual Meeting = \$4,395.42

1999 Annual Meeting = \$235.00

Check Printing = \$7.95

Continuing Ed expenses = \$538.16

FWLA Dues = \$1,000.00

NCD Student Travel = \$100.00

Postage = \$208.87

Office Supplies = \$68.44

R. Frie Endowment = \$1,000.00

T-shirts = \$1592.66

Watershed Workshop = \$3,559.91

Total Expenses = \$13,466.01

INCOME LESS EXPENSES =
\$4,579.79

Academic - Loren Miller reminded that the Area Code for U of M campus did not change.

ExCom Open - Rick Bruesewitz reported that the Mille Lacs Treaty case went before U.S. Supreme Court. The State and Mille Lacs Band will proceed according to lower courts rulings until

decision is handed down from the Supreme Court.

Continuing Ed - Mark Hove reported that the attendance at the Ethics workshop was a little lower than anticipated, but was an excellent workshop and will provide benefits in the future. Mark and Laurie Sovell are looking for suggestions and input for future Continuing Ed topics. Membership - Doug Kingsley asked members to make sure they update their addresses so he can maintain an accurate database. Also, please let Doug or Julie Westerlund know the date on which you joined the chapter so that we can recognize 25 year awards, etc.

Nominations - Melissa Drake reported the results of this years election as follows:

President Elect - Mark Hove;

Secretary/Treasurer - Tim Brastrup;

ExCom Federal - Chantel Cook; ExCom

DNR - Jeff Reed; ExCom Open - Brian

Borkholder and ExCom Academic -

Andrew Simons.

Procedures Manual - Brad Parsons

reported that some minor changes have been made, but none that require Chapter approval.

Resolutions - Todd Marwitz reported that there were no resolutions to put forward at this time. Resolution from Ray

Hubley was mentioned, Todd Marwitz said that he would follow through on

learning about why Ray put it forward and make that information available in

the next newsletter. Todd and Mark Hove are drafting a resolution regarding the

Stillwater bridge over the St. Croix River. The draft resolution will be

published in the newsletter.

Rivers & Streams - Dennis Topp reported that the NCD Rivers and Streams

technical committee will sponsor a symposium on dams at the Midwest in

Chicago. Members are encouraged to submit papers.

Students - Carl Reutz reported that raffle donations for this years annual meeting

were low. He is working on a list of AFS students and faculty members at

schools across Minnesota.

Special Guest - Christine Moffit

Vondracek introduced Christine Moffit, president-elect of the AFS parent society.

Christine participated in the Ethics workshop and welcomed the opportunity

to address the MN Chapter at our

business meeting. Some of her comments and information were:

- The third version of the Strategic Plan is on the website and members are encouraged to review and submit comments.
- Invited everyone to attend this years Annual Meeting in Charlotte, North Carolina. The year 2000 annual meeting will be in St. Louis.
- The search for a new Executive Director is underway. So far, there has been a number of inquiries, but no applications. Applications are due next week.
- Electronic journal subscriptions are now available. Encouraged everyone to give them a try.
- Asked everyone to think about people deserving AFS parent society awards and nominate them. Awards are available for AFS members, non-members, organizations, etc. If you have questions about which award is most appropriate, please contact her.

Old Business -

Vondracek asked for opinions on whether or not we should join FWLA for another year. Questions from floor: Who is in FWLA? ANS - some examples include the Fish and Wildlife Employees Association, Minnesota Bowhunters, Minnesota Archery Association, The Wildlife Society, and many others. What does FWLA do to support/oppose issues? ANS - FWLA retains a full time lobbyist (Gary Botzek), who we have access to thru the FWLA. What does FWLA oppose? ANS - a good example was the legislative mandate to the DNR to stock more walleye. Is there any dissenting views allowed if we don't agree with the rest of the members? ANS - No, only a majority opinion is issued. Don Pereira noted that we had abstained from voting on several occasions. Bottom line is that we have two votes, and not all issues will come down in agreement with the Chapter. It was also noted from the floor that participation in FWLA has been more beneficial, and provides us better access to public policy development, than have our past efforts (e.g. Legislative breakfasts). Motion from floor to continue FWLA membership was made. Discussion: Should this be a standing budget item? Response by Vondracek -

originally proposed to try FWLA for a couple years and then revisit discussion. Vote to join FWLA for one more year was unanimous in favor.

New Business

Bruce reported to the members that the EXCOM had voted to waive the chapter dues for students and that this information would be in the next newsletter. Installation of new President - Vondracek presented Paul Radomski as the new Chapter president. As his first order of business, Radomski presented Vondracek a plaque acknowledging his service and efforts during the past year. Dam symposium at Midwest - Radomski asked for a motion from the floor to consider donating \$500 toward the symposium to be held at the next Midwest in Chicago. Motion was seconded, no discussion, passed unanimously. Budget proposal - Radomski presented as follows:

Beginning Balances

Certificate of Deposit-\$11,000
Checking Account-\$6,900

Income

Annual Meeting=\$4,500
Chapter Dues=\$1,500
Raffles=\$1,000
Continuing Education=\$4,200
Interest (checking)=\$100
Total Income=\$11,300

Expenses

President's Travel=\$1,500
NCD Travel Award=\$150
Annual Meeting=\$4,500
Student travel to Chapter=\$500
Newsletter=\$1,500
Presidents Initiatives=\$500
Continuing Ed=\$4,200
FWLA Membership=\$1,000
Raffle=\$500
Total Expenses=\$14,350

Motion to accept budget was made and seconded. Discussion on proposed budget - Q. How many students were covered to attend this meeting and is \$500 enough? A. all students that applied were covered, so this seems to be enough. Q. Should there be more money allocated to President's Initiatives? A. Not at this

time. Radomski state he is going to put an ad hoc committee together to come up with ideas. May include spending some of the CD. Budget was approved by unanimous vote. Motion to adjourn, seconded and approved by unanimous vote.

March 30, 1999, Excom Meeting Minutes. Brainerd Public Library. Submitted by Tim Brastrup, Secretary-Treasurer

The meeting was called to order by President, Paul Radomski at 10:08. Those in attendance included: Paul Radomski, Bruce Vondracek, Mark Hove, Chantel Cook, Andrew Simons, Thomas Burri, Melissa Drake, Brian Borkholder, Brad Parsons, Doug Kingsley, Henry Van Offelen, Jeff Reed, Pat Rivers, Todd Marwitz, Jerry Grant, Laurie Sovell and Tim Brastrup.

First order of business was the introduction of members in attendance. A discussion on the balance of the treasure included the consideration of alternatives for money management. One idea discussed was to open a checking account at the same bank being used now, to fund with sufficient money to pay the bills following the annual meeting. This way the federal law regarding the maximum number of checks that can be written from a money market account will not be violated. Tim Brastrup will consult with the bank in Detroit Lakes after the signature authority has been changed and this year's accounts receivable is balanced.

A discussion was began regarding the action agenda agreed upon at the annual meeting. Paul underscored the importance of attention to the action agenda.

Action Agenda

Item #1: Sponsor one or Two Continuing Education Workshops During the Year. (Laurie Sovell and Gerry Grant). Received input from 34 respondents covering 33 topics. The top three were Biostatistics, Natural Resource Policy, and Values & Economics. A discussion about a joint conference workshop on

riparian management with the Society of American Foresters (SAF) and the Red River Riparian Project was initiated, however, SAF is likely not willing since it is their centennial year and they want to celebrate it alone. Laurie Sovell will explore ideas for linking a workshop this year with the annual meeting that does not conflict with the MN DNR Research Unit Quarterly. The workshop may be best if it were only one day.

Item #2: Organize annual chapter meeting. Publicize it extensively and aggressively (Mark Hove). Again, the possibility of a joint meeting with SAF may not be possible, however, there is potential to meet jointly with The Wildlife Society (TWS). A discussion included potential sites such as St. Cloud, the University of Minnesota Campus or some location in the Twin Cities. Mark will explore these ideas. Early February seems like a good time to have the meeting. There is an interest in education and students taking part in the meeting. Details must be available for the November newsletter.

Item #3: Develop and publicize a fish stocking position paper. (Larry Kallemeyn and Tom Jones). The first draft if done and Paul Radomski read some recommended changes to the paper. Final changes need to be completed so it can be included in the next newsletter. Paul recommends soliciting comments in the May newsletter so the draft will be finalized for the November newsletter and can be read at the annual meeting.

Item #4: Continue involvement in development of public policy that affects fish and fisheries, including membership in FWLA and participating on the DNR Fishing Roundtable. (Bruce Vondracek, Don Pereira and Mark Hove). Bruce discussed the bills in the legislative session affecting fisheries management programs. One bill would dedicate 1/8% of sales tax to DNR. Other language states that 0.125% would go to Environmental Trust Fund or \$24,000,000 which would go to the DNR.

Item #5: Develop an article highlighting

fisheries work in a high-profile popular press outlet. (Melissa Drake). Melissa indicated that she will proceed with the article.

Item #6: Assist in planning and sponsoring a Red River Riparian Project workshop on Riparian management in Cities/Municipalities. (Henry Van Offelen) The workshop will be in Fargo North Dakota on September 22nd and 23rd. There will probably be some field visits. The Chapter may be interested in co-sponsoring the workshop. Henry is looking for input on whether the Chapter should get involved. Karr will be a speaker.

Item #7: Refine Chapter display and place in the DNR building at the Minnesota State Fair. (John Hiebert). John received materials from Linda Bylander.

Item #8: Publish 4 Chapter newsletters and distribute to chapter members through the mail and the chapter website. (Paul Radomski). April 15th is the deadline for article submission for the newsletter. This action item will continue.

Item #9: Develop and implement a 5-year financial plan to implement specific Chapter activities and use chapter revenues appropriately. (Henry Van Offelen). Discussion included the idea of scholarship or endowments. It was decided that there is a need to put some ideas together for approaches for the use of the money in the financial plan. The Excom will put together ideas for a vote by membership. The motion was made by Brian Borkholder, second by Bruce Vondracek. Unanimous vote to pass motion.

Paul Radomski's action agenda for the coming year was approved by a motion by Bruce Vondracek, second by Mark Hove and unanimous vote.

Membership Chair, Doug Kingsley: No late membership notices will be going out because some members are paying through the parent society.

Nominations Chair, Melissa Drake: No

new nominations.

Resolutions Chair, Todd Marwitz: Ray Hubley's resolution is determined to be straight forward, being related to fish management in the Upper Mississippi River Wildlife and Fish Refuge by the USFWS. A motion to approve the resolution was made by Bruce Vondracek, second by Tim Brastrup and unanimous vote approval. The resolution will go into the next newsletter.

Students Chair, Carl Ruetz: Not Present.

Fishing Round Table, Mark Hove: No report.

Fund Raising, Tom Burri: He will find out what works. Will take advantage of two free books from the parent society. Is a point when cost effectiveness breaks down. Regardless of prizes, people will spend a certain amount of money and no more. If anybody has donations, please let him know.

FWLA, Bruce Vondracek and Don Pereira: FWLA proceedings will be on the Website.

Continuing Education, Laurie Sovell: Ethics workshop was said to be a very good workshop (general consensus). The workshop was only \$22.38 in the red for cost vs. receipts. The Midwest Fish and Wildlife Conference associated workshops will be sponsored by the North Central Division.

Procedure Manual, Bradford Parsons: An ad hoc committee can be appointed at the discretion of the president. If there is a strong feeling about the issue, there can be a standing committee and vote on the issue by the membership.

Rivers & Streams, Dennis Topp: Not present. He thanked everyone for the donation and will go to the Rivers and Streams Committee meeting of the NCD.

Newsletter, Paul Radomski: Nothing new.

Salmonids, Pat Rivers: Reported on stream work in Southeast MN regarding

regulations and special seasons, and sculpin re-introductions. The Whitewater Main Branch Channel connection was discussed.

Old Business

Membership Survey: Brian Borkholder asked if anything been done with it? A copy is available from Paul Radomski. Henry Van Offelen will search for information on how results have been utilized.

Historian - Only open position. Bruce Vondracek will approach a student to take on the task. Any historical documents should be sent to Bruce Vondracek for records storage.

Excom Members:

Jeff Reed: Looking for information on any project to be sent to the newsletter.

Chantel Cook: Reported that Mike Dombeck, Chief of the Forest Service, is making changes and has a natural resources agenda:

1. Watershed health (rest and protect)
2. Roads
3. Sustainable forestry
4. Recreation

There will be a forest plan revision that will show how the Chippewa National Forest will be managed for the next 15 years.

Andrew Simons: Academic. The Bell Museum collection is computerized. He is also the Curator of the Herp Collection.

Brian Borkholder: The Supreme Court decision is final on the 1837 Ceded Territories. Will probably go to trial on the 1854 issue in about a year. It probably will go to an allocation basis without legislation because no removal issue is present and the state's sovereignty issue was already tried.

Other Old Business

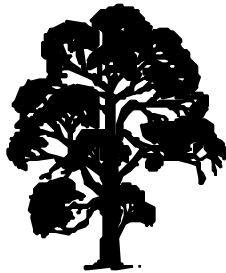
Will get a decision from Bradford Parsons regarding Linda Erickson-Eastwood's tuition payment being reimbursed for the DNR, Section of Fisheries, since she was not able to attend the workshop.

In Conclusion:

Paul says to get reports in! A motion to adjourn was made by Mark Hove, second by Bruce Vondracek and the motion was passed unanimously by vote. The meeting was adjourned by President, Paul Radomski at 1:53 PM.

Division Technical Committees

Esocid Technical Committee summer meeting is July 13-14, 1999, in LaCrosse, WI. Three speakers have been lined up to date--they include Elmer Heyob, OH, John Stellflue, WI, and Terry Margenau, WI.



Upcoming Events

May 9-14, 1999. 15th International Symposium on Biotelemetry. Juneau, Alaska. The Conference is sponsored by the International Society on Biotelemetry (ISOB) and is hosted by the U.S. National Marine Fisheries Service, Auke Bay Laboratory. Contact: 15th ISOB Organizing Committee, P.O. Box 35205, Juneau, Alaska 99803, 907.789.6033, Fax 907.789.6094, e-mail: john.eiler@noaa.gov www.indstate.edu/isb/

May 23-27, 1999. Wilderness Science in a Time of Change. Missoula, Montana. Contact Clare Kelly 888.254.2544, ckelly@selway.umt.edu

May 25-28, 1999. North American Benthological Society's 47th Annual Meeting. Duluth, Minnesota. Contact: Carl Richards 218.720.4332, www.benthos.org

June 23-25, 1999. 1999 World Conference On Natural Resource Modelling. Halifax, Nova Scotia, Canada. See <http://www.cqs.washington.edu/~gordie/rma.html>

July 12-16, 1999. 3rd International Symposium on Ecohydraulics. Salt Lake City, Utah. See www.conference.usu.edu/ecohydraulics for more information.

August 2-6, 1999. 9th Annual National Gap Analysis Program Meeting. Duluth, Minnesota. Hosted by: United States Geological Survey, Upper Midwest Environmental Sciences Center. Contact Becky Sorbel at gap@uidaho.edu.

August 29-September 2, 1999. 129th AFS Annual Meeting. Charlotte, NC. Contact Betsy Fritz 301.897.8616.

September 6-16, 1999. The Twelfth International Association of Phytoplankton Taxonomy and Ecology Workshop (IAP). The first part of the workshop (6-10 Sept) will be held at the University of Manitoba Field Station (Delta Marsh), Manitoba, Canada. The second half (10-16 Sept) will be held at the Department of Fisheries and Oceans Experimental Lakes Area Field Station, Ontario, Canada.

October 24-27, 1999. 4th Microcomputer Applications in Fish and Wildlife Conference. Stateline, NV. Contact Doug Beard 608.267.9427.

December 6-8, 1999. Symposium: Effects Of Dam Removal On Aquatic Ecosystems. Sponsored By American Fisheries Society, North Central Division Rivers and Streams Technical Committee [The MN Chapter contributed money to this Technical Committee for this symposium]. 61st Midwest Fish and Wildlife Conference Chicago, Illinois.

January 4-6, 2000. 29th Annual WI Chapter AFS Meeting. Manitowoc, WI. Contact Lee Meyers 920.492.5834.

August 20-24, 2000. 130th Annual

AFS Meeting. St. Louis, MO. Contact Betsy Fritz 301.897.8616.



Contributions: Letters and Commentary

To the Editor:

The recommendation by the Minnesota Department of Natural Resources (DNR) to impose a permanent ban on spearing of northern pike and lake whitefish on Cass Lake is based on a 9-year evaluation of a temporary ban from 1988-1997, summarized in a document released in December 1997. I offer the following comments and criticisms of that document. My comments are based on the muskellunge data, but many also apply to the data for northern pike.

The DNR failed to follow accepted practice in developing a plan for the evaluation beforehand, including specific objectives and criteria to determine whether significant changes to either the muskellunge or northern pike populations occurred as a result of the temporary ban (Waters and Erman 1990). Consequently, inadequate data were collected, and proper analysis was impossible, an all too frequent occurrence in fisheries work (Matlock 1991).

Pre-ban data were not collected for two of the methods presented in the Cass Lake Muskellunge Summary Table (spring trapnetting, fall electrofishing), making these data irrelevant with respect to the evaluation. Pre-ban data for two other sources (summer creel survey, angler diaries) are minimal and cover only two years immediately prior to the ban.

.....In Summary, the Cass Lake evaluation report presents ambiguous evidence for an "improvement" of the muskellunge population, and no evidence that the spearing ban imposed from 1988-1997 played any role in whatever changes

may have occurred. The data the DNR used is simply too "noisy" and the analysis too flimsy to demonstrate much of anything. Bemidji Area Fisheries Manager Gary Barnard, in his letter dated March 18, 1998, defended the correctness of the evaluation and conclusions. However, he also asserted in a published interview dated December 12, 1997, that some of the data sets used were "inconclusive". In a January 11, 1998, interview with the Minneapolis Star Tribune, DNR Fisheries Chief Jack Skrypek disavowed the evaluation, as well he should. What is the next step for the Section of Fisheries?

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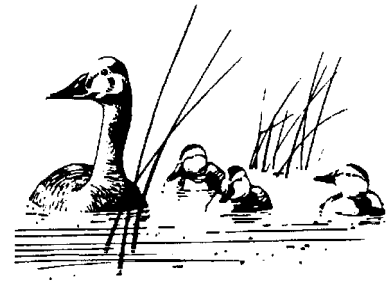
[editor's note: a substantial part of Mr. Boe's letter was not printed. If you want more information, I suggest contacting Mr. Boe]



Interesting Articles and Publications

Quantitative Fish Dynamics. Terrance J. Quinn II and Richard B. Deriso. Oxford University Press. 1999. ISBN 0-19-507631-1. All fish managers should have access to this book. It is a good addition to Ricker's (1975) book, since it adds recent advances in fish population dynamics and models.

From the Ecology list server this recommendation was noted repeatedly for background reading in ecology: Foundations of Ecology. Edited by Real & Brown, University of Chicago Press, 1991. ISBN 0-226-70594-3.



Editorial

"In individuals, insanity is rare; but in groups, parties, nations and epochs, it is the rule." Friedrich Nietzsche

Lions, Tigers, and Bears... Oh My! A Poem.

We live in an ordinary time.

Life so good for many,
so miserable for millions.

Evil dictators wrapped in ethnic
superpride and revisionary history.
Repeated like others that came before.
Each horror unique but similar.

Persons--ignorant and hateful--
using weapons of the day,
bringing misery to the innocents.
Pain and sadness to the x power,
the hateful's warped mind generates
with their petty pain.

Kids killing kids,
Leaders plundering present for no fun
future.
What a wonderful species we have here.

Surveyed children of the inner city
note fear of lions, tigers, and bears.
Illogical.
Thugs, social misfits, and hoods they
should fear.

What of the fish of Kosovo?
What luxury we have to worry and work
on such things as fish here.
Guilt for my predicaments.
Perhaps this luxury will not last.
The year 2003 is not far off,
I must prepare, I must have fear.



Of Interest

Program MARK, written by Gary White of Colorado State University, is now available for downloading via the WWW. MARK is a sophisticated software (Win95/98/NT) application for the analysis of data from marked individuals (survival, recruitment, movement etc). If your research involves marked individuals - in almost any sense of the term - you really should have a look at MARK, and what it can do for you. MARK is a very flexible and powerful program. It is also a big program, with MANY options, and a lot of technical and theoretical sophistication. It encompasses virtually all currently used methods for analysis of marked individuals - including many very new approaches only recently described in the primary literature. The primary site for downloads of MARK and pointers to some technical documentation is at <http://www.cnr.colostate.edu/~gwhite/mark/mark.htm>. A mirror site (which also contains a very thorough online book for learning how to use MARK - intended for novice to intermediate analysts) can be found at <http://www.biol.sfu.ca/cmr/mark>.

POPAN-5 has recently been released. POPAN-5 is the most advanced software for estimation of population abundance and recruitment rates using mark-recapture data. POPAN's UFIT procedure allows users to constrain survival-, capture- and recruitment-rate parameters over sample times and/or groups (e.g. survival the same for males and females at specified times). Parameters may be modelled using covariates (e.g. capture a function of sampling effort, survival a function of temperature), with across-group constraints (e.g. equal slopes in males and females). POPAN complements programs like MARK and SURGE whose emphasis is on estimation of survival only. POPAN is

of particular interest to fisheries biologists because it is the only program that can estimate total escapements using gross recruitment estimates. POPAN runs under Windows 3.1 or later (including Win 95, 98, NT) on Intel-compatible co-processor machines. POPAN (and its manuals) are available as freeware via the Internet. To download, use the POPAN web site: (<http://www.cs.umanitoba.ca/~popan>)

Internet NewsBrief is a weekly service from the EPA Headquarters Library that provides a sampling of new and/or useful Internet resources for EPA staff and other environmental professionals. The Internet NewsBrief is also available on the Web at: <http://www.epa.gov/natlibra/hqirc/inb.htm>

Index of Watershed Indicators <http://www.epa.gov/surf2/iwi/>
The Index is a compilation of information on the "health" of aquatic resources in the United States. The Index looks at a variety of indicators that point to whether rivers, lakes, streams, wetlands and coastal areas are "well" or "ailing" and whether activities on the surrounding lands that affect our waters are placing them at risk.

Enviromapper for Watersheds <http://www.epa.gov/surf2/iwimapper/>
This interactive mapping tool allows users to look at many geographical levels of environmental data. The mapper shows data at the national, state, and county levels from the Index of Watershed Indicators as layovers on the maps and incorporates GIS functionality, such as displaying multiple spatial layers, zooming, panning, identifying features, and querying single points.

Scientists ask for stronger Clean Water Act - Pollution is severely threatening America's waterways and the Clean Water Act needs to be strengthened to control the problem, according to a group of marine scientists who petitioned Congress last week for additional clean water legislation. According to the scientists, who represented 320 scientific

leaders and the Center for Marine Conservation, America is dealing with "the most pervasive pollution problem in the coastal marine environment" -- excess nitrogen and phosphorous pollution, nutrients, animal waste and fertilizers that are carried into our nation's waterways by polluted runoff.

Dr. Nancy Rabalais, co-discoverer of the Gulf of Mexico "Dead Zone" and president of the Estuarine Research Foundation, and Dr. Tom Malone, an expert on nutrient pollution in coastal waters, including the Chesapeake Bay, and president of the American Society of Limnology and Oceanography, offered five recommendations to control water pollution:

1. Specifically address nutrient reduction, now entirely exempt from the act.
2. Do not backslide on existing point source requirements, which have been effective in controlling municipal wastewater and industrial discharge.
3. Link the Clean Water Act with other pertinent statutes, such as the Clean Air Act, since airborne pollution is a significant contributor to water pollution.
4. Conduct more research-driven monitoring programs to better quantify nutrient inputs and identify sources from land, air and water so that we know more about how our coastal waters are being polluted.
5. Consider cost-effective nutrient reduction strategies to meet quantifiable nutrient reduction goals in specific watersheds.

The Clean Water Act was last reauthorized in 1987. Several representatives and senators say they will introduce Clean Water Act amendments in this Congress.

Washington State Department of Fish and Wildlife has just published on the web Fish Passage Design at Road Culverts; the first in a series of Internet technical assistance documents. This is a manual for designers of road culverts to ensure fish passage and compliance with State of Washington standards for passage of migratory fish. Acceptable design options are described that consider sites with a wide range of conditions and

design difficulty including the most difficult culvert barrier remedies in steep channels. Both interactive and printable Adobe-pdf versions of the manual are provided on the web; hard copies are not generally available except to those that have no way of printing a copy from the web. The Internet URL of the manual is: <http://www.wa.gov/wdfw/hab/engineer/cm/toc.htm>

DRAFT of Proposed Utah Department of Agriculture (UDA) Policy on the Asian Tapeworm of Fish begins: Whereas the Asian tapeworm (*Bothriocephalus acheilognathi*) constitutes a significant potential threat to the fishes of Utah, and is listed on the prohibited pathogen list, its entry into and spread within the state are prohibited. The intrastate and interstate movement of live fish which are known or potential carriers of the parasite may only occur under certain prescribed conditions, which include shipment as non-feeding sacfry, movement following adequate negative testing, or movement after approved treatment. This policy applies to those susceptible North American species that are members of the cyprinoid, centrarchid, and poeciliid families. The Department of Agriculture may apply this policy to other species if future research or disease work warrants it. See UDA's website, <http://www.ag.state.ut.us/divisns/animind/asiantap.htm>, for more information.



News from Around the World Submitted by Cynthia Suchman and others

COUNCIL UPHOLDS COMPLAINT- (12/98) Members of a media watchdog group unanimously upheld a complaint last week that a television news story unfairly portrayed DNR employees as wasting taxpayers' money during

meetings at resorts. By a 19-0 vote, the Minnesota News Council said that a story on KSTP-TV, Channel 5, in July was accurate in facts, such as meeting expenses, but presented a seriously distorted picture. The council said the story was misleading in its use of video that showed vacationers, not DNR employees, sunbathing and playing tennis at a different time of year that when meetings took place. The 24-member Minnesota News Council is a private, independent group made up equally of journalists and nonjournalists who provide a forum for citizen complaints against the news media.

FEDERAL STUDY CITES HIGH EMISSIONS OF NITROUS OXIDE Rivers may be emitting significant amounts of nitrous oxide as a result of effluents from wastewater treatment plants and agricultural fields, according to a study by the U.S. Geological Survey. In the atmosphere, nitrous oxide (N₂O) acts as a catalyst in ozone depletion. The government study shows N₂O emissions along the South Platte River in Colorado and Nebraska, where the measurements were taken, are comparable to some of the highest known emission rates in the world.

WASHINGTON COURT UPHOLDS JET SKI BAN - The Washington Supreme Court has sided with officials on the San Juan Islands in their effort to bar Jet Skis and other personal watercraft (PWC). Separately, the National Park Service is preparing to restrict their use. The Washington Supreme Court reversed a lower court ruling on July 24 and reinstated San Juan County's PWC ban the first time a state supreme court has upheld the right of a county to prohibit the vehicles. "This decision means that most towns, cities and counties across the nation have the power to enact limits on noisy, intrusive waterbikes the interfere with safety and solitude," said Randall Gaylord, county prosecutor. The county ordinance, adopted in 1996, was struck down in a lower court after the Personal Watercraft Industry Association sued. But in its 7-2 decision, the state's high court ruled that the prohibition is "a reasonable exercise of the county's police

powers and not inconsistent with [the industry's) due process rights."

NON-NATIVE SPECIES RECORDED IN PUGET SOUND REGION - A scientific survey of Puget Sound has revealed 11 non-native marine species that were previously unrecorded in the area. All together, 19 researchers collected and identified 39 non-native species in six days of sampling. These discoveries increase the number of known invasions in the region: at least 52 non-native saltwater and brackish species are known to be established in Puget Sound. By far the commonest means of introducing non-native species is through the discharge of ships' ballast water. Further south, in California, the port of Oakland recently announced that all ships must exchange their ballast water in the open ocean whenever possible, to reduce the risk of transferring marine invaders.

FISH FIGHT OVER NW WATER: The 1/22 Billings Gazette reported a judge ordered the federal agencies to consider the needs of the threatened bull trout and white sturgeon in Montana when managing water releases from Northwest dams. Montana successfully contended late autumn water releases designed to help salmon fry reach the ocean were harming the upstream species.

CHEMICALS WIDELY PRESENT IN STREAMS, POTENTIAL THREATS UNCERTAIN, STUDY FINDS - A wide presence of pesticides in American streams raises questions about potential health threats to humans and aquatic life, according to a US Geological Survey (USGS) representative. "What we've found is that the actual patterns of exposure don't match up well with how we presently derive our drinking water standards or aquatic life guidelines," said Robert Gilliom, director of the USGS pesticide national synthesis project. Nearly all of the water and fish samples in developed areas contained at least one or more pesticides, Gilliom said. Half of the groundwater samples contained at least one pesticide, he added. According to the study, 80 percent of urban stream and major river samples contained four or more pesticides and 15 percent of all

stream samples contained 10 or more pesticides, Gilliom said. For additional information, contact the USGS at (703) 648-5012. More details are also available at: <http://water.usgs.gov>

CANADIAN SALMON MANAGEMENT - On Mar. 23, 1999, the Canadian Dept. Of Fisheries and Oceans reported that more than 1,500 commercial salmon licenses had been voluntarily retired from the BC fishery. A total of 99 licenses were retired in fall 1998, and 647 more were retired in the latest round. Total cost of this second phase of buyouts is about C\$83.5 million, with a total of about C\$187 million spent on voluntary retirements since 1996. Critics claim the buyback program has destroyed the BC small-boat fishery. A third round of buyouts is scheduled for fall 1999. [Portland Oregonian, Reuters, Canadian Press]

SCIENTISTS ON SALMON - On Mar. 22, 1999, a letter bearing the signatures of more than 200 scientists was delivered to President Clinton, calling for consideration of federal dam removal in the Columbia River Basin to restore salmon and steelhead trout. These scientists expressed concern for management focused on technological solutions rather than returning to normative river conditions. Subsequently, critics questioned the appropriateness of state and federal scientists taking a public position on this issue. [Portland Oregonian]

ESCAPING ATLANTIC SALMON - On Apr. 1, 1999, the WA Pollution Control Hearing Board ruled that the WA Dept. of Ecology cannot ignore the chance that Atlantic salmon escaping from fish farms might propagate in Puget Sound streams, and directed the Dept. of Ecology to review evidence of Atlantic salmon reproduction in the wild on the Pacific Coast and take action as needed on permit renewals for salmon net pen operators. [Assoc Press]

MANITOBA FISHING BLOCKADE - On Apr. 11, 1999, about 100 people blockaded a Manitoba Hydro generating station, protesting declining fish stocks

in northern Lake Winnipeg. Commercial fishermen claim a dam constructed in the 1960s destroyed the fish spawning areas, and believe they should be compensated for the loss. Protestors claimed the government had not listened to their concerns. Although residents received a C\$5.5 million settlement in 1992, a C\$24.9 million lawsuit was filed against Manitoba Hydro in 1998. [Canadian Press]

CORMORANT SHOOTING - On Apr. 8, 1999, nine NY men pleaded guilty in federal to violating the Migratory Bird Treaty Act for shooting and killing as many as 2,000 cormorants at Little Galloo Island in Lake Ontario in the summer of 1998. A tenth man pleaded guilty to hiding the weapons used in the shooting. The men will be sentenced Aug. 11, 1999, and face as much as 6 months of home confinement and fines of as much as \$2,500 each. Together they will contribute \$27,500 to the National Fish and Wildlife Foundation. [Assoc Press]

IMPROVED CATFISH - On Mar. 11, 1999, officials of the Thad Cochran National Warmwater Aquaculture Center, Stoneville, MS, announced that a genetically engineered catfish, designated USDA 103, could be certified for release and available for distribution to catfish growers as early as January 2000. USDA 103 is reported to grow about 25% faster than most catfish strains, using feed more efficiently. [Assoc Press]

GLACIER BAY FISHERIES - On Mar. 4, 1999, AK Governor Tony Knowles announced that AK intended to sue the federal government to allow commercial and subsistence fishing within Glacier National Park to continue. [Anchorage Daily News, MSNBC]

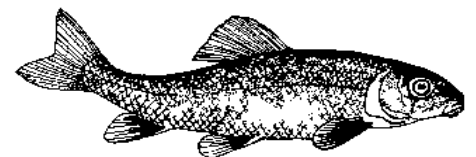
OLD SMALLMOUTH BASS CAUGHT - A tagged smallmouth bass from Newfound Lake, NH, was reported to NH Fish and Game last summer. A search of tagging records indicated that the fish was tagged in May of 1979 and weighed 2.5 lbs. As was 16.5 inches long. The angler that caught the fish said it weighed approximately 3.5 lbs. When the fish

was tagged it was in its 7th year of growth. That plus the 19 years it survived in the lake make it a 26 year old bass. [Atlantic International Chapter AFS newsletter]

SANTA ANA SUCKER - On January 15, 1999, the U.S.F.W.S. Was reported to have proposed listing Southern California's Santa Ana sucker as threatened under ESA. In 1997, California Trout and the CA-NV chapter of the American Fisheries Society were reported to have filed a lawsuit to force federal action on this species [Los Angeles Times, Bill Thorn]

LAKE ONTARIO - For the first time in more than 50 years the deepwater sculpin was been collected in Lake Ontario. This species was once abundant in the lake. "The reappearance of deepwater sculpin is one of many recent signs that a general recovery of Lake Ontario's native fish community is underway" said Robert O'Gorman, head of the USGS Lake Ontario Biological Station in Oswego, NY. [USGS Press Release, Bill Thorn]

COLORADO PIKEMINNOW - The new name for the Colorado squawfish, chosen by an international panel of biologists. It's the first time a fish's name has been changed for political reasons, The Denver Post has been told by scientists. [Globe and Mail, Nick Baccante]



On the Underside

submitted by Charles Anderson, Dennis Schupp, and others

Pohl's Law: Nothing is so good that somebody, somewhere, will not hate it.

Old/new concerns for people of the baby boom generation.

Then: Long hair.
Now: Longing for hair.

Then: Acid rock
Now: Acid reflux.

Then: Moving to California because it's cool.
Now: Moving to California because it's hot.

Then: Watching John Glenn's historic flight with your parents.
Now: Watching John Glenn's historic flight with your kids.

Then: Trying to look like Marlon Brando or Elizabeth Taylor.
Now: Trying not to look like Marlon Brando or Elizabeth Taylor.

Then: Popping pills, smoking joints.
Now: Popping joints.

Then: Our president's struggle with Fidel.
Now: Our president's struggle with fidelity.

First Runner-up
Then: The Grateful Dead.
Now: Dr. Kevorkian.

And the winner:
Then: Getting out to a new, hip joint.
Now: Getting a new hip joint.

You Know You're from Northern Minnesota when.....

You design your Halloween costumes to fit over a snowsuit.

You have more miles on your snowblower than your car.

At least twice a year, the kitchen doubles as a meat processing plant.

You know which leaves make good toilet paper.

The local paper covers national and international headlines on 1/4 page but requires 6 pages for sports.

You think the start of deer season is a national holiday.

The town buys a zamboni before a bus.



Theory Contest:

4th Runner Up - Probability Theory
If an infinite number of rednecks riding in an infinite number of pickup trucks fire an infinite number of shotgun rounds at an infinite number of highway signs, they will eventually produce all the world's great literary works in Braille.

2nd Runner Up - Symbolic Logic
Communist China is technologically underdeveloped because they have no alphabet and therefore cannot use acronyms to communicate technical ideas at a faster rate.

1st Runner Up - Newtonian Mechanics
The earth may spin faster on its axis due to deforestation. Just as a figure skater's rate of spin increases when the arms are brought in close to the body, the cutting of tall trees may cause our planet to spin dangerously fast.

Honorable Mention - Linguistics
The quantity of consonants in the English language is constant. If omitted in one place, they turn up in another. When a Bostonian "pahks his cah", the lost R's migrate southwest, causing a Texan to "warsh" his car and invest in "erl" wells.

Winner - Perpetual Motion
When a cat is dropped, it always lands on its feet, and when toast is dropped, it always lands buttered side down. If hot buttered toast is strapped to the back of a cat, the two opposing forces will cause the cat to hover, spinning inches above the ground. Using a giant buttered toast-cat array, a high-speed monorail could easily link New York with Chicago.

Truths to live by:

A conclusion is the place where you got tired of thinking.

Experience is something you don't get until just after you need it.

For every action, there is an equal and opposite criticism.

No one is listening until you make a mistake.

Success always occurs in private, and failure in full view.

To succeed in politics, it is often necessary to rise above your principles.

Two wrongs are only the beginning.

Work is accomplished by those employees who have not reached their level of incompetence.

You never really learn to swear until you learn to drive.

You never really learn to pray until your kids learn to drive.

Bumper Stickers:

If you can read this, I can slam on my brakes and sue you!

You're just jealous because the voices are talking to me and not you!

Save your breath...you'll need it to blow up your date.

I used to have a handle on life, but it broke.

Hang up and drive.

Mark Your Calendars: "Successful River Corridor Management" planned for September

The "Red River Basin Riparian Project" is planning a conference to help meld the perspectives of natural resource manager and policy makers that have responsibilities for land management on rivers. The emphasis will be on resources in the Red River basin, but will surely have application elsewhere in Minnesota. The conference will be held in Fargo, ND on September 21 and 22, 1999. The featured guest speaker will be Dr. Jim Karr. Each year this group of resource professionals in the Red River Basin plans a conference/workshop. In the past, this group has sponsored successful workshops on "Fluvial Geomorphology", "Soil Bioengineering", and "Watershed impacts on the Riparian Zone". Below are some of the tentative details of this conference. Please contact Henry VanOffelen for more information (henry.vanoffelen@dnr.state.mn.us, 218.847.1579).

Target Audience:

Resource managers: foresters, conservationists, watershed managers, landowners and policy and decision makers including city planning staff, elected officials, and various basin board members

Objectives:

- 1) To provide opportunities for connection between policy makers and resource managers, between urban and rural stakeholders, between local, state and federal agencies, between political, social, economic and ecological considerations.
- 2) To provide presentations and opportunities for interaction in small groups.
- 3) To provide tours in the area that illustrate concepts and to allow participation in data collection or restoration activities.

Tentative Agenda

Day 1:

8:30 Stream ecology, -- fairly general introduction focusing on riparian zone and stream interactions. Include nutrient dynamics, food chain, habitat, connectiveness. Compare functioning system, impacted system, restored system. Include impacts to the riparian zone and watershed effects.

9:30 Policy -- How is policy formulated? Current policy and vision for future policy.

Potential speakers: Former Gov. George Sinner, Dave Sprynczynatyk, (ND State Engineer) Morris Lanning Chair Red River Basin Board and other board members, County water resources board members, watershed district, Mayor Pat Owens

10:45: Break into groups to discuss the "desired future condition" (these need facilitators) What do we want the river and riparian corridor to look like? What should the landscape look like? How do human needs for clean water, economic opportunity, recreation, quality of life, etc. fit into the vision.

Lunch --

1:00 Short presentation of each group's DFC.

1:30 Science and Policy -- Dr. James Karr ties these ideas and issues together.

Examples of projects that have successfully combined policy and resource management:

2:00 Flood storage that benefits wildlife -- Lizard Lake

2:15 Prairie Restoration efforts

2:30 Greenway development in Grand Forks, Pembina County

3:00 Dr. Karr expand to other examples of success -- applying science to policy.

4:00 Tour of Xeriscape Display Garden, FEMA buy-out sites, stormwater basins with native grass

6:00 Supper -- maybe dinner speaker

Day 2: More focus on natural resource managers

Morning to include presentations on tools for assessment and restoration, and examples

Mid-Town Dam

Living snow fence

Riparian Forest Buffers

Wetlands -- Kelly's Slough

Greenway

Lunch

Tour -- to include problem site -- Maybe Richard Freeman, Doug Bergum, Buffalo River

What are the resource concerns, the planning issues?

Optional Day 3 Tour or Restoration work, if there is enough interest.

The Chapter is doing very well financially. We have more money than we can spend on our operations and action items. We have over ten thousand dollars of excess money. What a dilemma! We have changed our dues structure to give free membership to students, as long as they receive the newsletter via our web site (all the other benefits of being a member at no cost). Chapter Officers and I are recommending that we develop long-term financial plan (AA #9). The spring EXCOM Meeting included discussions on a commitments for our budget surplus. Much discussion focused on an university-managed scholarship or endowment, but other ideas were mentioned. As a group we were uncomfortable making such a commitment without surveying all Chapter members. In addition, we believed that other Chapter members would likely provide other good ideas to put this money to good use. Therefore, please fill out this survey. At the next EXCOM meeting we will make a decision and forward a recommendation to all members.

Indicate your preference:

_____ Scholarship, university-managed, awarded to an undergraduate on behalf of the Minnesota Chapter AFS (>\$500 awarded annually, from interest earned from an endowment)

_____ Best Student Paper Award with money prize
(>=\$250 awarded annually from interest earned from a Chapter owned CD)

_____ Donation to another Nonprofit Organization
(please specify organization:_____)

_____ Other (explain):

General Comments:

Please Submit by June 30th to:
Henry Van Offelen
DNR-Fisheries
P.O. Box 823
Detroit Lakes, MN 56502
or by email to: henry.vanoffelen@dnr.state.mn.us

Minnesota Chapter of the American Fisheries Society
DRAFT
Position Statement
on
Fish Stocking

Larry W. Kallemeyn
U. S. Geological Survey
Biological Resources Division

Tom Jones
Minnesota Department of Natural Resources
Section of Fisheries

Issue Definition

The transfer of fish from one body of water to another has probably occurred for as long as man has had vessels that could hold water. Fish stocking has been used as a management tool in Minnesota since the late 1800's. For many of the state's citizens, the practice is synonymous with fisheries management. It is commonly viewed as a panacea for restoring or maintaining angling quality. Only in the last few decades, however, has stocking been critically examined. Questions relative to fish stocking have become increasingly complex and in some instances, controversial as our knowledge and understanding of its effects on fishes and aquatic ecosystems have expanded (Moyle et al. 1986; Li and Moyle 1993). Today, factors such as genetic conservation, biodiversity, and inter- and intra-specific interactions are increasingly major components of stocking programs, be they for the reintroduction of an extirpated species or the "enhancement" of existing populations. Continuing debates over the role of such factors and even the appropriateness of fish stocking has led to several symposia, including two on the uses and effects of cultured fish that were sponsored by the American Fisheries Society (Stroud 1986; Schramm and Piper 1995). In 1991, the Zoological Education Trust, a branch of the Canadian Society of Zoology, sponsored a symposium that addressed biological issues related to fish introductions and the regulatory framework that controls such introductions (Billington and Hebert 1991).

Historical Overview

Minnesota, like many states, has a long and mixed history in regard to fish stocking. Brook trout (*Salvelinus fontinalis*), a native species, was first stocked in southeastern Minnesota in 1878, and by 1888, nonnative brown trout (*Salmo trutta*) and rainbow trout (*Oncorhynchus mykiss*) had been widely distributed (Thorn et al. 1997). Walleye (*Stizostedion vitreum*) propagation in Minnesota started in 1887 (Cobb 1923). Common carp (*Cyprinus carpio*) were introduced into Minnesota in 1883 (Eddy and Underhill 1974). A steelhead strain of rainbow trout was introduced from the Pacific coast into Lake Superior in 1895 (Lawrie and Rahrer 1972). Nico and Fuller (1999) reported that 46 nonindigenous fish taxa (i.e., species, hybrids, unidentified forms) had been introduced into Minnesota, some intentionally and some accidentally. Their count of nonindigenous fish taxa, which they defined as an individual, group, or population that was introduced by humans into an area outside its native range or ecosystem, included established, extirpated, and non-established species.

As a result of intentional introductions, Minnesota now has naturalized or self-sustaining populations of rainbow trout, brown trout, chinook (*Oncorhynchus tshawytscha*), coho (*O. kisutch*), and pink salmon (*O. korbuscha*). These salmonid introductions are generally considered to be successes despite the known adverse effects of the brown trout on brook trout (Waters 1983). Opinions differ on the continued stocking of chinook salmon in Lake Superior. Some anglers view this as a success while others believe their presence may be inhibiting the recovery of native lake trout (*Salvelinus namaycush*) and lake herring (*Coregonus artedii*). The Minnesota Department of Natural Resources's (MNDNR) stream trout lake program, which primarily supports popular put-grow-and-take fisheries for rainbow and brook trout, is generally considered successful despite its reliance on fish toxicants for the removal of native predators.

The status of other nonindigenous species is less certain. The intentional introduction of common carp, which was initially considered a success, is today viewed unfavorably by both the public and fisheries and wildlife managers due to their negative effects on aquatic vegetation and water quality. However, their value as a game fish is increasingly being recognized by some anglers. Rainbow smelt (*Osmerus mordax*), which are now well established after being illegally introduced into the Rainy River drainage, have in some waters thought to be a beneficial addition to the forage base, while in others they have eliminated native fish and significantly altered the aquatic food web (Evans and Loftus 1987).

Stocking has also been used to introduce native species into new waters, and for population maintenance and supplementation. In Minnesota, more walleye have been stocked in more lakes than any other species. In the early 1900s, walleye fry were stocked in nearly all water bodies because most fisheries managers felt that stocking was required to maintain the populations (MNDNR 1996). As pond culture techniques improved in the 1940s (Smith and Moyle 1945), fingerling stocking expanded with peak production occurring in the 1980s. A more systematic approach to walleye stocking was developed in the 1970s and 1980s. Also during this period, studies evaluating the effectiveness of various aspects of the walleye stocking program were initiated (Johnson 1971; McNerny et al. 1991; Parsons et al. 1994; Li et al. 1996a, 1996b). Results of these and other studies conducted in other states and provinces have been used by the MNDNR to develop walleye stocking guidelines for their management biologists (MNDNR 1996). Today, the emphasis in walleye stocking is on maintenance stocking, which is most effective when natural reproduction is limited or non-existent. This type of stocking has been successfully used to support walleye populations and angling in many lakes in southern Minnesota (Bandow et al 1993).

Northern pike have been stocked in Minnesota lakes for years with varying results. While three primary techniques have been used to obtain northern pike (*Esox lucius*) for stocking Minnesota waters (Johnson and Moyle 1969), the majority of the northern pike were obtained by using a flow of aerated water and fish traps to attract and capture wild northern pike from large, shallow winterkill lakes. In some instances, these fish when stocked produced notable northern pike fisheries (Maloney and Schupp 1977). However, in other cases the stocked pike destabilized the fish communities through excessive predation on yellow perch (*Perca flavescens*) (Anderson and Schupp 1986). Because of these negative effects, stocking of northern pike has been reduced significantly.

Muskellunge (*Esox masquinongy*) from Shoepack Lake near the Minnesota-Ontario border were used for stocking in Minnesota for over 30 years. In recent years, however, the MNDNR terminated its use of this strain and switched to a Mississippi strain from Leech Lake that has superior growth characteristics (Younk and Strand 1992). This decision was based on research that demonstrated genetic, behavioral, and morphological differences between the two strains (Hanson et al. 1983; Younk and Strand 1992).

Brook trout and lake trout have also been stocked in a variety of waters around the state. Brook trout along with nonnative brown and rainbow trout are stocked in streams in the southeast and in streams and lakes in the northeast. Lake trout have been stocked in Lake Superior to help restore the population. Supplemental stocking of lake trout, which has occurred in numerous lakes in northeastern Minnesota, may have contributed to the loss of native stocks (Evans and Willox 1991). Genetic analysis revealed the presence of only the most recently stocked lake trout genotype in two native lake trout lakes in Voyageurs National Park that had been subjected to long-term supplemental stocking (Burnham-Curtis et al. 1997).

Numerous other species have been stocked throughout the state. Largemouth bass (*Micropterus salmoides*) and other centrarchid stocking projects were once common but are practiced less often now. Lake sturgeon (*Acipenser fulvescens*) are being reintroduced in the Red River drainage. Panfish, bullheads, and most recently channel catfish (*Ictalurus punctatus*) (Cross et al. 1991) have been stocked to provide fishing opportunities in urban areas. Flathead catfish (*Pylodictus olivaris*) have been stocked to reduce the abundance of certain undesirable fish species, particularly carp, bullheads, (*Ictalurus* spp.), and small centrarchids (*Pomoxis* and *Lepomis* spp.) (Davis 1985).

In many instances, the long-term effect of this stocking has been the homogenization of fish assemblages (Radomski and Goeman 1995). Walleye stocking done to provide additional angling opportunities in central Minnesota lakes resulted in greater species richness but reduced fish assemblage diversity. Most anglers are neither aware of or concerned with this loss of unique fish assemblages. Bait-bucket introductions or illegal introductions of game fish by irresponsible individuals may also contribute to such changes. In some instances, the fish that are illegally stocked are obtained from populations that were established legally.

Stocking practices in Minnesota have evolved as the result of stocking program evaluations. Initially, fish stocking was driven by production numbers with little or no consideration given to the fishes ultimate fate or their effect on the ecosystem. Little thought was given to planning and evaluation. Eventually, evaluations of stocking programs were initiated that addressed some of the many factors that need to be included in such assessments (Murphy and Kelso 1986; Heidinger 1993). Consequently, biological factors such as habitat requirements, inter- and intra- specific interactions, and genetics, as well as social and economic criteria are more likely to be considered. Current MNDNR fisheries management guidelines for stocking recommend that every effort be made to use strains of fish that will maintain the genetic integrity of the existing population. Unfortunately, native aquatic biota, particularly forage and nongame species, continue to receive inadequate consideration in stocking program planning (Wingate 1991).

Minnesota, like many states, has in recent years placed more emphasis on biologically sound stocking (Smith and Reeves 1993). But, these efforts have been met with significant political resistance. As a result, in many instances stocking is still being driven by social, economic, and political pressures (Wingate 1991). Attempts to reduce walleye stocking in lakes with natural reproduction are continually met with resistance even though studies have demonstrated the inefficiency of such supplemental stocking (Laarman 1978;

Li et al. 1996a). Because of stockings high profile and success in some waters, many anglers consider it more important than habitat protection and restoration (Radomski and Goeman 1995). Warnings concerning the negative effects of stocking are commonly ignored by citizens and decision-makers, including some fishery professionals who continue to pin their hopes for the future of fisheries on stocking programs (White et al. 1995).

The laws governing the propagation and distribution of fish (Minnesota Statutes, sections 97C and 17, Minnesota Rules, part 6250) define the roles of the MNDNR, commercial operators, and private organizations in the raising, selling, and stocking of fish. Unfortunately, enforcement of these laws and rules, which were primarily designed to prevent the introduction of diseased or unwanted fish, is frequently compromised as a result of political pressure (Wingate 1991).

Chapter Position

It is the position of the Minnesota Chapter of the American Fisheries Society that stocking is an acceptable fisheries management tool that can, if used responsibly, help fishery managers ensure the long-term sustainability of Minnesota's fisheries and aquatic resources. However, as history shows, stocking has the potential to have both positive and negative affects. To minimize the latter, stocking done by government agencies and private industry must be conducted in accordance with the best available scientific and professional information. This includes the applicable protocols of the American Fisheries Society and this Chapter on the introduction of aquatic species, the use of transgenic fishes, introductions of threatened and endangered species, the responsible use of fish and other aquatic organisms, and biodiversity. Stocking needs to be part of a comprehensive fisheries management program, not a means unto itself. Also, it should not be viewed as a politically expedient alternative to ecosystem restoration and harvest management.

Needed Actions

In 1994, 71 individuals representing 41 fisheries resource management agencies met and developed and published a checklist of considerations for the use of cultured fishes (Schramm and Piper 1995). The principle factors included in the checklist were biological feasibility, effects analysis, economic evaluation, public involvement, interagency cooperation, and administrative considerations. This comprehensive list of factors and accompanying recommended actions should be incorporated into any fishery management plan involving fish stocking. The following actions expand on or are supplemental to the checklist.

- (1) Stocking programs must have explicit goals and objectives so that they can be objectively evaluated (Noble 1986). The goals should be compatible with broader, ecological management objectives. Before any stocking program is approved, there must be a detailed evaluation of its potential impacts. If it is approved and implemented, it must be evaluated to determine whether the goals and objectives have been met. In addition, communication with the public, other concerned agencies, and fishery professionals is essential.
- (2) To successfully evaluate stocking it is necessary to identify stocked fish in the fishery. Most stocking evaluations are hampered by the lack of identifiable marks on stocked fish. Tools exist to mark stocked fish. All stocked fish should be marked.
- (3) Each agency that stocks fish should have a comprehensive educational program. The program needs to clearly articulate to anglers and nonanglers when and where stocking is or is not appropriate; the benefits and costs to society, natural populations, and ecosystems; the uncertainties associated with stocking; and alternatives to stocking. It needs to convey that stocking is not permissible if it will result in unacceptable ecological damages. Implementation of such a program may result in a public that will because it has more realistic expectations regarding stocking be more inclined to support ecologically and socially responsible stocking programs. Without more education, the future will likely resemble the past, with the amount of stocking driven more by economic and political pressures than by science. Fisheries management programs in which there is on-going public participation are more likely to be successful when the public better understands them and thus, is more likely to provide political support (Krueger and Decker 1993).
- (4) Stocking, both intentional and illegal, has significantly altered fish communities throughout Minnesota. Because of this, it is imperative that those aquatic habitats and native fish communities that remain unaltered be identified and preserved. This should include fishless waters and lakes whose fish populations consist solely of species typically classified as non-game species. No stocking should be allowed in these waters.
- (5) Effects of stocking on forage and non-game fishes and other components of the aquatic community need to be seriously considered in all phases of any stocking program, including the decision whether to stock or not stock fish. Traditionally, this has either not occurred or has received minor attention.
- (6) Genetic conservation must be a high priority in all stocking programs, including private stockings. Guidelines similar to those

used by the MNDNR for walleye stocking need to be developed and implemented for other species. The guidelines proposed to the MNDNR by Fields et al. (1997) is a logical starting point. Their recommended guidelines incorporate the 10 Conservation Management Units they delineated on the basis of genetic analyses of six fish species from the three major drainage in Minnesota.

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Please send your comments and any changes that you would like to see to this draft Chapter position statement by June 30th to:

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UPPER MISSISSIPPI RIVER WILDLIFE AND FISH REFUGE
-A CALL FOR GREATER EMPHASIS ON FISHERIES-

WHEREAS, recreational fisherman were the primary instigators leading to the establishment of the Upper Mississippi River Wildlife and Fish Refuge to ensure protection of smallmouth bass habitat, and

WHEREAS, the emphasis on management of the Upper Mississippi River Wildlife and Fish Refuge is primarily for migratory waterfowl, and

WHEREAS, there is a need for federally coordinated and supported effort to restore wetland floodplain and aquatic habitat for fish, as there is for waterfowl under the North American Waterfowl Management Program, and

WHEREAS, the Upper Mississippi River Wildlife and Fish Refuge contains habitats essential to native fish spawning, rearing, and movements,

NOW THEREFORE BE IT RESOLVED, that the Minnesota Chapter of the American Fisheries Society (AFS) join the Iowa and Wisconsin Chapters of the AFS in recognizing the need for, and urge, a greater fisheries emphasis, or at least emphasis equal to waterfowl, in the management of native fish populations and their essential habitats within the Upper Mississippi River Wildlife and Fish Refuge.

BE IT FURTHER RESOLVED, that the Minnesota Chapter of the AFS join the Iowa and Wisconsin Chapters of the AFS in urging the U.S. Fish and Wildlife Service and its state partners to support an effort to restore wetland floodplains and aquatic habitat for native fish populations, similar to efforts put forth on behalf of waterfowl.

Received from Ray Hubley on 12/23/98

<p>_____ I support the resolution</p> <p>_____ I do not support the resolution</p> <p>Send Ballot by May 31st to:</p> <p>Todd Marwitz DNR-Fisheries 1801 S. Oak St. Lake City, MN 55041</p> <p>or you can e-mail (todd.marwitz@dnr.state.mn.us) your vote using one of the following statements: “ I support the resolution” or “I do not support the resolution”.</p>
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There are two ways to become a member: (1) fill out this form and send it in with seven dollars, or (2) pay your Minnesota Chapter dues through the American Fisheries Society (the Chapter gets reimbursed).

1999 Dues Application

1999 MN Chapter dues-Nonstudent.....	\$7.00	_____
1999 MN Chapter dues-Student w/web RYBA	\$0.00	_____
1999 MN Chapter dues-Student w/mailed RYBA	\$7.00	_____
Total Enclosed.....		_____

Send Check (pay to the order of: Minnesota Chapter AFS) and/or this form to:

Tim Brastrup
4121 Cedardale Lane S.
Baxter, MN 56425

Name: _____

e-mail: _____ (for email notices)

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1999-2000 Minnesota Chapter of the American Fisheries Society

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