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AMERICAN FISHERIES SOCIETY

Minnesota Chapter AFS
1110 N. Lakeshore Dr.
Glenwood, MN 56334

American Fisheries
Society



Minnesota Chapter

AFS

MAY 1993

1993 MINNESOTA AFS ADDRESS LIST

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PRESIDENT'S MESSAGE by Don Pereira

Following our annual meeting I have updated the first draft of the Chapter's annual action agenda. You may recall that I provided the membership with an initial listing of an agenda at the annual business meeting. I received only 7 of the forms back from members. Including myself, this provides a whopping sample size of 8. This activity is my initial attempt at agenda item 10: develop mechanisms for soliciting input from the general membership for establishing the annual action agenda. Given the limited response, we can consider this a marginal success at best. We should also consider having a regularly scheduled, facilitated input session as conducted by Brian Stenquist in 1992. Our 1994 annual meeting may provide an opportune time for doing this since it appears likely we will probably be meeting alone.

The list below represents the original items of the action agenda with priorities adjusted according to the forms I have received. The first 5 agenda items are certainties, and I will encourage activities on these immediately. However, there is still opportunity to provide input to this process by contacting me directly. It is certainly not too late to change priorities on the items that are already established (namely 1 to 5 on the list below). I will complete the action agenda after the mid-year EXCOM meeting in May.

This year, the Chapter will have at least one EXCOM member assigned to oversee progress on the top 6 agenda items. Priority items one and two are sustainable resource management (SRM) and public

education. Please take time to peruse Paul Pajak's summary in this newsletter on response from the special session. Paul has received much valuable information provided by attendees on the forms provided at the session. I will oversee and assist any interested members in pursuing further activity on this item. Public education was rated second on the priority list, and was an item on Ginny Snarski's agenda. You will also note in Pajak's article that education was identified as a key component of SRM. I therefore suggest that we integrate activity on these two action items.

Our chapter has made considerable achievements during the recent past as evidenced by receipt of the North Central Division's most active chapter award. This success has arisen primarily from an active general membership and I encourage each of you to further your involvement with the chapter. Have a close look at the agenda below and choose an item to get involved with. Please contact either an EXCOM member or myself with your specific interests. If needed, EXCOM members may contact suitable candidates to work on various action items. Finally, the chapter is continuing development of the Membership Interest/Expertise Questionnaire. If you have not done so already, or need to update your information, please take a few minutes to fill out the form provided at the back of the newsletter and send it to Jeff Reed, Membership Chair. Every individual's contribution to our chapter is of considerable value. Please get involved!

Item/Project

<p>1 Develop integrated/sustainable management initiatives. Specific activities will be identified following the 1992 special session. Collaborate with MN Chapter of The Wildlife Society <u>Target Date:</u> 1994 Meeting <u>Responsibility:</u> Interested members and EXCOM</p>
<p>2 Public education -- pursue activities as detailed in LRP II-B; also incorporate concepts pertaining to sustainability and IRM <u>Target Date:</u> Ongoing <u>Responsibility:</u> Interested members and EXCOM</p>
<p>3 Complete the Wetlands position statement and consider ongoing activity which may include an ad hoc committee to address mitigation issues <u>Target Date:</u> Fall '93 newsletter <u>Responsibility:</u> Wayne Barstad, interested members and EXCOM</p>
<p>4 Assemble ad hoc Finance Committee to develop chapter financial plan; establish financial priorities <u>Target Date:</u> 1994 Meeting <u>Responsibility:</u> EXCOM, Finance Committee, Secretary/Treasurer</p>
<p>5 Continue communication and information exchange on instream flow protection strategies; advocate the community-based approach with either a resolution or letter to DNR Commissioner. <u>Target Date:</u> June 1993 <u>Responsibility:</u> Rivers and Streams Committee</p>

<p>6 Explore expansion of the continuing education program <u>Target Date:</u> Summer 1993 <u>Responsibility:</u> Continuing Education Committee; EXCOM</p>
<p>7 Proceed with proposed public service announcement developed by Public Awareness Committee if approved by EXCOM and membership <u>Target Date:</u> Fall 1993 <u>Responsibility:</u> Public Affairs Committee; EXCOM</p>
<p>8 Offer continuing education workshop in fluvial hydrology <u>Target Date:</u> Depends on scheduling of current larval fish and nonparametrics workshops <u>Responsibility:</u> Rivers and Streams Committee; Continuing Education Committee</p>
<p>9 Develop a task force on exotic species and identify appropriate chapter action. <u>Target Date:</u> 1994 Meeting <u>Responsibility:</u> EXCOM and interested members</p>
<p>10 Develop mechanisms for soliciting input from the membership each year for assembling the annual action agenda and to insure continuity for ongoing, high priority issues. <u>Target Date:</u> After the spring EXCOM meeting <u>Responsibility:</u> President with EXCOM</p>

AWARDS AT THE ANNUAL MEETING

Best Paper at the 1993 annual Chapter meeting went to **Mr. Weiming Li**, a Ph.D. student in the Fisheries Department at the University of Minnesota. Weiming's paper was entitled *Sulfopetromyzonal is a potent olfactory signal for migratory sea lamprey*. Co-authors were Dr. Peter Sorenson (Weiming's advisor) and Dr. Dan Gallaher, both faculty members at the U of M. In his talk Weiming presented a portion of his Ph.D. research on the olfactory sensitivity of the sea lamprey. Briefly, Weiming has discovered that a unique class of bile steroids produced by larval sea lamprey are released to the water where they function as potent stimulants of the olfactory system (sense of smell). Sensitivity to one bile acid is at least 10^{-12} Molar, the equivalent of placing one gram of this material into 10,000 Olympic swimming pools of water. Furthermore, sensitivity is highly specific. This finding is very exciting because it suggests that lamprey bile acids may be the long-sought after "larval migratory pheromone" which attracts adult lamprey to spawning/nursery grounds. If this is the case, lamprey bile acids might be useful as biochemical indicators of lamprey density and/or as attractants in bio-control. Weiming comes from the People's Republic of China and holds both bachelors' and masters degrees in fisheries from the University of Shanghai. His research is funded by Sea Grant and the Great Lakes Fishery Commission.

Best Poster for the 1993 annual meeting was awarded to **John Eaton** for his poster entitled *A methodology to estimate global climate impacts on lake and fishery resources in Minnesota*. John is a Research Aquatic Biologist with the US EPA Environmental Research Lab in Duluth where he is presently Landscape Ecology Chief. In his poster, John describes collaborative research which suggests that a doubling in

greenhouse gas concentrations would result in a dramatic reduction in cold-water fishes and increases in both cool- and war-water fishes. His study was conducted collaboratively with **Dr. Heinz Stefan** (U of M) who modeled the changes in stream and lake temperatures, several investigators from Duluth who provided info on the temperature and oxygen demands of fishes, and **Dennis Schupp** (MN DNR) whose Minnesota lakes database was used to construct a classification scheme.

Special Recognition Awards were presented to both **Don Schreiner** and **Tim Goeman**. Don was recognized for his service as Chapter Secretary-Treasurer from 1991-1993. Don had the thankless task of trying to produce comprehensive minutes from our various EXCOM and annual meetings. Don is currently the Area Fisheries Supervisor for the MN DNR Lake Superior area. Before moving to Duluth, he was the Area Supervisor in Glenwood. Tim was recognized for his innovative ideas to increase membership and participation in Chapter activities. This editor is also particularly thankful for the frequent, interesting, and perceptive opinion and informational articles that Tim has submitted to me (see the letter to the editor printed later in this newsletter). Tim is a Fisheries Research Biologist for the MN DNR in the Brainerd office. Prior to that, he was the assistant biologist in Brainerd and was a biologist for the MN PCA.

DEADLINE FOR SUBMITTING MATERIALS FOR THE NEXT NEWSLETTER IS 15 JULY

SCHUPP GARNERS AWARD OF EXCELLENCE

Dennis Schupp, Senior Fisheries Scientist for the MN DNR, was honored with the Minnesota Chapter of the American Fisheries Society's Award of Excellence at the Chapter's 1993 annual meeting in Brainerd. This award recognizes outstanding efforts of person(s) or groups to preserve, promote, or improve fish populations, fish habitat, or the field of fishery science, and Denny most certainly qualifies. He has been an employee of the DNR since 1955 and has worked all over the state. Some of his best known work has involved the walleye populations in Minnesota's large lakes including Leech, Mille Lacs, and Lake of the Woods. Denny, in his self-effacing manner, likes to say that much of his success with the large lake research is due to a large walleye year class coinciding with his arrival to work on the lake.

Denny is highly respected in the fisheries community throughout the midwest and Canada. His publication list is equally impressive. Among the most interesting are the four papers he co-authored with other prominent researchers in the International Symposium on Stocks Assessment and Yield Prediction (ASPY).

Most recently, Denny successfully tackled the massive MN DNR lake survey data base and developed a new ecological classification system for Minnesota lakes. This work has already proved to be an extremely valuable tool for fisheries managers and researchers.

Perhaps his greatest contribution to the state of Minnesota has been his roles as both a source of information and mentor to numerous fisheries professionals. Those of us who are fortunate enough to work for Denny know how valuable a resource he is. He has always been willing to share the wealth of knowledge he has acquired over the years. He helps keep us from reinventing the wheel while encouraging new and innovative approaches of looking at and solving problems.

Despite a fisheries career strongly influenced by walleye, when Denny is out recreationally for fishes, the wily bluegill is his favorite target. It appears, if the 1993 In-Fisherman Master Angler Awards are any indication, he also has developed an appreciation for the trophy channel cats in the Red River.

Congratulations to our Award of Excellence winner, Dennis H. Schupp.

TREATY ISSUE WILL LIKELY GO TO COURT

Despite passage of a revised treaty settlement package by the Minnesota Senate, the House defeated a proposal to settle the lawsuit filed by the Mille Lacs Band of Chippewa Indians. It now appears unlikely that the issue will be settled out of the courtroom. At our annual meeting, the membership approved the concept of a resolution stating that the original settlement would not harm the fisheries resources of Lake Mille Lacs. Such a resolution was prepared, approved by the EXCOM, and distributed to key legislators. A copy of the resolution is printed here.

RESOLUTION OF THE MINNESOTA CHAPTER OF THE AMERICAN FISHERIES SOCIETY

Concerning Biological Issues of the Proposed Mille Lacs Settlement Agreement

- Whereas the Minnesota Chapter of the American Fisheries Society is a non-partisan group of fisheries professionals that work for state, federal, tribal, and private organizations and institutions within Minnesota;
- Whereas the Minnesota Chapter of the American Fisheries Society supports sustainable management and wise use of fisheries resources and the exchange and dissemination of fisheries and aquatic science knowledge;
- Whereas the proposed settlement agreement between the Mille Lacs Band of Chippewa Indians and the State of Minnesota regarding Treaty Hunting, Fishing, and Gathering Rights does not compromise existing management objectives for conservation and sustainable yield of gamefish in Minnesota Ceded Territory and Mille Lacs Lake;
- Whereas the proposed Settlement Agreement allows both the members of the Mille Lacs Band of Chippewa Indians, non-Band members, and non-Indians to harvest fisheries resources in the Minnesota Ceded Territory and Mille Lacs Lake;
- Be it firmly resolved that the Minnesota Chapter of the American Fisheries Society believes that the proposed Settlement Agreement continues to allow for sustainable utilization and conservation of gamefish populations in the Minnesota Ceded territory and Mille Lacs Lake;
- Further be it firmly resolved that the Minnesota Chapter of the American Fisheries Society believes there is no fundamental biological reason based on sound renewable resource management principles to reject the proposed Settlement Agreement.

CHECK YOUR MAILING LABEL AND READ THE MEMBERSHIP REPORT!!!

LEGISLATIVE BREAKFAST EVALUATION by Jeff Gunderson

Overview: A breakfast, sponsored by the Minnesota Chapter AFS, for state legislators was held on March 30, 1993, at the Kelly Inn in St. Paul. The purpose of the breakfast was not to lobby for or against specific legislation, but to introduce ourselves to the legislators as advocates of the fishery resources of the state and to seek their input on how we could proactively address legislation that impacts aquatic resources. Nineteen Chapter members attended and eight legislators stopped by for varying lengths of time. A DFL caucus that ran concurrent to our breakfast greatly reduced legislator attendance. Chapter members that attended were surveyed to: 1. get their impression of the legislative breakfast, 2. record any suggestions they had for conducting such activities in the future, and 3. note any suggestions, comments, or impressions from the legislators. Eleven evaluations were returned. The following is my attempt to summarize the comments.

Impressions: Generally, Chapter members felt that this year's breakfast was a good idea and it went well, but a better turnout of legislators was necessary to make it really worthwhile. It was a good learning experience. Chapter members enjoyed the experience and felt that the legislators were interested in what we had to say. One respondent felt that the turnout of Chapter members was higher than he expected. Another respondent felt that the Chapter should not be involved in political lobbying efforts but that we should advertise our presence as "unbiased" experts. This was countered by another's comment that we cannot wait for legislators to come to us - because they won't. One respondent summed up his/her impressions this way: "A for Chapter effort, F for legislator effort."

Suggestions: Ten of the eleven respondents felt we should conduct a similar event next year. One respondent felt we should not conduct a similar event,

but should use a different format such as having small groups of "us" meeting with small numbers of "them." Most members felt the breakfast should be conducted earlier in the session. Other suggestions included: 1. have a specific list of legislative concerns/opinions to hand out to legislators; 2. maybe conduct this effort every other year; 3. Chapter members should send personal invitations to their legislators in addition to the president's invitation; 4. conduct a follow-up evaluation to see if the event resulted in any further contact with the Chapter on legislative issues; 5. all Chapter board members should attend; 6. conduct outreach workshops for legislators on such topics as aquaculture, biotechnology, and/or fish stocking; 7. provide legislators with a business card with the telephone number and address of Chapter leadership; 8. have at least two Chapter members at each table to answer questions and have some members roam around to meet legislators who dribble in throughout the event; and 9. do not hold the event during a legislative scandal.

Legislator Comments, Concerns, Suggestions: Some general observations were that the legislators were not aware of AFS prior to the breakfast and that they enjoyed the opportunity to meet with us. They felt that we should focus on key legislative issues and have our "unbiased" (my word) viewpoints written-up for them. They pointed out that we should make sure we speak for the membership, not just the leadership. One legislator suggested that we form an AFS speakers' network that could reach small sportsmans' groups. The legislator felt that the DNR was losing touch with these groups. Another suggestion was that we identify a person or committee to act as liason with each house during the session. The Mille Lacs treaty agreement was a major topic of interest for the legislators as was solid waste and biotechnology.

IF YOU HAVE A BLUE MARK ON YOUR MAILING LABEL:

Application for 1993 Membership

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Year of Initial Membership _____

Return to Membership Committee Chair Jeff Reed at address inside front cover
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Editorial Counterpoint - Exotic Hysteria by Dave Pederson

These editorial comments present the authors individual views. They do not represent the views or position of the authors employer, or the AFS Minnesota Chapter.

Like everyone else, I am concerned about unintentional introductions of nonindigenous aquatic species. I am concerned about the short-term and long-term ecological implications of their presence, and about the socioeconomic impacts that sometimes result from their establishment. I am very alarmed about the increasing numbers of new species arriving on the scene. I am also very concerned about the way we as professionals have managed the issues and the challenges that have been presented by these introductions.

Following are several concerns that I have about the way our profession has been involved: With each new invader, we are quick to establish a devastating ecological forecast. We share a mindset that is committed to fighting and overcoming the natural forces at play - our compulsion is to sound the alarms and declare all out war. We are guilty of using the attention for self serving purposes. We are regularly misguided and ineffective in our method of encounter. In drawing attention to nuisance species, we have not been effective in making clear the distinction between good and bad, between valuable native and unwanted exotic. We divert attention from other important issues. Finally, we are missing an important opportunity to focus energies on being proactive through real prevention of future introductions.

An exotic hysteria exists these days. It thrives on a doomsday sort of appeal to basal human fears, conjuring nightmarish visions of alien invaders capable of destroying everything that is good. I believe that we have contributed to that fabric of fear. Through a constant stream of Public Service Announcements, billboards, brochures and other outreach efforts, we have conveyed this message, and established the prominence of the issue.

With each new arrival, it seems we are out there saying that the sky is falling before we really understand the scope or significance of the threat, much less whether it even exists. We are quick to (over?)estimate the potential threat before it is fully understood.

There is a human predisposition to overcome the natural forces involved, and to control or eradicate the new pest at whatever the price. Our first reaction is to declare war and mobilize an assault. Victory will surely follow. The realistic chance of succeeding in the effort is barely considered, so long as we do something and do it quickly.

We have used the exotic hysteria syndrome for self serving purposes, to capitalize on media attention and to exploit opportunities to increase budgets and expand

programs. It's hard to read a newspaper or tune in the evening news without receiving an official progress report on the continuing march of one exotic or another toward our homes and families. We seem eager to seek new funding and create new programs to address the latest scourge. Granted, there is an expectation that resource management agencies provide a response to these problems and produce results. There is also an obligation for the agency to rise to the challenge. I wonder though, how much we have done to create false expectations.

The methods applied are frequently ill-conceived, sometimes showing a lack of common sense, much less professional wisdom. Some of these attempts include herbicide spot applications for the well established and ubiquitous purple loosestrife; massive mechanical cutting (Lake Minnetonka) to control eurasian water milfoil - a species known to establish itself through fragmentation; predator stocking and special regulations protecting predators that don't even utilize the nuisance species. These are some of the professional approaches. Even more worrisome are the opportunities created for other, less informed people who would use exotic hysteria as an excuse to prevent public access to waterways, or to set up highway roadblocks with surprise inspections to apprehend harborers of the dreaded invaders.

I can recall only one instance (If mistaken I would happily stand corrected), where a control program to eradicate an invader was actually effective. That was the war on the Mediterranean fruit fly in California, involving massive aerial malathion spraying. Although it apparently worked, I wonder if it was worth it. I wonder too how long it will last?

Through our efforts to improve public awareness of exotics such as eurasian water milfoil, I am concerned that we have created a negative image of all aquatic vegetation. I hear a lot about milfoil infestation, but not much talk about the value and desirability of native macrophytes (including the closely related northern water milfoil). I think eurasian milfoil has become symbolic of all rooted aquatics in many peoples minds, and broad spectrum eradication has become the goal. A battle against eurasian milfoil may have become a war against all lake weeds.

We are diverting attention from other important issues of the day, to the point where virtually everything else we do is overshadowed. This is one of my greatest frustrations with exotic hysteria. I take pride in the work that I do and I like telling other people about it. Increasingly however, when I mention my occupation, people immediately equate it with exotic invasions (take your pick which one), and the conversation is then focused on that terrible dilemma and what I'm doing

about it. We have created a situation where a prominent (if not the number one) expectation of the public from resource agencies is that they eradicate exotic aquatic invaders. This is an unrealistic expectation, that only serves to detract from our other missions and successes.

Public and media attention to environmental issues has a limited "market share", relative to other social/political/economic issues of the day. Within this environmental issues sector, resource management agencies are receiving a smaller piece of the pie, due to increasing competition for exposure from many entities and perspectives, involving issues from local to global scale. All of this means that we need to be all the more deliberate with our messages, and in identifying target audiences. Right now it seems we are using an inordinate number of our publicity chips on exotic aquatic species.

We should take a lesson from history and from what we know about succession leading to equilibrium with introduced populations. There have been many introductions portending to cause ecological collapse, though relatively few have followed through on the prophesy. Experience also suggests that once they are here, acceptance and resignation to coexistence may be prudent.

You might conclude from all of this that I favor simply giving up on any and all efforts to counter exotic aquatic species introductions. On the contrary. I do believe that our reaction needs to be tempered with a little more professionalism, empiricism and pragmatism. Let's pick our fights carefully, and make sure they are winnable.

Carefully planned treatment regimes based on a clear understanding of the problem, and having a reasonable

chance to succeed are certainly warranted. In some instances site-specific control may succeed, where more ambitious comprehensive attempts toward annihilation are doomed to fail. In other cases, partial control toward a satisfactory maintenance presence may prove effective, both in cost and results. Research to increase our biological understanding of exotic aquatic organisms, their natural enemies or limiting factors, and other methods of control is very important. Prudent information management leading to responsible real-world public understanding is imperative.

The most important thing that we need to do is refocus our greatest energies on proactive prevention of future unwanted introductions. Not from lake A to lake B in Minnesota, but from other continents to ours. Draw the battle lines realistically around continental boundaries, or where feasible, major watersheds/river systems. Many laws already exist to help us in this effort. Federal laws and mandates include the Lacey Act, National Environmental Policy Act (NEPA), Injurious Wildlife Regulations implementing 18 U.S.C. 42, and Presidential Executive Order 11986 'Exotic Organisms'. A very significant recent step is Title I of the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990. The purpose of Title I is to prevent unintentional introduction and dispersal of nonindigenous species into waters of the United States. It also provides for coordination of federally sponsored research and information dissemination; development and implementation of environmentally sound methods to prevent, monitor and control unintentional introductions; develop improved understanding to minimize ecological and economic impacts of species that become established; and to establish a program of research and technology development.

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FIELD REPORTS

ACADEMIA

Alfred D. Sullivan, director of the School of Forest Resources at Pennsylvania State University, has been named dean of the College of Natural Resources, University of Minnesota. He assumed his new post on May 1, 1993, and replaced Richard A. Skok, who has retired.

Sullivan has served as the director of the School of Forest Resources at Penn State since 1988. Prior to that, he served as a faculty member in the Department of Forestry at Mississippi State University for 15 years, and before that on the forestry faculty at Virginia Tech. he spent 1987-88 on leave as an American Council on Education Fellow working in the Office of the Chancellor at North Carolina State University.

Sullivan received a doctorate with a specialization in forest biometrics in 1969 from the University of Georgia and a master's in wildlife management from Louisiana State. He belongs to several professional associations including **The American Fisheries Society**, the Society of American Foresters, the Society of Wood Science and Technology, and the Wildlife Society.

Tom Waters recently sent a letter to **Henry Drewes** of our Rivers and Streams committee saying he is preparing a comprehensive literature review on the effects of sediment on stream biological communities, mainly emphasizing fisheries. His letter states:

"I find a great deal of literature on forest practices, roads, mining, urban development, etc., as sources of sediment - but very little on agricultural cultivation as a source. I was very surprised at this, because it has always seemed to me (and there are many off-hand comments in the literature) that croplands are a major source of sediment, affecting primarily the warmwater fisheries in the Midwest.

"Can you help me out in any way? ... Any published references, agency reports, symposium proceedings, etc., that you may know about I would greatly appreciate."

FEDERAL

Ken Hokanson received early retirement from EPA after 24 years of federal service. His retirement is the seventh early retirement from the Environmental Research Laboratory - Duluth (ERL-D) in the past 4 years. He finished several large databases of freshwater fish thermal requirements while under the global climate change program. These archives remain unpublished, but they are available for inspection at the ERL-D. The Tennessee Valley Authority (TVA) wants to help him publish the archives as they would like to see revisions in the existing thermal criteria. This year he will be working as a TVA contractor in his Duluth home. He will be writing papers on the accuracy and sources of error in the existing thermal criteria database for publication.

DNR FISHERIES by Tim Brastrup

The Mother of All Fisheries Projects? The MN DNR Section of Fisheries is planning an unprecedented effort to systematically develop special fishing regulations to improve the size of fish in Minnesota's lakes. The statewide project, being coordinated as a research project, will focus on six species - bluegill, black crappie, largemouth and smallmouth bass, walleye, and northern pike. About 6 to 10 lakes will be selected for each species to evaluate various regulation options.

This project will differ from the state's past efforts at managing fisheries through special regulations. This new round of experimental regulations will incorporate the newly developed ecological lake classification system. In the end, if a regulation is effective in altering the size structure of a population, it can then be applied to similar lakes with a high degree of confidence that it will work. Many of the DNR's fisheries management areas will be involved in the project to spread the work and to experiment with many of the ecological lake types found across Minnesota.

Two factors are critical for making the project a success. The first is sound experimental design, so at a predetermined endpoint, the success or failure of each regulation can be determined. The second factor is public participation, cooperation, and ownership in the project. Without angler support, this project will be impossible.

The selection process for candidate lakes is underway. A preliminary list will be available this summer. Regulations will go into effect from 1994-1996, as pre-regulation data collection is completed. Evaluation of the experimental regulations is scheduled to be completed by 2002. Questions or comments can be directed to the project coordinator, Tim Goeman, at the Brainerd DNR Headquarters (218)828-2246.

Minnesota River Watershed Project The North American Wetland Conservation Act (NAWCA) provides funding for wetland conservation projects in the US and Canada, and is the major source of "new" federal funding for implementing the North American Waterfowl Management Plan (NAWMP). The Minnesota Steering Committee (MSC), comprised of numerous conservation agencies and organizations oversees implementation of the NAWMP and coordinates Minnesota applications for NAWCA funding. Under NAWCA guidelines, project sponsors must provide at least 1:1 non-federal matching money for NAWCA grant funds.

The Project: In 1992, several MSC members submitted a joint grant application for NAWCA funds. These members were: Ducks Unlimited, Pheasants Forever, Minnesota Waterfowl Association, Board of Water and Soil Resources, Bureau of Indian Affairs, Minnesota Extension Service, Reinvest in Minnesota, and DNR. Other organizations are providing non-funding support in the proposal, including USFWS, Minnesota Pollution Control Agency (MPCA), and others. The

proposal requested \$1.8 million in federal funding to be used to acquire, in fee and easement, drained and existing wetlands; restore drained wetlands; and protect adjacent uplands with grass plantings. The request was matched by \$5 million of non-federal funds (RIM, private, state, etc.).

The project boundary is the Minnesota River watershed. Surface water in the watershed is highly degraded; most wetlands have been drained, vast expanses of native grasses have been converted to cropland, and other wildlife cover is very limited. The MPCA has been monitoring water quality in the watershed under funding from the Legislative Commission on Minnesota Resources, and will soon be implementing practices to reduce non-point source pollution. Their work can be used to provide guidance in implementing land management practices under the NAWCA proposal.

The grant proposal has received tentative approval. Approximately 8,000 acres of wetlands and adjacent uplands will be protected under this proposal. For further info contact: Tom Landwehr (612)296-0701.

The Polomis Report by Taylor "Disciple of Roko" Polomis. Hi, hi, hi. Forgive my absence from recent newsletters. Lack of ideas and motivation plus a bad attitude (sort of a "Fat Elvis" period) do not a good column make. But, for better or worse (no, no the dopey comic strip), I'm back in print. It was great being part of the annual meeting. Kudos to those who organized, put on, and participated in the meeting and ancillary events. I was in near wild heaven because I won a raffle prize for the second straight year. But such fortune makes me wonder what sort of evil fate will soon befall me, as I've never had a long lucky streak without later getting an equal or greater amount of misfortune. In fact, even junk mail emblazoned with Ed McMahon's smiling face addressed to me reads "You May Already Have Lost..."

For those who haven't heard, year-round catch-and-release for largemouth and smallmouth bass, walleye, and sauger on Pool 2 of the Mississippi River is a reality. The Designation Document has been signed by DNR Commissioner Rod Sando. This experimental regulation took effect on 1 March and will run through 28 February 1999. There will be two series of public hearings to determine the acceptance of this new rule - one before 1 December 1996 and another within 6 months of the end date. From results of the latter meetings, it will be determined whether to change the regulation into a permanent special regulation.

The DNR Fisheries annual training session, entitled "Integrated Fisheries Management", was held 9-11 February at Cragun's (again, for AFS meeting attendees). Some of the presentations by DNR Fisheries Management field personnel included: a second annual update of the fisheries of Mille Lacs and Lake of the Woods by, respectively, Rick Brusewitz and Tom Heinrich; a survey of Mille Lacs' bottom substrates and aquatic vegetation by Dale Lockwood; and making a smallmouth bass population estimate using angling and

SCUBA by Joe Mix. The second generation of species' long-range plans were also presented by numerous staff members. Long-range plans are documents developed by statewide committees of DNR Fisheries personnel (plus an "outside" member or two) to map the future goals and strategies for managing species or assemblages of fish.

New Faces, New Places: Arlin Schalekamp has taken a lateral transfer from his Assistant Region position in Grand Rapids and is now the Area Supervisor in Bemidji. Joe Mix of the Grand Rapids area office was promoted into Arlin's old position. Two more Assistant Regional jobs have also been filled: Lee "That Was My Favorite Lawnchair!" Sundmark is now in Bemidji (Region 1) and Daryl Ellison, from Nebraska, will come to work for Huon Newburg in New Ulm (Region 4). Congratulations.

LETTER TO THE EDITOR

Sir:

Amen to Tim Goeman and his opinion article Eggs, Apples, and Fish (MN Chapter AFS newsletter, July 1992). Hatcheries have a place but they shouldn't take the place of habitat management.

As a retired US Fish and Wildlife Service employee, I've stocked a lot of fish. But I know we can't rely on that route and still maintain fishing as we know it today or knew it decades ago.

Outdoor ethics change. A modern acceptable outdoor experience often bears no resemblance to a few years ago. Ron Schara (Minneapolis Star Tribune columnist) mentioned a goose hunting trip to western Minnesota where he hunted from a leased blind and basically had pass shooting. None of the "traditional" skills of calling or decoy placement were needed. After the "hunt" he wasn't sure if he'd really been goose hunting - but the kids in the party knew they'd been goose hunting. In one generation the goose hunting "ethic" had changed. The same scenario can be applied to fishing. I hate to see it come.

Therefore - Habitat, Habitat, Habitat. Is there anything more important? Please do not accept the slow degradation of the environment or the "dilution" of the outdoor experience.

Graden West
New London, MN

COMMITTEE REPORTS

Continuing Education by Mark Cook

The larval fish workshop is scheduled for June. To date, 28 people have registered (there is room for 2 more!). The North and South Dakota Game and Fish Departments will be well represented at the workshop. Jon Ross has been very helpful with arrangements for sampling and laboratory equipment at the Itasca Biological Station. The Parent Society has recently approved Continuing Education Credits (CEC) for this workshop.

Dr. Bowden's non-parametrics workshop scheduled for August is full. Arrangements with Dr. Bowden and Deep Portage have been finalized. We are still pursuing CEC's for this workshop.

In the planning stages...Steve Gough agreed to teach a fluvial geomorphology workshop sometime in the summer of 1994. We agreed that the best location would be in southeastern Minnesota due to the variety of stream types and conditions available there. Mr. Gough and I are discussing the possibility of a pre-workshop visit to southeast Minnesota. He would use the info gathered in the visit to tailor the class to MN AFS members needs.

Proposed workshops...Howard McCormick suggested that the committee sponsor an Expert Witness workshop. This topic was the subject of a 4-hour workshop conducted at the AFS meeting in South Dakota last year. Our chapter has not yet sponsored a short course such as this. I would like to follow the Parent Society's lead and conduct short continuing ed courses like the Expert Witness workshop at our annual meetings. These short courses would be offered immediately before or after the annual meeting. Depending on the topic(s) offered, this may also be a good way to get some interesting people for keynote speakers as well. I would like some feedback on this.

Public Awareness by Steve Quinn

At the 1993 chapter meeting, the membership voted to have the committee proceed with the production of a Public Service Announcement (PSA) about the chapter and its activities. \$400 was allocated for this purpose, and the EXCOM was to approve the final product before it was copied and sent to TV stations.

Comments have been solicited from the committee, EXCOM, and other committee chairs about the PSA content. From the wide ranging discussions at the meeting, it is clear that members have many messages that they would like to convey to the public. The committee welcomes suggestions on this video project and other projects for the future. Write or call Steve Quinn at the address-phone number located inside the front cover.

This summer, Steve Quinn will work with Jim Lindner of In-Fisherman TV to collect images from company files and determine which ones may be lacking. This process should be completed by mid-July.

Awards by Peter Sorenson

Nominations are presently being solicited for the Chapter's 1994 Award of Excellence. This award recognizes outstanding efforts of person(s) or groups to preserve, promote, or improve fish populations, fish habitat, or the field of fishery science. Long-term excellence in the fisheries profession and/or outstanding performance in activities that further the goals of the Minnesota Chapter AFS are expected. Nominations should clearly identify both the nominator and nominee (name, address, position, phone number) and include a nomination statement which includes a brief description of the nominee's lifetime accomplishments to the profession. Supporting materials may be submitted. Nominators should identify 2 other individuals familiar with the nominee's accomplishments. Deadline Sept. 1.

Nominations are also being sought for the Chapter's Special Recognition Award. This award recognizes individuals who have made special contributions either to the chapter or a project that advances the goals of the Chapter. Nominations should clearly identify both the nominator and nominee (name, address, position, phone number) and include a nomination statement which includes a brief description of the nominee's special services to either the Chapter or the project which supports the Chapter's goals. Although not required, supporting materials and names of individuals familiar with the nominee's accomplishments may be included. Deadline in also 1 September 1993. Nominations for either award should be sent to Peter Sorenson, address inside front cover.

Rivers and Streams by Henry Drewes

The annual AFS North Central Division Rivers and Streams Committee was held in Rock Island, IL in Early April. A report on this technical, interesting meeting will come out in a future newsletter...Please check out the request from Dr. Tom Waters in the Academia Field Report for literature on sediment impacts in streams. It would be of great value to have such a literature review available...The disappointing response from the DNR regarding the clearing and snagging issue is being followed up on by the EXCOM...The committee is assessing interest in holding another summer committee meeting. Last year's gathering in southern Minnesota went fairly well. Please contact Henry Drewes at the address-phone number inside the front cover to offer suggestions for possible locations, dates, and topics for discussion.

Finance (ad hoc) by Henry Van Offelen

The 1993 annual meeting Raffle was quite successful. We sold just over 1,000 raffle tickets, and sales brought in over \$800. Silent auction and live auction activities raised \$390. The raffle board for the custom made rod grossed \$114. Total expenses (including postage, prints, supplies, print wrapping, and

rod building materials were \$285. In the end, the estimated net raffle profit was over \$1,000. To my knowledge, this was MN AFS's most successful raffle. Hopefully, we can build on this year's success and have a good selection of prizes next year and promote the raffle prior to the meeting. If you missed it, some auction prints and prizes went for well under their real value. Hopefully, next year people will bring some extra cash for auction items.

Several members contributed their time or services for this year's raffle. Thanks are due to **Mark Cook, Chris Kavanaugh, Steve Marod, Brad Parsons, Tim Schlagenhaft, and Bill Thorn** for donating trips and prizes. These members were included in a limited entry drawing for two **Larry Topel** prints. **Steve Marod and Mark Cook** were winners. Thanks again for donating your time. Final thanks are due to the student members, especially **Loren Miller**, who took responsibility for raffle ticket and T-shirt sales

The foundation of the raffle is the companies that donated products to the raffle. Whenever possible, please recognize and support those companies in the list that follows. Without their contributions, a raffle simply would not be possible. Also, I am always looking for new raffle contacts. Please keep your senses tuned to new possible raffle contributors and get ideas back to me.

1993 Raffle Prize Contributors

Hunting and Fishing Library	Johnson Fishing, Inc.
Stearns Manufacturing Co.	American Fisheries Society
Artist: Larry Topel	Artist: Virgil Beck
Artist: Joe Tomelleri	Strikemaster Corporation
Adventurous Products, Inc.	System Tackle
Burke Fishing Lures	Hypark Specialty Co., Inc.
Outdoor News	VEXILAR, Inc.
Berkely, Inc.	Robinson Laboratories Inc.
Scientific Angler/3M	Normark Corporation
Water Gremlin Company	Rodcraft
Northland Fishing Tackle	SPORTCO Marketing
Woodstream Corporation	Wright and McGill Corp.
In-Fisherman	Minnesota Art Gallery

Fish T-shirt Sales In December, Tom Fliger of Stranger Creek, Inc., called me. He had just started a business selling T-shirts with fish illustrations by Joe Tomelleri. After discussing possibilities and options with Tom, Don Pereira, and Ginny Snarski we decided to go ahead and sell T-shirts at the annual meeting. Sales were fairly successful at the annual meeting where 35 shirts were sold. Since the annual meeting, we have sold about 240 more shirts (yes, 240). Ginny Snarski sold 48 shirts to co-workers at the EPA lab in Duluth. Thirty shirts were sold at the MN DNR training session. Students members at the U of M sold 10 shirts at the Minnesota Sport Fishing Congress, 40 shirts within the department, and 25 shirts at the St. Paul student center during "Wildlife Week". Jeff Gunderson bought 25 shirts to give to speakers at the Aquaculture Conference. To date, shirt sales have netted over \$1300 profit for the chapter.

If you haven't had the chance to see the shirts, they are white 100% cotton heavy weight shirts with fish

prints of unrivaled quality. Species currently available are brook trout, rainbow trout, orangespotted sunfish, channel catfish, largemouth bass, black crappie, and walleye. MN AFS will keep a small supply of these shirts in stock. T-shirt orders will be accepted throughout the year (see order form in this newsletter); however, orders will only be sent to the company when a 20-shirt order has been accumulated. Cost is \$15. Shipping charges of \$2 for the first shirt and \$1 for each additional shirt will also be needed for individual orders unless pickup at Detroit Lakes can be arranged. Feedback on shirt sales would certainly be appreciated. Several other species including brown trout, sockeye salmon, and bluegill will probably be added to the line in the next year.

Membership by Jeff Reed

It appears as though spring is busting out all over. The walleye fry are hatching, yellow warblers are everywhere, and the morels are out. This time of year is usually the perfect time for cleaning up, and the membership list of the Chapter is among those things that I will be cleaning up this spring. For a number of years we have been carrying a lot of "extra baggage" on the chapter's membership list. Maybe you haven't been to an annual meeting for a couple of years or perhaps you just forgot. What ever the reason, many of you have neglected to maintain your Chapter membership. We currently have 351 individuals receiving the newsletter while only 239 have paid there 1993 dues. In fact we have been mailing the newsletter to a number of you who have not paid your dues for two years! This is your first and only warning. The EXCOM has directed me to delete those members who have not paid 1993 dues. We want and need you to be a part of the Chapter, so for those of you who have a blue mark on your mailing label please send in your dues, do it TODAY before you forget. Don't miss your chance to be a part of the BEST Chapter in the North Central Division.

Join AFS!! There are a number of reasons for joining AFS. Currently, AFS is taking a very active role in resource advocacy issues. We need you. If you need and application let me know...**25 Year Members:** Awards are given to members who maintain their membership for 25 years. If you have been a Chapter member for 25 years (continuous years) please let me know...**Membership Survey:** Please take a few minutes to fill out the membership survey and return it to me.

Students by Lynn Mizner

The EXCOM approved \$450 to promote student attendance at the 1993 annual meeting. In December, announcements and application materials were sent to academic advisors at eight colleges/universities in Minnesota. Ten completed applications from students at three MN universities were received. All received money for 1 or 2 nights lodging and for the banquet meal. In return for funding, students assisted with the audio/visual equipment at the meeting and also helped sell raffle tickets. Student attendance at this years meeting was the highest ever and future support of students is anticipated.

NEWS, MEETINGS, PUBS, AND OTHER ITEMS OF INTEREST

Sullivan Memorial Membership Award

The Sullivan Memorial membership Award was established in 1991 by the late Carl R. Sullivan, former Executive Director, to support AFS membership for non-North American fisheries Scientists, with emphasis on Irish, Australian, English, and other candidates from English speaking countries. The award is administered by the AFS, and includes an annual membership in AFS and a year's subscription to an AFS peer-reviewed journal. To qualify, applicants must submit a 1 page letter describing professional goals and current efforts toward them. A brief statement of how membership in the AFS might assist the goals should also be included. Recommendation from 1 member of a professional fisheries organization is desirable. Send applications to AFS, 5410 Grosvenor Lane, Suite 110, Bethesda MD, 20814, USA., Fax(301)897-8096. Must be received by July 20, 1993 to qualify for 1994 award. Selection will be made in late August and all candidates will be notified.

Zebra mussels ride on aquatic weeds

According to a new Sea Grant study, the best way to prevent zebra mussels from spreading is to clean aquatic weeds from trailers and boats. Recent surveys of boaters around Lake St Clair found large numbers of zebra mussels attached to aquatic plants, such as coontail and milfoil. Zebra mussels were first discovered in Lake St Clair, a shallow lake connected by the St Clair River to Lake Huron and the Detroit River to Lake Erie. Up to 1/4 of all boats coming out of Lake St Clair were trailing aquatic weeds with zebra mussels attached. These findings mean zebra mussels could spread to inland lakes as easily as eurasian watermilfoil spreads from lake to lake. From Minnesota Sea Grant *Seiche*.

Native mussel extinction predicted

"All 23 mussel species in the Detroit River will be gone within 12 to 18 months" said Don Schlosser, USFWS researcher. He made the prediction based on surveys of native mussel populations over the past 9 years. Between 70 and 90% of native mussels found by surveyors in 1984 were alive. the same sites 9 years later yielded under 10% live mussels. Native mussels are smothered by zebra mussels. The USFWS announced last summer that no viable native mussel populations are left in Lake St Clair. Zebra mussels are also expected to harm rare mussels in the St Croix, a wild and scenic river between MN and WI. From Minnesota Sea Grant *Seiche*.

Successful chemical control of ruffe

Using the lampricide TFM, fisheries managers were able to kill 97% of the ruffe in the Brule River, WI, without killing other fish. However, TFM is not a continuing option for ruffe control since it is licensed by the EPA only for use in lamprey control. The USFWS used it in the Brule as an experiment. From Minnesota Sea Grant *Seiche*.

New textbook available for fall classes

Inland Fisheries Management in North America, Chris Kohler and Wayne Hubert, editors, is ready. The Fisheries Management and Education Sections of AFS recognized the need for a comprehensive textbook on current management practices in the US and cooperated to produce this book. This major college-level and professional text is authored by 35 respected educators and fisheries management professionals. It provides a description of the conceptual basis and current management practices being applied to freshwater and anadromous fisheries in North America with an emphasis on the decision making process. Both sport and commercial fisheries are discussed; sport fishery management is emphasized. Each chapter is fully referenced to allow reader access to more advanced, detailed information. 23 chapters address numerous topics including law; pop dynamics; stats; socioeconomics; stocking; regs; undesirable, introduced, endangered species; lake, stream, river, reservoir, estuarine habitat and management; and more. Books can be purchased from the AFS for \$41 (\$33 AFS members) including postage and handling. Take member price for 10 or more books. Send orders to AFS, 5410 Grosvenor Lane, Suite 110, Bethesda MD, 20814.

Reviews in Fisheries Science

Announcing a new journal co-published by CRC Press and the AFS edited by Robert Stickney. This journal provides an important forum for the publication of up-to-date reviews, historical articles, and original research covering the broad range of subject areas in fisheries science including management, aquaculture, taxonomy, behavior, stock ID, genetics, nutrition, and physiology. An important resource that will keep you apprised of the latest changes in the field, each issue presents unique information useful to fisheries scientists in academia, state and federal natural resource management agencies, and the private sector. Rate per 4-issue volume: individual \$79.95; AFS member \$39.00; institutional or foreign \$195.00. Available from Lewis Publishers/CRC Press, Inc., 2000 Corporate Blvd. NW, Boca Raton, FL 33431, or call 800/272-7737 or 407/994-0555.

Sustaining the Ecological Integrity of Large Floodplain Rivers: Application of Knowledge to River Management is an international conference scheduled July 12-14 1994 in LaCrosse, WI. River experts from every continent will address topics concerning the ecology and management of large floodplain rivers. The program is centered on the definition of ecological integrity, effects of human disturbances, anticipated trends in river uses, and maintaining or restoring ecological integrity. For more information, contact Dr. Kenneth S. Lubinski, USFWS, Environmental Management Technical Center, 575 Lester Ave., Onalaska, WI 54650. Phone 608/783-7550.

Other books available from AFS

Investigation and Valuation of Fish Kills, AFS Special Publication 24, presents the latest methods for determining the economic consequences of fish kills. It revises, updates, and extends the information in *Monetary Values of Freshwater Fish and Fish-Kill Counting Guidelines*, which has been widely used to estimate monetary damages for pollution-related fish kills since 1982. The new volume guides fishery managers and assessment biologists from the moment a kill occurs until the final fishery value is calculated, and it stresses legally defensible data acquisition and analysis. Cost is \$28 (\$22 for AFS members). *Fisheries Management and Watershed Development* is the proceedings of a 1991 symposium held by the AFS Northeastern Division which explored the effects of watershed development on freshwater, estuarine, and nearshore fishery resources. Anyone who wants a better understanding of watershed development from the perspective of fisheries management will want to study this compendium of current knowledge. Topics include role of the fisheries manager, evaluation techniques, pros and cons of mitigation, developing realistic management objectives, and public education and involvement. Cost is \$50 (\$40 for AFS members).

Americans surveyed on conservation issues

A recent survey conducted by the Roper Organization for *Times Mirror Magazines* focused on conservation issues.

Among its major findings were:

When reasonable compromises can not be found between environmental protection or economic growth, Americans overwhelmingly side with the environment. Nearly 2/3 think the environment is more important, while only 17% come down on the side of economic growth.

Half of Americans think federal efforts to protect endangered species have not gone far enough. But at the same time, they think the 1972 Endangered Species Act should be changed to consider cost and to make sure all species at risk receive proper, scientific consideration.

Americans believe natural places and resources can be used to benefit people and the economy while being protected. But they also believe most commercial users of public natural resources ought to pay a fee to the government. Recreational activities - with the exception of hunting - are considered acceptable without a fee.

When trade-offs are made to benefit the environment, the public thinks that costs should be paid by society as a whole, not by individuals alone. For example, property owners should be compensated financially when restrictions are put on use of private land. From the Water Quality Section of the AFS newsletter.

Managing Black Bass in Northern Waters

This symposium, presented by the Northeast Division AFS is scheduled on October 5-6 1993 in Alexandria Bay, New York. This workshop will provide a forum for biologists working with black bass management to exchange the latest information. For more information contact David Green, Cornell Biological Field Station, 900 Shackleton Point Rd., Bridgeport, NY 13030.

Environmental groups oppose lock expansion

The Izaak Walton League of America (IWLA) stated in a news release date Dec. 9, 1992, that a number of national and local environmental groups have accused the Bush Administration of a "rush to judgement...that will set a course to spend several billion dollars" on a US Army Corps of Engineers proposal to build what would be the "most expensive expansion of a waterway's navigation capacity in our nation's history." The Corps' proposed plan would add 1200' locks at up to 16 sites on the upper Mississippi and Illinois Rivers. Paul Hansen, Director of the IWLA Midwest Regional Office said "it is entirely inappropriate for a lame duck administration to be making a determination to go forward on an environmentally destructive pork barrel project of this magnitude, especially before there has been any independent analysis on whether the project is really necessary or a comparison of what a similar investment in a range of transportation alternatives might yield. This project will likely destroy much of the remaining recreational and biological value of the rivers. While the Corps calls this a feasibility study process, we know from experience that it is actually a justification process." The groups involved include the IWLA, Sierra Club, Quad Cities Conservation Alliance, and American Rivers, Inc. An updated list of environmental groups signing on to this statement, or a list of state agency contacts, are available at the IWLA Midwest Office (612)922-1608. From *River Crossings*.

NCD Technical Committees summer meetings

The AFS NCD Walleye Technical Committee will hold its annual summer meeting 13-15 July in Dubuque, Iowa. All interested persons are invited to attend this very special meeting. This year's program will be a little different - we have invited Dr. John Forney of Cornell University to lead a walleye workshop. Dr. Forney has worked for 30+ years on the Oneida Lake walleye fishery and developed a comprehensive management system utilizing routine population assessment, variable regulations, and stocking. He will address the committee and then participate in workshop discussions comparing the Oneida lake fishery with our midwestern systems. Other meeting items include genetic stocks of walleye in the Upper Mississippi drainage, population modeling, comparisons among major midwest walleye waters, and walleye regulations updates. For meeting information contact Mike Staggs, DNR Research Center, 1350 Femrite Dr., Monona, WI 53716 or (608)221-6355. The Esocid Technical Committee will meet in LaCrosse, WI, on 13-14 July. This meeting will include talks on several interesting topics including: esocid diets in South Dakota, Illinois, and Wisconsin; northern pike regulations and ecology in Minnesota, Wisconsin, and Nebraska; esocid culture and genetics; and hooking mortality. For more information contact committee chair, our own Jeff Reed, at the address or phone number listed inside the front cover.

INTEGRATED RESOURCE MANAGEMENT: FEEDBACK ON THE SPECIAL SESSION by Paul Pajak

On behalf of the special session committee, I'd like to share some of the feedback we received from you and TWS members at our annual meeting. You remember the session, the one entitled "Toward Sustainable Management of Land, Water and Living Resources: New Roles for Fisheries and Wildlife Professionals"? No doubt some of you have been wondering if "anyone ever looked at..." the evaluation sheets. The answer is yes. And the results are very encouraging, especially your comments on what the AFS and TWS Chapters might do to "foster ecologically sustainable resource management" in Minnesota.

But before I go on, let me first thank all of you who took the time to provide your written comments. The resulting list of ideas is impressive to say the least. And if they are any indication of our chapter memberships, there is a tremendous level of professional support "out there" to promote and implement more holistic and ecologically sustainable management strategies.

So what did you folks think of the session itself? Overall, it appears to have been a big step in the right direction based on the 72 "evaluation sheets" we received (approx. 36% response rate; long day, I guess). The vast majority of you (83%) agreed that you "learned something" and most of you (65%) felt your "expectations" of the session had been met or partially met. However, it's interesting to note that a large number of you (56%) did not have, nor state, any specific "expectations for this session" beyond general learning. I guess that means about 9% of you, that didn't have any expectations, had them met! Now that's what I call marketing! In contrast, only 10% of the respondents said their expectations had not been met.

And what were some of the "expectations" people brought to the session? A few general areas that were mentioned by more than one respondent included 1) learn more about/better define SRM (19%), 2) get different, interagency perspectives (10%), 3) hear active debate on the topic of SRM (4%), and 4) hear case studies, "success stories" (4%). Expectations of the session expressed by only one individual included such things as "having question & answer period", "staying current on trends and policy", "learn how AFS and TWS can get more involved", "get ideas for public involvement and education", "discuss influence of human values" (on SRM) and "get one useful thought per speaker" (my personal favorite!) All of these ideas should help focus future efforts and dialog.

Let's move on now to "what" you said "you learned". Though rather difficult to categorize, about 48% of the

responses to this question related to various aspects of public involvement and education, especially the "need for". Other apparent lessons, revelations and sentiments (and % of respondents) were typified by the following general categories: * "it's possible to manage sustainably with current knowledge" (14%), * "a diversity of perspectives exist and are needed, especially from the agricultural community" (12%), * "it's important to forge ahead, but it won't be easy" (10%), * "we still need to work on our definition of sustainable resource management (SRM)" (10%), and * "management needs to focus on ecological integrity" (6%). 'Nice to see this last "lesson" was no big surprise for this audience!

So "where" did all of you suggest that "we go from here"? According to 80% of the respondents (n=69), the Chapters should educate, educate, educate! Not only ourselves and other resource management professionals, but the general public, policy makers and elected officials as well. By comparison, other possible initiatives were mentioned far less often than such two-way information and education activities. For example, only 9% suggested actions related to institutional "organization", -6% saw a need for more or better science, 4% suggested changing the economic system or funding mechanisms, and 1% believe we need to shape laws or other legal solutions.

And how did you propose we do this (ie. what "tools")? Again, public education and involvement was mentioned most often (64%) followed by better science/techniques (16%), improved institutional organization (9%), some change in the economic system (7%), or better laws or law enforcement (4%).

So, what's the "bottom line" on the session and possible chapter initiatives regarding integrated and ecologically sustainable resource management? Well it appears that most of you learned something and that something was the importance of and need for meaningful public involvement, and education. Furthermore, many of you believe we know enough now to advance these principles, but that we need to ensure and maintain a diversity of perspectives, especially that of the agricultural community. And without a doubt, most of you believe that public involvement and education regarding these concepts should be the Chapters' highest priority. Now all we need to do is figure out how to harness and direct this collective energy to benefit the people and resources of Minnesota! More on this later...

As an aside, many of you (68%) said you were "entertained" by the session and found that, to some degree, the "special packet" helped you enjoy and learn from the session (57%).

MINUTES OF THE 26TH ANNUAL MEETING

The Minnesota Chapter AFS 26th Annual Meeting was called to order in Brainerd, MN on 28 January 1993 by President G. Snarski. A quorum is present and the agenda was accepted.

Guests were introduced: Jack Wingate, second vice-president of AFS parent society addressed the chapter. Jack congratulated the chapter for receiving the NCD award for most active chapter. He relayed best wishes to the chapter from Carlos Fetteroff, Parent Society President. He reported: The number of issues of *Fisheries* has increased and is now distributed monthly. New dues increases were used to support the increased publications. The diary and the job bulletin are now a part of each *Fisheries* issue. The society needs to perform an advocacy role. The chapter needs to work through the society to lobby at the appropriate level. In March the parent society EXCOM will debate what the society's role will be. The sub-unit level needs to deal with issues in their own backyard, need to address pertinent issues. Need to include as large a cross-section of the society as possible. Need to make sure the issue is appropriate and keep parent and NCD informed.

Dave Phillip, President-Elect NCD, addressed the chapter. Dave gave a brief report from John Lyons, NCD president.

John Lyons' Report - Financially NCD is doing quite well. Continuing education has refurbished the budget. All AFS presidents, president elects, first and second vice-presidents are from NCD. Midwest Fish and Wildlife in Toronto was a good meeting. The chapters report doing many similar actions: 1) long range plan; 2) continuing education program; 3) procedures manual; 4) advocacy; 5) helping students. Dakota chapter hosted the AFS annual meeting. In the year 2000 the AFS National meeting will be back in the NCD division, MN Chapter may want to consider a bid.

Dave then gave his address. He asked how we can bridge fish ecology and fish management. What is the difference? What are the problems? What is the best vehicle - NCD. Technical Committee may be the answer. Try to expand role and number of technical committees. Some by taxonomy, some by geographic area, etc. Need to bridge the gap and do cooperative research, share expertise, etc. Next years meeting is in St. Louis, MO.

D. Schreiner - Minutes from the 1992 meeting in Duluth, MN were approved as printed. Reviewed and discussed the treasurer's report and it was approved.

President's Address

G. Snarski - Thanked everyone for helping over the year. The chapter is steadily increasing its activity. Keep volunteering. Committee chairs have made most of the EXCOM meetings and this has added a lot to the meetings.

Highlights of 1992:

1. By-law change to make Long Range Plan and Student Committees standing committees. Helped students with funding to annual meeting.
2. Policy issues
 - a. MPCA - aquaculture facilities regulations were passed and amended with chapter input.
 - b. Genetically engineered organism (GEOs) regulations passed with chapter input.
3. First action agenda was produced from Long Range Plan. Planning sessions were held, some things completed, some ongoing and some didn't get started.
4. Membership interest expertise questionnaire was distributed with 65 to 70 respondents.
5. Award of Excellence was given to Willard Munger at a breakfast and award ceremony. Willard discussed ways to increase legislative exposure of chapter.
6. The chapter produced its own newsletter - printing, postage, etc.
7. Rivers and Streams Committee is very active with two to three meetings per year, summer technical meeting, etc.
8. Chapter won NCD most active chapter - cumulative activities of many people.
9. Activities and special recognition of chapter members - Dr. Waters, NCD Excellence in Fisheries; Tim Goeman, Secretary/Treasurer of NCD; Jack Wingate, Second Vice-President National AFS.
10. Annual meeting, special session, action agenda, joint meeting with wildlife were all highlights.

Committee Reports

Awards - S. Colvin - Henry Drewes received plaque for Best Paper and Ray Newman for Best Poster at 1992 meeting. Revision of rating criteria for Best Poster and Best Paper was completed. Special Recognition Award was initiated, which is different from the Award of Excellence, not restricted to one person given for special recognition of service to chapter. Dennis Schupp received this year's Award of Excellence at the banquet. This year there were no 25 Year Service Awards.

Continuing Education - M. Cook - Two workshops are scheduled for 1993. Nonparametrics has 25 registered and can hold 30, May 1, 1993 is the deadline. Larval Fish Workshop has 15 people registered, need 20-25 people for course to be given. South Dakota could send four people. Letters were sent to other chapter to recruit participants. Two other workshops are on the agenda: genetics and fluvial geo-morphology of streams.

Issues Committee - J. Gunderson - Legislative breakfast. Need to become more proactive, outgrowth of meeting with Representative Willard Munger. Suggest the MN chapter sponsor a legislative breakfast. Get to know legislators - let them know us. Suggest the chapter sponsor a breakfast at Kelly Inn. Expect legislators to attend for 20-30 minutes. Buffet style breakfast with tables and host to seat people.

Try not to let legislators sit together. EXCOM committee members should attend. Approximately 50 natural resources members and environmental legislators would attend at a total cost of approximately \$575.00. Invitation is important; legislators like to know people from their district will be attending. A suggestion was made to set up some issues in the invitation to help stimulate interests. May want to consider agriculture or LCMR select members also.

Long Range Plan - T. Close - Now a standing committee. Put together a list of the structure, function, etc. of the LRP Committee to be included in procedures manual. This year assisted the president with action agenda and helped D. Pereira prepare his action agenda.

Membership Committee - T. Goeman - Total membership in 1992 was at an all-time high of 210 members. As of today there were 136 meeting attendees registered.

To date the membership for 1993 is 156. Jeff Reed assisted with registration and will take over as chair.

Newsletter - B. Parsons - Mailing and copying is now part of the newsletter procedure and is being paid for by the chapter. The cost is \$150-200 per newsletter. Mailing will now be 3rd class, non-profit with a one-time registration fee of \$75.00, annual fee of \$75.00, and \$.10/parcel. There may be a slight delay in delivery. Thanked EXCOM, field reporters, committee chairs, etc. for their assistance. Need more opinion articles. Three newsletters will be prepared - April, July and October. Annual meeting issue for December through March. Dues will be increased to \$7.00 per year in 1994, due to the increased cost of the newsletter. T. Goeman will also reduce number of complementary copies. Thanks to J. Reed for stapling and folding the last set of newsletters.

Nominations - C. Cook - The committee was charged to come up with formalized procedure for selecting candidates. Will use colored paper to help insure the ballot is official. In 1989 it was decided that only members who are parent society members can vote. Associates cannot vote. Ballots will only be sent to members who are parent society members. D. Bathel and R. Pierce helped put new procedures together. Nominating chair must now select a committee of three to five members and they must represent a cross-section of the chapter to assist with selection of candidates. Nominations solicited from parent society members only. Will require more information on nominees such as years of service, background, etc. There have been an increasing number of nominees. Four past-presidents will assist nomination committee members to reduce candidates to two for each office. This year's election was very close. EXCOM: Federal - Larry Kalemyn; DNR - Tim Brastrup; Academic - Carl Richards; Open - John Ringle; Secretary/Treasurer - Chris Kavanaugh; President - Bill Thorn.

Procedures Manual - G. Busacker - Procedures manual is

only a guideline and it is supposed to be changed. The document was approved during the year and 30 pages have been revised. New changes are available and pages can be replaced. All pages are dated. In the future pages may be put on computer disk and distributed.

Public Awareness - S. Quinn - Potential projects included a public service announcement by MN-AFS for 30 seconds. A sample from Wisconsin chapter was shown during meeting. Thirty seconds is very short. What can be gained from a three sentence, six image announcement at a cost of \$400.00? 1) Foster awareness of fishery professionals. 2) Conservation of aquatic resources. 3) Recruitment of new members. 4) Awareness of what we are and what we are not. 5) Greater recognition of chapter for door prizes. The \$400.00 investment could be worth \$15,000 air time. Membership comments: a) might need to be ongoing and shown continuously; b) might want to try an educational or issue message; c) might be a duplication of other agencies; d) approach DNR to assist with aquatic education; and e) should try to get across the point of who we are (ex. a one line message). Membership voted to produce a video; motion passed. EXCOM will review video.

Issues - C. Richards - No resolutions. EXCOM suggested a committee be formed to address the Mill Lacs Agreement. Chapter should comment only on the biological issues involved, not social. J. Wingate cautioned the chapter might not want to get involved, could be a lose/lose situation. Chapter's responsibility is to get involved only on the biological level. A motion was made and passed to select a committee to evaluate the treaty and draft a resolution, EXCOM will review draft.

Rivers and Streams - H. Drewes - Instream flow was an action agenda for the chapter. A meeting on instream flow was held by the Rivers and Streams Committee in Redwood Falls - field workshop format. A seminar on instream flow in MN was held before this meeting. The committee would endorse a workshop on fluvial geomorphology. Will work with M. Cook. Three members attended NCD Rivers and Streams meeting last April. Instream flow was carried forward as an action item for this year. 1993 NCD meeting of Rivers and Streams is scheduled for April 6 and 7. Funding to send a representative from the chapter may be available.

Student Committee - L. Miller - A total of ten students, five undergraduate and five graduate students from three schools, were awarded travel to this meeting which includes lodging and banquet. Eight to ten other students attended. Seven students were speakers. Student would like to thank MN-AFS for support. Students have been putting in effort on A-V and raffle. Lyn Mizar will be the new committee chair. Hope to get more students on committees and involved in fund raising outside the annual meeting.

Fund Raising - H. VanOffelen - Students were sent letters and applications for financial assistance at this meeting. Ten were sent back, six for two nights, and four for one

night. All were approved. Raffle - Things are going well with the raffle. Assistance is welcome. The larger it gets the harder it gets. T-shirts are available.

Old Business

1. Clearing and Snagging Resolution - A letter was sent last year to DNR Commissioner Rod Sando that addressed the need for a better environmental review process on removal of woody debris. The chapter finally received a response from Commissioner Sando on December 30, 1992. The first letter was sent by the chapter on March 18, 1992 and a follow-up letter was sent on December 8, 1992. There was about a 10 month waiting period. Response by Commissioner Sando was not acceptable. Another letter with a suggested course of action will be sent. It will suggest that the DNR incorporate use of AFS guidelines and that the department of Fish and Wildlife sign off acknowledging review of projects. A motion was made and passed to pursue this issue and make specific recommendations. Ron Anderson, from DNR Division of Waters, will be contacted to request a meeting. D. Pereira and H. Drewes will draft a letter of response to Commissioner Sando.

2. Membership interest questionnaire. 65-70 responded but need more responses. Will get this up on a database, J. Reed, R. Nelson, and G. Snarski will pursue.

3. Wetlands position paper - W. Barstad - Didn't make a great deal of progress. Need memberships input to focus the action on the position statement. Have handouts for membership to review.

4. Funding priorities - How will money be spent? D. Bathel agreed to put together a survey that addresses spending and also determines guidelines on how much money can be spent. Please fill them out and return them for review by EXCOM.

5. Need more open member participation.

6. Don Pereira was installed as president and took charge of meeting.

New Business

G. Snarski was given an Award of Recognition as Past-President of MN Chapter AFS by D. Pereira.

1994 Annual Meeting Locations - Dakota Chapter was suggested. We may want to join them in 1994. Also will explore Iowa. B. Thorn (President-Elect) will pursue.

1993 Action Agenda - D. Pereira is concerned about continuity. President, President-Elect, etc., all need to be involved. D. Pereira assembled 10 action agenda items, left blanks for others, feel free to change priorities. Return to D. Pereira by mid-February so the official action agenda can be in the next newsletter. Item 1 on the agenda was to produce a product based on today's special session. Examples: videos; chapter initiative - position statement, resolution, etc.; written proceedings - try to synthesize. Will try to get better overview on action agenda; will assign EXCOM members to oversee certain agenda items.

Committee chair assignments have been completed for upcoming year.

1993 Proposed Budget - Detailed handout on budget was distributed to all attendees. Concern by some members of a projected income \$2,000 less than outflow. Membership comments: 1) problem with \$2,000.00 deficit. 2) continuing education - could make up difference, increase tuition, provide more workshops, double the number. 3) DNR may be able to print newsletter. Could save \$600.00 or more. 4) remove \$300.00 from travel of president.

Legislative breakfast is a line item on the budget. Motion was made and passed to approve legislative breakfast. Motion was made to amend budget by: 1) DNR printing newsletter (J. Wingate). 2) Remove \$300.00 from president's travel. Motion was passed.

Funding strategies: Increase income - 1) expand continuing educations, 2) increase fund raising. H. VanOffelen needs more assistance with fund raising and will head initiative to explore all fund raising options.

Advocacy Policy - Motion was made that MN Chapter adopt advocacy policy from parent society. The policy gives guidelines for involvement. It addresses advocacy vs. responsibility. The motion was passed.

A motion was made and passed that the 193 annual business meeting be adjourned.

Treasurer's Report

RECEIPTS

Interest	64.60
Dues collected by Parent Society	30.00
Dues by mail	10.00
1992 raffle rebate - Parent Society	12.50
Continuing ed registration	410.00
Sub-total	527.10

DISBURSEMENTS

Newsletter printing	388.73
Newsletter postage	163.80
President's travel - Midwest	621.85
News releases postage, envelopes	15.35
Awards for annual meeting - 1993	72.77
Raffle expenses - 1993	55.95
Chapter stationary	58.00
Interest debit	2.62
Sub-total	1,379.07

Balance 01/25/93 \$6,549.12

NEWS, MEETINGS, PUBS, AND OTHER ITEMS OF INTEREST

Sullivan Memorial Membership Award

The Sullivan Memorial membership Award was established in 1991 by the late Carl R. Sullivan, former Executive Director, to support AFS membership for non-North American fisheries Scientists, with emphasis on Irish, Australian, English, and other candidates from English speaking countries. The award is administered by the AFS, and includes an annual membership in AFS and a year's subscription to an AFS peer-reviewed journal. To qualify, applicants must submit a 1 page letter describing professional goals and current efforts toward them. A brief statement of how membership in the AFS might assist the goals should also be included. Recommendation from 1 member of a professional fisheries organization is desirable. Send applications to AFS, 5410 Grosvenor Lane, Suite 110, Bethesda MD, 20814, USA., Fax(301)897-8096. Must be received by July 20, 1993 to qualify for 1994 award. Selection will be made in late August and all candidates will be notified.

Zebra mussels ride on aquatic weeds

According to a new Sea Grant study, the best way to prevent zebra mussels from spreading is to clean aquatic weeds from trailers and boats. Recent surveys of boaters around Lake St Clair found large numbers of zebra mussels attached to aquatic plants, such as coontail and milfoil. Zebra mussels were first discovered in Lake St Clair, a shallow lake connected by the St Clair River to Lake Huron and the Detroit River to Lake Erie. Up to 1/4 of all boats coming out of Lake St Clair were trailing aquatic weeds with zebra mussels attached. These findings mean zebra mussels could spread to inland lakes as easily as eurasian watermilfoil spreads from lake to lake. From Minnesota Sea Grant *Seiche*.

Native mussel extinction predicted

"All 23 mussel species in the Detroit River will be gone within 12 to 18 months" said Don Schlosser, USFWS researcher. He made the prediction based on surveys of native mussel populations over the past 9 years. Between 70 and 90% of native mussels found by surveyors in 1984 were alive. the same sites 9 years later yielded under 10% live mussels. Native mussels are smothered by zebra mussels. The USFWS announced last summer that no viable native mussel populations are left in Lake St Clair. Zebra mussels are also expected to harm rare mussels in the St Croix, a wild and scenic river between MN and WI. From Minnesota Sea Grant *Seiche*.

Successful chemical control of ruffe

Using the lampricide TFM, fisheries managers were able to kill 97% of the ruffe in the Brule River, WI, without killing other fish. However, TFM is not a continuing option for ruffe control since it is licensed by the EPA only for use in lamprey control. The USFWS used it in the Brule as an experiment. From Minnesota Sea Grant *Seiche*.

New textbook available for fall classes

Inland Fisheries Management in North America, Chris Kohler and Wayne Hubert, editors, is ready. The Fisheries Management and Education Sections of AFS recognized the need for a comprehensive textbook on current management practices in the US and cooperated to produce this book. This major college-level and professional text is authored by 35 respected educators and fisheries management professionals. It provides a description of the conceptual basis and current management practices being applied to freshwater and anadromous fisheries in North America with an emphasis on the decision making process. Both sport and commercial fisheries are discussed; sport fishery management is emphasized. Each chapter is fully referenced to allow reader access to more advanced, detailed information. 23 chapters address numerous topics including law; pop dynamics; stats; socioeconomics; stocking; regs; undesirable, introduced, endangered species; lake, stream, river, reservoir, estuarine habitat and management; and more. Books can be purchased from the AFS for \$41 (\$33 AFS members) including postage and handling. Take member price for 10 or more books. Send orders to AFS, 5410 Grosvenor Lane, Suite 110, Bethesda MD, 20814.

Reviews in Fisheries Science

Announcing a new journal co-published by CRC Press and the AFS edited by Robert Stickney. This journal provides an important forum for the publication of up-to-date reviews, historical articles, and original research covering the broad range of subject areas in fisheries science including management, aquaculture, taxonomy, behavior, stock ID, genetics, nutrition, and physiology. An important resource that will keep you apprised of the latest changes in the field, each issue presents unique information useful to fisheries scientists in academia, state and federal natural resource management agencies, and the private sector. Rate per 4-issue volume: individual \$79.95; AFS member \$39.00; institutional or foreign \$195.00. Available from Lewis Publishers/CRC Press, Inc., 2000 Corporate Blvd. NW, Boca Raton, FL 33431, or call 800/272-7737 or 407/994-0555.

Sustaining the Ecological Integrity of Large Floodplain Rivers: Application of Knowledge to River Management is an international conference scheduled July 12-14 1994 in LaCrosse, WI. River experts from every continent will address topics concerning the ecology and management of large floodplain rivers. The program is centered on the definition of ecological integrity, effects of human disturbances, anticipated trends in river uses, and maintaining or restoring ecological integrity. For more information, contact Dr. Kenneth S. Lubinski, USFWS, Environmental Management Technical Center, 575 Lester Ave., Onalaska, WI 54650. Phone 608/783-7550.

Other books available from AFS

Investigation and Valuation of Fish Kills, AFS Special Publication 24, presents the latest methods for determining the economic consequences of fish kills. It revises, updates, and extends the information in *Monetary Values of Freshwater Fish and Fish-Kill Counting Guidelines*, which has been widely used to estimate monetary damages for pollution-related fish kills since 1982. The new volume guides fishery managers and assessment biologists from the moment a kill occurs until the final fishery value is calculated, and it stresses legally defensible data acquisition and analysis. Cost is \$28 (\$22 for AFS members). *Fisheries Management and Watershed Development* is the proceedings of a 1991 symposium held by the AFS Northeastern Division which explored the effects of watershed development on freshwater, estuarine, and nearshore fishery resources. Anyone who wants a better understanding of watershed development from the perspective of fisheries management will want to study this compendium of current knowledge. Topics include role of the fisheries manager, evaluation techniques, pros and cons of mitigation, developing realistic management objectives, and public education and involvement. Cost is \$50 (\$40 for AFS members).

Americans surveyed on conservation issues

A recent survey conducted by the Roper Organization for Times Mirror Magazines focused on conservation issues. Among its major findings were:

When reasonable compromises can not be found between environmental protection or economic growth, Americans overwhelmingly side with the environment. Nearly 2/3 think the environment is more important, while only 17% come down on the side of economic growth.

Half of Americans think federal efforts to protect endangered species have not gone far enough. But at the same time, they think the 1972 Endangered Species Act should be changed to consider cost and to make sure all species at risk receive proper, scientific consideration.

Americans believe natural places and resources can be used to benefit people and the economy while being protected. But they also believe most commercial users of public natural resources ought to pay a fee to the government. Recreational activities - with the exception of hunting - are considered acceptable without a fee.

When trade-offs are made to benefit the environment, the public thinks that costs should be paid by society as a whole, not by individuals alone. For example, property owners should be compensated financially when restrictions are put on use of private land. From the Water Quality Section of the AFS newsletter.

Managing Black Bass in Northern Waters

This symposium, presented by the Northeast Division AFS is scheduled on October 5-6 1993 in Alexandria Bay, New York. This workshop will provide a forum for biologists working with black bass management to exchange the latest information. For more information contact David Green, Cornell Biological Field Station, 900 Shackelton Point Rd., Bridgeport, NY 13030.

Environmental groups oppose lock expansion

The Izaak Walton League of America (IWLA) stated in a news release date Dec. 9, 1992, that a number of national and local environmental groups have accused the Bush Administration of a "rush to judgement...that will set a course to spend several billion dollars" on a US Army Corps of Engineers proposal to build what would be the "most expensive expansion of a waterway's navigation capacity in our nation's history." The Corps' proposed plan would add 1200' locks at up to 16 sites on the upper Mississippi and Illinois Rivers. Paul Hansen, Director of the IWLA Midwest Regional Office said "it is entirely inappropriate for a lame duck administration to be making a determination to go forward on an environmentally destructive pork barrel project of this magnitude, especially before there has been any independent analysis on whether the project is really necessary or a comparison of what a similar investment in a range of transportation alternatives might yield. This project will likely destroy much of the remaining recreational and biological value of the rivers. While the Corps calls this a feasibility study process, we know from experience that it is actually a justification process." The groups involved include the IWLA, Sierra Club, Quad Cities Conservation Alliance, and American Rivers, Inc. An updated list of environmental groups signing on to this statement, or a list of state agency contacts, are available at the IWLA Midwest Office (612)922-1608. From *River Crossings*.

NCD Technical Committees summer meetings

The AFS NCD Walleye Technical Committee will hold its annual summer meeting 13-15 July in Dubuque, Iowa. All interested persons are invited to attend this very special meeting. This year's program will be a little different - we have invited Dr. John Forney of Cornell University to lead a walleye workshop. Dr. Forney has worked for 30+ years on the Oneida Lake walleye fishery and developed a comprehensive management system utilizing routine population assessment, variable regulations, and stocking. He will address the committee and then participate in workshop discussions comparing the Oneida lake fishery with our midwestern systems. Other meeting items include genetic stocks of walleye in the Upper Mississippi drainage, population modeling, comparisons among major midwest walleye waters, and walleye regulations updates. For meeting information contact Mike Staggs, DNR Research Center, 1350 Femrite Dr., Monona, WI 53716 or (608)221-6355. The Esocid Technical Committee will meet in LaCrosse, WI, on 13-14 July. This meeting will include talks on several interesting topics including: esocid diets in South Dakota, Illinois, and Wisconsin; northern pike regulations and ecology in Minnesota, Wisconsin, and Nebraska; esocid culture and genetics; and hooking mortality. For more information contact committee chair, our own Jeff Reed, at the address or phone number listed inside the front cover.

INTEGRATED RESOURCE MANAGEMENT: FEEDBACK ON THE SPECIAL SESSION by Paul Pajak

On behalf of the special session committee, I'd like to share some of the feedback we received from you and TWS members at our annual meeting. You remember the session, the one entitled "Toward Sustainable Management of Land, Water and Living Resources: New Roles for Fisheries and Wildlife Professionals"? No doubt some of you have been wondering if "anyone ever looked at..." the evaluation sheets. The answer is yes. And the results are very encouraging, especially your comments on what the AFS and TWS Chapters might do to "foster ecologically sustainable resource management" in Minnesota.

But before I go on, let me first thank all of you who took the time to provide your written comments. The resulting list of ideas is impressive to say the least. And if they are any indication of our chapter memberships, there is a tremendous level of professional support "out there" to promote and implement more holistic and ecologically sustainable management strategies.

So what did you folks think of the session itself? Overall, it appears to have been a big step in the right direction based on the 72 "evaluation sheets" we received (approx. 36% response rate; long day, I guess). The vast majority of you (83%) agreed that you "learned something" and most of you (65%) felt your "expectations" of the session had been met or partially met. However, it's interesting to note that a large number of you (56%) did not have, nor state, any specific "expectations for this session" beyond general learning. I guess that means about 9% of you, that didn't have any expectations, had them met! Now that's what I call marketing! In contrast, only 10% of the respondents said their expectations had not been met.

And what were some of the "expectations" people brought to the session? A few general areas that were mentioned by more than one respondent included 1) learn more about/better define SRM (19%), 2) get different, interagency perspectives (10%), 3) hear active debate on the topic of SRM (4%), and 4) hear case studies, "success stories" (4%). Expectations of the session expressed by only one individual included such things as "having question & answer period", "staying current on trends and policy", "learn how AFS and TWS can get more involved", "get ideas for public involvement and education", "discuss influence of human values" (on SRM) and "get one useful thought per speaker" (my personal favorite!) All of these ideas should help focus future efforts and dialog.

Let's move on now to "what" you said "you learned". Though rather difficult to categorize, about 48% of the

responses to this question related to various aspects of public involvement and education, especially the "need for". Other apparent lessons, revelations and sentiments (and % of respondents) were typified by the following general categories: * "it's possible to manage sustainably with current knowledge" (14%), * "a diversity of perspectives exist and are needed, especially from the agricultural community" (12%), * "it's important to forge ahead, but it won't be easy" (10%), * "we still need to work on our definition of sustainable resource management (SRM)" (10%), and * management needs to "focus on ecological integrity" (6%). 'Nice to see this last "lesson" was no big surprise for this audience!

So "where" did all of you suggest that "we go from here"? According to 80% of the respondents (n=69), the Chapters should educate, educate, educate! Not only ourselves and other resource management professionals, but the general public, policy makers and elected officials as well. By comparison, other possible initiatives were mentioned far less often than such two-way information and education activities. For example, only 9% suggested actions related to institutional "organization", 6% saw a need for more or better science, 4% suggested changing the economic system or funding mechanisms, and 1% believe we need to shape laws or other legal solutions.

And how did you propose we do this (ie. what "tools")? Again, public education and involvement was mentioned most often (64%) followed by better science/techniques (16%), improved institutional organization (9%), some change in the economic system (7%), or better laws or law enforcement (4%).

So, what's the "bottom line" on the session and possible chapter initiatives regarding integrated and ecologically sustainable resource management? Well it appears that most of you learned something and that something was the importance of and need for meaningful public involvement, and education. Furthermore, many of you believe we know enough now to advance these principles, but that we need to ensure and maintain a diversity of perspectives, especially that of the agricultural community. And without a doubt, most of you believe that public involvement and education regarding these concepts should be the Chapters' highest priority. Now all we need to do is figure out how to harness and direct this collective energy to benefit the people and resources of Minnesota! More on this later...

As an aside, many of you (68%) said you were "entertained" by the session and found that, to some degree, the "special packet" helped you enjoy and learn from the session (57%).

MINUTES OF THE 26TH ANNUAL MEETING

The Minnesota Chapter AFS 26th Annual Meeting was called to order in Brainerd, MN on 28 January 1993 by President G. Snarski. A quorum is present and the agenda was accepted.

Guests were introduced: Jack Wingate, second vice-president of AFS parent society addressed the chapter. Jack congratulated the chapter for receiving the NCD award for most active chapter. He relayed best wishes to the chapter from Carlos Fetteroff, Parent Society President. He reported: The number of issues of *Fisheries* has increased and is now distributed monthly. New dues increases were used to support the increased publications. The diary and the job bulletin are now a part of each *Fisheries* issue. The society needs to perform an advocacy role. The chapter needs to work through the society to lobby at the appropriate level. In March the parent society EXCOM will debate what the society's role will be. The sub-unit level needs to deal with issues in their own backyard, need to address pertinent issues. Need to include as large a cross-section of the society as possible. Need to make sure the issue is appropriate and keep parent and NCD informed.

Dave Phillip, President-Elect NCD, addressed the chapter. Dave gave a brief report from John Lyons, NCD president.

John Lyons' Report - Financially NCD is doing quite well. Continuing education has refurbished the budget. All AFS presidents, president elects, first and second vice-presidents are from NCD. Midwest Fish and Wildlife in Toronto was a good meeting. The chapters report doing many similar actions: 1) long range plan; 2) continuing education program; 3) procedures manual; 4) advocacy; 5) helping students. Dakota chapter hosted the AFS annual meeting. In the year 2000 the AFS National meeting will be back in the NCD division, MN Chapter may want to consider a bid.

Dave then gave his address. He asked how we can bridge fish ecology and fish management. What is the difference? What are the problems? What is the best vehicle - NCD. Technical Committee may be the answer. Try to expand role and number of technical committees. Some by taxonomy, some by geographic area, etc. Need to bridge the gap and do cooperative research, share expertise, etc. Next years meeting is in St. Louis, MO.

D. Schreiner - Minutes from the 1992 meeting in Duluth, MN were approved as printed. Reviewed and discussed the treasurer's report and it was approved.

President's Address

G. Snarski - Thanked everyone for helping over the year. The chapter is steadily increasing its activity. Keep volunteering. Committee chairs have made most of the EXCOM meetings and this has added a lot to the meetings.

Highlights of 1992:

1. By-law change to make Long Range Plan and Student Committees standing committees. Helped students with funding to annual meeting.
2. Policy issues
 - a. MPCA - aquaculture facilities regulations were passed and amended with chapter input.
 - b. Genetically engineered organism (GEOs) regulations passed with chapter input.
3. First action agenda was produced from Long Range Plan. Planning sessions were held, some things completed, some ongoing and some didn't get started.
4. Membership interest expertise questionnaire was distributed with 65 to 70 respondents.
5. Award of Excellence was given to Willard Munger at a breakfast and award ceremony. Willard discussed ways to increase legislative exposure of chapter.
6. The chapter produced its own newsletter - printing, postage, etc.
7. Rivers and Streams Committee is very active with two to three meetings per year, summer technical meeting, etc.
8. Chapter won NCD most active chapter - cumulative activities of many people.
9. Activities and special recognition of chapter members - Dr. Waters, NCD Excellence in Fisheries; Tim Goeman, Secretary/Treasurer of NCD; Jack Wingate, Second Vice-President National AFS.
10. Annual meeting, special session, action agenda, joint meeting with wildlife were all highlights.

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Procedures Manual - G. Busacker - Procedures manual is

only a guideline and it is supposed to be changed. The document was approved during the year and 30 pages have been revised. New changes are available and pages can be replaced. All pages are dated. In the future pages may be put on computer disk and distributed.

Public Awareness - S. Quinn - Potential projects included a public service announcement by MN-AFS for 30 seconds. A sample from Wisconsin chapter was shown during meeting. Thirty seconds is very short. What can be gained from a three sentence, six image announcement at a cost of \$400.00? 1) Foster awareness of fishery professionals. 2) Conservation of aquatic resources. 3) Recruitment of new members. 4) Awareness of what we are and what we are not. 5) Greater recognition of chapter for door prizes. The \$400.00 investment could be worth \$15,000 air time. Membership comments: a) might need to be ongoing and shown continuously; b) might want to try an educational or issue message; c) might be a duplication of other agencies; d) approach DNR to assist with aquatic education; and e) should try to get across the point of who we are (ex. a one line message). Membership voted to produce a video; motion passed. EXCOM will review video.

Issues - C. Richards - No resolutions. EXCOM suggested a committee be formed to address the Mill Lacs Agreement. Chapter should comment only on the biological issues involved, not social. J. Wingate cautioned the chapter might not want to get involved, could be a lose/lose situation. Chapter's responsibility is to get involved only on the biological level. A motion was made and passed to select a committee to evaluate the treaty and draft a resolution, EXCOM will review draft.

Rivers and Streams - H. Drewes - Instream flow was an action agenda for the chapter. A meeting on instream flow was held by the Rivers and Streams Committee in Redwood Falls - field workshop format. A seminar on instream flow in MN was held before this meeting. The committee would endorse a workshop on fluvial geomorphology. Will work with M. Cook. Three members attended NCD Rivers and Streams meeting last April. Instream flow was carried forward as an action item for this year. 1993 NCD meeting of Rivers and Streams is scheduled for April 6 and 7. Funding to send a representative from the chapter may be available.

Student Committee - L. Miller - A total of ten students, five undergraduate and five graduate students from three schools, were awarded travel to this meeting which includes lodging and banquet. Eight to ten other students attended. Seven students were speakers. Student would like to thank MN-AFS for support. Students have been putting in effort on A-V and raffle. Lyn Mizar will be the new committee chair. Hope to get more students on committees and involved in fund raising outside the annual meeting.

Fund Raising - H. VanOffelen - Students were sent letters and applications for financial assistance at this meeting. Ten were sent back, six for two nights, and four for one

night. All were approved. **Raffle** - Things are going well with the raffle. Assistance is welcome. The larger it gets the harder it gets. T-shirts are available.

Old Business

1. **Clearing and Snagging Resolution** - A letter was sent last year to DNR Commissioner Rod Sando that addressed the need for a better environmental review process on removal of woody debris. The chapter finally received a response from Commissioner Sando on December 30, 1992. The first letter was sent by the chapter on March 18, 1992 and a follow-up letter was sent on December 8, 1992. There was about a 10 month waiting period. Response by Commissioner Sando was not acceptable. Another letter with a suggested course of action will be sent. It will suggest that the DNR incorporate use of AFS guidelines and that the department of Fish and Wildlife sign off acknowledging review of projects. A motion was made and passed to pursue this issue and make specific recommendations. Ron Anderson, from DNR Division of Waters, will be contacted to request a meeting. D. Pereira and H. Drewes will draft a letter of response to Commissioner Sando.

2. **Membership interest questionnaire.** 65-70 responded but need more responses. Will get this up on a database. J. Reed, R. Nelson, and G. Snarski will pursue.

3. **Wetlands position paper** - W. Barstad - Didn't make a great deal of progress. Need memberships input to focus the action on the position statement. Have handouts for membership to review.

4. **Funding priorities** - How will money be spent? D. Bathel agreed to put together a survey that addresses spending and also determines guidelines on how much money can be spent. Please fill them out and return them for review by EXCOM.

5. **Need more open member participation.**

6. **Don Pereira** was installed as president and took charge of meeting.

New Business

G. Snarski was given an Award of Recognition as Past-President of MN Chapter AFS by D. Pereira.

1994 Annual Meeting Locations - Dakota Chapter was suggested. We may want to join them in 1994. Also will explore Iowa. B. Thorn (President-Elect) will pursue.

1993 Action Agenda - D. Pereira is concerned about continuity. President, President-Elect, etc., all need to be involved. D. Pereira assembled 10 action agenda items, left blanks for others, feel free to change priorities. Return to D. Pereira by mid-February so the official action agenda can be in the next newsletter. Item 1 on the agenda was to produce a product based on today's special session. Examples: videos; chapter initiative - position statement, resolution, etc.; written proceedings - try to synthesize. Will try to get better overview on action agenda; will assign EXCOM members to oversee certain agenda items.

Committee chair assignments have been completed for upcoming year.

1993 Proposed Budget - Detailed handout on budget was distributed to all attendees. Concern by some members of a projected income \$2,000 less than outflow. Membership comments: 1) problem with \$2,000.00 deficit. 2) continuing education - could make up difference, increase tuition, provide more workshops, double the number. 3) DNR may be able to print newsletter. Could save \$600.00 or more. 4) remove \$300.00 from travel of president.

Legislative breakfast is a line item on the budget. Motion was made and passed to approve legislative breakfast. Motion was made to amend budget by: 1) DNR printing newsletter (J. Wingate). 2) Remove \$300.00 from president's travel. Motion was passed.

Funding strategies: Increase income - 1) expand continuing educations, 2) increase fund raising. H. VanOffelen needs more assistance with fund raising and will head initiative to explore all fund raising options.

Advocacy Policy - Motion was made that MN Chapter adopt advocacy policy from parent society. The policy gives guidelines for involvement. It addresses advocacy vs. responsibility. The motion was passed.

A motion was made and passed that the 193 annual business meeting be adjourned.

Treasurer's Report

RECEIPTS

Interest	64.60
Dues collected by Parent Society	30.00
Dues by mail	10.00
1992 raffle rebate - Parent Society	12.50
Continuing ed registration	410.00
Sub-total	527.10

DISBURSEMENTS

Newsletter printing	388.73
Newsletter postage	163.80
President's travel - Midwest	621.85
News releases postage, envelopes	15.35
Awards for annual meeting - 1993	72.77
Raffle expenses - 1993	55.95
Chapter stationary	58.00
Interest debit	2.62
Sub-total	1,379.07

Balance 01/25/93 \$6,549.12

**QUESTIONNAIRE FOR THE MEMBERSHIP DATABASE
MINNESOTA CHAPTER OF THE AMERICAN FISHERIES SOCIETY**

PERSONAL DATA (Print or Type)

NAME IN FULL: _____
 Employer: _____ (Student: Ed. Instit.)
 Position Title: _____
 Address To Be Listed in Database: _____
 Telephone Number (Work): _____ (Home): _____ FAX Number: _____
 Highest Degree Earned by June 1992 _____
 Other Coursework, Training: _____

First Year of MN Chapter Membership: _____
 May We List Your Name, Address, Work Phone #, FAX #, and Areas of Expertise in a Future Directory?
 Yes No

SOCIETIES

Are You a Member of The Parent Society? Yes No
 Society ID # _____ (See mailing label of Fisheries)
 A Certified Fisheries Scientist? Yes No If yes, year certified: _____

Please Check Any AFS Sections To Which You Also Belong:

- | | | |
|---|---|--|
| <input type="checkbox"/> Bioengineering | <input type="checkbox"/> Equal Opportunities | <input type="checkbox"/> Fisheries Management |
| <input type="checkbox"/> Canadian Aq. Resources | <input type="checkbox"/> Fish Culture | <input type="checkbox"/> International Fisheries |
| <input type="checkbox"/> Computer User | <input type="checkbox"/> Fish Genetics | <input type="checkbox"/> Introduced Fish |
| <input type="checkbox"/> Early Life History | <input type="checkbox"/> Fish Health | <input type="checkbox"/> Marine Fisheries |
| <input type="checkbox"/> Education | <input type="checkbox"/> Fisheries Administrators | <input type="checkbox"/> Socioeconomics |
| <input type="checkbox"/> Student Subsection | <input type="checkbox"/> Fisheries Law | <input type="checkbox"/> Water Quality |

List the Professional and Conservation Societies of Which You are a Member:

ACTIVITIES (Check all that describe your current position)

- | | |
|--|---|
| <input type="checkbox"/> Administration | <input type="checkbox"/> Impact Evaluation |
| <input type="checkbox"/> Aquaculture | <input type="checkbox"/> Instream Flow Issues |
| <input type="checkbox"/> Communications (Public Awareness) | <input type="checkbox"/> Lake Management |
| <input type="checkbox"/> Consulting | <input type="checkbox"/> Law Enforcement |
| <input type="checkbox"/> Design and Engineering | <input type="checkbox"/> Legislative/Regulatory |
| <input type="checkbox"/> Development (Program) | <input type="checkbox"/> Licensing/Permitting |
| <input type="checkbox"/> Data Collection (Field Sampling) | <input type="checkbox"/> Lobbying |
| <input type="checkbox"/> Data Management | <input type="checkbox"/> Modeling |
| <input type="checkbox"/> Education | <input type="checkbox"/> Planning (Watershed, Land Use) |
| <input type="checkbox"/> Fisheries Management | <input type="checkbox"/> Research |
| <input type="checkbox"/> Habitat/Site Assessment | <input type="checkbox"/> Statistics |
| <input type="checkbox"/> Habitat Restoration/Management | <input type="checkbox"/> Other (Specify): _____ |

Please check any activities you would be willing to participate in to help the Chapter meet its objectives:

- Participating in issue related task forces
 Researching resource issues
 Preparing resource issue documents
 Developing of public awareness programs
 Lobbying for AFS Chapter objectives
 Fundraising
 Serving on Chapter Committees
 Other (please specify) _____

AREAS OF EXPERTISE (Check Any That Apply)

FISH BIOLOGY

- Age and Growth
- Behavior
- Developmental Biology
- Distribution
- Early Life History
- Endocrinology
- Exotic Species
- Genetics
- Ichthyology
- Life History
- Multispecies Interactions
- Pathology
- Physiology
- Population Dynamics
- Reproduction
- Taxonomy and Systematics
- Toxicology

FISH CULTURE

- Aquaculture
- Hatchery Production Methods and Design
- Disease/Parasites
- Nutrition
- Pond Management
- Cool Water Fish Culture
- Warm Water Fish Culture
- Cold Water Fish Culture
- Species of Interest _____

FISHERIES MANAGEMENT AND TECHNOLOGY

- Creel
- Economics
- Gear and Gear Development
- Fisheries Management
- Modeling
- Remote Sensing
- Sampling Design
- Statistical Analyses
- Species of Interest _____

HABITAT AND WATER QUALITY

- Aquatic Plants (Macrophytes)
- Biological Controls
- Biomonitoring
- Chemical Pollutants/Contaminants
- Habitat Modification/Restoration/Enhancement
- Heavy Metals
- Impoundment/Management
- Nonpoint Source Pollution
- Nuisance Plants & Animals (Introduced Species)
- Nutrients
- Organics
- Pesticides
- Physical/Chemical Analysis
- Riparian Habitat
- Sediment Contamination (Toxicity)
- Sedimentation
- Shoreline Stabilization
- Stream Habitat Ecology/Restoration/Protection
- Transport of Pollutants
- Water Shed Techniques/Management/Planning
- Wetlands Assessment/Management/Restoration

LIMNOLOGY

- Phytoplankton
- Zooplankton
- Benthic Ecology
- Community Structures
- Lakes/Reservoirs
- Rivers and Streams
- Mitigation
- Project Financing (Federal, State, Local Fundraising, etc.)
- Public Education/ Awareness
- Urban Fishing Programs
- Other (Specify): _____

MISCELLANEOUS

- Environmental Evaluation
- Genetic Engineering
- Groundwater
- Land Use Planning
- Legislation/Rules and Regulations
- Lobbying

****NOTE:** This questionnaire appeared in the Chapter Newsletter last year. If you did not return it last year, please complete it and send it in. If you previously completed it, thank you; you need NOT complete another. If in doubt about whether you did or not, call Jeff Reed (612/634-4573) or fill one out & send it in.

THANK YOU!

Please return questionnaire to:

Jeffrey Reed
MN AFS Membership Committee Chair
Minnesota DNR
1110 N. Lakeshore Dr.
Glenwood, MN 56334

CHAPTER FUNDING SURVEY

This survey is in response to the charge of the general membership at the 1992 annual business meeting to determine and identify appropriate ways to spend Chapter monies before major fund raising projects are initiated. It is also desirable to develop guidelines for allocating funds. part of this survey uses the same questions as found in the 1988 Chapter funding survey developed by Jon Ross.

POINT SYSTEM

Strongly Agree.....	4
Agree.....	3
Neutral.....	2
Disagree.....	1
Strongly Disagree.	0

- 1) In general the chapter should support funding requests for member's activities. _____
- 2) In general the chapter should support funding requests for resource related issues. _____
- 3) Specifically the chapter should fund:
 - a. State lobbyist _____
 - b. Chapter advocacy activities such as member testimony at legislative hearings _____
 - c. Proactive information dissemination activities such as sponsor a legislative breakfast _____
 - d. Student scholarships _____
 - e. AFS North Central Division requests _____
 - f. AFS Parent Society requests _____
 - g. Requests by other resource related organizations such as the Sport Fishing Institute, on a case-by-case basis _____
 - h. Publication costs for chapter symposia _____
 - i. Workshop expenses for chapter members _____
 - j. Chapter President travel to AFS Division meeting (President is voting member) _____
 - k. Chapter President travel to Parent Society Midyear EXCOM meeting _____
 - l. Chapter President travel to Parent Society Annual Meeting _____
 - m. Chapter President-Elect travel to AFS Division meeting _____
 - n. Chapter member travel to AFS Division or Parent Society Meeting _____
 - o. Student travel to MN chapter meetings _____
 - p. Student travel to Division or Parent Society meetings _____
 - q. Guest speaker expenses for MN chapter meetings _____
 - r. Division Officer travel to MN chapter meetings _____
 - s. Parent Society officer travel to MN chapter meetings _____

- t. Publications on issues for public distribution _____
- u. Televised public service announcements on important issues _____
- v. Travel award (up to \$250) for best student paper at chapter meeting to help student present paper at Division or annual meeting _____
- w. Expense for award recipient to attend chapter awards ceremony _____
- x. Other suggestions _____

4) Specifically, allocation of funds should follow these guidelines:

- a. All allocations must be approved under line item budget at annual business meeting _____
- b. All allocations over \$100 must be approved under line item budget at annual business meeting _____
- c. All allocations over \$250 must be approved under line item budget at annual business meeting _____
- d. All allocations over \$500 must be approved under line item budget at annual business meeting _____
- e. The EXCOM may approve total non-budgeted funding¹ up to \$100 annually without a vote by the general membership _____
- f. The EXCOM may approve total non-budgeted funding¹ up to \$250 annually without a vote by the general membership _____
- g. The EXCOM may approve total non-budgeted funding¹ up to \$500 annually without a vote by the general membership _____
- h. The EXCOM may approve total non-budgeted funding¹ up to \$1,000 annually without a vote by the general membership _____
- i. The President may approve non-budgeted funding¹ up to \$100 annually without Excom approval _____
- j. The President may approve non-budgeted funding¹ up to \$250 annually without Excom approval _____
- k. The President may approve non-budgeted funding¹ up to \$500 annually without Excom approval _____
- l. The chapter's rainy day fund (reserve fund) should remain at \$2,000 _____
- m. The chapter's rainy day fund (reserve fund) should be raised to some level above \$2,000 _____
- n. The chapter's rainy day fund (reserve fund) is no longer necessary and should not be maintained _____

¹ Requests for special activity funding that arise but are not included on the annual line item budget. Does not pertain to annual chapter meeting expense or workshop expense that is recovered through conference fees.

Please complete this survey as soon as possible and return to:

Darryl Bathel
 DNR Fisheries
 5251 North Shore Drive
 Duluth, MN 55804