

Minnesota Chapter of the American Fisheries Society

O F T H E

Year 1997 No. 4
November Issue

President's Message

How AFS works for the common good - by Tim Goeman, MN Chapter AFS President

As you read through this issue, you should be impressed with how much is going on in AFS. From position statements, to education, to planning meetings, to educating professionals and the public, and more. AFS is doing a lot. How does all this get done? Is this merely multiple, independent, random events that occasionally appear to be working together? I don't think so.

At the October Excom, I was impressed at the diverse group of people that assembled to conduct Chapter business. Diverse means different and that often means conflict, right? Sometimes, but diversity also can mean strength. Quite honestly, I believe the Chapter has benefitted from the strength resulting from the diversity of those functioning as Excom members and Committee Chairs. Quite commonly, I have observed someone come up with an idea, a second person builds upon it, a third person might further flesh it out, and yet another person produces the product. Each

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

contributes from their strengths, and the Chapter, as a whole, benefits. I have not observed a possessive attitude or selfish motives from anyone during my presidential term. What then, is the "glue" that holds the MN Chapter together? What makes members devote precious time to volunteer in a professional organization?

I have concluded that the answer is almost too obvious. It is found in the Mission Statement of the MN Chapter: "(AFS) supports the conservation of North Americas's fisheries and aquatic systems by promoting professional excellence in fisheries science, management, and education." I commend the Excom members, the Committee Chairs, and the active members of the Chapter for believing conservation and professional excellence are important enough to warrant your time and efforts. A review of Chapter activities indicates everyone's efforts are worthwhile.

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Quote of the Issue

"Obstacles are those frightful things you see when you take your eyes off the goal." Hannah More, author and social reformer

Committee Reports

Long Rang Planning Committee - by Tracy Close

The 1998 chapter meeting will be held at Fort Ripley on February 24-26, 1998.

The chapter surveyed fisheries professionals in 1996, in part, to identify barriers to attendance of the annual meeting. Cost of the meeting was identified as a problem, so this meeting was arranged to respond to your needs. Rooms at Fort Ripley are semi-private, not barracks, and very comfortable. Please consider attending the meeting this year and let us know if we should continue this low cost format. Please inform co-workers that are not chapter members about this low cost format.

Continuing Education Committee - by Mark Hove and Laurie Sovell

Our next course will cover topics related to stream restoration. Fisheries biologists play an increasingly important role in stream restoration. Stream restoration requires not only biological expertise, but knowledge of instream physical processes, upland conditions, and hydrology.

The Continuing Education Committee is offering a winter, 1998 workshop to explore issues related to stream restoration and watershed management. Topics will likely include: riparian management alternatives, stream channel systems and sediment dynamics, the use of instream flow models in restoration, and the influence of landuse practices on aquatic communities and water quality. We will also hear from watershed managers who will discuss projects in forested, agricultural, and urban systems

throughout Minnesota. To promote dialogue among disciplines involved in successful stream restoration, the workshop will be held in conjunction with the annual meeting of the Minnesota Chapter of the Soil and Water Conservation Society. The two-day course is tentatively scheduled to be held January 21-22, 1998 at the University of Minnesota St. Paul campus, and will cost between \$150-170. To reserve a spot for this program, send in a pre-registration form (a form is in this newsletter). For more information contact Mark Hove at (phone) 612/624-3019, (email) Mark.Hove@fw.umn.edu; or Laurie Sovell at (phone) 612/724-7256, (email) laurie.sovell@dnr.state.mn.us.

Awards Committee - by Julie Westerlund

The Awards Committee is seeking nominations for the Minnesota Chapter's Award of Excellence. This is a formal award presented at the annual meeting in recognition of either long term excellence in the fishery profession or outstanding performance in an activity that furthers the goals of the Minnesota Chapter of the AFS. The recipient of the award may be any individual or group, and is not limited to AFS membership. To make a nomination, please submit one to two pages that describes how and why the nominee is worthy of the award, and include a description of the individual or group's accomplishments or contribution to the field of fishery science. Nominations are also being solicited for Special Recognition Awards. Any number of these awards may be presented to chapter members who have made special contributions to the chapter. This includes personal time and services or special projects that advance the goals of the chapter. Eligibility extends to all chapter members in good standing. Nominations should describe the special service to the chapter in one or two paragraphs. Nominations will be accepted from any Minnesota Chapter member. Please send nominations to Julie Westerlund at P.O. Box 823, Detroit Lakes, MN, 56502 or julie.gran@dnr.state.mn.us.

Newsletter Committee - by Paul Radomski

We are researching the potential of distributing the newsletter electronically. If you think you would like to receive the newsletter by email or via the internet (you would receive an email message that the latest newsletter has been posted on the web), please contact me by email. My internet address is: radomski@brainerd.net

If you like the 3 column format and font size, you can thank Mark Cook who suggested these changes.

Abstract Book Committee

We request your participation in an ongoing project sponsored by the Minnesota Chapter. Last year we published the first Abstract Book at the request of Past President Carl Richards modelled after a highly successful effort of the Idaho and Montana chapters. The Idaho/Montana Abstract Book was found to be an excellent way to keep members of their chapters abreast of research and management activities of their fellow chapter members as well as current research at the universities and state, federal, and tribal agencies.

We seek abstracts from scientific articles, technical reports (interim and final), papers or posters presented at scientific meetings, popular articles, administrative reports, investigational reports, management plans, or an internal document (with your supervisor's permission, of course).

To facilitate the revision of the Minnesota Chapter Abstract Book we ask that you send a copy of one or more abstracts of an ongoing project or project completed within the last 1-3 years. We would prefer the abstract(s) be sent by e-mail to bcv@fw.umn.edu or on computer diskette. If you cannot send an electronic copy in either Word or WordPerfect format please send a hard copy by FAX at (612) 625-5299.

Copies of the Abstract Book will be available for purchase at cost at the annual meeting in hardcopy or on 3.5"

disks. We will also make the abstracts available on the chapter's Web Page (www/fw.umn.edu/mnafas). Annual installments will follow. We have received several requests from AFS members outside Minnesota for copies of the Abstract Book.

We request that you send your abstracts by 31 December to facilitate compilation by the chapter meeting on 24-26 February.

Thank you for your help.
Jerry Grant, Brian Nerbonne, Susan Solarz, Bruce Vondracek

Rivers and Streams NCD - by Paul Glander

The Chapter has organized a break out session titled "Management of River and Stream Fisheries" for the 1998 Local Water Planners Conference. The Conference will be at the University of Minnesota-Crookston, July 21-23, 1998. The Chapter sponsored session will be a half day with 6 to 8 presentations. Presenters will discuss the habitats used by river and stream fish and describe fish, habitat and angler survey techniques and results. This will be a great opportunity to inform water planners from across the state about the importance of river and stream fisheries and their habitat.

Division Technical Committees

Centrarchid Technical Committee

Next Meeting: December 7, 1:00-3:00, Midwest Fish and Wildlife Conference, Milwaukee, Wisconsin.

Salmonid Technical Committee Meeting

Next Meeting: December 7, 1:00-3:00, Midwest Fish and Wildlife Conference, Milwaukee, Wisconsin.

Esocid Technical Committee

Next Meeting: December 7, 1:00-3:00,

Midwest Fish and Wildlife Conference, Milwaukee, Wisconsin.

Walleye Technical Committee

Next Meeting: December 7, 1:00-3:00, Midwest Fish and Wildlife Conference, Milwaukee, Wisconsin.

Minutes of Chapter Meetings

Action Agenda Item 6: Exposure and Dollars - by Tim Goeman, President.

The Chapter Action Agenda for this year included the challenge of publishing an article highlighting the fisheries profession in a high-profile popular press outlet such as Science or Discover magazines. After the Chapter Excom meeting in May, I queried numerous national publications with a letter explaining who AFS was and suggesting a list of potential topics for consideration.

In July I received e-mail from the editor of Field & Stream inviting me to submit a short, 500-word piece explaining why fish recruitment can result in good fishing one year but not the next. I wrote the piece, and sought extensive review before submitting it in mid-August.

About a month later, I was notified that the article had been accepted for publication, and payment would be forthcoming. Then, about a week later, I received a personal call from the editor of Field & Stream to verify I had been notified. He also invited me to submit another short piece on another topic from my initial list, and mentioned in passing that the check for \$800 would be on its way soon! Watch the Field Guide section of Field & Stream in the coming months for an article titled AWhere Is the Bite?@.

The bottom line: this activity can be a great revenue generator for the Chapter, while furthering the profession by getting sound fisheries science out to a broad

general audience. I encourage any Chapter member who wants to take a crack at writing for public consumption, to follow the process outlined above and see what happens. After all, getting the word out should be what we do best!

Upcoming Events

November 12-15, 1997. Ecological Restoration and Regional Conservation Strategies: International Conference of the Society of Ecological Restoration. Ft. Lauderdale, Florida. Contact George Gann 305.247.1132.

December 3-6, 1997. North American Lake Management Society 1997 International Symposium. Contact Tom Conry 817.776.1441.

December 6-10, 1997. The 59th Midwest Fish and Wildlife Conference. Milwaukee, Wisconsin. Contact Robert Dumke 608.266.8170.

January 6-8, 1998. Wisconsin Chapter of the AFS: Large River Management. Eau Claire. Contact Don Fago 608.221.6366.

February 24-26, 1998. Minnesota Chapter Annual Meeting. Camp Ripley. Contact Bruce Vondracek 612.624.3421.

March 17-21, 1998. Applications of Landscape Ecology in Natural Resource Management: 13th Annual U.S. Landscape Ecology Meeting. East Lansing, Michigan. Contact Bill Talyor 517.355.1810.

May 3-6, 1998. National Conference On Environmental Decision Making. Knoxville, Tennessee. Conference information is available on the NCEDR web site at: <http://www.ncedr.org>. Contact: UT Conferences at 423.974.0280 or via e-mail to: conferences@gateway.ce.utk.edu.

June 7-12, 1998. The Land-Water Interface: Science for a Sustainable Biosphere. American Society of Limnology and Oceanography and

Ecological Society of America. St. Louis. Contact ASLO at 1.800.929.ASLO.

June 23-28, 1998. First International Ictalurid Symposium: Catfish 2000. Davenport, Iowa. Contact Steve Eder (eder@mail.conservation.state.mo.us).

July, 1998. An International Burbot Symposium. Presented by the International Congress on the Biology of Fishes. Towson State University, Baltimore, Maryland. Contact Vaughn Paragamian 208.769.1414, email: vpaagam@idfg.state.id.us.

August 2-6, 1998. Ecological Society of America Annual Meeting. Ecological Exchanges between Major Ecosystems. Baltimore, Maryland. Contact Fred Wagner 801.797.2555.

August 16-20, 1998. Integrated Tools for Natural Resources Inventories in the 21st Century - An International Conference on the Inventory and Monitoring of Forested Ecosystems. Boise, Idaho. For details see <http://dendron.fr.umn.edu/burk/boise>, or contact Mark Hansen, USDA Forest Service, North Central Forest Experiment Station, 1992 Folwell Avenue, St. Paul, MN 55108 USA. Fax: 612-649-5285. Email: hanse034@maroon.tc.umn.edu

October 5-7, 1998. Fifth International Conference on Remote Sensing for Marine and Coastal Environments. San Diego Princess Convention Center, San Diego, California. Tel: 313.994.1200, ext. 3234. Fax: 313.994.5123. Internet: wallman@erim.org.

June 1999. Fourth International Airborne Remote Sensing Conference and Exhibition. Ottawa, Ontario, Canada. Tel: 313.994.1200, ext. 3234. Fax: 313.994.5123. Internet: wallman@erim.org. See ERIM Conferences URL WWW: [<http://www.erim.org/CONF/conf.html>](http://www.erim.org/CONF/conf.html)



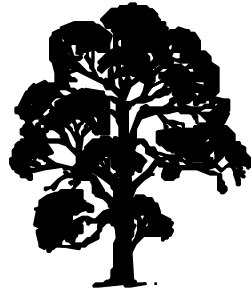


Contributions: Letters and Commentary

Human Use of Aquatic Organisms: A Symposium at the AFS parent society annual conference in Monterey, CA. By Lynn Mizner Maher

AFS members attending the Monterey meeting in August this year were treated to a very interesting and enlightening symposium which continued discussion growing out of the publication of a draft *Policy on the Human use of Fishes and Other Aquatic Organisms*, in the February 1996 issue of *Fisheries*. This gathering of speakers included distinguished experts on the subjects of conflict resolution, procedural justice, moral frameworks for life, Native American spirituality, environmental ethics, and allocation of commonly held resources. A large audience was held spellbound for an entire day by this presentation of diverse perspectives and the speakers willingness to respectfully accommodate a wide spectrum of opinions and questions. A conflict management workshop hosted by Katie Burdick (EIP Associates, Sacramento, CA), followed the individual presentations, offering an opportunity for the symposium participants (speakers and audience) to become actively involved, through role playing, in the process of identifying stakeholder interests and developing solutions to a thorny natural resource management problem. It was particularly interesting to see actual upper-level management personnel stepping out of their customary roles and assuming the interests and needs of various stakeholder groups. The final segment of the symposium was a panel discussion, in which the speakers responded to questions from the audience. Audience interest was intense; the discussion which followed was emotional at times, but on the whole constructive.

It was apparent that people were struggling to grasp perspectives that were outside their daily realities, something that resource management professionals are being called upon to do with increasing frequency as they incorporate a diversity of interests and jurisdictions in management decisions. The success of this symposium was due to the efforts of a group of AFS Minnesota Chapter members; their professionalism in presenting and organizing this symposium was a credit to the State.



Bob Ekstrom submitted this article: **Maxims for Public Foresters, by H.H. Chapman, May 1947 Journal of Forestry**

Gifford Pinchot, in one of his lectures on forest policy at Yale School of Forestry in the 1910-20 period, gave eleven maxims to guide the behavior of foresters by all state and national officials. They are as follows:

1. A public official is there to serve the public and not run them.
2. Public support of acts affecting public rights, is absolutely required.
3. It's more trouble to consult the public than to ignore them, but that is what you are hired for.
4. Find out in advance what the public will stand for. If it is right and they won't stand for it, postpone action and educate them.
5. Use the press first, last, and all of the time if you want to reach the public.
6. Get rid of attitude of personal arrogance or pride of attainment or superior knowledge.
7. Don't try any sly, or foxy politics. A forester is not a politician.
8. Learn tact simply by being absolutely honest and sincere, and by learning to recognize the point of view of the other man and meet him with arguments he

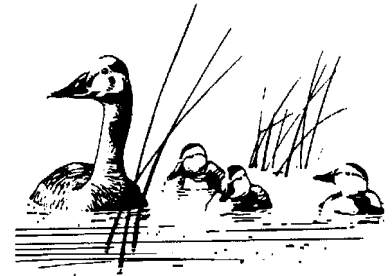
will understand.

9. Don't be afraid to give credit to someone else even when it belongs to you. This is a sure mark of a weak man, but is the hardest lesson to learn.

Encourage others to do things. You may accomplish many things through others that you can't get done on your single initiative.

10. Don't be a knocker. Use persuasion rather than force, when possible. Plenty of knockers to be had. Your job is to promote unity.

11. Don't make enemies unnecessarily and for trivial reasons. If you are any good you will make plenty of them on matters of straight honesty and public policy and will need all the support you can get.



Fisheries Information Network

By Jeff Reed
Gone Hunting!



Interesting Articles and Publications

Minnesota's Natural Heritage: An Ecological Perspective. John R. Tester. University of Minnesota Press. ISBN 0-8166-2133-0. This is a wonderful book with great figures and photographs. A good book to recommend to your nature loving friends.

Editorial

I clipped this article from the St. Paul Press & Tribune's daily cybernews summary dated May 13th, 2029. I was looking for news about my children, I found this article on the third page. This future event is important since it relates to work most of us are doing today. The bad news is that to alter this timeline it will take strong leadership--the kind of leadership that has always been rare. The health of hunting is linked to the health of fishing--do not fool yourself.

Sport Hunting and Fishing is Dead

St. Paul, MN. -- A small radical group pronounced the death of sport hunting and fishing today. This group, the Minnesota Outdoor Recreation Traditionalists (MORT), held a mock funeral for angling and hunting on the steps of the state capital. This protest was precipitated by the signing of the Nonaggressive Pact to Nonhumans Bill by Governor Anderson.

The Nonaggressive Pact to Nonhumans law eliminates hunting and fishing for the working class. The act of killing fish and wildlife for sport reverts back to its roots--a sport once again only for the privileged and ruling class. In addition, this law eliminates the small and embattled Minnesota Department of Ecosystem Management (DEM). Most DEM employees will be freed, but some staff will be reassigned to either the Department of Pollution Mitigation, Department of Transportation, Food Production Agency, or the Department of Pulp and Fiber Production.

"People that practiced hunting and fishing did not or could not perceive the incremental loss of this sport through time," said Tom Schneider, MORT president, appearing in period hunting attire next to Ed Basalt, former commissioner of the now defunct DEM. Hunting and fishing was a common sport for the working class in the 20th century. The sport reached its peak in the 1950s, and participation slowly declined. In the view of most, the morality of the sport declined at a faster rate.

Schneider eulogized sport hunting and fishing. He described the high points of this sport as only the oldest in attendance could remember. He spoke of the competition between man and animal, the connection with nature, and living off the land. Others in the small crowd of 50 to 60, which was composed mostly of curious tourists visiting the capitol, could only relate to the romantic version of this sport which is dramatized in today's movies. One such young romantic, dressed in synthetic buckskin, said "I've sneaked into the industry woodlots up north to hunt and I've taken fish from the contaminated zones and eaten them--I think this law is unrap."

Several groups have made it their primary goal to eliminate hunting and fishing. "We are ecstatic with this victory, but we will not stop until it is completely eliminated," said Emily Logsdon-Anderson-Mueller, president of the Minnesota Chapter of Humans Against Nonhuman Killing (HANK). "Can you believe that the government used to spend money to recruit new anglers and hunters," she said. "Very few people showed up for this mock funeral since people realize how sick this sport is or rather, was," noted a HANK supporter who was counter-demonstrating.

"The loss of this hobby for our members is unfortunate," said David Johnson of the Minnesota Deer Antler Measurers. He said antler collectors will be forced to rely totally on captive stock. Most antler collectors today, however, prefer captive

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animals to free ranging deer. The deer farms raise larger and better conforming antlers, which the antler collectors sell and trade.

The sport of deer hunting slowly evolved through time. It started out as competition between a human and deer on knowledge of the wood and land, to a competition between humans to see who kills the deer, to a ritualistic killing for the taking of horns, and finally to just shooting restrained animals for the thrill of killing.

A spokeswoman from the ProAnglers of America denounced the state's decision to eliminate working class fishing. "Our viewers enjoy trying out the latest technology in places like Minnesota, now they have to travel to Montana or the country of Quebec to practice this sport," she said. The most recent tech toy promoted by the industry, the sidewinder lure, created an uproar in the middle of the last election here in Minnesota. The wealthy lake property owners flooded the Republican Party with money and support for Governor Anderson's pro-elite platform; this guaranteed his reelection to his fourth term.

Sen. Wiley Radomski, G-Minn., son of the controversial assassinated founder of the Green Earth Party in Minnesota, Paul Radomski, spoke to the group about his fathers love of the sport and his hopes for tomorrow. "This loss was the result of multiple causes, the result of failures to act, the result of the weight of humanity which killed more than a sport--it threatens to destroy us as a species," he said. He restated his call for stricter laws on who can procreate, the reestablishment of a national park system, and federal laws allowing primitive fishing and hunting in the National Corporate Forests.

Several factors were instrumental in the evolution of the sport of hunting and fishing, and ultimately its death. Dr. Frank Teller, professor of sport history at the University of Minnesota, agreed with Sen. Radomski. "There was several reasons why this sport died," said Dr. Teller. He cited the obvious reasons, such as human overpopulation and the loss of fish and wildlife habitat from extensive urbanization. He also stressed the change in attitudes and ethics by those who practiced this sport.

"The sport's ideal was based on the concept of fair chase, but this ideal was subverted and later ignored," he said. Dr. Teller cited several studies which showed how the human faults of laziness and greed degenerated the fair chase principle. For example, the increased use of motorization to kill animals was cited. Hunting, once done on foot, increasingly was conducted on vehicles. Although some restrictions existed, each generation of hunters relied more and more on motors and technology--by the year 2000, teens entering the sport believed this method was not only acceptable, but a traditional method. Greed and the human need to compete created feedback loops. The same kind of trends and conditions existed for angling. "Government agencies responsible for regulating this sport failed to act in the best interest of the sport and ecosystem, rather they catered to these human failings," Dr. Teller concluded.

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difference
between
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Of Interest

Index Of Watershed Indicators-- EPA (<http://www.epa.gov/surf/iwi/>).

Users can view national maps of watershed indicators or locate and learn about their own watershed at the US Environmental Protection Agency's new web site, Index of Watershed Indicators, part of Surf Your Watershed. National Maps loads with a map indicating the quality of all US watersheds. From here, users can view the map with respect to fifteen categories of watershed indicators, including fish and wildlife consumption advisories, drinking water conditions, wetland losses, and agricultural runoff. Locate your Watershed allows users to search for their watershed via state maps, keywords, places, or National Watershed Network. Information available includes local watershed groups, water use statistics provided by the US Geological Survey, population in the watershed, river and stream miles, and land characteristics.

USGS Launches New Electronic Clearinghouse For Biological Data

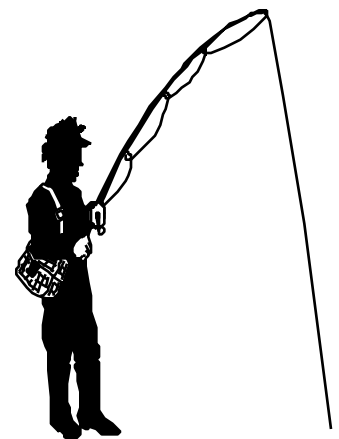
Dr. Dennis B. Fenn, Chief Biologist, today announced that the U. S. Geological Survey's Biological Resources Division has initiated a new Internet-based clearinghouse that can be used to search for and locate existing sources of biological data and information from a variety of sources. This clearinghouse is part of the National Biological Information Infrastructure (NBII), which is a cooperative effort led by the USGS to increase access to biological data and information maintained by a variety of Federal and State government agencies, universities, museums, libraries, and private organizations. Through the NBII Clearinghouse <http://www.nbii.gov/clearinghouse.html>, Internet users can search through an assortment of standardized descriptions of different biological databases or information products to identify those that meet their particular requirements. These descriptions (metadata) concisely convey such things as subject matter;

how, when, where, and by whom the data were collected; whom to contact for more information; and how to access the database or information product. The NBII Clearinghouse includes metadata descriptions of biological databases and information products developed and maintained by USGS scientists, as well as data and information developed and maintained by other NBII participants, including Federal and State government agencies, universities, and private organizations. The NBII Clearinghouse also functions as a part of the National Spatial Data Infrastructure (NSDI) Clearinghouse <http://www.fgdc.gov/clearinghouse/index.html>, as many of the biological databases described in the NBII Clearinghouse employ geospatial references. "We are very pleased to be offering this new service to the public, resource managers and scientists, and anyone else interested in locating existing sources of biological data and information," said Fenn. "This is a great opportunity not only for us to help get the results of USGS biological science out to those who can use the data and information, but also for us to provide a tool that our partners and cooperators in NBII can use to help share their own data and information." Users can search through the NBII Clearinghouse (much as they would use a card catalog in a library) using a variety of criteria, such as the name of the investigator or author who collected the data or produced the information, subject-matter keywords, and spatial coordinates for the location of the study/project. Special biological search criteria, including the ability to search for data or information relating to a particular species or other taxonomic group, are also provided. Metadata descriptions in the NBII Clearinghouse are developed according to the NBII's biological metadata standard <http://www.nbii.gov/current.status.html>, which also serves as a biological "enhancement" or "profile" of the Federal Geographic Data Committee's Geospatial Metadata Content Standard. The mission of the USGS/BRD is to work with others to provide the scientific understanding and technologies needed to support the sound management and conservation of the

Nation's biological resources.

Abstracts of the Current Fisheries Research in Minnesota for FREE!!!!!! - William Ardren (Student Chair), Gerold Grant and Bruce Vondracek.

The Minnesota Chapter of the AFS has recently compiled a collection of abstracts from fisheries researchers throughout the state. The 1997 Abstract Book includes 93 abstracts on subjects such as aging, behavior, bioenergetics, competitive interactions, conservation, creel surveys, genetics, human dimensions, physiology, plant/animal interactions, population dynamics, sampling techniques, and watershed studies. We believe this book fills a needed role in providing a comprehensive listing of ongoing fisheries research in Minnesota. The book can be obtained for free in MS Word or Wordperfect format over the [www](http://www.fw.umn.edu/mnaf/abstract.html) (<http://www.fw.umn.edu/mnaf/abstract.html>) or by e-mail. To obtain a copy by e-mail, please contact Bruce Vondracek (bvc@fw.umn.edu) or Jerry Grant (jcg@fw.umn.edu) and specify MS Word or Word Perfect format and operating platform. Disk and hard copies can also be mailed to you at cost. To obtain a copy through mail, please send a check payable to MN AFS to Bruce Vondracek, Department of Fisheries and Wildlife, University of Minnesota, 200 Hodson Hall, 1980 Folwell Ave., St. Paul, MN 55108. Please include \$1.50 for each disk copy (specify format and platform) and \$12 for a spiral bound printed version. Provided adequate levels of interest, we plan to update the abstract list every two years.





News from Around the World Submitted by Kate Wing and others

A COASTAL WAR FLARES OVER A SUPERTRAWLER, By Carey Goldberg. It has been nigh on a generation, some in this salt-scented town say, since so many fishing folk from Maine to New Jersey were last so united in a single cause. Back in the 1970s, the cause was a law that pushed hundreds of gigantic, foreign-owned factory trawlers out of a zone extending 200 miles from U.S. shores, away from the Georges Bank areas once considered the richest fishing grounds in the world. Now the target is only a single factory trawler: the Atlantic Star. And it is American-built and 51 percent American-owned. In towns like Gloucester, where old seagoing dynasties have been battered by the ravaging of fish stocks that was brought on by overcatching and pollution, the dominant theme seems to have become: Let us not repeat our mistakes. "None of the fishermen wanted this thing, from Gloucester to Maine to Rhode Island to New Jersey," Joe Sinagra, a 43-year-old fisherman who has been going to sea since he was 6, said of the Atlantic Star. "The whole damned New England fisheries was against it." Its owner's plans for the 369-foot Atlantic Star to begin hunting herring and mackerel on Georges Bank have sparked such vehement opposition from potential competitors, fishing groups, environmentalists and politicians that the issue has reached all the way to Congress. Any week now, possibly any day, congressional aides say, the Senate is to pass a measure similar to one that has already sailed through the House, placing a one-year moratorium, at a minimum, on trawlers the size of the Atlantic Star. The Senate measure, sponsored by Sens. Olympia Snowe, R-

Maine, John Kerry, D-Mass., and Edward M. Kennedy, D-Mass., would forbid boats of more than 165 feet or 3,000 horsepower to fish for herring and mackerel until a plan to manage herring fishing is put into place by regional fishing authorities next year. At present, there are no limits on herring catches. Sponsors of the measures in both houses maintain that lessons must be learned from the overfishing of the past and that the supertrawler could hammer the herring and mackerel stocks, now abundant. [The New York Times]

FISH POISONING CONFLICT. In October, CA Fish and Game managers began using rotenone and other chemicals to poison non-native northern pike in Lake Davis, Plumas County, CA, contrary to two County ordinance that make it illegal to poison County fish. State managers fear that any uncontrolled spread of pike could threaten native salmon and trout populations, while County residents believe the pike have already spread beyond Lake Davis. Residents fear harm from chemicals in surface and ground water sources of drinking water and harm to the local economy from destruction of valuable sport fish. Residents suggest that the lake level should be lowered and the pike netted. State officials believed their authority superseded County law, and asked for a temporary restraining order against enforcement of the local ordinances. The state court ruled that the County ordinances were illegal. Seven protestors were arrested before the poisoning operation began. The state plans to restock the lake with 750,000 trout in four to eight weeks after the poisoning, and is supplying residents with an alternative water supply. [Assoc Press]

FAO TECHNICAL WORKING GROUPS. NMFS announced the formation of 3 United Nations Food and Agricultural Organization Technical Working Groups (TWGs) on 1) management of fishing capacity, 2) reduction of incidental catch of seabirds in longline fisheries, and 3) shark conservation and management. TWG work is designed to lead to a formal FAO

Consultation by all FAO Members and preparation of draft action plans. [Federal Register]

U.S. SEAFOOD CONSUMPTION. NMFS officials announced that U.S. seafood consumption declined modestly to 14.8 pounds per person during 1996 from 15.0 pounds per person in 1995. The 0.2 pound per person decline was noted for canned seafood products. Imported seafood comprised 57% of U.S. consumption during 1996, a 3% increase from 1995. [NOAA press release]

ILLEGAL WHALEMEAT? Officials of the International Fund for Animal Welfare reported that a spring 1997 study by researchers from Auckland Univ, New Zealand, of whalemeat on sale in Japan used DNA analysis to identify meat from humpback, finback, and orca whales on the market. Killing of humpback and finback whales currently is not permitted by the International Whaling Commission, however Japanese officials suggest that meat from these species probably came from frozen inventories of whalemeat taken before the IWC's moratorium on commercial whaling went into effect. [Dow Jones News, Assoc Press]

SEA OTTER CONTAMINANTS. An article by Univ. of CA Santa Cruz scientists in a recent issue of the Marine Pollution Bulletin was reported to note that sea otters from Adak in Alaska's remote Aleutian Islands were discovered to have higher levels of polychlorinated biphenyls (PCBs) in their livers than did sea otters taken from the coast of California. PCB contamination may have arisen from leakage at former military sites. Additional research was scheduled to test halibut and Pacific cod. [Assoc Press]

SALMON RIVER RAFTING RESTRICTIONS. Managers of the Sawtooth National Forest, ID, imposed restrictions on rafters and kayakers floating the Salmon River. Rafters and kayakers will have to carry their boats around certain sections of the River to avoid disturbing spawning chinook salmon. Late in summer, the U.S.

Forest Service closed a portion of the Salmon River to public float trips until further notice after determining that travel restrictions through sensitive salmon spawning areas were being ignored. Commercial float operations have been abiding by regulations and will be allowed continued use of the River. [Assoc Press]

GREAT LAKES TRIBAL FISHERY. This summer the Grand Traverse Band of Ottawa and Chippewa Indians passed regulations allowing 90,000 pounds of salmon to be harvested from Grand Traverse Bay, MI. However, MI state and sport fishing interests contend that this is contrary to a 1985 court agreement as modified by a 1996 court ruling. The state is reported to be preparing to ask the U.S. District Court for an injunction to limit the fishery. U.S. District Court Judge Richard Enslen ruled that the state's request for a ruling would be combined with a December 1997 trial on another fishing issue. Later, Judge Enslen ruled that the Grand Traverse Band could take as much as 80,000 pounds of salmon from Grand Traverse Bay, denied a request by the MI Dept. of Natural Resources that would have required the Band to remove its fishing nets from the Bay, and ordered that nets be submerged 8 feet below the water surface for safety reasons. The Grand Traverse Band of Ottawa and Chippewa, then, voted to cease negotiations with the state of Michigan over a new fishing agreement to cover fishing after the year 2000. Without an agreement, tribal fishing would be unrestricted after 2000. [Assoc Press]

TRIBAL SALE OF STEELHEAD. This summer a federal judge approved an agreement between the Oregon Fish Commission and 4 Indian tribes, overturning a 21-year OR state regulation prohibiting non-Indians from buying steelhead trout from tribal fishermen. [Assoc Press]

BC SALMON AQUACULTURE REPORT. This summer British Columbia's Environmental Assessment Office released its 1,800-page Salmon Aquaculture Review, concluding after 12

months' study that salmon aquaculture presents a low overall risk to the environment and could proceed with caution. The report also concluded that much needs to be done before more salmon farms are permitted. A total of 49 report recommendations would streamline the regulatory environment to make the BC industry more competitive in the world market, and call for studies of how escaped netpen salmon interact with wild salmon, how to control disease, and the effects of netpen waste on water and the seafloor. The report also recommends more stringent guidelines for culling seals that take salmon from netpens. [BC Salmon Farmers Assoc press release, Assoc Press]

GREENPEACE CHALLENGES ARCO DRILLING. This summer Greenpeace asked the U.S. District Court to prevent Atlantic Richfield Co. (ARCO) from setting up a new drill site at its Warthog prospect in the Beaufort Sea off Alaska, claiming the activity would disturb polar bears, seals, and whales. On Aug. 21, 1997, U.S. District Court Judge Paul Friedman ruled that ARCO did not need to have a marine mammal permit issued before setting up its new drill site since ARCO was assuming the risk of penalty if marine mammals were actually disturbed. ARCO applied for a marine mammal permit in May 1997, but NMFS has not yet issued the permit. [Reuters]

UMPQUA CUTTHROAT TROUT. This fall the Douglas County (OR) Board of Commissioners voted to sue the federal government for alleged failure to use the best scientific information available in its listing of Umpqua River searun cutthroat trout as endangered. The Commissioners believe the Umpqua fish are a viable population and seek to have them removed from the List of Endangered and Threatened Species. [Assoc Press]

MERCURY IN KING MACKEREL. In September, LA state health dept. officials renewed a warning to limit consumption of large king mackerel caught in the Gulf of Mexico due to elevated mercury levels. [Assoc Press]

GLOBAL WHALING MORATORIUM? This fall Ireland's Heritage Minister Sile de Valera proposed that all the world's oceans be designated as a global whale sanctuary and that, if and when the present moratorium on commercial whaling is terminated, no international trade in whalemeat be permitted. Also, Australia's National Taskforce on Whaling released a report, recommending that Australia support an effort to establish a global whale sanctuary or a 50-year international moratorium on commercial whaling. The Taskforce also recommended a more precise definition of aboriginal subsistence whaling and the prohibition of special permit (scientific) whaling. [Reuters]

RUSSIAN FISHERIES ENFORCEMENT. This summer Russian Federation President Boris Yeltsin signed the edict "On Measures to Ensure Protection of Maritime Biological Resources and State Controls in This Sphere." This edict addresses poaching and seeks to modify and improve fisheries enforcement. For example, while Russian export figures show only about 7,000 metric tons of crabs were exported to Japan, Japanese import figures indicate more than 62,000 tons of crab were imported from Russia. Under the edict, the Federal Border Service was ordered to form a Sea Guard by reorganizing the border guard naval forces to resemble the U.S. Coast Guard. [Moscow Krasnaya Zvezda and Moscow Nezavisimaya Gazeta via Foreign Broadcast Information Service]

SALMON SPEARING PENALTY. On Sept. 16, 1997, a Valley County, ID, magistrate sentenced a Boise man to 5 days in jail and a \$845 fine for illegally spearing a spawning chinook salmon in the South Fork of the Salmon River. The fish was a hatchery-raised salmon, and NMFS declined to pursue federal charges against the man. [Assoc Press]

REDBAND RAINBOW TROUT AGREEMENT. In September, ranchers joined the U.S. Bureau of Land Management, OR Dept. of Fish and Wildlife, and the U.S. Fish and Wildlife

Service in signing a voluntary agreement to increase protection afforded redband rainbow trout and tui chub in the Catlow Valley in southwest OR, by restoring damaged stream habitat. [Assoc Press]

ESCAPED BLUE SHRIMP. In mid-September, SC Natural Resources Dept. biologists reported that nearly two dozen Venezuelan blue shrimp had been caught in Charleston County, SC, waters in the past week. These shrimp were thought to have escaped from shrimp farms, and raise concern that they may carry non-native virus that could infect native shrimp. [Assoc Press]

ZEBRA MUSSELS. This fall the U.S. Geological Survey released a new status report on zebra mussels, indicating that they have been detected in 19 states, with zebra mussels found in 13 additional inland lakes during the last year. [Assoc Press]

CUSHMAN PROJECT LAWSUIT. This fall the Skokomish Indian Tribe filed suit against the City of Tacoma, WA, seeking \$100 million for damages to salmon and steelhead trout by the Cushman hydroelectric project on the North Fork of the Skokomish River. [Assoc Press]

NPPC MEETINGS. At its fall meeting in Helena, MT, the Northwest Power Planning Council (NPPC) announced its recommendations on how Bonneville Power Administration is to spend \$127 million on fish and wildlife recovery efforts. The NPPC approved \$94 million in projects for 1998, and delayed or canceled another \$40 million in projects pending additional review. Nearly \$20 million for new fish hatcheries was delayed until a comprehensive review of all hatcheries is completed, about \$15 million in habitat improvements was delayed until high priority habitat areas could be identified, a \$4 million law enforcement effort was terminated, and a \$3.7 million squawfish predation program was reduced. [Assoc Press, NPPC Congressional Update, NPPC news release]

CANADIAN SEAL CULL. As of Oct.

1, 1997, Canadian fisheries officers had killed 17 seals in the Puntledge River on Vancouver Island near Courtenay, BC, in Canada's first seal cull aimed at protecting vulnerable salmon and trout populations. Another 23 seals are expected to be killed during the next week. [Assoc Press]

NATIVE TITLE FISHING RIGHTS. This October an Indonesian "sea gypsy" from the island of Roti near Timor, who was detained for illegally fishing in Australian waters earlier in 1997, will argue a unique test case in Australian court that he has an ancestral right to fish in Australian waters. The individual claims that his ancestors fished in Australian waters for many centuries preceding European settlement, and thus he retains the right to continue this traditional fishery. [Reuters]

MEDITERRANEAN FISHERIES. In October, a coalition of 41 environmental groups announced that it would urge the General Fisheries Council of the Mediterranean, meeting Oct. 13, 1997, in Rome, Italy, to adopt new mechanisms to enforce its formerly non-binding recommendations to member nations for better managing Mediterranean fisheries. Concerns include overfishing, destructive fishing methods, and overcapitalized fishing fleets. [Reuters]

STATUS OF FISHERIES REPORT. In October, NMFS announced the release of a report to Congress entitled "Status of Fisheries of the United States" identifying 86 species as overfished, 10 species as approaching an overfished condition, 183 species as not overfished, and 448 species of unknown status. Regional Fishery Management Council are required to develop programs to end overfishing and rebuild overfished stocks. This report states that these numbers probably understate the number of fisheries that will eventually be determined to be overfished. [NOAA press release, Assoc Press, Dow Jones News]

LOWER GRANITE DAM SALMON BYPASS. In October, the Army Corps of Engineers announced that a \$11.2

million contract had been awarded for construction of a salmon bypass screen for Lower Granite Dam on the Snake River. This "behavioral guidance structure" prototype would be designed to direct juvenile salmon to surface collectors and away from dam turbines. Construction of the 1,100-foot structure is due to be completed by Apr. 1, 1998, and will then undergo a year or more of testing to determine its effectiveness. [Assoc Press]

TRIBAL FISHERIES JURISDICTION. On Oct. 6, 1997, the U.S. Supreme Court refused to consider an appeal by the Lower Brule Sioux Tribe challenging state regulation of fishing by non-Indians and non-tribal members on private property and a narrow strip of federal land along the Missouri River on Indian reservations in SD. However, the Lower Brule and Cheyenne River Sioux have negotiated agreements with the Corps of Engineers allowing the tribes to regulate fishing on Corps land along the Missouri River on their reservations. [Assoc Press]

CANADA-- In a very important decision this fall, the Canadian Supreme Court ruled that the federal government's regulatory laws supersede those of the Provinces. The ruling stemmed from charges brought against Hydro-Quebec in 1990 for discharging PCB's into the Saint-Maurice River. The company contested those charges, saying that this sort of regulatory power belonged only to the Provinces. This ruling bucks a recent trend in Canada to transfer more powers away from the federal level to the Provinces.

OVERFISHED: AP reports a National Marine Fisheries Service report released to Congress last week says that 96 marine species out of 279 species counted are either overfished or "heading that way." Commercial and recreational fishers target the species in trouble that include; Pacific salmon, pink shrimp, bluefin tuna, swordfish, American lobster, Atlantic sea scallops, and several Atlantic sharks and flounder. NMFS's Gary Marlock says, "It's time to eliminate the problem of overfishing."

THAR SHE BLOWS!: According to AP, environmentalist Andy Kerr wants to raffle the right to push the plunger when it comes time to blow a hole in a partially finished dam stopped by Kerr and other environmentalists. Elk Creek dam will be removed to restore the stream's flow to where it was before construction began on the dam. The Army Corps of Engineering will be taking deconstruction bids next March. Kerr says proceeds from his raffle would go for salmon habitat restoration.

WASHINGTON (Reuters) - The top of the ozone hole over Antarctica reached the highest level measured so far this month as the build-up of ozone-depleting chlorine gases in the upper atmosphere approached its peak, a U.S. agency said on Tuesday. The National Oceanic and Atmospheric Administration said its scientists saw a complete loss of ozone -- which protects the earth from the sun's ultraviolet rays -- at altitudes of nine to 13 miles over the South Pole. The increasing altitude of ozone depletion was probably caused by chlorofluorocarbons, man-made chemicals blamed for depleting the ozone layer, NOAA said. These chlorine-containing gases have started to decline in the lower atmosphere because of the international agreement to restrict their use. But NOAA said chlorine levels in the upper atmosphere would peak around 2000 as the gases take several years to reach that height, resulting in a slow recovery of the ozone layer. The size of the South Pole's ozone hole approached 22 million square km in early October, comparable to its size at the same seasons in 1995 and 1996, NOAA said. It is expected to take at least 50 years for the protective ozone layer to recover from the effects of ozone depleting gases, but a turnaround should start in 10 to 20 years, said David Hofman, director of NOAA's Climate Monitoring and Diagnostic Laboratory in Boulder, Colorado.

BEIJING (Reuters) - China's cabinet has approved a proposal to block the Yangtze River on November 8 for construction of the world's largest water control project, the Xinhua news agency said on Tuesday. Xinhua quoted Premier Li Peng as saying

the giant Three Gorges dam project had proceeded smoothly in the past five years, the design for blocking the river was feasible and the resettlement of local residents had gone well. A canal built to permit navigation on the Yangtze after the river is blocked was due to open to traffic in October, state media has said. The dam, scheduled for completion in 2009, would create a gigantic reservoir on the middle of the Yangtze -- China's longest river -- evicting one million local residents. Critics of the controversial project say an earthquake caused by the concentrated weight of silt and water behind the dam could burst the dam and lead to a catastrophic flood wiping out thousands of towns and villages.

WORLD POPULATION SEEN AT 10 BILLION BY 2080, By Justin Jin.

BEIJING - The world population is forecast to grow from six to around 10 billion by the year 2080, but mankind is still expected to have enough to eat, an Australian demographer said on Saturday. "We might be able to level out at about 10 billion," John Caldwell, president of the International Union for the Scientific Study of Population, told a news conference in Beijing. "If the population reaches 10 billion, it will probably be most of the way through the coming century, 2075, 2080," Caldwell said. "The present information seems to be that we can feed 10 billion people," Caldwell added. "But there may be more subtle things about the environment, about the atmosphere that would be much more difficult to control," he said without elaborating. Caldwell was speaking on the eve of the opening of the 23rd General Population Conference in Beijing, capital of the world's most populous nation. Academics and officials from more than 80 countries are attending the six-day conference to discuss issues ranging from forced abortion to AIDS and to China's ageing population. The world population has doubled to almost six billion in the last five decades, but growth has slowed down, Caldwell said. "The population in percentage terms, in growth terms, is already slowing down," he said. "It hasn't yet begun to slow down in terms of absolute number, but in the next few

years even that will begin to slow down. "Probably it will be Africa that would be driving most of the world's population growth," he said. China, home to one-fifth of humanity, has sounded alarm bells over its growing masses, saying overpopulation is driving people into poverty and ruining the environment. It had 1.224 billion people at the end of 1996, up 12.68 million from the previous year and with a natural population growth of 10.42 per 1,000, latest official figures show. Beijing's one child per urban couple policy launched in the late 1970s largely succeeded in reining in a population that swelled under the rule of Chairman Mao Zedong, who believed a large population would make China powerful. China's population growth rate, which in the last few years stood at about one percent per year, was decreasing, Caldwell said. But family planning programmes have gradually lost their effectiveness after nearly two decades of economic reform loosened state control over people's lives. The policy has many loopholes, such as allowing rural and ethnic minority couples to have more than one child. China's communist rulers are struggling to control the population to within 1.3 billion people at the end of the century.

NEW YORK STATE TO SUE THE EPA - The EPA has failed to respond to New York State's Clean Air Act Petition and so has drawn a lawsuit from the State. Governor George Pataki and Attorney General Dennis Vacco today notified the U.S. Environmental Protection Agency (EPA) that New York State intends to sue EPA for its failure to respond to New York's petition seeking reductions in smog-causing nitrogen oxide (NOx) pollution blowing in from Midwestern and Southeastern states. The action comes despite new smog control limits on polluters in these regions issued by the EPA last week. In August, New York and other Northeastern states filed petitions with EPA under the Clean Air Act to force Midwestern and Southeastern states to address the problem of interstate air pollution. EPA has not acted on the petition within 60 days, as required by the Clean Air Act. The petition seeks to address two air quality

problems: the release of pollutants that form ground-level ozone, or smog, and the acid rain that is devastating the Adirondack Mountains. An EPA study concluded that nearly half of the Adirondacks' 700 lakes will no longer support aquatic life by 2040 if acid rain is allowed to continue unchecked.

WISCONSIN MINING MORATORIUM BILL EXPLORED - The Wisconsin Assembly Environment Committee held a hearing today on the sulfide Mining Moratorium Bill, SB 3/AB 70. The Bill is supported by environmentalists who call it "simple common sense." The measure would prohibit the Wisconsin Department of Natural Resources from permitting a mine until it determines that a mine has operated in a similar sulfide ore body in the U.S. or Canada for 10 years without polluting groundwater or surface water and that a mine operated in similar conditions has been closed for at least 10 years without polluting groundwater or surface water. If the Bill becomes law it will meet with the heartfelt approval of the Menominee Nation who are waging a 20-year-long battle to prevent Exxon's wholly owned subsidiary the Crandon Mining Company from digging a sulfide mine on the Wolf River where the Menominee people have lived for 8,000 years.

TOKYO, (Reuter) - Some of the world's tiniest organisms could be a solution to two of its most pressing concerns -- global warming and energy conservation, Japanese researchers say. Japan's largest heavy machinery maker and its biggest electricity firm believe genetically enhanced microalgae can be used to consume carbon dioxide from thermal power plants and to produce ethanol which can be burned as fuel. Spokesmen for the firms, Mitsubishi Heavy Industries Ltd and Tokyo Electric Power Co Inc, said on Friday that they are developing a way to enhance the chemical reaction that causes chlamydomonas, a type of green algae, to convert starch created by carbon-dioxide absorbing photosynthesis into ethanol. In the natural environment, chlamydomonas convert only about 40 percent of the starch they produce. But a research team

formed by the two firms has identified genes that create enzymes which promote the conversion. It aims to raise the conversion rate by injecting the genes into Chlamydomonas cells. "There's still a long way to go, but we are hoping to put this technology into practical use by 2010," a spokesman for Mitsubishi Heavy said. He said a one-square-km pool filled with genetically engineered Chlamydomonas would produce enough ethanol to generate 70,000 kilowatts (kw) of electricity -- sufficient for about 35,000 households.

DILUTING EUROPE'S ACID RAIN A PROBLEM (ENS) - The European Commission's strategy to combat acidification appears set for a bumpy ride through the European Union (EU) Council of Ministers after a meeting of national officials in Brussels on Thursday highlighted widespread opposition to the proposal. Delegations described Commission plans for national emission ceilings as unrealistic and too costly. "Almost every member state has a problem with the proposal," one official explained. Another said that getting the strategy through the Council would be "hugely problematic." Proposed by the Commission in March, the EU strategy to combat acidification suggests national emission ceilings for the three main acid rain pollutants - sulphur dioxide (SO₂), nitrogen oxides (NO_x) and ammonia (NH₃) - and lays down limits for the maximum sulphur content of heavy fuel oil. Its overall aim is to halve the area of the EU affected by acidification by 2010. According to Council sources, most member states are concerned about the proposed national emissions ceilings. German, Danish, Dutch, Belgian, French and British national officials all told the meeting their countries would continue to breach the ceilings even if best available technology were used. Greece, Finland and Spain are also known to have problems with the proposal. Austria and Sweden are about the only countries that appear to support the Commission's plan fully. In a position paper prepared for Thursday's meeting, the UK said the national emissions ceilings were "simply unachievable in practical and political terms." Germany, which has long

championed tough measures to combat acid rain, surprised some observers with the firmness of its opposition to proposed national emission ceilings. In a position paper, Germany described the proposed cuts in SO₂ and NO_x as "unrealistic" and those for NH₃ as "unacceptable." The Commission estimates that the proposal will cost Ecu7 billion a year to implement, but several countries think this is a severe underestimate. The cost of meeting the strategy's targets was cited as a major problem by most member states. The UK warned that in order to meet the proposed national ceilings for SO₂ and NO_x, it would have to close down all its refineries and iron and steel works. Such a consequence "would be clearly unacceptable," its paper notes. Many member states criticised the modelling techniques used by the Commission to arrive at its figures and questioned the quality of its data. The Council is considering setting up a technical working group to deal with some of the proposal's more complex problems before environment ministers debate the strategy in December.

CHERNOBYL ANIMALS CONTAMINATED BUT NOT DEFORMED (ENS) - When University of Georgia (UGA) researchers hold a Geiger counter over rodents living near the Chernobyl Nuclear Power Plant in the Ukraine, the clicks grow quickly into a continuous roar. "You wouldn't want to handle an animal like that, and yet they are surviving," said Cham E. Dallas, a UGA associate professor of pharmacology and toxicology, who - with fellow researchers - has made eight expeditions to Chernobyl since 1991. The wildlife near Chernobyl, the site of the world's worst nuclear disaster, not only survives, it abounds in the area, now largely abandoned by humans. Species of fish and rodents do exhibit genetic change, but no apparent defects, according to Dallas. The surprising data suggest that the environmental damage caused by Chernobyl was less severe than many experts had feared. Nevertheless, Dallas cautioned, it is too early to tell what the long-term effects of the disaster will be. He and his colleagues also have published their findings in *Nature* and journals

devoted to ecotoxicology and similar areas of study. The research is funded by the United States Department of Energy. A 1986 explosion and fire in Chernobyl's Reactor 4 released 100 times more radioactivity than was released by the combined atom-bomb explosions at Hiroshima and Nagasaki in 1945. UGA researchers have documented unprecedented levels of radiation in fish and rodents living in the area. Experience at the SREL has shown that, "a great deal of contamination over time ended up in aquatic species," Dallas said. Catfish, carp and other species of fish that Dallas has examined near Chernobyl show levels of radioactive contamination three to five times higher than anything found in the United States.

UW SEA GRANT RESEARCHERS TACKLE PERCH PROBLEM, by Sarah Coomber. MADISON, Wis.-- UW Sea Grant fisheries scientist Fred Binkowski and his colleagues made headlines this summer with their yellow perch research. Seven years of weak year classes joining the perch population led to a Lake Michigan commercial fishing ban and sport fishing restrictions beginning several months ago. Now researchers, the fishing community and fish-fry aficionados want some answers. Binkowski and Wisconsin Department of Natural Resources personnel spent a month off Milwaukee's shores catching yellow perch in the green can reef area, which is known as a perch spawning habitat. Using gill and fyke nets, they caught 14,463 yellow perch but found some disturbing trends: Only 46 of the fish were female. And the males were old — the majority were 8 or 9 years old. Binkowski and Wisconsin DNR fish technician Matt Coffaro both said it is important not to focus too much on the lack of females. "People have a misconception that the problem out there is there are so few females," Coffaro said. "It's a problem we're facing now, but it's really the result of the problem -- the problem being the poor reproduction we've had since 1989." With fewer young fish entering the adult population during the last several years, the fishing community has been working with essentially the same yellow perch

population, year after year. Because females grow faster than males, they are more attractive to sport fishermen and are more likely to be caught in commercial gill nets. Selective fishing for large fish could have led to the drastic decrease in numbers of females. "The number of females is so low, because they've been getting fished on for more years than the males have," Coffaro said. Now Binkowski is looking for the reason why few yellow perch are surviving long enough to join Lake Michigan's adult perch population. With \$92,000 from UW Sea Grant's rapid-response funds, he and his colleagues launched a monumental research project at UW-Milwaukee Center for Great Lakes Studies. They are investigating the early life stages of yellow perch from four different places. They collected yellow perch eggs from Green Bay, Lake Ontario, Lake Mendota and Lake Michigan, off Milwaukee's shore, and now they are watching how the different strains develop. Staff members are creating optimal conditions for these fish and are carefully monitoring them every step of the way. From prior research, they know the temperatures and foods the fish respond to best at each stage of development. They will watch the four perch populations for at least three years - until they reach reproductive maturity. "We want to establish a complete profile on all the life stages of yellow perch," Binkowski said. "Essentially what we're doing is taking a photograph and X-ray from every angle of every critical life stage from the fertilized egg to the reproductive male and female." Once they have this complete life history picture, Binkowski said scientists from many different disciplines will be able to use the data to look for different trends. Already Binkowski has found a difference between the Lake Michigan perch and their cousins from other lakes. "The Lake Michigan fish, when they hatch out of the egg, initially they seem to have a much slower growth rate," Binkowski said. He said this could make them more susceptible to predators. Although this slow growth rate could be normal for the Lake Michigan perch, it could also be the result of something interrupting their normal development. Surplus eggs not

needed for the study are in a mass rearing tank. Binkowski said he hopes to raise these 5,000 to 10,000 fish for preserving the Lake Michigan strain, in case it ever completely bottoms out. "The problem won't be solved quickly," Binkowski said. "We allowed this thing to go on for seven years, and it's not going to be turned around in one year." The answers that emerge might not make everyone happy, but Binkowski said his goal is to save the yellow perch. "My client is *Perca flavescens* -- the yellow perch," he said. "That's who I work for."

MINING SHOWDOWN: The St. Paul Pioneer Press reports 10/14 a Wisconsin state Senate-passed mining moratorium is being opposed by Wisconsin's DNR secretary. Supporters say the bill would protect water resources from unproven mining technologies. The bill requires a mining applicant to provide information on a similar mine that operated for 10 years and has been closed at least 10 years without causing environmental damage.

BIOPROSPECTING: The 10/14 New York Times reports Yellowstone National Park is developing agreements with biotechnology firms to allow "bio-prospecting" in the park's thermal pools that contain microorganisms sought for their unique properties and potential commercial applications. Not everyone thinks it's a good idea. Joseph Mendelson, legal director of the International Center for Technology Assessment said, "This is the new public lands mining, the expropriation of public assets to private industry." "There has been no environmental review, no public input." The agreements would give some money to the park.

DAM INDICTMENT: The 10/14 Washington Post reports a series of editorials this summer in the Idaho Statesman newspaper may be the most significant change in public policy for recovering endangered species of Snake River salmon. The paper conducted an economic analysis of salmon recovery efforts and economic uses of the Snake River and found the removal of at least part of four dams is warranted on the lower reaches of the river. The paper's

editorial series said "[t]he region won't be set free until the salmon and steelhead these dams kill are recovered and balance is restored to our economy, environment and culture." "As a newspaper, we have to stand up for what's right and not worry about what's politically feasible," said editor Alan Bauer.

ATLANTIC SALMON SUIT:

RESTORE: The North Woods and the Biodiversity Legal Foundation announced they intend to sue the US Fish & Wildlife Service and the National Marine Fisheries Service for failing to list the Atlantic salmon as endangered. The groups petitioned to list the salmon in 1993. In 1995 USFWS and NMFS published a Federal Register notice acknowledging that salmon in seven "downeast rivers" of Maine are in danger of extinction. David Carle of RESTORE says, "The number of Atlantic salmon returning to Maine in 1997 has declined by 25% from last year...FWS and NMFS continue to break the law by refusing to make a decision on whether to protect the salmon from going extinct."

68% ENVIRONMENTAL: AP reports a nationwide study released by Wirthlin Worldwide, a firm headed by former Ronald Reagan pollster Richard Wirthlin, shows that 68% of Americans consider themselves to be environmentalists. The poll shows that 37% of American's say they personally have been harmed by environmental problems and 76% believe "protecting the environment is so important that requirements and standards cannot be too high and continuing environmental improvements must be made regardless of cost." Only 4% are unsympathetic to environmental concerns.

STURGEON ON RISE?: The Akron Beacon Journal reports sturgeon found in Lake Erie are on the rise. The sturgeon can grow to more than 7 feet and weight more than 300 pounds. 39 sturgeon sightings were made this year compared to 9 from 1989-1996. Overfishing and pollution led to the fish becoming imperiled.

BC WILDERNESS: AP reports 10/9 the

British Columbia government has proposed creation of a 17,000 square-mile wilderness area, an area larger than Switzerland. Designation of the wilderness increases the amount of protected area in the province from 9.4 percent to 10.6 percent. One-quarter of the Muskwa Kechika area will comprise a core zone off-limits to development, with "resource development under tight regulation" in the surrounding buffer. The wilderness has been compared to the African Serengeti for its wildlife populations.

MISSION IMPOSSIBLE: AP reports 10/8 Agriculture Secretary Dan Glickman has asked Forest Service Chief Michael Dombeck to prepare a Forest Service mission statement this year. Glickman said, "While the agency continues to reduce its emphasis on consumption and increase its emphasis on conservation the Congress has never explicitly accepted this shift in emphasis." Glickman referred to the Forest Service's "split personality." Congress and the agency have not decided whether the agency's priority is logging, recreation or wildlife protection.

FOREST DECLINE: AP reports a World Wide Fund for Nature report released 10/8 says two-thirds of the world's original forests have been destroyed. "The pace of forest destruction has accelerated dramatically over the past five years and continues to rise," said Francis Sullivan, director of the fund's Forests for Life campaign. Brazil is the nation with the highest annual rate of forest loss. Loss of temperate and northern forests in Canada, Europe, Russia and the US were also cited.

CATTLE DRIVE?: The Arizona Republic reports the Bureau of Land Management announced on 10/1 they will begin removal of hundreds of head of cattle from southeastern Arizona public lands. The action will be taken to protect 15 endangered plant and animal species. The announcement follows a US Fish & Wildlife Service study showing 15 of 42 endangered species are threatened by cattle grazing on 1.6 million acres of BLM land.

IDENTIFICATION. The Taxonomic Resources and Expertise Directory (TRED) has been developed by the Association of Systematics Collections in collaboration with the Biological Resources Division, U.S.G.S., and several other federal agencies under the leadership of Interagency Taxonomic Information System. TRED provides a continuously accessible (via the World Wide Web/Internet) database on taxonomists/systematists with expertise on specific taxonomic groups, habitats and geographic regions in North America. The TRED database can be accessed and queried over the WWW at <http://www.nbi.gov/tred>. ASC has been collecting the initial information over the WWW and via manual registration forms, conducting initial quality control on the data provided, and entering the data into the local database. Monthly updates are then uploaded to the U.S.G.S. Center for Biological Informatics in Denver, where the database is managed and "served" over the WWW. Users can consult the database to find experts who can identify species, perform taxonomic and biodiversity research, and provide consultation. One can specify interest in taxonomic groups (at several levels), geographic regions, or habitat types. Although the focus of the database is North America and surrounding waters, some international-level expertise is also cited. A companion database, the Survey of Resource Systematics Collections (SRSC), focusing on museum species and databases, will also be available on the web shortly. For updates, please visit the ASC website at www.ascoll.org or the TRED site. For more information contact ASC at: 202-835-9050 or asc@ascoll.org.

COATED SAND TRAPS HEAVY METALS (ENS) - A newly designed filtration system along interstate highways can prevent heavy metals from polluting nearby water supplies, researchers in the University of Cincinnati (UC) College of Engineering have shown. The system, known as a partial exfiltration trench (PET), replaces the normal sand used in highway storm drainage systems with an iron oxide

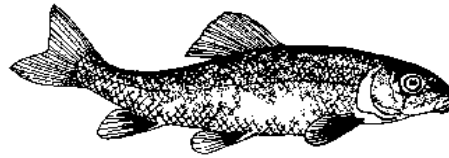
coated sand. The coating makes the sand much more effective than ordinary sand at trapping heavy metals such as cadmium, copper, lead and zinc given off by motor vehicles. A prototype PET system was installed along a stretch of Interstate 75 near downtown Cincinnati. It is the second busiest stretch of interstate highway in the state of Ohio. The effectiveness of the PET system varied for each specific metal, but the overall trapping efficiencies ranged from 82 to 97 percent.

CHERNOBYL - Nature may be providing solutions for Chernobyl radioactivity and other environmental disasters in formerly communist Europe. A combination of ecological approaches with Mother Nature as chief engineer may be best for long-term solutions for many of the major environmental problems left behind in the formerly communist Eastern and Central Europe. In a series of articles released today in the international scientific journal Ecological Engineering, several European and North American scientists discuss approaches that have shown merit in naturally cleaning up the environment through the use of nature's services in these "countries in transition." In one study, Ukrainian ecologist Vassili Davydchuk describes ecosystem recovery at one of the most potentially damaging events of the 20th century-the Chernobyl nuclear power plant accident in northern Ukraine in 1986. About 700 square miles [1850 square kilometers] of arable land and 600 square miles [1570 square kilometers] of forest were severely contaminated and hence lost from human use as a result of the disaster. Davydchuk summarizes three types of ecosystem remediation that have taken place in the 10 years following the accident: 1) maintenance of the forests to limit pests and fires; 2) artificial reforestation; and 3) natural restoration. He and fellow scientists in the Ukraine found that natural restoration to grasslands and forests from former farm fields helped to stabilize the radioactivity as well or better than any hard engineering solutions, resulting in less radioactivity in downstream water supplies. Davydchuk proposes that similar ecological engineering approaches

should be taken into consideration as strategies for still-polluted zones around Chernobyl.

EXCISE-TAX COLLECTIONS BREAK RECORDS (Fishing Tackle Retailer) - The 10% excise tax on fishing tackle in 1996 brought in a record take of 98 million dollars. This was an 2.7% increase over 1995 collections.

1997 SPORT FISH RESTORATION ACCOUNT GETS WINDFALL (Fishing Tackle Retailer) - At \$372 million, the 1997 Sport Fish Restoration Account is by far the largest ever. Much of the increase was due to fuel-tax monies.



On the Underside

submitted by **Charles Anderson, Tim Rosinger, and Tim Goeman**

The Washington Post Report from Week 228, in which you were asked to tell Gen-Xers how much harder you had it in the old days (Copyright 1997 The Washington Post Company):

Second Runner-Up: In my day, we couldn't afford shoes, so we went barefoot. In the winter we had to wrap our feet with barbed wire for traction. (Bill Flavin, Alexandria)

First Runner-Up: In my day we didn't have MTV or in-line skates, or any of that stuff. No, it was 45s and regular old metal-wheeled roller skates, and the 45s always skipped, so to get them to play right you'd weigh the needle down with something like quarters, which we never had because our allowances were way too small, so we'd use our skate keys instead and end up forgetting they were taped to the record player arm so that we couldn't adjust our skates, which didn't really matter because those crummy metal wheels would kill you if you hit a pebble

anyway, and in those days roads had real pebbles on them, not like today. (Russell Beland, Springfield)

And the winner of the velour bicentennial poster:

In my day, we didn't have no rocks. We had to go down to the creek and wash our clothes by beating them with our heads. (Barry Blyveis, Columbia)

Honorable Mentions:

In my day, we didn't have dogs or cats. All I had was Silver Beauty, my beloved paper clip. (Jennifer Hart, Arlington)

In my day, attitudes were different. For example, women didn't like sex. At least that is what they told me. (Tom Witte, Gaithersburg)

When I was your age, we didn't have fake doggie-do. We only had real doggie-do, and no one thought it was a damn bit funny. (Brendan Bassett, Columbia)

Back in the 1970s we didn't have the space shuttle to get all excited about. We had to settle for men walking on the crummy moon. (Russell Beland, Springfield)

In my day, we didn't have days. There was only time for work, time for prayer and time for sleep. The sheriff would go around and tell everyone when to change. (Elden Carnahan, Laurel)

In my day, people could only dream of hitchhiking a ride on a comet. (David Ronka, Charlottesville)

In my day, we didn't have fancy health-food restaurants. Every day we ate lots of easily recognizable animal parts, along with potatoes drenched in melted fat from those animals. And we're all as strong as AAGGKK-GAAK Urrgh. Thud. (Tom Witte, Gaithersburg)

In my day, we didn't have hand-held calculators. We had to do addition on our fingers. To subtract, we had to have some fingers amputated. (Jon Patrick Smith, Washington)

In my day, we didn't get that disembodied, slightly ticked-off voice saying 'Doors closing.' We got on the train, the doors closed, and if your hand was sticking out it scraped along the tunnel all the damn way to the Silver Spring station and it was a bloody stump at the end. But the base fare was only a dollar. (Russell Beland, Springfield)

In my day, we didn't have water. We had to smash together our own hydrogen and oxygen atoms. (Diana Hugue, Bowie)

In my day, we didn't have Strom Thurmond. Oh, wait. Yes we did...(Peg Sheeran, Vienna)

Kids today think the world revolves around them. In my day, the sun revolved around the world, and the world was perched on the back of a giant tortoise. (Jonathan Paul, Garrett Park)

In my day, we wore our pants up around our armpits. Monstrous wedgies, but we looked snappy. (Bruce Evans, Washington)

Back in my day, '60 Minutes' wasn't just a bunch of gray-haired liberal 80-year-old guys. It was a bunch of gray-haired liberal 60-year-old guys. (Russell Beland, Springfield, and Jerry Pannullo, Kensington)

In my day, we didn't have virtual reality. If a one-eyed razorback barbarian warrior was chasing you with an ax, you just had to hope you could outrun him. (Sarah M. Wolford, Hanover)

Things said, some funny, some true:

With every passing hour our solar system comes 43,000 miles closer to globular cluster M13 in the constellation Hercules, and still there are some misfits who continue to insist there is no such thing as progress (Ransom Ferm)

Madness takes its toll; please have exact change (Dave Barry)

A great many people think they are thinking when they are merely rearranging their prejudices (William James)

Never underestimate the bandwidth of a station wagon full of tapes hurtling down the highway (Andrew Tannenbaum)

We should be careful to get out of an experience only the wisdom that is in it-- and stop there, lest we be like the cat that sits down on a hot stove-lid. She will never sit down on a hot stove-lid again-- and that is well; but also she will never sit down on a cold one anymore (Mark Twain)

Some mornings, it's just not worth chewing through the leather straps (Emo Phillips)

Experience is that marvelous thing that enables you to recognize a mistake when you make it again (F.P. Jones)

When I told the people of Northern Ireland that I was an atheist, a woman in the audience stood up and said, "Yes, but is it the God of the Catholics or the God of the Protestants in whom you don't believe?" (Quentin Crisp)

Boundary, n. In political geography, an imaginary line between two nations, separating the imaginary rights of one from the the imaginary rights of another (Ambrose Bierce)

Those who make peaceful revolution impossible will make violent revolution inevitable (John F. Kennedy)

Life may have no meaning. Or even worse, it may have a meaning of which I disapprove (Ashleigh Brilliant)

The only difference between me and a madman is that I am not mad (Salvador Dali)

Things to Think About:

I once put instant coffee in the microwave and went back in time.

Cross country skiing is great if you live in a small country.

The sign said "eight items or less" -- so I changed my name to Les.

I xeroxed a mirror. Now I have an extra xerox machine.

I went to a general store. They wouldn't let me buy anything specific.

I have an answering machine in my car. It says "I'm home now. But leave a message and I'll call when I'm out."

LATE BREAKING INFORMATION ON THE CONTINUING EDUCATION COURSE ON WATERSHED RESTORATION

(see committee report above and preregister with form below)

Cost: \$150-170

Jan. 21 - Topics and Lecturers

Strategic Planning - Larry Johnson
Watershed Hydrology - Scott Niemela, PCA, Hobie Perry, UMN
Upland and Riparian Landuse Impacts - John Lyons, WI DNR
Instream Habitat Management - Dave Vetrano, WI DNR

Jan 22 - Topics and Lecturers

Kickapoo River Watershed Project - Jeff Hastings
Watershed Management in an Urban Setting - Cliff Aichinger, Metro Watershed District
Minnesota River Basin and Chippewa River Watershed, Steve Hanson, MRJPB, Patrick Moore, Land Stewardship Project
Big Sandy Project - Chris Freiburger, MN DNR
Tour of the St. Anthony Water Research Center

1998 ANNUAL MEETING ANNOUNCEMENT

The annual MN Chapter meeting is Tuesday-Thursday, 24-26 February, at Camp Ripley. Please note that this meeting will be very inexpensive. Two nights accommodation and 5 meals (includes the mixer and banquet) will only cost about \$50.

Registration will begin on the afternoon of the 24th followed by a mixer.

Wednesday and Thursday morning will be devoted to paper and poster presentations. Because of the accommodations we will not have concurrent sessions, so you will not have to be torn between two or three presentations.

The paper/poster session on Wednesday will be followed by a banquet.

LAST CALL FOR PAPERS AND POSTERS

The Annual Meeting will be held February 24-26, 1998, at Camp Ripley. Abstracts for poster and paper sessions are herewithin invited.

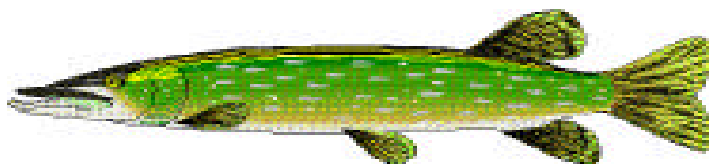
They should be sent to: Bruce Vondracek, Minnesota Cooperative Fish and Wildlife Research Unit, Department of Fisheries and Wildlife, University of Minnesota, 1980 Folwell Avenue, St. Paul, MN 55108-6124, e-mail: bvc@finsandfur.fw.umn.edu

Deadline for receipt of abstracts is December 15, 1997.

Abstracts should be submitted electronically, either mailed on floppy disk or sent via e-mail.

Abstracts, including the author and title lines, are to be no more than 250 words. They can be submitted on a 3.5" floppy disk (preferably formatted for DOS), or by electronic mail to Bruce Vondracek. They must be submitted in ASCII, WORD, or WORDPERFECT format. Include at the top of the file the following information: author to contact, institution, mailing address, phone numbers, e-mail address, who will present paper and if a student or not, and preference for oral or poster presentation.

Persons submitting abstracts will be notified by Bruce Vondracek of their receipt. And additional information will follow. People with questions on abstract submission should contact Bruce Vondracek at 612.624.8748.



There are two ways to become a member: (1) fill out this form and send it in with seven dollars, or (2) join the American Fisheries Society and pay your Minnesota Chapter dues through them (the Chapter gets reimbursed).

1998 Dues Application

1998 Minnesota Chapter dues.....\$7.00 _____
Total Enclosed..... _____

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

Kevin Stauffer
DNR-Fisheries
2115 Birchmont Beach Rd NE
Bemidji, MN 56601

Name: _____
Address: _____

Phone: _____
Fax: _____
e-mail: _____

(important to get newsletter notices)

Are you a member of AFS (parent society)? _____ yes _____ no. Membership Number _____
(AFS membership number is located on your *Fisheries* mailing label)

Affiliation: _____
(DNR, Federal Government, Academic, Tribal, or Private)

Check if you are a Student: _____

Check if you don't want to be in the Chapter Directory: _____

Check if you want to receive a paper copy of the newsletter rather than receiving it electronically: _____

**Continuing Education Preregistration Form
Watershed Restoration Workshop - Jan. 21&22 - St. Paul**

Name: _____
Address: _____

Phone: _____
Fax: _____
e-mail: _____

Send to:
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American Fisheries Society WWW page:
<http://www.esd.ornl.gov/AFS>

North Central Division of the AFS WWW page:
<http://www.fw.umn.edu/ncdafs>

AFS e-mail list:
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 leave the subject blank, with the following text:
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 where *your address* is your internet address

This newsletter is printed on paper that came from a tree, which lived in the forest next to a babbling brook, until a forester thought it had lived long enough so he "sold" it and other living trees to a logger who used a large machine to cut it down and pile it on a truck and who "sold" it to a paper company who chopped it into little pieces and mixed it with water and chemicals and "sold" it to a distributing company who "sold" it to a printing company who "sold" it to the Chapter who mailed it to you. I wonder if you ever feel guilty about killing beautiful trees.

Minnesota Chapter AFS
Attn: Paul Radomski
1601 Minnesota Drive
Brainerd, MN 56401

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Second and Last Call for Papers
Deadline is December 15th.

