



NEWSLETTER

C.V.C.A.
RECEIVED

Fisheries Management Section American Fisheries Society

David K. Whitehurst, President

Volume 6, Number 1

April, 1986

President's Corner

In my last report to you, I promised to have the minutes of our annual business meeting in Sun Valley in the next issue of the Newsletter. The minutes are printed later in this issue, so I will be brief in my remarks. I am sure you will be relieved!

Sections have become very popular within the Society. We now have twelve sections that have been very productive within their respective disciplines of fishery science. Such accomplishments are indeed remarkable since sections have major obstacles to productivity. Sections must address a great diversity of professional interests and problems across a very large geographical area (North America) with small, volunteer staffs. Executive committee meetings are very difficult to arrange, and attendance at these meetings is almost always limited. Business must be conducted via telephone over several time zones and through eight or more active schedules—telephone tag becomes a popular game. Getting the membership involved in section activities is also very difficult when one representative may cover 12 to 15 states and/or provinces.

By now, I am sure you are asking yourself why I am telling you this. Is Whitehurst crying the blues? I must admit that this job can be frustrating at times, but, no, I am not complaining. Our Section has just completed its biennial nominations process under the capable leadership of Ben Jaco. The Nominations Committee has developed a slate of potential officers to guide the Section from 1986-1988. The viability of the Section during this period will, in large measure, be determined by this election process. The positions (president-elect, secretary/treasurer, regional representatives) carry great responsibility, will be time consuming, and require persons with good perspective as to the interests and problems facing the profession and the

membership of the Section. Our leaders must be committed to the objectives of the Section and be able to communicate within the profession.

It is your responsibility to elect those people that will provide leadership for your Section. I urge you to study the candidate's qualifications carefully and participate in the election process by voting. AFS elections have been traditionally characterized by low percentages of participation. Let's make it different for our Section this year - please vote. I want our Mail Ballot Committee to be busy!

I would like to recognize those people who volunteered their valuable time to work with Jaco on the Nominations Committee. They are: Tom Gengerke, Chris Moffitt, Lee Redmond, William Reeves, Richard Snyder, Doug Stange, Rich Wehnes, Vincent Williams, and Dennis Workman. Thanks for a job well done.

The Mail Ballot Committee is being chaired by John Kauffman, and Norville Prosser, Bob DiStefano, and Rich Standage will serve as members. These are the people that we want to be swamped with ballots.

I was really pleased by the responses that I received from the last newsletter. The membership apparently liked the news from the Regional Editors and is interested in a competitive fishing committee and a fisheries management textbook. The Regional Editors did an excellent job in their first edition, and I am sure that they will continue to provide meaningful news. Their task is not an easy one; make it easier by sending them any newsworthy information that you have.

Del Graff, President of the Fisheries Administrators Section, and I have agreed to form a joint Competitive Fishing Committee as recommended in a summarization of our Competitive Fishing Symposium. In fact, this committee is being organized at this

writing (early March). We will soon have a committee to monitor the biological, sociological, and administrative aspects of competitive fishing and to disseminate this information to the Section, the profession, and the user groups.

We are also working with the Educators Section to organize a steering committee to provide guidance for the development of a text on fisheries management. Wayne Hubert and Randy Bailey are spearheading this effort for the Section.

Thank you for your interest and continuing support.

Sincerely,

David K. Whitehurst

Section Business

Minutes of the Business Meeting

As promised in the last newsletter, the minutes of the Fisheries Management Section business meeting appear below. They have been edited due to space limitations (my apologies to Steve Rideout).

Minutes of the Fifth Annual Meeting of the Fisheries Management Section
Sun Valley, Idaho
September 9, 1985

President Dave Whitehurst opened the meeting and determined that a quorum was present. Secretary/Treasurer Al Elser was not present but his report will be published in the November newsletter. The minutes of the 1984 meeting were read, corrected and approved.

Under Old Business, President Whitehurst reviewed the 1984 development of a motion supporting a federal role in fish hatchery production. While the general thrust was supported by the Section, the motion as originally written was not acceptable and a new motion could not be written in time to be offered from the floor. The resolution was submitted to the AFS Committee on Federal Fisheries Responsibilities for inclusion into its report.

President Whitehurst gave an overview of his annual report. Membership is stable (973 in July, 1985) and is now the largest section. To spur new members, Past President Lee Redmond has been active in contacting non-members who attended the FMS/FC Symposium at Lake of the Ozarks. Activities of the various committees of FMS, results of the FC/FMS Symposium and the status of the proceedings were

reported. President Whitehurst acknowledged that the Section was co-host with the Fisheries Administrators Section of the Competitive Fishing Symposium and noted that both the Parent Society and the FMS will contribute \$500 to the Large River Symposium (LARS). At a request for comments from the floor, President-Elect Don Duff gave a brief update on the Riparian Management Committee's efforts to develop standardized stream fisheries/habitat terminology in conjunction with the Western Division.

NAJFM Editor Mercer Patriarche reported that, due to special grants, two special issues of the Journal will be published in 1985. Beginning in 1986 the Journal will go to 600 pages. These efforts and a slight slowdown in submissions will reduce the turn-around time to about 12 months. Mercer noted that the number of submissions from fisheries managers is still below expectations.

President Whitehurst commented on the newsletter and noted that with the Regional Associate Editor format, he is hopeful that managers will submit management "briefs" for inclusion in the newsletter. Dave feels the newsletter can serve to keep people updated while waiting for detailed results to be summarized and published in the Journal or other publications.

Del Graff updated details on the Fisheries Management/Fish Culture Sections jointly sponsored symposium at Lake of the Ozarks. Del specifically mentioned that copies of the abstracts of papers presented are still available.

Under New Business, Randy Bailey noted that the Fisheries Educators Section suggested that they should consider development of a Fisheries Management text in conjunction with the FMS. Randy suggested that Dave appoint an Ad Hoc committee to explore the concept. In a straw vote the section strongly endorsed developing the Ad Hoc committee and pursuing this idea. Randy expressed interest in being involved.

Dave noted that Roy Stein, 1986 program chairman has solicited the Section for developing ideas for programs at the Rhode Island meeting. Dave also indicated that names for officers were needed by the Nominating Committee and he hoped that at least one name from each Division would be forthcoming.

President Whitehurst asked for suggestions from the floor as to issues, events, etc. that the Section should become involved with. Don Duff suggested the Section support the efforts of Don Flescher's Fish Photo Committee and Brian Murphy's Audio-Visuals

Committee as they develop and update their materials. Lee Redmond commented on the high quality of the Stream Habitat slide show developed by Gordon Haugen and his committee. Lee also asked Bob Wiley if there were any further developments on a proposed Recreational Fishing Conference. Bob reviewed past activities and suggested that, for the time being, establishment of a Public Involvement Committee might be appropriate.

Dave noted that the Computer Users Section has offered to serve the other sections, such as FMS, in reviewing and/or developing appropriate computer programs for fisheries managers. Randy Bailey also noted that the Fisheries Educators Section brought up the continuing education "problem" for fisheries professionals. Randy felt the FMS should work with the Educators on this. Executive Director Carl Sullivan suggested the FMS consider development of a Fisheries Management Textbook via a workshop at the annual meeting in Rhode Island next year. Support for this idea came from Tim Modde, President-Elect North Central Division and Stan Moberly, Second Vice-President.

The meeting was adjourned at 4:20 p.m.

Directory Update

Those of you who have needed to contact other professionals across North America know how valuable AFS's Directory of North American Fisheries Scientists has been. We now have received word that the Directory will be revised, updated and published later this year.

Each of the 8,000 persons listed in the current Directory will be contacted for an update of their listing. In addition, another 5,000 additional fisheries scientists who were missed or elected not to be included in the first will be contacted.

The new Directory will contain names, addresses, phone numbers, job titles and disciplinary specialties. The Directory will be cross-referenced by biological specialty, geographical location, and the customary alphabetical listing. A very substantial (at least 50%) discount is planned for listees who place pre-publication orders.

When the update forms arrive, please take the time to fill them out. The Directory is a great way to facilitate communication among those who have similar interests, but it works only if everyone completes and returns their information. And consider ordering a copy...believe me, it's a more efficient way to keep track of colleagues than my drawerful of business cards and slips of paper.

Urban Fishing Symposium Proceedings

We have been getting a number of requests asking if the Urban Fishing Symposium Proceedings are still available. Urban Fisheries Committee Chairman Phil Jeffries tells me that there are still copies available. The document contains state-of-the-art information on managing urban fisheries, as well as several case studies.

For those of you who haven't purchased your copy, send \$25.00 to Sport Fishing Institute, 1010 Massachusetts Avenue NW, Suite 100, Washington, D.C. 20001.

FMS Election

Every year, you folks (or most of you, anyway) send in your \$3.00 for FMS membership, which entitles you to several newsletters, a warm feeling in your heart, and one vote. But some of you (a lot of you) don't use the last one. Make this a year of true representation..

The Nominations Committee headed by Ben Jaco has worked very hard to choose a slate of committed professionals willing to give their all to you and the section. Biographical sketches and a mail ballot are included with this newsletter.

Now it's your turn; vote for the candidate of your choice.

An International Reef Conference?

Our section has been very active in promoting conferences and symposia that are of interest to the many sectors of our members. FMS does encompass marine fisheries management, and to date, we have not been very active in this area. Until now...

Bill Seaman has been active in trying to organize The Fourth International Reef Research Conference for Florida in 1987. Reefs, fish attraction devices, and other methods of fishing habitat enhancement in the seas and freshwater (such as the Great Lakes) are of increasing interest, and Bill estimates that such a conference could involve several hundred attendees. To date, interest has been enthusiastic, but money is an unknown. Bill has been discussing the subject with Sully, the Marine Fisheries Section and Dave Whitehurst, and hopefully will receive some pledges of financial support.

We'll keep you posted on the progress of this conference and our participation in it.

Continuing Education

One of the issues that the parent society is currently studying is continuing education for fisheries scientists. Professionally, this is probably a very important step in maintaining effectiveness, and it no doubt will be a part of the recertification process.

In November's Fisheries Management Section Newsletter, Dave Whitehurst mentioned continuing education in his President's Corner, calling for opinions and comments. Bob Summerfelt (IA) wrote a well thought-out letter expressing his opinions, which I thought should be shared with all members as a way to start a dialog on this subject. The following is a (slightly) edited version of a portion of Bob's Letter.

"Fishery managers typically spend 4 to 7 years obtaining a formal education, but 40 years or more in professional life. Certainly, the commencement exercise is the beginning of one's professional education, not the end of it. 'The real World' teaches the professional the necessities of his daily work and it provides many types of learning experiences. Professors, fishery managers and all other professionals have need to keep up-to-date, which is usually done by reading journals, going back to college, attending professional meetings and workshops, and even by watching TV.

"There are annual short courses on statistics, fish diseases, and special topic workshops, such as Computer Applications in Fisheries Education. What else is needed? What other topics need to be covered on an annual basis? Do managers want courses on the use of microcomputers, aging fish with otoliths, how to do electrophoresis, water quality analysis or describe a fish kill? Do managers want to know how to develop and implement a water level management plan for crappies or walleye on a large, multipurpose reservoir? The list of topics is endless, and some topics may be too limited in scope.

"May I suggest that you ask fishery managers for input on the kinds of topics, format and timing for continuing educational activities? Would they like to see annual workshops established by different institutions, such as the types set up by Colorado State, North Carolina State and Mississippi State?

"Is there a need for a speakers' bureau? It might be nothing more than a list of topics and persons who could lead a workshop on a topic. Most professionals are willing and even pleased to take time for travel to give lectures on subjects in

their areas of expertise if someone will pay the fare. Should sections or state chapters do more to organize continuing education activities in conjunction with annual regional or national meetings, or at fisheries meetings in each state?"

Members, what do you think? If continuing education becomes an integral part of professional recertification, then we need to insure that such education fills our needs. Let Dave Whitehurst (Virginia Commission of Game and Inland Fisheries, 209 East Cleveland Avenue, Vinton, VA 24179) know your opinions, both on continuing education, and FMS's role in it.

News From The Regions Canada

Chris Brousseau, Canadian Regional Editor
Ontario Ministry of Natural Resources
Box 3000
Cochrane, Ontario P0L 1C0
705/272-7038

Walleye and Sauger Bibliography

An annotated bibliography on walleye Stizostedion vitreum and sauger, Stizostedion canadense, is being compiled under a cooperative project by the Minnesota Department of Natural Resources and the Ontario Ministry of Natural Resources. Vast amounts of data have been compiled on the two species; unfortunately the results of many studies are unpublished or published in a format which receives only limited distribution. So that this bibliography may be as complete as possible the authors are requesting reprints of any papers (published or unpublished) dealing with research on walleye and sauger. Send your material to: Mark Ebbers (Minnesota Department of Natural Resources, Ecological Services, 500 Lafayette Road, St. Paul, MN 55146) or to Peter J. Colby (Research Scientist, Fisheries Research Section, Walleye Unit, P. O. Box 5000, 435 James Street South, Thunder Bay, Ontario P7C 5G6; 807/475-1636).

Ontario Volunteer Program

In last issue of the FMS Newsletter, Chuck Willis provided us with a review of volunteer programs and their value to fisheries management in several States. Ontario has also got on the volunteer bandwagon with the development of the Community Fisheries Involvement Program (CFIP). The purpose of CFIP is to encourage members of the public throughout Ontario to actively participate with government staff in fisheries management projects designed to directly benefit the fisheries resource. Under the program, fishing clubs, community asso-

ciations, schools, municipalities, or anyone interested in helping can apply for CFIP funds. The funds go toward costs of materials such as incubation boxes, gabion baskets, fencing material, etc., while all labour is voluntary. In the first three years of the program, 169 projects were funded for a total cost of around \$500,000. Over 130 different organizations comprised of more than 3,700 volunteers were involved in various projects such as rehabilitation, fish culture, fish transfers, lake reclamation and education.

The benefits of the program include: 1. the maintenance and enhancement of the fisheries resource and a general improvement of Ontario's aquatic environment; 2. the promotion of stewardship towards the fisheries resource; 3. improved communications between government and the public; 4. acquisition of new knowledge by the participants; and 5. increased fishing opportunities for the general public.

A description of each project, its benefits and estimated cost are required to determine eligibility. Approval is based on a four criteria: 1. the project must improve the fisheries resource; 2. the project must fit into the ministry's fisheries management strategies; 3. all labour must be voluntary; and 4. the project must be a public rather than a private benefit.

Ontario has also prepared volunteer crests and certificates based on the number of hours worked.

In times of financial and manpower constraints, volunteer programs are one way in which we can more effectively manage the fisheries resource. For a pamphlet or more information on Ontario's CFIP Program, contact Jerry Smitka (Ontario Ministry of Natural Resources, P. O. Box 50, Maple, Ontario L0J 1E0; 416/832-2761).

Ontario Fisheries Management Planning

In August, 1985, the Ministry of Natural Resources Minister, Vince Kerrio, announced formal fisheries management planning in Ontario. When completed, these plans will establish the future direction of fisheries management in the province. They will identify both long-term management goals and short-term actions needed to meet those goals within each M.N.R. district.

Fisheries management planning is a natural follow-up to the District Land Use Guidelines which the ministry adopted in 1983. The guidelines identified targets for the management of fisheries and other resources and provided a basis for making resource allocation decisions. Fisheries Manage-

ment Plans will establish how the fisheries targets will be met and how resources will be allocated.

The plans will provide management directions until the year 2000. In addition to this long-term direction, implementation schedules will be developed to describe specifically how fisheries will be managed for five year periods. Plans will be prepared for each of the ministry's 47 districts. However, in 1985-1986 plans are being prepared for 8 "Lead" districts only - Fort Frances, Thunder Bay, Kirkland Lake, Espanola, Minden, Tweed, Niagara and Owen Sound. Planning for the remaining 39 districts will be carried out in 1986-87.

Plans will also be prepared for each of the Great Lakes. Planning for Lake Superior and Huron will begin in 1985-1986, that for lakes Erie and Ontario in 1986-1987.

The Ministry is stressing the importance of public participation throughout the planning process. Opportunities for participation will be provided through open houses with local ministry staff. The first major opportunity for public involvement will occur once Ministry staff in each lead district compiles background information, identifies problems, and develops optional strategies for management. A summary of this information will be distributed widely and comments will be invited.

Following public input on these issues, district staff will prepare a draft fisheries management plan. This plan will identify proposed management strategies including, tentative resource allocations. These will also be reviewed and finalized with public participation.

This is a major exercise which is extremely important in times of economic constraints as it allows a focusing and prioritization of management efforts to improve the fisheries resource. For more information contact any of the Ministry district offices outlined above.

South

Tim Cross, Southern Regional Editor
Turcotte Research Lab
Route 3, Box 70
Canton, Mississippi 39046
601/859-3421

Sooner Saugeye

Thunderbird Reservoir is an impoundment of 6,700 acres located near Norman, Oklahoma. The reservoir is very turbid as a result of suspended clay particles; however, it receives a high rate of nutrient loading, which makes it a productive lake.

Greg Summers, (Director, Oklahoma Fishery Research Laboratory, OK Dept. Wildlife Conservation, 1416 Flauk Street, Norman, OK 73069; 405/325-7288) says the lake contains abundant forage (silverside and shad) and suitable walleye habitat. But attempts by the ODWC over a decade ago to establish walleyes in Thunderbird Reservoir were not successful.

Investigations by Ohio and Tennessee have revealed that the "saugeye" (walleye x sauger hybrid) is an aggressive predator with a fast growth rate. Those credentials made the saugeye a logical choice for a put, grow and take fishery in Thunderbird Reservoir. The ODWC stocked 100,000 fingerling (1 1/2" - 1 3/4") saugeye in the Reservoir in the spring of 1985 and within five months, the fish had grown to 12 inches. They are anxiously anticipating the future fishery.

Deep South Walleye

Walleye are native to a number of streams in southern states. The fishery for them is limited in most cases because of low population densities and/or the public's lack of knowledge of walleye. In past years, the genetic strain used to reestablish the species throughout its former range and for supplemental stocking purposes have been a transplanted northern strain. In the spring of 1985, Ron Garavelli (Mississippi Department of Wildlife Conservation, P.O. Box 451, Jackson, MS 39205; 601/961-5341) initiated a program to propagate "southern strain" walleye and stock them in the Tombigbee River as well as introduce them in Kemper County Lake (a new 800 acre spring-fed lake located in Eastern Mississippi).

Creeling the Big Water

Dr. Skip Lazauski (Marine Resources Division, Alabama Dept. of Conservation, P. O. Box 189, Dauphin Island, AL 36528; 205/861-2882) is excited about the marine recreational creel survey which his agency has initiated. The survey consists of 6 components: 1) a survey of boat fishermen fishing the inside (non-gulf) marine waters, 2) a survey of bank fishermen fishing the inside waters, 3) a survey of pier fishermen, 4) a boat ramp/marina survey, 5) a post-card survey of fishermen residing on marine waters, and 6) a charterboat survey in which 10% of the charterboats keep logs. Socio-economic data are collected in addition to catch statistics.

The marine survey, which commenced October 1, 1984, is scheduled for 3 years of intense data collecting with plans to continue indefinitely into the future at a reduced level of sampling effort. Skip says that preliminary results look good. One of

the reasons for his success is the quick turnaround time from data collection to the analysis and reporting of results. Creel clerks enter data into microcomputers when they get out of the field and the data is uploaded to the Auburn University mainframe for analysis.

Kentucky Toothpatch Size Limit

The Kentucky Department of Fish and Game has recently implemented a fisheries management plan designed to improve the quality of the bass fishing in Cave Run Lake. Cave Run Lake is a 8,300 acre Corps of Engineers impoundment located in Northeast Kentucky. The lake supports populations of Kentucky spotted bass (*M. punctulatus*), smallmouth bass (*M. dolomieu*), and largemouth bass (*M. salmoides*), with spotted bass comprising 40-60% of the *Micropterus* population. Smallmouth and largemouth are preferred over spotted bass because of the slower growth rate and smaller size of the spotted bass (majority less than 12 inches) relative to its cousins.

The traditional minimum size limit on bass (a technique commonly used to increase the number of quality size of bass), in essence protects spotted bass and focuses fishing effort on the larger species of *Micropterus*. In an effort to protect smallmouth and largemouth bass stocks while increasing exploitation of the spotted bass, the Kentucky Department of Fish and Game implemented a "tooth-patch size limit" in 1985 under the direction of project leader Jerry Buynak (Kentucky Department of Fish and Wildlife, Frankfort, KY 40601; 502/564-5448). The toothpatch size limit works like this: If you do not feel a toothpatch on the tongue of a bass - the fish is probably a smallmouth or a largemouth and it must be a minimum of 15 inches to keep it. If you feel a toothpatch on the tongue (Kentucky spotted bass) you can keep the fish regardless of length. In addition to the toothpatch size limit, Cave Run Lake receives supplemental stockings of smallmouth bass.

According to Pete Pfeiffer, Director of Fisheries, the program has gone over well with the public largely as a result of some good PR work. In addition to public hearings, freeze dried head mounts of bass were displayed at bait shops and other locations where fishermen congregate.

Florida

Pete Southall, a fisheries biologist with the Florida Game and Fish Commission (Route 7, Box 440, Lake City, FL 32055; 904/752-0353) is evaluating electroshocking data in relation to standard 1 acre block-off rotenone studies. Rotenone studies

are widely used by management biologists throughout the Southeast to evaluate fish populations. Due to the number of manhours required to do a rotenone study on a large area and physical limitations imposed by vegetation and water temperature, a less restrictive method of fish sampling is often the only option available. Many fisheries managers have large amounts of historical data collected by rotenone studies; therefore, some kind of common denominator is needed to interpret trends occurring across both electrofishing and rotenone studies. Pete has designed a project whereby rotenone study sites are electrofished prior to the application of rotenone. He is evaluating electrofishing results in various vegetation and habitat types and looking at seasonal changes.

Genetic Fish Tag

In an effort to evaluate the impact of stocking largemouth bass fingerlings on top of existing populations in lakes Mississippi researchers are using genetic markers. As a result of electrophoretic analysis on largemouth bass, Craig Busack (Dept. of Biology, University of Mississippi, University, MS 38677; 601/232-7495) is able to identify Florida strain largemouth bass stocked by the Mississippi Department of Wildlife Conservation. By looking at the ratio of Florida strain bass to native bass over a period of years, Mississippi Department of Wildlife Conservation biologist C.A. Schultz (P. O. Box 137, Aberdeen, MS 39730; 601/256-4087) is expecting to obtain valuable information on the impact of supplemental bass stockings.

Cooperative Chesapeake Bay Striper Program

The USFWS, Maryland Department of Natural Resources, Baltimore Gas and Electric, and the State of Virginia have entered into a highly significant cooperative fisheries management program with the long term goal of restoring striped bass stocks to maximum self-sustainability. They plan to achieve this by placing substantial numbers of adult fish back on the Chesapeake Bay spawning grounds. Basically, this is being attempted through the combination of an aggressive stocking program and protecting the fish with restrictive regulations. The short term goals of the program are: 1. To determine the percent of stocked fish versus naturally produced fish. 2. To determine the migratory patterns and growth of stocked fish versus wild fish.

This program is a result of a mandate from the U.S. Congress to restore nationally significant interjurisdictional fisheries and is setting the stage for large scale restoration work. Agencies

and states using federally produced fish in restoration work must be able to take responsibility in the assessment and documentation of the impacts resulting from such fish stockings. Propagation and stocking of striped bass in the Chesapeake Bay will be done concurrent with joint actions to correct environmental factors and to reduce the exploitation rates through substantial reduction in historical harvest levels.

More details on this program have been promised by Charles Wooley, Chesapeake Bay Fisheries Coordinator, (C-2, Tawes State Office Building, Annapolis, MD 21401; 301/269-2241), and will be forthcoming in future FMS newsletter editions.

North Central

Mike Vanderford, North Central Regional Editor
Federal Aid Office
U.S. Fish and Wildlife Service
660 Federal Building
Ft. Snelling, Minnesota 55111
612/725-3596

The 18th Mississippi River Research Consortium will occur May 1-2, 1986, at the Radisson Hotel, LaCrosse, Wisconsin. The MRRC is a loose coalition of state, federal, and academic biologists and engineers who share research and management interests in the River from Minnesota to Mississippi. The MRRC shares interests with and complements the efforts of the Upper Mississippi River Conservation Committee (UMRCC) which met in March in Hannibal, Missouri. Contact Karen Curtis, USFWS, P.O. Box 2226, LaCrosse, WI 54601; 608/783-6451.

Michigan

Bill Bullen (Dist. Fish. Biologist, Michigan DNR, P. O. Box 495, Escanabe, MI 49829; 906/786-2351) has quite a reputation as an innovator in the "Upper Peninsula". He has recently bolstered that reputation by going back to old methods of fish population control; that is, trap netting and removing "undesirables". "The locals originally pushed for the trap netting of suckers and stunted perch," Bill recalls. "But I told them it wouldn't work. I finally decided to do it once, just to show them it wouldn't work. Boy! Did I show them!"

What Bill showed was that he could remove a major portion of the suckers and little perch from his Boreal lakes by using fyke net sets (1/2" mesh) at ice out before spawning. Using 3 2-person crews for the first 2 days, and fewer crews for a few more days suckers and perch have declined to "endangered" status in most lakes. In some lakes a second year's netting is required.

Due to abundant spawning areas on the perimeter of these lakes, overpopulation of northern pike is also a problem. Again at the encouragement of locals, Bill tried gill netting under the ice to reduce the undesirable population. This has also proven successful.

"The input and help of the locals has really made this approach work," Bill says. "They don't like us to put those 'poisons' (Rotenone and antimycin) into their lakes, and they are very willing to help in the long-term retreatments. I wouldn't have given manual manipulation any chance of working a few years back, but now I'm a real believer. It's a terrific tool for making the most of our limited budgets. It's much cheaper than chemical treatment." Asked about effectiveness on other undesirables, Bill responded "Unfortunately this doesn't seem to work well on carp."

Bill's innovations have also gone into communications within the DNR and with the anglers within his district. First, he has been putting out his own quarterly angler newsletter, written in layman language. The newsletter lets a lot of locals know what's going on and translates into a lot of support, both moral and physical. The central office in Lansing prints it and Bill sends it out bulk rate. Bill has mailing costs incorporated into his District budget.

Secondly, Bill has written up a Fisheries Management Plan for the waters of his 3-county district. This was done mainly on his own initiative to set priorities and help explain his management decisions in the face of a shrinking DNR budget. "What's surprised me is how well the plans have helped in explaining our actions to the local fishermen," Bill says. "When they want to know why we're not stocking their lake with walleye, I send them a copy of the district plan. They still don't like the fact that their lake isn't being stocked, but they can see why it isn't, and they don't complain anymore."

Mississippi River

Very few, if any, ever dreamed that enough money would be available to actually manage the Mississippi River for the good of fish and wildlife. It's too big. There are too many "higher priority" uses. Congress would never provide that much money for fins and feathers.

Well, the impossible may be on the verge of reality. The 1985 Supplemental Appropriations Bill (P.L. 99-88), signed into law by President Reagan on August 15, 1985, provides funds to initiate construction of a critical second lock near Saint Louis while

stipulating that equal dollars are to fund a LARGE SCALE Environmental Management Program. Whatever is to be spent on the river lock is to be spent on fish and wildlife management work.

The U. S. Army Corps of Engineers anticipates receiving up to \$250 million for the environmental resource management, according to Jerry Rasmussen, Coordinator for the Upper Mississippi River Conservation Committee, 1830 2nd Avenue, Rock Island, IL 61201 (309/793-5800). Cost sharing funds for the management work will be transferred to the fish and wildlife agencies of Minnesota, Wisconsin, Iowa, Illinois and Missouri, as well as the Fish and Wildlife Service.

Actual work to be undertaken was laid out in a cooperatively developed "Master Plan" developed several years ago in anticipation of funding with the lock construction. Included is substantial amounts of habitat rehabilitation and enhancement (HREP), resource inventory and evaluation (CIA/GIS), and long term monitoring of river development impacts (LIRMP).

Field biologists and conservation administrators all along the river are crossing their fingers that this big fish doesn't get away.

Indiana

The Indiana State Board of Health (317/633-0719) has taken some positive action to help anglers deal with fish contaminant concerns. A brief brochure (8 1/2" x 14" sheet folded to 3 1/2" x 8 1/2") titled "Preparing and Eating Fish Caught in Indiana Waters" provides basic contaminant information on Lake Michigan sport fish and several problem streams. Perhaps the best part, however, is the series of 8 photos and captions showing how to fillet a fish to eliminate the most contaminated body parts. The brochure emphasizes that removing skin, fat and draining away cooking oils and juices will eliminate most of the PCB's and pesticide contamination problems.

Tom Lauer, Staff Fisheries Specialist, Indiana DNR, 607 State Office Building, Indianapolis, IN 46204 (317/232-4093) says the brochures are widely distributed near Lake Michigan. The DNR's recent success in establishing summer-run skamania steelhead in Lake Michigan tributaries has made the contaminant problem more of an issue to Hoosier anglers. When the Saint Joseph River restoration project is completed (under a joint IN/ML/FWS effort), the steelhead runs past South Bend and Mishawaka will make the brochure a best seller in northern Indiana.

Items of Interest

New Fish Taxidermy Method

The Fish Culture Section Newsletter recently ran a story about a new fish taxidermy method that according to claims, may revolutionize our ideas of catch-and-release fishing. A Conroe, Texas firm claims to be able to produce a custom replica mount of a bass or any other game fish with nothing more tangible than a photo, weight and measurements to go by.

Dan Edwards, marketing vice-president of Catch & Release Custom Mounts Inc., recently displayed a group of mounts for a group of biologists who agreed the acrylic plastic fish could not be distinguished from mounts using the fish's original parts.

The mounts have a texture and finish that closely duplicate the scaled skin of a bass, Edwards said, and the translucence of the material makes fins and membranes of the mouth even more realistic than those on actual mounted fish.

The material also lends itself well to air-brushing, which blends colors into a lifelike pattern.

"This method allows a fisherman to catch a trophy fish, snap a quick picture, measure it and then release it in a matter of minutes," Edwards said.

Phil Durocher, inland fisheries management coordinator for the Texas Parks and Wildlife Department, said his agency is not in a position to recommend one taxidermist over another, but he sees the replica concept as a positive one for fishery conservation. "I don't see how you could have a better situation," Durocher asserted. "You get the thrill of catching a big fish, have the enjoyment of a trophy later, and you don't even have to kill the fish to do it."

For more information, Edwards may be contacted at 409/760-2645.

American Shad Restoration

We have heard of a number of fish restoration success stories recently. Now the Pennsylvania Fish Commission is trying to add a Susquehanna Shad run to the list.

American Shad were once abundant in the Susquehanna River and tributaries, when dam construction in the lower river disrupted the upstream migration of adult spawning shad. Through the efficiency of new and/or improved fishways at these dams, an upstream

pathway was established, but it remained for a restocking effort of fish to ensure the reestablishment of the fish, since no fish were presently imprinted to return to this river system.

Through the efforts of the Van Dyke Research Station for Anadromous Fishes, juvenile fishes were chemically imprinted before released to improve their chances for returning as adults. Eggs were obtained from a number of sources and reared to a juvenile stage (7 to 59 days old). Over 12 million of the fish were ultimately released. Whether the fish will find the existing habitat of the Susquehanna River system suitable should be determined relatively soon. But any large scale recovery of the fish will hinge on whether the fish passage devices on the downstream dams are also suitable.

I'm sure that Pennsylvania Fish Commission personnel will be holding their breath until the stocked fish reach sexual maturity and begin their own spawning run...

Striped Marlin Tagging

In a clear case of anglers helping to further the frontiers of science, Southern California anglers continue to help the National Marine Fisheries Service in a study of the migration and distribution of striped marlin. The study began in 1963, utilizing the ability of fish boat captains and anglers to catch marlin. Fish that were caught and released were tagged and vital statistics taken.

This is not the first time marine scientists have enlisted the aid of anglers to gather fisheries data. Marine game fish anglers have tagged and released billfish in many areas of the Pacific. The National Marine Fisheries Service has been responsible for an extensive tagging effort off Australia to map the migration of black marlin, and for tagging billfish and mako sharks off New Zealand in cooperation with the New Zealand Ministry of Agriculture and Fisheries.

Information to date indicates that these fish are no homebodies. The longest migration was recorded by a black marlin that was tagged off Baja California and recovered 18 months later near New Zealand (that's 5,700 miles as the crow flies, assuming crows can navigate oceans and don't tire). Another gadabout is a striped marlin which traveled from California to an area west of Hawaii in three months, a straight line distance of 3,120 miles.

These fishes are certainly not susceptible to standard fish sampling gear. Were it not for

interested angler and fish boat captains, our knowledge of these billfish would not be as complete.

It's the PITs

Computers are everywhere; will they never cease to find new ways of using them? According to a recent article in the Sport Fishing Institute's Bulletin, computers are now being used to mark individual fish in a very unique way. Taking advantage of the latest in computer technology, scientists are experimenting with implanting computer chips (passive integrated transponders, or PIT tags, for short) in young fish.

The PITs are wrapped in miniature antennae which transmit signals identifying each fish individually. As fish migrate through fish ladders and fishways built to circumvent dams, automated receivers will pick up the signals and record data on every fish tagged with a computer PIT.

Like binary wires, PIT tags have the advantage that their small size permits implanting into small fish, yet go beyond in that you apparently do not need to capture a fish to determine if it contains the tag, and they permit keeping track of individual fish.

SFI calls this the ultimate in portable computers. Again, we could be on the threshold of a new technological revolution in fish data gathering. Can it really be so far in the future that a fish can swim by a fish ladder, weir, or sonar transducer and not only signal his presence, but also give his age, sex, size, weight, health record, distance and whether it will succumb to natural or fishing mortality in the next year?

Publications of Interest

River Restoration

The Restoration of Rivers and Streams by James A. Gore represents the theory and experience of managers who have attempted to establish criteria and standards for a great variety of restoration projects. While not a comprehensive work, the book does cover theories, experience and techniques that have proven to be of good use in enhancing the recovery of damaged streams.

Restoration presents a review of some previous efforts and provides a selection of restoration ideas and alternatives to the stream manager. Using case histories and specific techniques, the book looks at historical practices and successes, reviews new or additional techniques, questions whether new

techniques are more successful than "old stand-bys", and pursues how all of these can be integrated into an overall recovery enhancement project. Chapters cover water quality, the use of meander parameters in restoring hydrologic balance, riparian revegetation, habitat enhancement for benthic macroinvertebrates, fish habitat enhancement, methods for determining successful stream reclamation and three case studies (Eastern U.S. strip mine reclamation, Canadian mountain streams and a Colorado urban stream). This authoritative volume is sure to become a reference for biologists, hydrologists, engineers and other stream managers.

Restoration carries a \$39.95 price tag, and is available from Butterworth Publishers, 80 Montvale Avenue, Stoneham, MA 02180. Ask for ISBN 0-250-40505-9.

Wild Trout III

Wild Trout III is the result of a symposium of the same name held at Yellowstone National Park in 1984. Sponsored by the Federation of Fly Fishers, Trout Unlimited, U.S. Fish and Wildlife Service, U.S. Department of Agriculture, U.S. Department of the Interior and the U.S. Forest Service, this third in a series of symposia held at 5 year intervals is the latest word in wild trout management. Wild Trout III contains a diverse number of research, management, development and socioeconomic topics. Harvest regulations, stocking programs and habitat protection and improvement topics as well as discussion on stream flow regulations, acid rain and sediment effects make this publication very worthwhile for anyone interested in coldwater stream management. Copies of Wild Trout III may be obtained for \$5.00 each from Trout Unlimited, P. O. Box 1944, Washington, D.C. 20013. Copies of Wild Trout I (1975, \$3.00) and Wild Trout II (1980, \$5.00) are also available. A set of all three volumes is available for \$10.00.

Marine Recreational Fisheries

Marine Recreational Fisheries, edited by Richard H. Stroud, is the proceedings of the Ninth Annual Marine Recreational Fisheries Symposium held in Virginia Beach, Virginia, in 1984. Subtitled Marine Recreational Fisheries Development, the book is a compilation of 27 papers and 6 panel discussions organized into 6 major sections. While few original research or data appear in this publication, it is valuable in providing a general perspective on marine recreational fisheries development. Included are papers that discuss the benefits and problems of development, the marine recreational fisheries

industry, the needs of the marine angler, the potential for expanded utilization of fisheries resources, and fisheries management as it relates to marine recreational fisheries development. The final section of the book is the panel chairman's recommendations for future development actions. The volume is available for \$15.00 from the National Coalition for Marine Conservation, Inc., Savannah, Georgia.

Western Water Rights

Troubled Waters: Financing Water in the West by Rodney T. Smith is a recent publication of the Council of State Planning Agencies. Troubled Waters shows how the challenge to preserve and improve the nation's water systems can be met. The author describes the current legal and institutional framework of water investment in the West, discusses the variety of financial mechanisms available for implementing water use programs, and discusses ways in which state and local governments can get involved. While definitely not a biological publication, it may help those of you involved in water use negotiations get into the minds of those you negotiate with. Troubled Waters is available for \$17.95 plus \$2.50 postage and handling, from Publications Department, Council of State Planning Agencies, Room 291, 400 North Capitol Street, Washington, D.C. 20001.

April 27-30, 1986. **Annual Meeting of the Northeastern Division of AFS.** Hershey Convention Center, Hershey, Pennsylvania. For more information, contact Vince Mudrak, R.D. #1, Box 203, Centre Hall, PA 16823; 814/355-4837.

May 12-16, 1986. **First National Symposium on Social Science in Resource Management.** Oregon State University, Corvallis, Oregon. For more information, contact Donald R. Field, NPS Cooperative Park Studies Unit, College of Forestry, Oregon State University, Corvallis, OR 97331.

May 18-24, 1986. **10th Annual Larval Fish Conference of the Early Life History Section of AFS.** University of Miami, Coral Gables, Florida. For more information, contact William Richards, 75 Virginia Beach Drive, Miami, FL 33149.

May 25-31, 1986. **First Asian Fisheries Forum.** For more information, contact the Chairman, Asian Fisheries Forum, MCC P.O. Box 1501, Makati, Metro Manila, Philippines.

May 27-30, 1986. **Symposium on Selection, Hybridization and Genetic Engineering in Aquaculture of Fish and Shellfish for Consumption and Stocking.** France. For more information, contact A.G. Coche, EIFAC Technical Secretary, FAO/FIRI-F235, Via delle Terme di Caracalla, I-00100 Rome, Italy.

June 17-20, 1986. **Conference on East Coast Fisheries Law and Policy.** Portland, Maine. A multidisciplinary conference for lawyers, members of the fishing industry, state and federal government representatives and other interested individuals. The conference will focus on the future direction of east coast fisheries law and policy with particular reference to Georges Bank and the Gulf of Maine. For more information, contact Bruce Shibles, Marine Law Institute, 246 Deering Avenue, Portland, ME 04102; 207/780-4474.

July 21-23, 1986. **Annual Meeting of the Western Division of AFS.** Hilton Hotel, Portland, Oregon. For more information, contact Donald M. Martin, Route 1, Box 84, Star, ID 83669; 208/334-1450.

August 4-10, 1986. **Trout Unlimited Annual Meeting.** Vance Tye Motel, Olympia/Tunwater, Washington. For more information, contact Robert Herbst, Executive Director, Trout Unlimited, 501 Church Street, NE, Vienna, VA 22180; 703/281-1100.

August 10-15, 1986. **International Conference on Fisheries and Economic Development.** University of Quebec, Rimouski, Quebec, Canada. For more information, contact Pandelis Vlahopoulos, Marine Resources Study Group, University of Quebec, 300 Ave., Ursulines, Rimouski, PQ G5L 3A1, Canada; 418/724-1576.

August 11-14, 1986. **Fifth Trout Stream Habitat Improvement Workshop.** Lock Haven University, Lock Haven, Pennsylvania. For more information, contact Jack G. Miller, Pennsylvania Fish Commission, 450 Robinson Lane, Bellefonte, PA 16823-9616; 814/359-5140.

September 14-18, 1986. **The 116th Annual Meeting of AFS.** Biltmore Plaza, Providence, Rhode Island. For more information regarding sessions and programs, contact Roy A. Stein, Department of Zoology, 1735 Neil Avenue, Columbus, Ohio 43210; 614/422-7826.

September 14-16, 1986. **National Boating Facilities Conference.** Detroit, Michigan. This conference is the first of its kind. An outgrowth of the Wallop-Breaux program, conference attendees will be able to share specifications and research on

boating facilities as well as discuss utilizing motorboat fuel taxes and other funding sources to match federal monies. For more information, contact The National Marine Manufacturers Association, 2550 M Street NW, #425, Washington, D.C. 20037; 202/296-4588.

September 14-21, 1986. **International Large River Symposium.** Delwana Inn, Toronto, Ontario. Participation is by invitation, only. For more information, contact Doug Dodge, c/o Fisheries Branch, Ontario Ministry of Natural Resources, 99 Wellesley Street, West, Toronto, Ontario, CANADA M7A 1W3; 416/965-7887.

October 20-22, 1986. **International Rockfish Symposium.** Anchorage, Alaska. For more information, contact Brenda Melteff, University of Alaska Sea Grant Program, 590 University Avenue, Suite 102, Fairbanks, Alaska 99701.

October 21-24, 1986. **Thirteenth Annual Natural Areas Conference.** Trout Lodge Conference Center, Potosi, Missouri. For more information, write Natural Areas Conference, P.O. Box 180, Jefferson City, MO 65102.

November 5-8, 1986. **Land and Reservoir Management: Influences of Nonpoint Source Pollutants and Acid Precipitation.** Thunderbird Inn, Portland, Oregon. For more information, contact Spencer A. Peterson, U.S. EPA, Corvallis Environmental Research Laboratory, 200 SW 35th Street, Corvallis, OR 97333; 503/757-4605.

November 9-14, 1986. **Twenty-second Annual American Water Resources Association Conference.** Marriott Marquis Hotel, Atlanta, Georgia. For more information, contact Phillip E. Greeson, U.S. Geological Survey, 75 Spring Street, S.W., Suite 772, Atlanta, GA 30303; 404/221-5174.

December 7-10, 1986. **Forty-eighth Midwest Fish and Wildlife Conference.** Red Lion Inn, Omaha, Nebraska. Under the conference theme "Agriculture Today and Tomorrow: Impacts on Fish and Wildlife", the program committee is trying to develop sessions dealing with sandhill cranes, wetlands, urban wildlife, non-game threatened/endangered fish species, instream flow, ecology and management of yellow perch and walleye, and zooplankton ecology. A symposium, "The Missouri River - The Resources, Their Uses and Values" will be one of the highlights. Abstracts are due before July 1, 1986. For more information, contact Harold Edwards, P.O. Box 4558, Lincoln, NE 68504; 402/464-0641.

Editor's Corner

It's hard for me to believe that the over 200 FMS members from the Northeast Region have chronic writers cramp or broken hands. I still need an editor from the Northeast....

CANDIDATES FOR FISHERIES MANAGEMENT SECTION OFFICES

For President-Elect

JAMES T. ADDIS

Mr. Addis is currently Director of the Bureau of Fish Management for the Wisconsin Department of Natural Resources. He received both his B.S. and M.S. degrees from Ohio State University, and has held positions with the Ohio Division of Natural Resources, the Ohio State University Institute of Natural Resources, and the Department of Zoology at Ohio State. Mr. Addis has been a member of AFS since 1966, and has served as Chair of the Environmental Concerns Committee, the Native Peoples Fisheries Committee, the Award of Excellence Committee, the Federal Role in Fisheries committee, the Equal Opportunity Committee, and others. He is active in the Great Lakes Fisheries Commission.

GERALD BARNHART

Mr. Barnhart is Supervisor of the Great Lakes Fisheries Section in the New York State Bureau of Fisheries. He holds an Associate Degree in Forestry from Paul Smith's College and a B.S. in Fishery Science from Cornell University. Mr. Barnhart has held positions with Ichthyological Associates and Radiation Management Corporation prior to joining New York State Bureau of Fisheries in 1979 as a Regional Biologist, and subsequently as Coldwater Fisheries Management and Development Unit Leader. An AFS member since 1975, he is immediate Past-President of the New York Chapter, member of the Northeast Division Nominating Committee, and a member of AFS's Membership Concerns and ad hoc Manual for Local Arrangements Committees. Past AFS assignments include co-chairman and proceedings

editor of the 1981 Northeast Division's Coldwater Workshop, and a member of several steering committees for Northeast Division workshops.

For Secretary/Treasurer

DON BONNEAU

Mr. Bonneau is currently Supervisor of Fisheries Research for the Iowa Conservation Commission. He received a B.S. degree in Zoology from Fort Hays Kansas State University in 1968 and an M.S. degree in Biology from Kansas State University in 1970. Following graduation, Don worked as a District Fisheries Manager and as Supervisor of Fisheries Management for the Iowa Conservation Commission prior to assuming his current position. Mr. Bonneau has been active in a number of AFS chapter and division affairs.

STEVEN SERNS

Mr. Serns is a Fish Research Biologist with the Wisconsin Department of Natural Resources. He received his B.S. and M.S. degrees in Fisheries Science from Texas A & M University. Following graduation in 1972, Mr. Serns began his association with the Wisconsin DNR as an aquatic biologist/limnologist and worked as a fish management biologist before assuming his current position. Mr. Serns has served as Associate Editor of the North American Journal of Fisheries Management, as a member of AFS's Time and Place Resolution, Membership Concerns and Publications Award Committees, FMS's Nominating Committee, and Wisconsin Chapter's Nominating Committee. He is currently co-chairman of the North Central Division's Walleye Technical Committee. He is a Certified Fisheries Scientist.

Division Representatives

For Northeastern Division Representative

RICKALON HOOPES

Mr. Hoopes is Warmwater Unit Leader for the Pennsylvania Fish Commission. He received his B.S. degree from Indiana University of Pennsylvania and his M.S. degree from Pennsylvania State University. Mr. Hoopes worked as a fisheries biologist, managing the Pennsylvania Fish Commission's Wilderness Trout Streams program prior to serving in his current position. He is active in the American Fisheries Society and the Central Pennsylvania Chapter, and is a Certified Fisheries Scientist.

For Southern Division Representative

MARTY HALE

Mr. Hale is a Biological Scientist Supervisor with the Florida Game and Freshwater Fish Commission. After receiving his B.S. and M.S. degrees in Fisheries Management from Auburn University, he worked as a Biological Scientist prior to assuming his current position. Mr. Hale is an active AFS member, serving as President and Secretary/Treasurer of the Florida Chapter, member of the Nominating and Executive Committee of the Southern Division and has served on AFS's Commercial Advertisement Committee. Mr. Hale is a Certified Fisheries Scientist.

WILLIAM M. SEAWELL

Mr. Seawell is Program Manager, Fisheries Resource Enhancement with the Tennessee Valley Authority in Knoxville, Tennessee. After receiving a B.S. degree in Wildlife Management from Texas A & M University and an M.S. degree in Fisheries Management from the University of Arizona, Mr. Seawell began work as a district fisheries biologist with the Tennessee Game and Fish Commission. He joined TVA as a field biologist, and later served as field supervisor of appropriated fishery programs in the eastern region prior to serving in his current position. Mr. Seawell has served as member and president of the Southern Division's Reservoir Committee. He also served as the Division's Mail Ballot Committee chairman, and is an active member of the Tennessee Chapter, FMS, and Fisheries Administrators Section. Mr. Seawell is a Certified Fisheries Scientist.

For North Central Division Representative

CHARLES SCALET

Dr. Scalet is Professor in the Department of Wildlife and Fisheries Sciences of South Dakota State University. Dr. Scalet received his B.A. and M.S. degrees at Southern Illinois University and his PhD from the University of Oklahoma. Following graduation, he held teaching duties at Central State University, Edmond, Oklahoma, and Iowa State University. Dr. Scalet has held numerous AFS positions. He has been a member of the Professionalism, Publications Overview, Progressive Fish-Culturist Editor Search, Award of Excellence, Fisheries Educators Section Nominations, Time and Place, and Awards Committees. He has also chaired or served on several chapter and division committees. Dr. Scalet is a Certified Fisheries Scientist and has served as Chairman of the Board of Professional Certification.

JAMES WAHL

Mr. Wahl is a fisheries management biologist for the Iowa Conservation Commission. He received a B.S. degree in fisheries and wildlife biology from Iowa State University and an M.S. degree in fisheries science from South Dakota State University. After graduation, Mr. Wahl worked as a research technician at Cornell University and a project biologist on Lake Powell with the Utah Division of Wildlife Resources. Mr. Wahl has been a member of AFS since 1978 and is currently active in the Iowa Chapter and the Fisheries Management Section.

For Western Division Representative

JANET DECKER-HESS

Ms. Decker-Hess is currently a fisheries biologist with the Montana Department of Fish, Wildlife and Parks. She received her B.S. from Ohio University and her M.S. from the University of Montana, and has worked as a project biologist involved in instream flow evaluations, determination of Kerr Dam operations on kokanee salmon spawning, and establishment of a river reach classification system. Ms. Decker-Hess is active in the Montana Chapter, serving as Secretary/Treasurer, Vice President, and President, as well as Newsletter Editor and Chair of the Program Committee.

BRUCE RIEMAN

Mr. Riegan is currently an instructor in the College of Forestry, Wildlife and Range Sciences at the University of Idaho. He received his B.S. in Zoology and his M.S. in Fisheries Resources from the University of Idaho, and anticipates receiving his PhD from the same institution this June. He has worked as a Research Limnologist, a Senior Fishery Research Biologist, a Principal Fishery Research Biologist and a Regional Fishery Manager with the Idaho Fish and Game Department. Mr. Riegan is a Certified Fisheries Scientist.

BALLOT INSTRUCTIONS

Please indicate on the enclosed ballot postcard your choices for the offices of President Elect, Secretary/Treasurer, and the Division Representative for your Division only. U.S. members, affix a 14-cent stamp and drop the card in the mail to John Kauffman, c/o Virginia Game Commission, 1229 Cedars Court Road, Charlottesville, VA 22901. Overseas, Canadian and Mexican members should check with their local postal authorities on the correct postage prior to mailing the card to John.

The Fisheries Management Section Newsletter is a publication of the Fisheries Management Section, American Fisheries Society. Address all correspondence to Richard E. Wehnes, Editor; P.O. Box 180; Jefferson City, MO 65102; 314/751-4115.

1997-1998
1998-1999
1999-2000
2000-2001
2001-2002

Richard E. Wehnes, Editor
AFS-FMS Newsletter
P.O. Box 180
Jefferson City, MO 65102

Nonprofit Organization
Bulk Rate
U.S. Postage
PAID
Permit No. 263
Jefferson City, MO 65102