Spring 2005

Fisheries Management Section Newsletter

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Presidents Message

Hello, folks. I assume everyone is busy with various aspects of their job duties. For me, summer is always a "fishy" time of year! I mean that in a good way. ☺

When I was at the AFS mid-term Governing Board meeting this past March, I was quite impressed by the status of AFS finances. Sometimes we know these things and hear various pieces and parts, but seeing all the information at one time really put things into perspective. Our executive director has done a darn nice job for us from a financial perspective. For example, regular membership dues have been kept constant at $78 since 1998. In other words, there have been no dues increases for 7 years. Also, we introduced the Young Professional category for dues, which at $38 was equal to the Student category dues at that time. The Young Professional category is good for 3 years after the onset of employment. A nice service to those just entering the workforce! Finally, just this past March, the Governing Board voted to reduce Student dues to $19, PLUS students now have free online access to journals. I can't think of a better way to retain student members in the long run than to let them learn the value of AFS journals. From 2000 to 2005, the percent of the total budget supported by member dues declined from 23% to 18%.

AFS Journals and books continue to grow both in number and in quality. More pages than ever are published in the journals. More books are published each year (nearly triple the number five years ago) and on more diverse subjects. The time to publication has been substantially reduced and efforts continue in that regard. There is less reliance on outside funding for AFS books and more publication based on market needs. The *Fisheries InfoBase* project is preserving the legacy of information published by AFS in the past and at the same time making that information more accessible to the user. Current online material is also now more accessible through consortia agreements with Federal and state agencies and groups of libraries.

At the same time as we have kept member costs constant or even reduced them, we actually BUILT the contingency reserve fund to nearly one year of operating expenses! Folks, the reserve balance is nearly $2 million! Certainly, AFS operations over the last several years have increased the value received by every individual who joins or renews membership in AFS. What a change since the time when I was NCD President back in 1991-1992! The next time you see Gus, tell him thanks!

Let me touch on a couple of other issues, and then I'll close. In the last newsletter (fall of 2004), I wrote about a potential mechanism for funding small requests made to the Section. Thanks to guidance from Dirk Miller (WY) we were able to work that item into the proposed by-laws that you should read later in this newsletter. We proposed that the Section Executive Committee be able to approve funding requests up to $500, with a maximum of $2,000 per year. All larger items must be submitted through the official process via our website, where they will receive consideration by all members. In fact, one larger funding request is presented later in this newsletter for your perusal.

I had originally intended to update both the by-laws and procedural manual for the Section. However, there were a lot of changes needed. Thus, we first worked through the by-laws, which will be voted on at the Anchorage business meeting. So, if you have any comments, be sure to let me or another officer know of your concerns. After the Anchorage meeting, we'll tackle the update for the procedural manual.

Burbot Symposium Funding Request

The FMS has received a funding request to support publication of the 2nd International Burbot Symposium. If any section members have feedback on the request, please provide it to a section officer prior to the Anchorage business meeting. A vote will be taken at that meeting.

Title: Second International Burbot Symposium

Contact: Vaughn L. Paragamian

Idaho Department of Fish and Game

2750 Kathleen Ave.

Coeur d" Alene, Idaho 83815

Phone: (208) 769-1414

FAX: (208) 769-1418

vparagamian@idfg.idaho.gov

Justification: Burbot *Lota lota* are circumpolar in distribution and found in the northern tier of states and Canada. They are despised in some waters, especially when competing with walleye or lake trout, and held in high esteem in others. Management of burbot stocks as sport or commercial fisheries is poorly understood and in many states they are a species of special concern. In a survey of western states and Provinces I did several years ago most managers and researchers felt management regulations were not supported by science and regulations were by "the seat of their pants". Interest in burbot has in my opinion improved the last half decade, perhaps because of the First International Burbot Symposium, sponsored in part by the Fisheries Management section. The Second International Burbot Symposium will be held at the 2005 joint AFS and Western Division Meeting in Anchorage.

Funds from the Fisheries Management Section will be combined with that of the Western Division AFS to help sponsor printing and publication costs of a Second International Burbot Symposium Proceedings. My first choice is a module in the *North American Journal of Fisheries Management*; application has been submitted to the journal and is on file. Through publication of the Second International Burbot Symposium we hope to further promote research and development of burbot management throughout their range. One of the intents of the *North American Journal of Fisheries Management* is to promote research and management development of fishes and stimulate the researchers and managers imagination.

A time table has been presented in an application for a module in the North American Journal of Fisheries Management with a ms. deadline date for the first draft of 1 November 2005.

Final titles, Authors, and Abstracts to AFS - have been submitted to the 2005 Program Committee.

Deadline for submission of Review Manuscripts – November 1, 2005

Start and Completion of Peer Review – July 1, 2005; I have several ms. already for review. The review process can start after July 1, 2005. I want the chance to review them first to improve their initial quality.

Completion of Manuscript Evaluations – March 15, 2006

Deadline for Final Revisions – July 1, 2006

Date Manuscripts shipped to AFS – open I have requested the opportunity to speak to an Associate Editor to finalize the drop dead date but would expect it to be soon after July 1, 2006.

Amount requested from FMS: $4,000

Budget Proposed and other Funding Sources: I have $4,000 seed money promised from the Western Division. I also expect that most of the charges will be covered by state and federal agencies. The Fisheries Management Section will be acknowledged in a cover paper describing the module. Unused funds will be returned to the Fisheries Management Section.

Striper Management on the Savannah River

During the 1980s, the Savannah River striped bass population drastically declined because of habitat degradation in the primary Back River spawning area caused by the operation of a tide gate, associated channel deepening, and a diversion canal. In 1988, Georgia Department of Natural Resources (DNR), Wildlife Resources Division (WRD) adopted a striped bass moratorium in the Savannah River downstream of the New Savannah Bluff Lock and Dam to protect the remaining adult fish. WRD also began an intensive stocking program in 1990 with the goal of restoring the population to a self-sustaining level. In 1991, the South Carolina Department of Natural Resources (SCDNR) also adopted a striped bass harvest moratorium in the lower Savannah River. Efforts to restore degraded spawning areas in the Back River began in 1991 by removing the tide gate from operation, and in 1992 by filling in the diversion canal.

WRD's annual stocking efforts have been very successful in increasing the number of striped bass in the lower Savannah River, and current population levels approach historic levels. However, natural recruitment remains low and the majority of striped bass in the Savannah River are hatchery-reared fish. Anglers have noticed resurgence in the striped bass population over the last several years, and a popular catch and release fishery has developed. Some anglers have inquired when the striped bass fishery will again be opened to harvest.

Several harvest scenarios were considered in order to develop a regulation that would facilitate restoration efforts while allowing anglers the opportunity to harvest striped bass from the Savannah River. Biologists with WRD and SCDNR propose a two fish daily limit with a 27-inch minimum length on the Savannah River downstream of J. Strom Thurmond Dam. The recommended regulation would allow nearly all female striped bass the opportunity to reach maturity and spawn at least once, thus maintaining the reproductive potential necessary to achieve long-term restoration goals for this population. This proposed action would also allow anglers to keep a few fish for consumption and provide the opportunity to harvest a trophy fish.

Striped bass restoration efforts continue in the Savannah River with the goal of restoring the population to a self-sustaining level. Management strategies include supplemental stockings, assessments of natural recruitment, and annual population surveys. Fish tissue collections and analyses have commenced so that fish consumption guidelines can be developed prior to the opening the fishery. Angler surveys and tagging studies will be initiated when the fishery is opened to monitor angler success and striped bass harvest.

Public meetings to share and exchange information concerning regulation changes and management strategies for the Savannah River striped bass population will begin early in 2005. If the public supports the proposed changes, both WRD and SCDNR plan to request the necessary regulation changes to open the Savannah River to striped bass harvest October 1, 2005.

Guest Editorial: FMS Past-President Bob Wiley (WY)

Through the last 4 or 5 years of my fisheries career, it seemed to me that fisheries management decisions required more and more time. This gave rise to the notion that many fisheries managers were hesitant or reluctant to implement change, even small changes. Some wanted ever more information before making fisheries management decisions; it seemed like an information drought. Some folks just seemed to avoid decisions that required change because they wished to be 98% sure they were right before moving ahead. The search for more clues, the final scrap of data seemed to me to be almost endless.

As far as I can judge, the situation isn't unique to Wyoming. Initiating change without boiler-plate-solid data evidently amounts to taking risks. Taking risks now and then is good and risk taking is part and parcel of fisheries management because so much of the profession is art. Of course science is vital to successful management for fish and fisheries.

For a while I perched on the threshold of concluding that fisheries manager's desire that most of their paying customers (anglers) are always happy. That usually translated to high catch (or creel) rates (fish/hour), plenty of big fish, and little fluctuation in fish stocks. The apex goal was to manage in the immediate neighborhood of peak fish population - - - probably because anglers are most satisfied when fishing is good and it is mostly good when fish are abundant. Some biologists sought (seek) to blunt fish population cycles by increasing stocking so that anglers "always" experience high fish stock densities.

The long and short is that by our actions, we create expectations among the fishing public and we create their perception of the quality of their angling experience. Not all together bad provided that the expectations fisheries managers create are realistic. If fisheries people ignore or forget about the productive capacity of the waters they manage to sustain fish and fishing, they can and do generate their own woe. For example, stocking hatchery-reared, catchable-size trout in unproductive (e.g. TDS 10 mg/l) waters because people (largely tourist anglers) expect fish when they see these often scenic places.

An important part of fisheries management often overlooked is our obligation to teach those we serve. Teach them about fish populations, why fish live where they do, why there are more fish during some years, why fish populations fluctuate, why some waters of similar configuration differ in fish stocks they can sustain and so on. *And, while we are at it, might as well explain why fishing isn't as good as it used to be and it never was.*

I'm convinced (finally, after 41 years in the business) that many fisheries management decisions are motivated by circumstances such as an overexploited stock of fish, rather than making a change before circumstances dictate. Maybe a personal experience will help illustrate my point. Meek's Cabin Reservoir, high in the Blacks Fork River drainage, southwestern Wyoming, is an irrigation supply reservoir (1970s vintage) that is annually full in spring and nearly empty by fall. Even though fisheries administrators called for stocking the reservoir and tailwater to "stimulate fishing interest" no fish were planted. None are stocked now either. The reservoir sustains a reasonable fishery for native Colorado River cutthroat and mountain whitefish supplied by downstream drift from headwater streams. The tailwater has a better than credible wild fishery for brook, cutthroat, rainbow, and brown trout, plus mountain whitefish. All trout were stocked well before Meek's Cabin Dam construction.

Now therefore, what? The no stocking decision when against the grain of then current fisheries management (and administrative) wisdom, so it was a risk – a risk that worked. No public outcry that fish were not stocked, no complaints of poor or no fishing in the reservoir or tailwater; all things that were expected, but never materialized.

I *encouraged* people to take fisheries management risks now and then, even without boiler plate support evidence that indicated minimal risk of failure. Few did. Teaching that I would support them – the risk takers – catalyzed a little change, but the safety of the status quo was evidently more appealing than the perceived chance of failure.

Of course, there is a large difference between managing solely by fisheries intuition and following a fish management instinct based on a good sense of available data and good fisheries judgment, plus controlling your own fear of failure. Sure, a supervisor who will go to the mat for you is always important, like knowing your Dad occupied the passenger seat when you learned to drive.

Guest Editorial cont.

OK, let's see if I can make a sensible end to all of this. I'm convinced that fisheries managers need not worry about losing public support as long as they always (ALWAYS) give the public the straight story, popular or unpopular. Explain why walleye fisheries fluctuate – years of good fishing among periods of moderate to mediocre fishing. Every angler wants to catch big fish and lots of them and those same people appreciate knowing how fisheries work and I know that most of them will appreciate a straight point of view and explanation.

I learned that lesson talking to Wyoming landowners, farmers, ranchers, and stockmen about dedicating some water in streams to fish – a concept (instream flow) that they feared. A cantankerous legislator organized a meeting in Douglas, Wyoming where about 25 landowners gathered to listen to my talk about instream use of water. A 20 minute talk generated more than an hour of discussion. Questions and concerns were answered straight up, no frills, no gimmicks, no pulled punches. When it was over, several people thanked me for telling them why Wyoming fisheries people (and the Department) supported the idea and legislation to adopt it. Most important, they said that they were glad that someone had finally given a clear picture instead of "trying to tell them what we (WGF) thought they wanted to hear."

I'm convinced that the same idea applies to anything done in fisheries – taking risks now and then is worthwhile and benefits accrued outweigh the risks. Teaching myself the lesson was relatively easy but I'm not so sure that I taught others very well. I wish that someone would or could; perhaps practical-minded educators could succeed in teaching future fisheries managers and fisheries administrators that a little risk taking is worthwhile. Besides, a risk once in a while is invigorating, charges the batteries, fuels the desire to carry on, chart new direction, climb the next fisheries mountain, and so on.

Thanks for the words of wisdom, Bob!!

Sustainable Forestry Initiative (SFI)

FMS previously helped provide input to the Sustainable Forestry Initiative (SFI). Tom McMahon (MT) did a lot of work to represent both our section and AFS as a whole.

The SFI group now has an external review panel, and Dan Hayes (MI) volunteered to serve as the AFS representative on that panel. Just what is SFI? The SFI was developed in 1995 by the American Forest & Paper Association, a national trade group that represents forest and paper companies. AF&PA assembled a task force of experienced professional foresters who spent 18 months crafting the SFI. This collaboration produced a set of forest principles and detailed guidelines that require companies to reforest harvested land promptly, provide for wildlife habitat, improve water quality and ecosystem diversity, and protect forestland of special ecological significance. For more information, please see the following web site.

http://www.afandpa.org/Content/NavigationMenu/Environment_and_Recycling/SFI/SFI.htm

Thanks, Dan! We know that everyone is busy these days, and we appreciate your time and energy!

Cormorant Management on Leech Lake Minnesota

Harlan Fierstine, Minnesota Department of Natural Resources Area Fisheries Supervisor

Based on Native American names for geographic features/locations and reports from early Euopean explorers double crested cormorants existed and likely nested on Leech Lake in the 1800's. After decades of absence some early attempts at nesting occurred on Little Pelican Island in 1992. Nesting started in earnest in 1998 with 73 pairs and increased to over 1000 nesting pairs in 2002 and 2003. Nesting pairs increased dramatically in 2004 to 2524 pairs. In most years each nest fledged nearly two chicks.

Little Pelican Island (approximately 3 acres in size) is owned and managed by the Leech Lake Band of Ojibwe Division of Resource Management (LLBODRM) as a bird sanctuary. The island contains 1 of 4 nesting colonies of common tern in Minnesota. The common tern is listed as a threatened species by the LLBODRM and the State of Minnesota, and the USFWS considers them a species of special concern. Other colonial nesting birds use the island. Many species of shorebirds have been documented on the island.

Leech Lake covers a little over 111,000 acres. The eastern portion (main lake) makes up about three fourths of the lake. Most of this water is less than 30 feet deep, windswept, and most has little aquatic vegetation. The western basins consist of much deeper water or shallow water that has dense aquatic vegetation. Prior to the growth of the cormorant colony year class strength of walleye correlated strongly between the western basins and the main lake. Aerial boat counts conducted in 2004 documented large feeding flocks of cormorants on the main lake and little activity on the western basins.

Sampling of young of year walleye in Leech Lake in 2001 indicated that the 2001 year class was going to be abundant. Subsequent sampling in later years found the 2001 year class of walleye abundant in the western basins and nearly absent in the main lake. The 2001 year class remained abundant in other large natural walleye lakes in the vicinity of Leech Lake (e.g. Lake Winnibigoshish and Cass Lake).

In early 2004 Rudstam, et al published a paper showing cormorants had an impact on the walleye and yellow perch sport fishery in Oneida Lake, New York. Annual consumption of fish was estimated at 3.4 pounds per acre. Based on the number of nesting pairs and fledged chicks at Leech Lake the estimated annual consumption of fish by cormorants has exceeded 3.4 pounds per acre since 2001 and was 11.4 pounds per acre in 2004. These consumption estimates do not include spring and fall migrating cormorants. Based on communications with Dr. Rudstam the similarities between Leech Lake and Oneida Lake (lake morphometry and fish community) suggest that cormorant impacts on the walleye population in Leech Lake was likely.

A working group made up of the Minnesota Department of Natural Resources Divisions of Fish and Wildlife and Ecological Services (DNR), Leech Lake Band of Ojibwe Division of Resource Management, US Fish and Wildlife Service, and US Department of Agriculture Wildlife Services was formed to look at the issue and available data. While diet information from Leech Lake cormorants is limited, long-term (22 years) annual test netting data for Leech Lake in combination with information from adjacent large natural walleye lakes, and published findings from Lake Oneida, suggests cormorants are negatively impacting the walleye and yellow perch fisheries on Leech Lake. An environmental assessment was completed for cormorant control under the authorization of the the public resource depradation order (www.fws.gov/midwest/NEPA/mncormorant/). Control activity commenced on May 4, 2005 and concluded on June 16, 2005. A total of 2,771 cormorants were removed from the Little Pelican Lake colony by federal sharpshooters. Additional birds will be sampled each week to obtain diet information. With funding provided by the DNR and by a grant secured by the LLBODRM, the diet study data will be part of a larger study designed to model and assess the impacts of cormorants on the Leech Lake fishery. This work will continue next year as the working group attempts to limit the impacts to the walleye and yellow perch fisheries while maintaining a healthy population of cormorants.

Rudstam, L.G., A. J. VanDeValk, C. M. Adams, J. T. H.Coleman, J. L. Forney, and M. E. Richmond. 2004. Cormorant predation and the population dynamics of walleye and yellow perch in Oneida Lake. Ecological Applications, 14(1): 149-163.

FMS honors Feit

Darrell E. Feit was the curator of the FMS National Fisheries Hall of Excellence (HOE) from its inception in 1992 through his untimely death in 2004. We gratefully acknowledge Darrell's long-term contributions. He was a professional in all aspects of his work, and was active at all levels of our Society. We ordered a plaque that will hang in the HOE to recognize his work, and we will give a second plaque to his family.

Darrell E. Feit

On a more positive note, we are pleased to announce that Tony Korth (tkorth@ngpc.state.ne.us) has agreed to serve as our new HOE Curator. Tony works for the Nebraska Game and Parks Commission and is in charge of the Ak-Sar-Ben (i.e., Nebraska spelled backwards) Aquarium and Outdoor Education Center. Go to their website for a closer look at the Aquarium (http://www.ngpc.state.ne.us/fishing/programs/aquaticEd/aquarium.asp).

Publication of Management Case Histories

Hal Schramm (MS), Past-Prez of our Section, would like to re-open an old topic for discussion among members: do we need or want an outlet for management biologists to be able to publish case histories. Hal will lead a discussion on this topic at the Section business meeting in Anchorage. If you cannot attend that meeting but have input, please contact Hal, me (Willis), or another officer prior to the meeting. We've often discussed this topic, but never really brought the issue to resolution. We'll keep you updated on what transpires at the discussion in Anchorage.

Cormorant Symposium

Cormorants; Research, Management, & Policy: a symposium at the upcoming Midwest Fish & Wildlife Conference. The proliferation of double-crested cormorants in North America and their potential impacts on associated ecosystems has been the subject of considerable research and more recently attempts at management. This symposium seeks to present and review the current body of research on all aspects of the subject. Especially encouraged are case studies of attempts to manage cormorant numbers and presentations that review emerging policy issues for natural resource agencies. The symposium seeks to integrate both wildlife and fisheries studies and perspectives. Presentations that are focused on fisheries or terrestrial communities thought to be affected by cormorant predation and colonization are equally appropriate for this symposium. Presentations from all viewpoints are encouraged. The 2005 Midwest Fish & Wildlife Conference will be held on December 11 - 14, 2005 at the Amway Grand Plaza Hotel in Grand Rapids, Michigan. This symposium is scheduled for Monday December 12th. The conference web page can be viewed at: http://www.midwestfishandwildlife.com. Deadline for submitting abstracts is July 15th. Do not submit symposium abstracts using the online conference submission form on the website, instead submit directly to the symposium organizers Dave Fielder (Michigan DNR; fielderd@michigan.gov) or Pete Butchko (USDA-Wildlife Services; peter.h.butchko@aphis.usda.gov).

National Fish Habitat Initiative (NFHI)

A 19-member Core Work Group, composed of leading fisheries and aquatic resources professionals, is now the driving force behind the National Fish Habitat Initiative (NFHI). The group came to life in late 2004 under the auspices of the IAFWA Fisheries and Water Policy Committee. "IAFWA has worked hard to outline NFHI's structure," says Doug Hansen, committee chair and director, Division of Wildlife, South Dakota Game, Fish and Parks. "We are excited to pass the torch and stay active in an oversight role." Hansen named Doug Austen, executive director, Pennsylvania Fish and Boat Commission, as work group chairman. Hansen and Austen appointed work group members in the past several months. At regional meetings in 2004, fisheries leaders jump-started NFHI by developing its concept and discussing its possibilities. "Last year's meetings put a fire in our bellies," says Austen, "Now that we have national support, it's time to do the really hard work to make NFHI happen."

The Core Work Group is the main committee to guide NFHI efforts. It will collaborate with the newly established Executive Leadership Committee, Federal Caucus and SFBPC Partners Coalition (Sport Fishing and Boating Partnership Council). Members will continue to take input from the IAFWA Fisheries and Water Resources Policy Committee. Finally, it will delegate to the five NFHI work teams in the areas of Science, Communications, Data, Writing and Development.

Staff coordinators: Eric Schwaab, IAFWA resource director, and Christopher Estes, chief of Alaska Department of Fish and Game's aquatic resources unit, will assist in administrative duties as staff coordinators. IAFWA will hire another staff coordinator this year.

Most recent news: Core Work Group members and invited guests gathered in three meetings between February and May to define NFHI's structure and next steps. "To undertake such a major effort as NFHI, we must first outline its foundation: who will do the work, when it will happen, and how it will be organized," says Austen. The most recent activities include:
developing NFHI's 2005-2007 budget and details related to funding, and setting an 18-month schedule for NFHI (http://fishhabitat.org/news/june16_02.htm). The group will present a draft set of goals, strategies and actions to the IAFWA Fisheries and Water Resource Policy Committee at the IAFWA Annual Meeting in September. The group expects to present a full draft plan for consideration by March 2006.

National Fish Habitat Initiative (NFHI) cont.

Core Work Group members include:
Doug Austen (chair), Pennsylvania Fish and Boat Commission
Doug Beard, U.S. Geological Survey (Data Work Team chair)
Don Bonneau, Iowa Department of Natural Resources
Tom Busiahn, U.S. Fish and Wildlife Service (Federal Caucus chair)
Christopher Estes, Alaska Department of Fish and Game
Jim Martin, Pure Fishing
Stan Moberly, American Fisheries Society
Ira New Breast, Native American Fish and Wildlife Society
Laury Parramore, U.S. Fish and Wildlife Service (Communications Work Team chair)
Bill Reeves, Tennessee Wildlife Resources Agency
Jeff Rester, Gulf States Marine Fisheries Commission
Larry Riley, Arizona Game and Fish Department
Gordon Robertson, American Sportfishing Association
Mark P. Smith, The Nature Conservancy
Susan-Marie Stedman, National Oceanic and Atmospheric Administration (NOAA) Fisheries Office of Habitat Conservation
Mike Stone, Wyoming Game and Fish Department
Norm Stucky, Bass Pro Shops
William Taylor, Michigan State University (Partners Coalition Work Team chair)
Gary Whelan, Michigan Department of Natural Resources (Science Work Team chair)

The Executive Leadership Team consists of top-level leaders from state and federal agencies that manage fish. "These guys give weight to NFHI," notes Austen. "Their support ensures that NFHI is a priority within their agencies. More importantly, Congress needs to see hard-hitters united behind NFHI." The team will become actively involved in reviewing and endorsing NFHI plans and activities. Members include: William Hogarth, Assistant Administrator, NOAA (directing the National Marine Fisheries Service); Matt Hogan, Acting Director, U.S. Fish and Wildlife Service; Terry Crawforth, President, IAFWA and Director, Nevada Department of Wildlife; and John Baughman, Executive Vice President, IAFWA

FMS contribution to the Propagated Fish in Resource Management symposium

FMS members may recall that our Section undertook a survey for the Propagated Fishes in Resource Management symposium (AFS Symposium 44). In my humble opinion, I believe we got some results that should be quite important to the fisheries management and fish culture segments of our profession. Despite seeming perception that little change has occurred within our state and provincial fisheries management agencies, there has instead been a wealth of changes undertaken in fish culture and fish stocking practices in the past couple of decades. While there always is room for improvement, I think it's important that everyone in AFS know just how much the agencies have responded! I'm concerned that the survey results are going relatively unnoticed, and thus I wanted to remind Section members of these results. The abstract follows, and we have posted a .pdf file of the paper on the Section website. If you happen to be in a situation where you need a little ammunition (wait, make that "facts and figures"), go to this paper and take a look at the results. I'd like to encourage everyone to get this information out – both within and outside the profession. We posted a .pdf file of the paper on the FMS website (http://www.sdafs.org/fmsafs/products/products.htm).

Abstract.—The use of cultured fishes by fisheries agencies is a long-standing management technique. In recent decades, however, potential negative impacts of fish stocking programs have received increased attention, particularly as they affect native fish communities and the genetic integrity of wild fish populations. In 1994, a facilitated workshop was organized to develop recommended procedures for the use of cultured fishes that would be compatible with these broader environmental concerns. We administered a survey to state and provincial fisheries management agencies in the United States and Canada to determine the current status of fish culture and stocking programs and assess progress toward adoption of these procedures. With 54 of 62 agencies reporting, our results indicated that stocking programs continue to be an integral part of management programs, but that substantial progress has been made toward addressing concerns about potential negative effects of cultured fishes. The percentage of responding agencies reporting use of management plans in which stocking was considered as part of a larger management program more than doubled in the years since 1980. Consistent with this finding, agency emphasis on alternative management approaches was evidenced by a 2-fold greater increase in expenditures on habitat management programs relative to culture programs in six agencies that provided budget figures. The percentage of responding agencies evaluating appropriateness of stocking through the use of formal criteria on at least half the waters where cultured fish were used tripled since 1980, and decisions not to stock due to potential impacts on biodiversity or the genetic integrity of recipient fish communities were reported to be 4-times more likely today than in 1980. Emphasis on the use of native fishes in stocking programs since 1980 was reported to have increased for more than half the agencies responding to our survey, and the number of agencies reporting development of broodstock plans for at least some of the species they cultured also doubled since 1980. Agency perceptions of angler attitudes concerning the importance of stocking indicated that the percentage of anglers who believed that stocking was the primary or only solution to low fish abundance remained high, at 61%, a decline of only 27% from reported attitudes in 1980. While positive strides have been made by agencies toward more careful evaluation of the appropriateness of stocking for achieving management objectives and in the institution of programs to minimize impacts of cultured fishes, these policies have not been adopted by all agencies nor are they routinely used on all stocked waters by the agencies that have them. To make continued progress, agencies may be required to make difficult decisions regarding allocation of funding, and a more concerted effort to educate anglers and reduce public pressure for stockings will be needed to create an atmosphere where reduced emphasis on stocking is possible. The American Fisheries Society should play a continuing role in providing opportunities for scientists and policy makers to interact and discuss prevailing and emerging issues relative to the use of propagated fishes in resource management.

Fisheries Techniques Standardization Committee

As part of this project, Committee Chair Scott Bonar (AZ) and Research Associate Alison Iles collected standard sampling manuals from most of the state and provincial fisheries management agencies. These various manuals and reports have all been archived, and are available for your reading pleasure!

To access these manuals, go to Scott's web page:

http://www.ag.arizona.edu/srnr/research/coop/azfwru/scott/

Click on "Links" and then select "Existing State/Provincial Standard Sampling Protocols for Freshwater Fishes."

Standard Sampling Methods for Inland Fish in North America: authors and editors

Editors: Scott Bonar (AZ), Wayne Hubert (WY), David Willis (SD)

Chapter Authors:

1. Introduction/ Principles of standardized sampling: Scott Bonar (AZ), Alison Iles (AZ), and Salvador Contreras-Balderas (Mexico)

2. Warmwater fish in small standing waters: Kevin Pope (TX), Rob Neumann (MN), and Scott Bryan (AZ)

3. Warmwater fish in large standing waters: Steve Miranda (MS), Jeff Boxrucker (OK), and John Ney (VA)

4. Warmwater fish in wadable streams: Charles Rabeni (MO), John Lyons (WI), Norman Mercado-Silva (WI), and Jim Peterson (GA)

5. Warmwater fish in rivers: Chris Guy (MT), Scott Rogers (AZ), Johannus Pitlo (IA), and Patrick Braaten (MT)

6. Salmonids/coldwater species in small standing waters: Nigel Lester (ON), Paul Bailey (ND), and Wayne Hubert (WY)

7. Salmonids/coldwater species in large standing waters: Dave Beauchamp (WA), Roy Whaley (WY), and Donna Parrish (VT)

8. Salmonids/coldwater species in wadable streams: Jason Dunham (OR), Russ Thurow (ID), Andy Dolloff (VA), and Gordon Haas (AK)

9. Salmonids/coldwater species in rivers: R. Allen Curry (NB), Robert M. Hughes (OR), Mark McMaster (ON), and Dave Zafft (WY)

10. Two-Story Fisheries: Phaedra Budy (UT), Roger Schneidervin (UT), and Chris Luecke (UT)

11. Standards for comparison (Averages and Standards of Commonly-Used Fisheries Indices): Mark Brouder (AZ), Scott Bonar (AZ), and Alison Iles (AZ)

12. Data management and statistical analysis: Mike Quist (IA), Kim Bonvechio (FL), and Mike Allen (FL)

Fisheries Techniques Standardization Committee cont.

13. Data conversion: Jim Peterson (GA) and Craig Paukert (KS)

14. Preventing Transfer of Invasive Species While Sampling: Stewart Jacks (AZ), Roger Sorensen (AZ). Jeffery L. Gunderson (MN), Scott Smith (WA), Steve Sharon (WY), and Ron Kinnunen (MI)

PROJECT SPONSORS:

AFS Fisheries Management Section
AFS Education Section
U.S. Fish and Wildlife Service
U.S. Bureau of Reclamation
U.S. Geological Survey
U.S. Bureau of Land Management
National Fish and Wildlife Foundation
National Park Service

Agencies that have expressed interest in participation and requests are pending:

Arizona Game and Fish Department
AFS Warmwater Streams Committee
AFS Southern Division
U.S. Bureau of Land Management

PLEASE keep your e-mail addresses updated for AFS!

Most of our Section communication is now done via e-mail. As a result, it is essential for you to check your e-mail address in the AFS directory, and to update it as needed. When I (Willis) send an e-mail to members, I typically get at least 50 mail failures out of 750 or so addresses. I'm sure this issue will become more and more important at all levels of AFS in the future as we use more and more e-mail communication, so please check now. Thanks!

Gila trout

By Staci Matlock The New Mexican (Santa Fe)

MORA - When fire and drought ravaged the Gila National Forest three years ago, biologists with the U.S. Fish and Wildlife Service hiked into the canyons and along the river, rescuing endangered native Gila trout.

They trucked the fish for caretaking to the National Fish Hatchery and Fish Technology Center in Mora. Since then, the Mora facility has helped revive the Gila trout and acts as a breeding facility to preserve the four distinct genetic lines of the species. It is one of many roles the hatchery plays in researching, breeding and recovering native, endangered and sportfish species in the region.

Meanwhile, hatchery Director John M. Seals (AFS member, '03) keeps the lights turned off in the office hallways at the 12-year-old facility unless visitors are there. It is one small way Seals tries to stretch what he calls an already thin budget to keep the 30,000-square-foot hatchery's energy bill covered, the staff paid and the fish fed. "Seems like we're always scrambling around to pay the bills and keep the doors open," said Seals, who has directed the center for two years.

The Mora center, while playing a crucial role in research and preservation of endangered Gila trout, faces a money crunch, as does the entire national Fisheries Program, according to Pete Stine, recently retired chief of fisheries for Region 2 of the U.S. Fish and Wildlife Service .

The Mora facility is part of the U.S. Fish and Wildlife Service's Fisheries and Habitat Conservation Program. The program's roots date to 1871, one of the country's first conservation programs. It consists now of seven Fish Technology Centers, 69 national fish hatcheries , nine fish health centers and 64 field-resource offices, according to the agency. Some, including Mora's , serve as both hatchery and technology centers.

The program cultivates more than 100 fish species and helps in the recovery of 33 endangered or threatened fish species, in addition to monitoring fish health and evaluating stocking programs.

In 2001, the Sport Fishing and Boating Council released a yearlong study that found funding for hatchery maintenance and operations had fallen 15 percent since 1992, while a maintenance backlog had climbed to $280 million. The study found one in four hatchery positions was vacant.

Meanwhile, the number of fish species listed as threatened or endangered doubled to 112 in the last decade, according to the agency.

In recent years, President George Bush has asked for millions of dollars to boost the fisheries program, much of it aimed at fisheries. Congress has approved significant increases, but for a limited number of projects, not hatcheries. "Some regions have financial problems that may force closure of field stations in the near future," said Tom Busiahn, with the agency's budget office in Washington, D.C.

For hatcheries, nearly half the stations have not received requested increases in their operational money. Salaries and benefits are taking up an increasing amount of budgets, Busiahn said. The total appropriations in 2005 for the fisheries program was $115,214,000, about half a million less than the prior year. The actual amount available for operations is several million less, Busiahn said.

Gila Trout cont.

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During a recent tour of the facility , Seals said this year's budget at the Mora facility is about half a million dollars. Utility costs alone for electricity and propane use $100,000 a year. Salaries and benefits take another 76 percent of the budget. The facility has five full-time staff members and Seals said there's no money right now to replace the Research biologist who used to work there.

Stine said he estimates it would take another half-million dollars for the Mora facility to reach its research and fish production potential. New Mexico has another fish technology center in Dexter.

The average age of the national fish hatcheries is 75 years and most of the technology centers are at least 20 years old, said Pete Stine, former chief of fisheries for the Southwest Region of the U.S. Fish and Wildlife Service. The Mora center is one of the newest, built in 1994 as a state-of-the-art facility, its creation promoted for Mora County's economic development.

States have their own fish hatcheries, funded through state Game and Fish departments. Where those hatcheries concentrate on raising fish for recreational fishers, the federal hatcheries have moved toward the restoration of endangered and native species, Stine said.

The national Fish Technology Centers try innovative approaches to fish management , looking for ways to help both commercial hatcheries and wild species. "Our function is to develop technology that can be transferred to other hatcheries - federal, state, tribal and private," Seals said.

One such technology is what Stine calls a "world-class" water re-circulation system designed for the Mora center. The Mora community was concerned about how much water the facility would use when it was built. The facility has a permit to pump 980 acrefeet per year of water, Seals said.

But using a specially designed system, it pumps about 250 acre-feet per year. An acre-foot of water equals about 326,000 gallons.

The hatchery-building system uses 600 gallons of water per minute through four raceways. Only 30 gallons per minute is fresh water. "That's very small for a fish hatchery," Stine said. "It is usually thousands of gallons per minute."

Gila Trout cont.

The national fish technology centers have success stories. They've worked with American Indian tribes to help them recover and manage native fish species on tribal land. Stines' staff helped the Apache tribe in Arizona to revive a healthy population of Apache trout. The trout was downlisted from endangered to threatened and could be taken

off the endangered species list altogether. "That's never happened before," Stine said. "The only time a fish species has been deleted from the list is when it goes extinct."

The Mora facility has raised endangered silvery minnow and Rio Grande cutthroat trout. It concentrates now on Gila trout, stocking more than 5,000 a year into recovered streams.

Simulated natural habitat for captured Gila trout is one failed experiment the Mora facility is going to try again when there's funding. Seals said they tried putting logs and stones in the raceways, but the captured wild trout were so scared they hid beneath the natural setting and didn't come out to eat. Plus, the gravel on the bottom made it difficult to clean out the raceways. "We still don't understand how all the parts work together," Seals said.

The center is conducting a feed trial for Gila trout. Hatcheries have a century of experience raising rainbow trout, but less is known about raising native species. It can take 10,000 eggs to hatch 3,500 live Gila trout. Getting more of them to adulthood is the next challenge. "We don't know how to grow them, and feeding them is a problem," Seals said.

The center is trying to develop a feed for commercially raised Gila in hopes private hatcheries would begin to stock and raise them. The Fish Technology Center in Bozeman, Mont., Colorado State University and Kline Trout Farms in Colorado are partners in the study.

A visitor's center sits largely idle near the research hatchery. For awhile, half the center was taken up raising silvery minnows. Now the staff gives about 100 tours each year to school groups and families. Seals wants to construct a much grander interactive display at the

visitor's center, which he hopes to staff with volunteers.

Stine, who retired from the agency in January, said one troubling discussion at the national level is the Bush administration's move to "outsource" agency jobs to private companies. Each

fish hatchery or technology center generally has only half a dozen full-time employees or more. "Each person does way more than their job description," Stine said.

A contractor is less likely to pitch in and help where its needed at hatcheries if it isn't part of a contract, Stine said.

The decline in the national fish-hatchery budgets has been gradual. Positions go unfilled to save money. Budget increases don't keep up with the rising cost of maintenance, fish food and equipment. "They nibble you to death," Stine said.

Gila Trout cont.

He said it made little economic sense to trim fishery budgets when other studies show repeatedly that recreational fishing brings in millions of dollars to the region.

The question is how to raise more money to support the Fish Technology Centers and the national fisheries program . One idea is a federal fish-permit fee, allowing anglers to fish in any state. Stine said only truck drivers have asked for such a permit.

Grant money is scant. "We've had no soft money of late," Seals said.

So why is supporting the Fish Technology Centers important?

Craig Springer, a biologist, angler and writer who's worked a dozen years for the U.S. Fish and Wildlife Service, said preserving native-fish species is a human responsibility. "Native species are threads of the tapestry of the landscape," he said. "We have a duty to protect them."

The centers play a big role in those recovery efforts.

Jim Brooks (AFS member, '92), a biologist with the agency's Fisheries Resource Office and an expert on Gila trout, said the Fish Technology Center is important in speeding recovery of the species. He said it can take years for fish in the wild to establish healthy populations on their own.

The faster the Gila trout can be recovered, the sooner its survival can be ensured, and the faster the game species can provide one more angling experience for the state's fishers. "I really believe when the Gila trout gets downlisted and the streams are open to fishing, it will be an economic boon to the region," Springer said.

Values of Warmwater Streams

In December 2003, FMS decided to help fund the duplication and distribution to AFS Chapters of a streams video produced by the Warmwater Streams Committee, Southern Division, AFS. The committee undertook this effort to increase public awareness regarding the values of warmwater streams. Distribution was delayed until 2005 as they secured a suitable vendor for video duplication and distribution to replace their initial source (who raised their prices).

Warmwater Streams: A Resource Worth Protecting

A video by the American Fisheries Society, Southern Division, Warmwater Streams Committee, 2002 (28:30 minutes)

This video portrays the wealth of warmwater stream values in the Southeast, from prehistory to present day. It describes aquatic ecology, food webs, habitats, and how seasons affect aquatic life, often taking viewers underwater to observe fish and aquatic invertebrates in their natural settings. It also presents threats to warmwater streams imposed by the changing needs of our society. Although many streams continue to suffer from past and present abuses, much is already being done by federal, state, and local agencies to correct some of those problems. The video concludes on an optimistic note, saying that public concern and involvement can go a long way toward restoring warmwater streams to their fullest potential under the constraints of modern society.

Additional copies of this video can be obtained at the following web site:

http://www.cnr.vt.edu/extension/fiw/fisheries/postersvideos/index.html.

Proposed Bylaws of the Fisheries Management Section of the American Fisheries Society

Section I. NAME AND OBJECTIVES.

1. The name of this organization shall be the Fisheries Management Section of the American Fisheries Society, hereinafter referred to as the Section and Society respectively.

2. The objectives of the Section shall be those of the Society as set forth in Article I of the Constitution. In addition, the purpose of the Section is to promote effective fisheries management in North America by:

A. Developing and maintaining an association of persons interested in and involved in fisheries management and development;

B. Promoting sound fisheries management practices and developing new management concepts and techniques;

C. Encouraging continuing professional growth among Section members and others interested in fisheries management and growth of the profession itself by holding meetings and sponsoring workshops, symposia, and publications to disseminate information relating to all aspects of fisheries management;

D. Encouraging publication of case histories, policy analysis, and evaluation of management programs;

E. Promoting communication between fisheries managers and researchers, employers, educators, legislators, and the public; and,

F. Providing a forum for identifying, bringing attention to, and solving issues and problems relating to fisheries management.

3. All activities of this Section shall conform to the Society's Constitution, Rules, and Procedures.

Section II. MEMBERSHIP.

1. Membership in the Fisheries Management Section shall be open to all members in good standing of the Society.

Section III. MEETINGS AND VOTING.

1. The Section shall hold at least one meeting annually at a time and place designated by the Executive Committee. Special meetings may be called by the President with approval of the Executive Committee.

2. The Section may conduct management conferences, workshops, and technical sessions as approved by the Executive Committee.

3. The Section may meet jointly with other organizations but shall request official organization recognition when cosponsoring meetings.

4. A quorum at an annual meeting for the transaction of official business shall be 15 members of the Section.

5. Unless otherwise specified in these Bylaws or the Constitution of the Society, meetings are conducted according to the latest edition of Robert's Rules of Order.

6. Decisions at meetings are by simple majority of Active Members voting, except 2/3 majorities are required in special cases such as amending the Bylaws and suspending a Rule. Other less frequently used voting requirements are described in Robert's Rules of Order.

Bylaws cont.

SECTION IV. OFFICERS.

1. The officers of the Section shall consist of, a President, a Vice-President, Past-President and a Secretary-Treasurer.

2. All officers must be members in good standing of the Society.

3. Officers shall be nominated by a nominating committee appointed by the President. Officers shall be elected by a majority of ballots casts and election methods shall be determined by the Executive Committee.

4. Officers shall serve for a term of two years, or until a successor is elected. The President-Elect and Secretary-Treasurer shall be elected biannually. Terms of newly elected officers shall change at the Society's annual meeting. The President-Elect shall succeed to the office of President on completion of his or her term of office. The President shall succeed to the office of Past-President on completion of his or her term of office. The Past-President shall not be eligible for election as President-Elect for a period of 4 years after completion of his or her term. The Secretary-Treasurer may serve 2 consecutive terms (4 years) and shall not be eligible for re-election for a period of 4 years after completion that service.

5. In the event of a vacated position, the Executive Committee shall appoint a qualified replacement to fill the unexpired term.

6. Candidates for office shall be nominated by a Nominating Committee appointed by the President. The ballot will consist of two nominees in good standing for each elective office. Votes for write-in candidates can be cast on the official ballot. The ballot will establish a deadline date for the receipt of ballots to be counted prior to the annual meeting. Members shall have at least 30 days to vote. Officers shall be elected by a majority of the ballots counted. Newly elected officers shall be installed in office at the annual meeting of the Section.

7. No elected officer or appointed committee member shall receive any salary or other compensation. Expenses may be defrayed from funds available to the Section when authorized by the Executive Committee.

SECTION V. DUTIES OF OFFICERS.

1. The President shall:

   A. Preside at all meetings;

   B. Serve as Chair of the Executive Committee;

   C. Appoint all committees and chairpersons thereof, except as may be designated in these Bylaws;

   D. Coordinate the activities of the Section's standing and technical committees and serve as liaison between such committees and the Executive Committee;

   E. Represent the Section to the Society as a member of the Society Governing Board and submit a report of Section activities at the Society Governing Board meetings;

   E. Conduct official correspondence for the Section and present reports of Section activities at the annual meeting;

   E. Make such appointments and perform other duties and functions as are authorized and necessary; and,

   F. Proceed to the office of Past-President at the end of the term.

2. The President-Elect shall:

   A. Assume the duties of the President, if the President is absent or unable to act;

   B. Serve as Chair of the Awards Committee, including the Fisheries Management Hall of Excellence;

   C. Chair the Nominating Committee and conduct the election;

   D. Serve on the Executive Committee; and,

   E. Advance to the office of President at the end of the term.

Bylaws cont.

3. The Secretary-Treasurer shall:

A. Keep the official records of the Section, keep an itemized account of all receipts and disbursements, collect and be custodian of any fees or assessments authorized by these Bylaws or funds allotted to the Section by the Society;

B. Disburse funds only as authorized by either the membership or Executive Committee;

C. Present a semi-annual report to the Executive Committee and an annual report to the membership;

D. Annually update and distribute current copies of the Section Bylaws to the Section Executive Committee by September 1;

E. Submit a record of the annual business meeting and a financial report for the Section to the Executive Director of the Society within 30 days after the annual meeting of the Section and at other times as requested by the Governing Board of the Society; and,

F. Serve on the Executive Committee.

3. The immediate Past-President shall:

A. Serve on the Executive Committee;

B. Serve on the Nominating Committee; and,

C. Assist the other officers as needed.

4. The four elected Regional Representatives (from the North Central, Northeastern, Southern, and Western divisions) shall:

A. Serve on the Executive Committee;

B. Assist the other officers as needed; and,

C. Contribute regionally important information to the Section newsletter.

SECTION VI. EXECUTIVE COMMITTEE.

1. The Executive Committee of the Section shall consist of the officers and one representative from each of the Divisions of the Society.

2. The Executive Committee shall have authority to determine policies and conduct business consistent with the objectives of the Section and the Society's Constitution, Rules and Procedures. The Executive Committee is authorized to act on behalf of the Section between annual meetings.

3. A quorum is required for transaction of official business at an Executive Committee meeting. A quorum for an Executive Committee meeting shall consist of five of the eight members. Executive Committee members can appoint a proxy.

4. Each member of the Executive Committee shall have one vote on Executive Committee decisions. In the event of a tie, the President's vote shall be the deciding vote.

5. Executive Committee meetings are called by the President and are held as needed. Meetings shall be conducted by any means agreeable to a majority of the member (in person, telephone, electronic mail, etc.).

6. The Executive Committee can approve individual funding requests up to $500 without a vote of the membership up to a maximum of $2,000 each fiscal year. All requests larger than $500 must be electronically submitted via the Section web page by 1 July each year. The Section Executive Committee will conduct a preliminary review of all requests. Applications clearing the preliminary review will be posted on the Section web page for member comment and then presented to the membership for final approval at the annual Section business meeting.

Bylaws cont.

SECTION VII. SECTION COMMITTEES.

1. Committees and Chairs of committees, except as listed in Sections V and VI of these Bylaws, shall be appointed and charged by the President. Except for Standing Committees, these Section committees shall cease to function upon the discharge of the duties for which they were appointed or with the end of the term of the appointing officer.

2. Standing Committees help the President and the Executive Committee conduct the Section's affairs, and the chairs should report their committees' activities, findings, and recommendations at annual Section meetings and interim meetings of the Executive Committee.

3. The Section has established the following Standing Committees:

A. Nominating Committee,

B. Awards Committee (including Hall of Excellence),

C. Newsletter Committee, and

D. Web Site Committee.

SECTION VIII. DUES AND FEES.

1. The Executive Committee shall establish annual dues subject to approval of the members voting at the annual meeting.

2. The Executive Committee may assess registration fees for meetings or symposia.

SECTION IX. BYLAWS AND PROCEDURES.

1. The Bylaws are the defining document for the Section and take precedence over all other rules and procedures of the Section. The Bylaws cannot be suspended and cannot be changed without prior notice to members.

A. The Bylaws may be amended by a 2/3 majority of Active Members choosing to vote, provided that the proposed amendment(s) are circulated to the members, who will have at least 30 days to vote.

B. In accordance with the Society Constitution, an adopted amendment shall be reviewed by the Society's Constitutional Consultant for conformity with the Constitution, Rules and Procedures of the Society. The Constitutional Consultant presents the adopted amendment to the Society Governing Board for approval.

C. Amendments take effect when the Section receives written notice of their approval by the Governing Board from the Executive Director.

2. Procedures are the lowest level of documentation of Section operations. They are established to provide continuity in the conduct of Section business. The Procedures may be suspended or amended by a simple majority vote of the Executive Committee.

Fisheries Management Section Mailing List

Past President:

Steve Rideout

S.O. Conte Research Center

One Migratory Way

P.O. Box 796
Turner Falls, MA 01376-0796
(413) 863-3802 - phone
(413) 863-9810 - fax
stephen_rideout@usgs.gov

President:

Dave Willis

Dept. of Wildlife & Fisheries Sciences

South Dakota State University

Brookings, SD 57007-1696

(605) 688-6121 – phone

(605) 688-4515 - fax

david.willis@sdstate.edu

President-Elect:

Joe Larscheid

Iowa DNR

122 252nd Ave

Spirit Lake , IA 51360

(712) 336-1840 – phone

joe.larscheid@dnr.state.ia.us

Secretary-Treasurer:

Dirk Miller

Fisheries Management Coordinator

Wyoming Game and Fish Department

5400 Bishop Boulevard

Cheyenne, WY 82006

Voice: (307) 777-4556

FAX: (307) 777-4611

dirk.miller@wgf.state.wy.us

Regional Representatives

Northeast:

J. Randy Jackson

Cornell Biological Field Station

900 Shackelton Point Rd

Bridgeport , NY 13030

(315) 633-9243 – phone

jrj26@cornell.edu

North-central:

Mark Porath

NE Game and Parks Commission

2200 N 33th St
Lincoln , NE 68503

(402) 471-7651 - phone
mporath@ngpc.state.ne.us

Southern:

Robert L. Limbird

PO Box 403

Knoxville , AR 72845

(479) 967-7577

blimbird@agfc.state.ar.us

Western:

Dave Zafft

WY Game & Fish Dept

528 S Adams St

Laramie , WY 82070

(307) 745-5180 – phone

david.zafft@wgf.state.wy.us

Our *Highly Esteemed* and *Greatly Appreciated* web site manager:

Mr. Fred W. Janssen

TX Parks & Wildlife

4200 Smith School Rd

Austin , TX 78744-3292

(512) 389-4655 – phone

fred.janssen@tpwd.state.tx.us

Newsletter editor:

Rob Colombo

Fisheries and Illinois Aquaculture Center

Department of Zoology

Mailstop 6511

Southern Illinois University

Carbondale, Illinois 62901-6511

618-453-2608

rcolombo@siu.edu