

Fisheries Management Section of the American Fisheries Society



NEWSLETTER VOL. 20 # 1

SPRING 2001

President's Message

So Just What Is Fisheries Management, Anyway?

What is fisheries management? It depends on where you sit in relation to the whole science or profession (it also probably depends on whether you are an old coot like me or have just gotten out of graduate school). This has really come home to me recently as I began my new job here with the U.S. Fish and Wildlife Service, Federal Aid Division in Arlington, VA. From where I currently sit, fisheries management is trying to provide the tools (primarily monetary) needed by folks "in the trenches" who often must act and react very quickly to the myriad of problems and opportunities that occur at the local and state or provincial levels. To accomplish this, I find that it is often necessary to work with individuals that may never have held a live fish in their hands. Far fewer yet know what a goby is or know that whirling disease was not the cause of the 1980's break dancing fad.

What does fisheries management mean to each of you? Perhaps a few examples of what I mean is in order. As a field fisheries worker, fisheries management may mean providing technical guidance in person to an individual pond owner or lake association, or working with a sportspersons' organization to encourage its members to return tags from crappie or bass they caught from an area lake during recent

outings. Most fisheries biologists probably relate most closely, however, to fish handling fieldwork such as netting and electrofishing.

To a midlevel fisheries manager (somebody who takes the shallow end of a long seine), fisheries management may mean writing a critical justification for some new electrofishing or hydroacoustic monitoring gear, or trying to figure out how to reach the thousands of urban and suburban youths in your area which have yet to know the joy of catching a "crawd" with a paper cup let alone catching a bluegill with a rod and reel. Active fisheries management at this level may mean trying to influence others in their management approaches (often at professional meetings or workshops) and challenging the home organization to achieve even higher goals.

To higher level fisheries managers, fisheries management may often be determining how to deliver quality training opportunities to both new and veteran employees, or how to share sport fisheries information more effectively and efficiently with local media and sportswriters. Many become involved with regional, national, and international fisheries administrator groups to strive for better and longer-term watershed, river basin or even oceanic-scope fisheries management.

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Editor's note

The issues section was not submitted for this edition, and therefore, several articles were taken from various press releases. These articles were thought to be of general interest to the subscriber.

ARTICLES

ILLINOIS, MISSOURI SIMPLIFY SPORT FISHING REGULATIONS ON MISSISSIPPI RIVER BOUNDARY WATERS

<http://dnr.state.il.us/pubaffairs/2001/Feb/ill-moboundaryfishnews01.htm>

Beginning March 1, an agreement between the Illinois Department of Natural Resources (IDNR) and the Missouri Department of Conservation (MDC) allows anglers from either state to fish anywhere in the Illinois-Missouri boundary waters of the Mississippi River or its backwaters under a more uniform set of regulations. Fishery biologists, law enforcement officers and top fisheries administrators from the two agencies developed the agreement to make it easier for anglers to obey fishing regulations.

"In the past, regulations were different for almost every sport fish, depending on which state's waters you were fishing," said IDNR Director Brent Manning. "The new agreement establishes uniform regulations on methods, seasons, length limits and daily limits for sport fishing on and along the Illinois-Missouri boundary."

The agreement is aimed at eliminating confusion among anglers and law enforcement officers on both sides of the river. Previously, an Illinois-licensed angler fishing on the Missouri side of the river could legally fish without a Missouri license, but only if doing so in "flowing portions" of the river, a subjective and often temporary condition. A Missouri-licensed angler could fish on the Illinois side of the river, but could not stand on shore and fish from Illinois property in the same water that was legal to fish from a boat.

MDC Fisheries Division Administrator Norm Stucky summed

up the change, saying, "It is time that we treat this great river as it truly is - a single ecosystem in which fish move freely throughout. Anglers should be able to enjoy this wonderful resource without undue anxiety over geopolitical boundaries that mean nothing to the fish."

Treating the river as one system required Missouri and Illinois officials to define the term "backwater." For the purposes of Missouri fishing regulations, a backwater is now "any flowing or non-flowing water lying exclusively within the flood plain of a river and connected to that river at any water level below official flood stage." Illinois defines the term more broadly, but Missouri-licensed anglers can enjoy worry-free fishing in Illinois waters that are connected to the Mississippi River at levels below flood stage.

Missouri anglers should be aware that their statewide three-pole limit has been reduced on the Mississippi River. However, the number of hooks they may use on labeled set lines has been increased. As of March 1, not more than two unlabeled poles (formerly three) and not more than 50 hooks (formerly 33) may be used by any person at one time anywhere on the river.

For all species except paddlefish (spoonbill), there is no closed season. Snagging for paddlefish will be allowed from March 15-May 15 and again from Sept. 15-Dec. 15. This represents a compromise between the formerly non-aligned seasons in the two states.

The new agreement establishes a 12-inch minimum length limit for largemouth and smallmouth bass. Missouri has maintained its statewide minimum length limit of 24 inches for paddlefish (measured from the eye to the fork of the tail), while Illinois license holders (and those exempt from buying an Illinois license) may keep spoonbill of any size if caught in Illinois waters.

Complex length limits for striped bass or their hybrids were dropped by both states. No other sport fishing length limits are in effect on Illinois-Missouri boundary waters.

Daily limits were changed in both states. Each had their own rules based upon long-standing traditions that were consistent with statewide regulations. Each had to make significant compromises in the interest of achieving simplicity and uniformity. "We had to set tradition aside in order to better serve our public, and we tried not to unduly restrict anglers in the process," Manning said.

For many species or groups of species, Illinois agreed to establish a daily limit where none had existed previously. In such instances, Missouri doubled its statewide daily limit for the Mississippi River only, thus achieving a numerical compromise acceptable to both states. Biologists in both states said they believe these changes will not significantly affect Mississippi River sport fish populations.

See Sportfishing page 3...

ARTICLES

Use of Tiger Trout in Native Species Restoration

The Utah Division of Wildlife Resources has been experimentally using sterile hybrid tiger trout (*Salmo trutta X Salvelinus fontinalis*) with some success in situations where management objectives are to recover native cutthroat trout. Dale Hepworth has reported successful results in both streams and lakes in southern Utah. Tiger trout have been temporarily stocked after renovation projects while small numbers of transplanted cutthroat trout are allowed to expand from natural reproduction, avoiding public complaints about barren streams and loss of fishing opportunities. Tiger trout are aggressive and readily caught by anglers. Stocking of tiger trout is phased-out as cutthroat trout become more abundant. Louis Berg used tiger trout in southeastern Utah to test barren streams upstream from migration barriers to make sure trout could survive in these areas before introducing native trout, which have limited management availability for experimental projects. Although most results have been positive, some negative aspects can occur. Tiger trout have been highly popular with anglers, who have complained in some cases when stocking is discontinued in favor of total use of native trout. Berg also noted one situation where abundant numbers of tiger trout migrated into a small tributary stream after being stocked into a reservoir, and largely displaced a small population of native trout.

Advances in culture techniques of tiger trout have greatly increased production of this hybrid. During Utah's early attempts to culture tiger trout, it was common to have 4 % or

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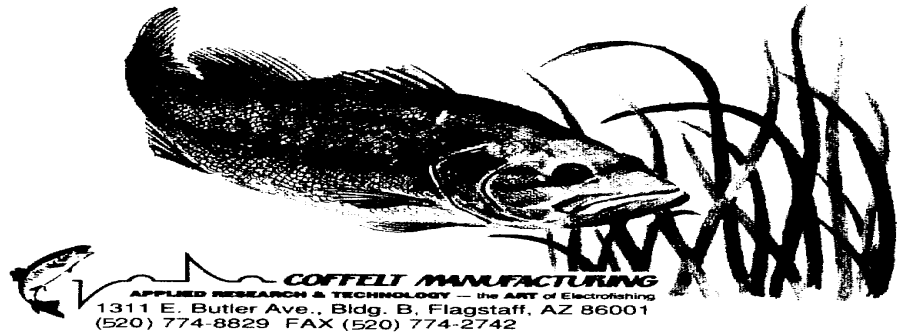
Traditional electrofishing equipment can cause significant spinal injury in up to 80% of captured fish -- with obviously prejudicial effects on fish research or management data.

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less eye-up from fertilized eggs, and it appeared that management options would be very restricted. By heat shocking eggs and thus, producing triploid tiger trout, survival has increased and is frequently over 70%. Triploids actually receive two-thirds of their inheritance from the female brown trout and one-third from the male brook trout. In appearance triploid tiger trout tend to favor brown trout but they are still very distinct. Tim Miles can be contacted at the Utah Division of Wildlife Resources for more information about culture of tiger trout.

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Sportfishing (continued)...

Effective March 1, the daily sport fishing limits on Illinois-Missouri boundary waters of the Mississippi River are: 20 channel and blue catfish combined; 10 flathead catfish; six black bass (usually largemouth); 30 white bass and hybrid striped bass combined; eight walleye and sauger combined; one northern pike; 30 white and black crappie combined; two paddlefish (spoonbill); and, 100 other fish combined. Signs informing anglers of the new regulations have been posted at marinas and other points of boater access on the Mississippi River in Illinois and Missouri.

For more information on the Illinois-Missouri boundary waters agreement, contact the Illinois Department of Natural Resources, Division of Fisheries, 524 South Second St., Springfield, IL 62701, phone 217/782-6424, or the Missouri Department of Conservation Fisheries Regional Supervisor, 2500 South Halliburton, Kirksville, MO 63501, phone 660/785-2420 ext. 236.

Striped Bass of the Coosa River System

By: Steve Smith

<http://www.dcnr.state.al.us/agfd/fish/FNAstripedbasscoosa.html>

Been fishing on the Coosa River lately? Throwing that rattle-trap, cast after cast when all of a sudden you get a strike that you swear will be the new state or maybe even world record, only to find that you landed a saltwater stripe. This scenario is occurring more frequently on Coosa River reservoirs. Why? The Alabama Division of Wildlife and Freshwater Fisheries (ADWFF) has documented natural reproduction of striped bass in the upper Coosa River basin. Evidence shows that these fish are well on their way to establishing a self-sustaining population in Weiss Lake, a feat that has occurred in only a handful of landlocked river systems.

ADWFF began stocking Atlantic-strain striped bass on a limited basis in Lake Martin on the Tallapoosa River in 1965. The goal behind the stockings was to diversify the fishery and to provide anglers the opportunity to catch a trophy fish. The program expanded in 1969 to five reservoirs and eventually peaked to include 24 reservoirs -- seven of which are still stocked with striped bass annually. Weiss Lake, the uppermost impoundment on the Coosa River in Alabama, is in the northeast corner of the state, approximately 29 miles below the confluence of the Etowah and Oostanaula Rivers at Rome, Georgia. Weiss was stocked with striped bass in 1972, 74, 80, 85 and 86. During those years, a total of 131,535 Atlantic-strain stripers were introduced. Concurrent with the

Alabama stockings, the Georgia Department of Natural Resources (GADNR) stocked approximately 4.7 million Atlantic-strain striped bass in the upper Coosa River drainage basin between 1973-92.

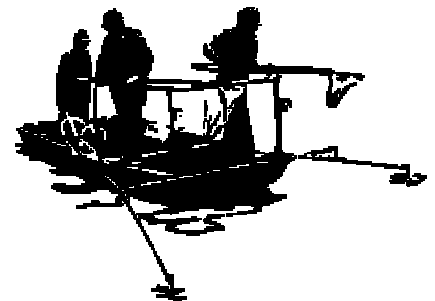
Striped bass began appearing more frequently in angler creels and standardized gill net samples in Weiss Lake during the early 1990s. Speculation at the time was that either natural reproduction was occurring or emigration was taking place from reservoirs upstream in Georgia. A review of GADNR striped bass stocking records indicated that GADNR stocked Gulf-strain striped bass exclusively in the upstream impoundments of Carters and Allatoona in 1993-94. Electrofishing samples in March 1994 netted four one-year-old striped bass near the Alabama-Georgia border. Mitochondrial-DNA analysis (mtDNA) revealed that all four were Atlantic-strain fish. These results prompted ADWFF to conclude that natural reproduction of striped bass was occurring in the upper Coosa River. Since 1997, Dr. Bill Davin (Berry College, Rome, GA) has documented that striped bass are indeed spawning in the Oostanaula River near Rome. He has collected thousands of eggs heading southwesterly into the Coosa River toward Alabama.

The increasing striped bass population in Weiss Lake prompted ADWFF to conduct a diet study. Four hundred fifty striped bass stomachs were examined. Of those 450, one hundred fifteen had empty stomachs. The remaining 335 stripers had a total of 2,699 prey items in their stomachs; 2,522 were shad (93.4 percent), 160 were unidentifiable fish remains (5.9 percent), 6 were crappie (0.2 percent), 5 were bluegill

(0.2 percent), 3 were minnows (0.1 percent), 2 were freshwater drum (0.07 percent) and one was a crawfish (0.04 percent). These results were similar to other studies conducted in Oklahoma, Virginia, South Carolina, Florida, Arkansas, Utah and Tennessee that concluded that sport fish are not a major prey item of striped bass.

ADWFF was also concerned that the influx of striped bass would impact the native sport fishes through competition for food. Data collected by Auburn University and ADWFF personnel have shown no adverse affects on the crappie or largemouth bass populations in Weiss Lake. Also, ADWFF has documented movement of these naturally reproduced striped bass from northwest Georgia all the way down the Coosa River to Lake Jordan.

Steve Smith is a district fisheries biologist with the Alabama Division of Wildlife and Freshwater Fisheries (ADWFF)



Anglers Urged to Get the Lead Out of Their Tackle Boxes

RELEASE DATE: 2001-04-24
 Minnesota Department of Natural Resources
http://www.dnr.state.mn.us/information_center/news_releases/nr988130536.html

This spring more than 2 million anglers will head for Minnesota's 10,000 lakes in pursuit of their favorite pastime. Preparations have already begun, fishing licenses bought, boat registrations renewed; all that's left is to restock the tackle box. The Minnesota Department of Natural Resources (DNR) nongame wildlife officials urge anglers to get the lead out of their tackle boxes by trying nontoxic sinkers. Many anglers are not aware that lead fishing sinkers lost in the weeds or from the "big one that got away" are a threat to Minnesota's state bird, the common loon, as well as bald eagles and trumpeter swans.

According to Carrol Henderson, DNR Nongame Wildlife Program supervisor, "The ingestion of just one lead sinker can poison a loon." Lead is a poison that affects the nervous and reproductive systems of birds and mammals. When fishing lines break, the lead sinkers or split shots are lost and loons, swans, and eagles can inadvertently eat them. Some birds are poisoned when they swallow lead as they scoop up pebbles from the bottom of a lake or river to help grind up their food. Others ingest lead by swallowing fishing jigs that are mistaken for minnows.

Approximately 40 percent of Minnesota's trumpeter swan fatalities are caused by lead poisoning, according to Henderson. "In a recent study, Minnesota biologists found

that 17 percent of loons found dead in Minnesota had ingested lead objects and tested positive for lead poisoning," Henderson said. Lead poisoning was also found in 138 of 650 eagles treated by the University of Minnesota's Raptor Center between 1980 and 1996.

In response to growing awareness and concerns for the lead sinker problem, the fishing tackle industry has begun retooling to create nontoxic sinkers. Their first sinkers were made with a combination of tin and iron dust. Newer models are a combination of tin and bismuth. Currently, 13 United States manufacturers are producing nontoxic fishing tackle. The new nontoxic sinkers are a small portion of their total sales because most anglers don't know they exist and, more importantly, they are not aware of the accidental poisoning of loons, eagles, trumpeter swans, and other wildlife that is being caused by the use of lead sinkers. Currently nontoxic sinkers are twice as expensive as lead sinkers, partly due to the industry dealing with very small volume of sales, which prevents mass production. Prices should decrease as acceptance and use of nontoxic sinkers increase.

Today anglers will find improved performance in the new tin and bismuth sinkers when used with split shot when still fishing with bait and bobbers, according to Henderson. "If anglers switched to nontoxic for split shot alone, it could possibly account for 50 percent of all fishing sinkers and lead to a big drop in the amount of lead going into our lakes," Henderson said.

Minnesota has the largest common loon population in the lower 48 states, the highest number of trumpeter swans in the interior population, and has the fourth largest

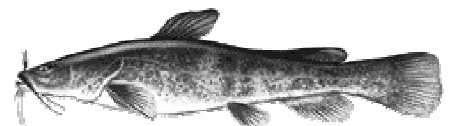
population of bald eagles in the United States. By using nontoxic sinkers and jigs, anglers will help ensure the future of these creatures and keep them a part of the fishing experience in Minnesota.

Catfish Listserv

Greg Pitchford and Jason Vokoun worked with the AFS Computer Users Section to develop a new listserv called "Ictalurids." The listserv is devoted to sharing information about the biology, management, and conservation of worldwide catfish populations and their habitats. The listserv is intended to deal primarily with naturally reproducing catfish populations. While catfish are used in aquaculture and put-grow-take fisheries, those topics have existing forums for information exchange. "Ictalurids" will also be the primary network for communication among members of the American Fisheries Society, North Central Division, and Ictalurid Technical Committee.

To subscribe to "Ictalurids" send an email to mdaemon@fisheries.org. Type Subscribe Ictalurids in the message area leaving the subject line blank.

The first NCD Ictalurid technical committee meeting will be held on December 9, 2001, in conjunction with the Midwest Fish and Wildlife Conference in Des Moines, Iowa. If you have further questions about the listserv or the committee meeting, contact either Greg (pitchg@mail.conservaion.state.mo.us) or Jason (jcve18@mizzou.edu).



FMS ANNOUNCEMENTS

Hall of Excellence Nominations

The Hall of Excellence (HOE) Committee is soliciting nominations for induction into the Section's Hall of Excellence located at the AK-SAR-BEN Aquarium in Gretna, Nebraska. Ken Carlander and Gordon Hall were inducted last year. Committee members are:

Bob Wiley

rwiley@missc.state.wy.us

Larry Rider

l rider@agfc.state.ar.us

Ron Essig

ron_essig@fws.gov

Carlos Fetterolf

fetcarnor@beautifulisland.com

John Casselman

John.casselmann@mnr.gov.on.ca

Darrel Feit

dfeit@ngpc.state.ne.us

Steve Rideout (Chairman)

Stephen_Rideout@usgs.gov

Background information on the HOE can be found at the Section's website at www.sdafs.org/fmsafs. Please note that nominations are due to the President-Elect by May 1 for Committee review. The following nomination form details the information and materials needed to support a nomination. Feel free to contact Steve or any of the Committee members if you have any questions.

Enclosed in this issue is a nomination form for the FMS Hall of Excellence. Please complete the form and return it to Steve Rideout.

President (continued)...

So, take a few minutes the next chance you get to sit down with one of your peers, and share a couple of the most important things you believe affect your own fisheries management actions from where you sit and why. We must all rely upon one another to build and maintain the fisheries management pyramid and to ensure that its strong foundations are sustained.

I was reading this morning from the Proceedings of the 38th Convention of the International Association of Game, Fish, and Conservation Commissioners. This meeting took place from September 15-17, 1948 in Atlantic City, New Jersey. The main fisheries speaker was Dr. R. W. Eschmeyer of the Tennessee Valley Authority who addressed the group with "The Status of Legal Restrictions on Fish Conservation". Dr. Eschmeyer made several observations in his address, which included:

(1) "Regulations are imposed to provide a maximum number of fishing trips, without injury to future angling, and to provide a fair distribution of fish resources".

(2) "Regulations should be imposed only when the need for them has been demonstrated; they should be retained only so long as they serve the desired purpose."

(3) "Ideally, each lake and stream should be regulated individually. However, in areas with many fishing waters and with large numbers of transient anglers, regulations must remain reasonably simple and moderately uniform. To have it otherwise would confuse the angler and greatly complicate the work of fisheries administrators."

FMS Representative Needed

Help wanted with the pending re-authorization of the Magnuson Fisheries Act. The Fisheries Management Section is currently seeking an individual to represent the FMS on an AFS Committee tasked with providing recommendations and direction to the AFS leadership as they work with various Congressional committees on the Act. The committee, which will also include members from the Marine Fisheries Section, will focus on reviewing the issues and identifying and documenting the current scientific opinion on these issues.

The Magnuson-Stevens Fishery Conservation and Management Act (FCMA) is our nation's primary federal fishery management law. Originally passed in 1976, the FCMA defines U.S. authority over the fisheries in water out to 200 miles from the coastline. It also articulates standards and establishes a process for the management of those fisheries. If you are interested in representing the FMS or to obtain additional information on this important endeavor, please contact Tim Hess at Tim_Hess@fws.gov or 703-358-1849

(4) "...In general, a reasonably low bag limit seems desirable on game fish in heavily fished waters, for both biological and psychological reasons." and

(5) "A majority of fisheries personnel can now expect to survive a change in governors, though this is still not true in some states."

-- Tim Hess (President)

articles

SICKLEFIN AND STURGEON CHUB DO NOT WARRANT LISTING AS THREATENED OR ENDANGERED

Contacts:

Bill Bicknell (701) 250-4414

Diane Katzenberger (303) 236-7917 ext 408

April 18, 2001: The sicklefin chub and sturgeon chub, two minnow species native to the Missouri River basin and Mississippi River, do not warrant listing as threatened or endangered species under the Endangered Species Act, the U.S. Fish and Wildlife Service announced today.

The Service made the finding in response to a petition to list the species as endangered from American Rivers, Environmental Defense Fund, Mini Sose Intertribal Water Rights Coalition, National Audubon Society, and Nebraska Audubon Council. The petitioners cited impacts associated with the construction and continuing operation of Missouri River main stem dams and channelization as the principal threats affecting these species and their habitats.

In response to the petition, Service biologists conducted a status review of the two species that indicates populations are more abundant and better distributed throughout their range than previously believed.

"While the historic range of the sicklefin and sturgeon chub has been reduced, we have concluded that stable, self-sustaining populations remain widely distributed throughout their range," said Ralph Morgenweck, the Service's regional director for the Mountain-Prairie Region. "We estimate that the sicklefin chub currently occupies 54 percent of its historic range in the Missouri River basin and the sturgeon chub occupies 55 percent of

its historic range in the Missouri River. The sturgeon chub also is found in 11 of the 30 tributaries of the Yellowstone and Missouri Rivers where they have been historically collected."

The sicklefin and sturgeon chub are members of the Cyprinidae or minnow family. The sicklefin chub is 1.4 to 4 inches long with usually yellowish or tan coloring on the back and silvery-white on the belly. The sturgeon chub is 1.5 to 3.8 inches long with tan to pale green on the back and cream to white on the belly. A few black speckles occasionally are present on the sides and back. Both species only inhabit free flowing rivers with relatively high turbidity.

Historically, the sicklefin chub has been collected from the lower Yellowstone River, Missouri River, and the Mississippi River downstream from St. Louis. Its range extended from Montana to Mississippi, including waters in or bordering 13 States. The sturgeon chub historically has been collected in the same locations as the sicklefin plus an additional 30 tributaries of the Yellowstone and Missouri rivers.

Studies conducted in Montana, North Dakota, and Missouri using benthic trawls indicate that sicklefin and sturgeon chub comprise a significant portion of the fish population in segments of the Yellowstone and Missouri rivers. Also, recent studies conducted by the Missouri Department of Conservation documented viable populations of both sicklefin and sturgeon chub in the middle Mississippi River and in the Wolf Island area of the lower Mississippi River.

See Sicklefin page 9...

Piscicide Use in Native Species Restoration

By: Ron Remmick

Regional Fisheries Supervisor
Wyoming Game & Fish Dept.

On March 15th and 16th a meeting was held in Salt Lake City concerning the use of piscicides in native species restoration that was both informative and helpful to those of us dealing with those issues. Yvette Converse, FWS biologist from the Salt Lake City Office and Ron Remmick, Wyoming Game and Fish Department's Green River Regional Fisheries Supervisor organized the meeting, and Tom Pettengill, Sport Fish Coordinator, and Randy Radant, Chief Aquatic Section, from the Utah Department of Wildlife Resources helped with the logistics and provided the meeting place. Nearly 70 people from eleven states attended with backgrounds including federal and state biologists, administrators, other natural resource managers, as well as people from the private sector.

The first day's presentations were excellent and included discussion of rotenone and antimycin's chemical behavior on fish, other aquatic species, and water quality, some of the mis-information about the use of these chemicals (such as rotenone's link to Parkinson Disease), the AFS's recent Rotenone Manual, and regulatory inconsistencies in federal agencies with the use of these chemicals on federal lands. The second day followed with additional great talks, summaries from Utah, Nevada, New Mexico, Alaska, Idaho, Washington, Wyoming, and

See Piscicides page 11...

NOMINATION FORM

FISHERIES MANAGEMENT HALL OF EXCELLENCE

AK-SAR-BEN Aquarium
Nebraska Game and Parks Commission
Schramm Park State Recreation Area
Gretna, Nebraska

Name of Candidate: _____

Current Address: _____
(if applicable)

Date of Birth: _____ Date of Death: _____
(if known) (if known/applicable)

DESCRIPTIVE BIOGRAPHICAL SKETCH AND CAREER CONTRIBUTION

Include the candidate's significant contributions to fisheries management and location of the work. Those selected for the Fisheries Management Hall of Excellence must have made significant contributions in fisheries management, management oriented research, development of methods and equipment, administration of management programs, or the promotion of fisheries resource conservation, protection, and management.

Please submit the information with this form, including a Black and White head and shoulder photo, if available. Information should be received by March 31st to be considered in the same calendar year.

Return All Information To:

President-Elect
AFS, Fisheries Management Section

Steve Rideout
S.O. Conte Anadromous Fish Research Center
P.O. Box 796 -- One Migratory Way
Turners Falls, MA 01376

ARTICLES

SERVICE DESIGNATES CRITICAL HABITAT FOR ARKANSAS RIVER SHINER

Contact: Vernon Tabor, 785-539-3474

March 30, 2001: In response to a court order, the U.S. Fish and Wildlife Service today designated 1,148 miles of rivers in four states, including 300 feet of habitat bordering both shorelines, as critical habitat for the Arkansas River shiner, a threatened native fish. The designation includes portions of the Arkansas River in Kansas, the Cimarron River in Kansas and Oklahoma, the Beaver/North Canadian River in Oklahoma, and the Canadian/South Canadian River in New Mexico, Texas, and Oklahoma.

The Arkansas River shiner is a small (maximum length of two inches), silvery minnow with a small, dorsally flattened head and a rounded snout. The species once inhabited wide, sandy-bottomed rivers and streams throughout the Arkansas River Basin in Kansas, New Mexico, Oklahoma and Texas. Today, the fish is found primarily in scattered reaches of the Canadian River in New Mexico, Oklahoma and Texas. It requires at least 80 consecutive miles of river to complete its life cycle.

Threats to the shiner include habitat loss from construction of water impoundments, reduction of stream flows caused by water diversions or groundwater withdrawals, declines in water quality, and possible inadvertent collection of shiners by the commercial bait fish industry.

Competition from the Red River shiner, an introduced species, also threatens the Arkansas River shiner.

The Service listed the Arkansas River Basin population of the Arkansas River shiner as a threatened species in 1998 and decided at that time that it was not prudent to designate critical habitat. Today's rule is the result of a settlement agreement with the Center for Biological Diversity, which filed a lawsuit against the Service to require designation of critical habitat. While the designated critical habitat is in response to the deadline established in the settlement agreement, the Department of the Interior is concerned that final designation raises questions about the species and its habitat needs that may need to be addressed in the future, especially as new information becomes available during the development of a recovery plan and conservation strategy for the species. As soon as practicable, the Interior will initiate a further review of the designation and receive public comment.

The final designation covers five stretches of rivers in four units. Unit 1, which is divided into two parts, includes 500 miles along the Canadian River in New Mexico and the Canadian/South Canadian River in Texas and Oklahoma. Unit 2 includes 161 miles along the Beaver/North Canadian River in Oklahoma. Unit 3 includes 134 miles along the Cimarron River in Kansas and Oklahoma. Unit 4 includes 353 miles along the Arkansas River in Kansas.

The only difference from the proposed designation published last June by the Service is that a 12.4

mile length of the Arkansas River running through urban Wichita, Kansas in Unit 4 was deleted from the final designation. Upon further review, the Service determined that this stretch of river had been modified through damming and channelization to the point where it no longer can provide habitat for the shiner. The Service designated 300 feet on either side of the river because a relatively intact riparian zone is necessary for the long-term survival of the shiner, allowing for natural flooding patterns, channel adjustments, nutrient input, buffering from sediment and pollutants, and protected side channels and backwater habitats for larvae and juvenile fish. About 97 percent of the riparian area is privately owned; however, the Service does not expect the designation of the corridor to significantly affect livestock grazing or other agricultural activities.

Sickelfin (continued)...

"The Service is still very much concerned about sicklefin and sturgeon chub populations and the health of the Missouri River ecosystem. Because the chub populations do not warrant listing as either threatened or endangered at this time does not mean that they have not suffered serious decline. We will continue to closely monitor the chub populations and will revisit possible listing if new information regarding the status of the chubs becomes available," said Morgenweck.

Yellowstone Cutthroat Trout Will Not Be Considered for Listing Under the Endangered Species Act

Contacts:

Lynn Kaeding 406-582-0717

or

Diane Katzenberger 303-236-7917 ext 408

February 23, 2001: The U. S. Fish and Wildlife Service has concluded that a petition to list the Yellowstone cutthroat trout as a threatened species under the Endangered Species Act does not provide substantial biological information to indicate that a listing may be warranted at this time.

The Biodiversity Legal Foundation, Alliance for the Wild Rockies, Montana Ecosystems Defense Council, and Mr. George Wuerthner petitioned the Service in 1998 to list the Yellowstone cutthroat trout, a brightly colored fish found primarily in Montana, Wyoming, and Idaho, as threatened throughout its range. The petition and finding also include the finespotted Snake River cutthroat trout to be a variation of the same subspecies.

The Yellowstone cutthroat trout is bright yellow, orange, and red. It is generally distinguishable from other inland subspecies of cutthroat trout by the particular pattern of black spots that appears on the fish's body. The historic range of Yellowstone cutthroat trout generally consists of the waters of the Snake River drainage (Columbia River basin) upstream from Shoshone Falls, Idaho, and those of the Yellowstone River drainage (Missouri River basin) upstream from and including the Tongue River, in eastern Montana. Historic range in the

See Cutthroat page 11...

Special Regulations and Sport Fishing: The Promise of Science Lost?

Organizers

Bill Bradshaw, President Western Division AFS, c/o Wyoming Game and Fish Department, P.O. Box 6249, Sheridan, Wyoming, 82801, 307-672-7418 (w), 307-672-0594 (f), Bbrads@state.wy.us.

Tim Hess, President Fisheries Management Section, 101 Beech St., Essex Junction, Vermont, 05452, 802-241-3476 (w), 802-241-3295 (f), Tim_Hess@fws.gov.

Randy Schultz, North Central Division Centrarchid Technical Committee Chair, Kansas Department of Wildlife and Parks, P.O. Box 1525, Emporia, Kansas, 66801-1525, 316-342-0658 (w), 316-342-6248 (f), Randys@wp.state.ks.us.

Bob Wiltshire, Director, International Fly Fishing Center, 215 East Lewis, Livingston, Montana, 59047, 406-222-9369 (w), iffc@wtp.net.

Description

Special regulations have been applied to recreational fisheries in various forms for many years, have proliferated over the last two decades, and are more common than ever before. Special regulations governing harvest, size, tackle, and seasons are now applied to a diverse array of sport fish species by management agencies nationwide. Most fisheries managers would probably agree that clear objectives and goals, adequate monitoring and evaluation, and appropriate communication, are obligatory components of successfully implementing science-based special regulations. However, many might also question whether these elements are fully institutionalized, remain as mostly unrealized ideals, or are generally accepted and understood by the fishing public and organizations. At the same time angler interest in special regulations remains high, and demands for more regulations, often socially driven, are common. This symposium will focus on use, evaluation, effectiveness, communication and administration of special regulations, and explore the implications of "social" regulations. Invited speakers will provide perspectives on widespread application of special regulations through region-specific case histories and will serve as panelists for an interactive discussion with the audience. Participants of this symposium will gain insight into common regional issues surrounding special regulations, and through shared experiences and understanding, be better positioned to advance science-based fishery management principles.

Format

Half-day session with 40-minute panel discussion.

Moderator

Bill Bradshaw

ARTICLES

Piscicides (continued)...

Colorado agencies concerning the processes they use to implement chemical treatment projects and the problems they encounter.

It was stressed that good communication between agencies, the public, and political entities was necessary to carry out successful projects while minimizing conflicts from those opposing the work. Discussions also included the importance for federal agencies to become more consistent on permitting so projects can be carried out in a timely manner. It was stressed that those doing the actual work be careful throughout their planning process and actual treatment to prevent mishaps. Any disaster, large or small, could hinder future projects throughout the United States. This could jeopardize many of our native species restoration programs, preventing us from ever increasing these species' range.

Brain Finlayson and Bill Horton, both speakers at the meeting and authors of the AFS manual **Rotenone Use in Fish Management**, discussed the important of continued communication and sharing of information between people interested or concerned about the use of piscicides. The people should visit the AFS website, <http://fisheries.org/rotenone/>. This site provides a lot of valuable information as well as a Discussion Forum site for communication interchange, and a good report discussing the Emory University study linking rotenone to Parkinson Disease.

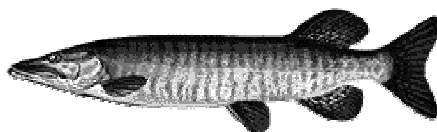


Yvette and I will be preparing a meeting summary along with a list of all those who attended, their email address, and an indication if they have used rotenone or antimycin. If you would like to receive a copy of one or both of these documents you can email me, Ron Remmick, remmi@state.wy.us or Yvette Converse, Yvette.converse@fws.gov and we can send you this information when it is completed.



Cutthroat (continued)...

Yellowstone River drainage thus includes large regions of Wyoming and Montana, whereas that of the Snake River drainage includes large regions of Wyoming and Idaho and small parts of Utah and Nevada. Today, various Yellowstone cutthroat trout stocks remain in each of those major river drainages in Montana, Wyoming, Idaho, Utah and Nevada.



Service biologists found that Yellowstone cutthroat trout currently inhabit approximately 4,700 miles of stream in Montana, Wyoming, Idaho, and approximately 1,000 miles of stream in Yellowstone National Park. In addition, numerous stocks of Yellowstone cutthroat trout inhabit Yellowstone Lake in the park. Each of the principal state and Federal agencies responsible for Yellowstone cutthroat trout management has a long history of working to conserve the subspecies of trout. "Although the number of Yellowstone cutthroat trout stocks in large rivers has declined from historic levels, the Service found that viable, self-sustaining Yellowstone cutthroat trout stocks remain widely distributed throughout the historic range of the subspecies." said Ralph Morgenweck, the Service regional director for the Mountain-Prairie Region.

Most of the habitat for Yellowstone cutthroat trout lies on lands administered by Federal agencies, especially the U.S. Forest Service and National Park Service. Moreover, many of the strongholds for Yellowstone cutthroat trout occur within roadless or wilderness areas or Yellowstone National Park, all of which afford considerable protection to the fish. In addition, the U.S. Forest Service, the National Park Service, and State game and fish departments report approximately 100 ongoing projects directed toward the protection and restoration of Yellowstone cutthroat trout and their habitats.



Continuing Education Courses

The AFS Continuing Education Classes are being given on Sunday, August 19th, 2001, from 8am to 5pm at the Crowne Plaza in Phoenix, Arizona, during the AFS 131st Annual Meeting. Don't miss this opportunity to attend!! Please note the River Morphology Class is 1.5 days and is on Saturday, August 18th. Registration is available through the annual meeting registration form in the FISHERIES magazine, or on the web at www.fisheries.org/annual2001/ce.htm.

AFS T-Shirts on Sale Now!

These 100% cotton T-shirts with the AFS logo on the front pocket, include a colorful silk-screen design by reknown artist H. Steven Logsdon on the back with 7 marine and freshwater species. Color of shirt: off-white. Available in S, M, L, and XL. Costs of shirts are:

AFS Members

\$15, includes shipping and handling

All Others

\$20, includes shipping and handling

To order, call the American Fisheries Society at (301)897-8616, ext. 200, or fax your information to (301)897-8096, and ask for stock #699.08. For mail orders, please send a check to:

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NEW RELEASE FROM AFS

Island in the Streams: Oceanography and Fisheries of the Charleston Bump

George R. Sedberry, editor

244 pages

Published by American Fisheries Society

Publication date: April 2001

Stock #540.26; ISBN 1-888569-23-9

List Price: \$65.00

Member Price: \$45.00

This first comprehensive volume on the Charleston Bump, an important geological feature in the Atlantic Ocean, brings together important new multidisciplinary research from physical scientists, fishery biologists, managers, and economists—professionals who do not often work together on fishery management problems.

Located on the Blake Plateau 100 miles southeast of Charleston, SC, the Charleston Bump deflects the Gulf Stream offshore, and may have a significant oceanographic effect on primary productivity, dispersal and retention of larval organisms, cross-shelf transport of nutrients and fauna, and life history of fishes. The interaction of the Charleston Bump and the Gulf Stream may play a role in the recruitment of large pelagic fishes such as swordfish and other billfishes to nursery areas in the vicinity. With the incidents of overfishing and the problem of bycatch, successful management of the fisheries industry surrounding the Charleston Bump may serve as a model to other fisheries. This book presents new information on the life history stages of swordfishes and other species in the Charleston Bump vicinity, and will reexamine the oceanography and fisheries in light of recent developments.

Highlights Include:

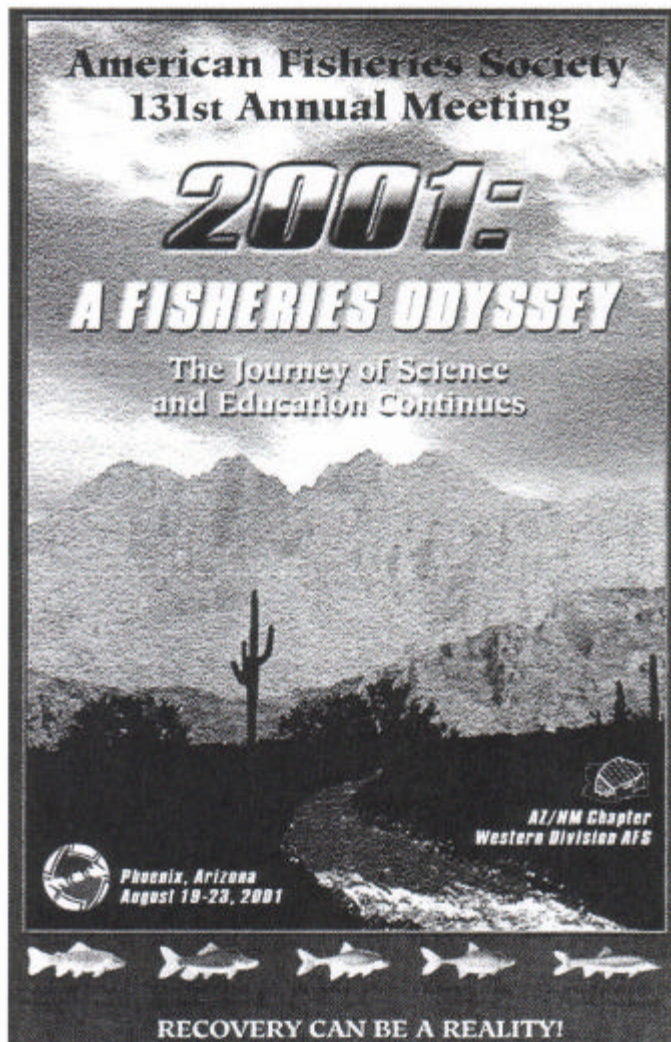
A review of the Gulf Stream meanders and their influence on productivity and distribution of early life stages of important pelagic fishery species.

Descriptions of the influence of complex bottom topography on pelagic fisheries operating on one of the most important pelagic fishing grounds in the Southeastern United States.

Exploration of the linkage of ecology and recruitment of important highly migratory species to oceanographic features in the Atlantic off the Southeastern United States.

A first description of geological features important to deep demersal reef fisheries of the Southeastern United States.

ANNOUNCEMENTS



YEAR 2001
AMERICAN FISHERIES SOCIETY
131st ANNUAL MEETING
"A Fisheries Odyssey"
August 19-23, 2001
Phoenix, Arizona
Hosted by:
Arizona and New Mexico Chapters
and
Western Division of the American Fisheries Society
(For more information visit <http://www.fisheries.org/annual2001/>)

FMS 2001 PROGRESS REPORT

Unit of Program Work: The Fisheries Management Section's charge is to promote effective fisheries management by:

- a) promoting sound fisheries management practices and developing new management concepts and techniques,
- b) encouraging professional growth among Section members and others via meetings, symposia, workshops, and publications,
- c) encouraging publication of case histories, policy analysis, and management program evaluations, and,
- d) providing a forum for identifying, focusing attention on fisheries management, and resolving issues and problems.

Officers:

Tim Hess – President
 Steve Rideout – President-Elect
 Ryan Oster – Newsletter Editor
 Randy Schultz – NC Division Rep.
 Ron Remmick – W Division Rep.
 Elise Irwin – FIN Representative

Jeff Boxrucker – Past-President
 Cliff Stone – Secretary-Treasurer
 Fred Janssen – Website Manager
 Tim Brush – NE Division Rep.
 Vic DiCenzo – S Division Rep.

Accomplishments:

- 1) Electrofishing Injury Project – This project has a scheduled completion date of May 2002. Presentations were given of project results by Ted Henry and Chad Dolan at the Annual AFS Meeting in St. Louis. One MS student is about to finish his thesis; the Ph.D. student is beginning to write his dissertation. Most of the experimental work is completed; what remains is tissue examination by MS State Vet School. A discussion was held at the SD FMS Meeting regarding the best ways to distribute the information to management staffs and the popular press.
- 2) Window-Based Mortality Model (FAST) – This slick fisheries management software was developed by Mike Maceina and Jeff Slipke at Auburn University and copies have been provided to funding agencies, subunits, and sponsoring states free of charge. Further distribution of the software will be handled by the Computer Users Section (\$75).
- 3) Awards Committees – Nominations are currently being solicited for the four awards given by the Section. The Section's most prestigious award, the Hall of Excellence Award is being chaired by Steve Rideout. Last year's recipients were Ken Carlander and Gordon Hall. Other awards being considered include the Award of Excellence (Steve Quinn and Steve LaMere received year 2000 awards), the Award of Merit (Mike Maceina, Jeff Slipke, Gary Whelan, and Mike Vanderford received year 2000 awards), and the Conservation Achievement Award (*In-Fisherman Magazine* received a year 2000 award).
- 4) FMS Symposia – The Section sponsored or co-sponsored six different symposia at the annual conference in St. Louis. These included sessions involving white bass, crappie, catch-related aspects of the fishing experience, GIS, Black Bass 2000, and The Mississippi River Basin: ecology, issues, and management. Currently, the FMS is sponsoring or co-sponsoring two symposia at the meeting in Phoenix: *Partnerships in Tribal Fisheries* (with the Native Peoples Fisheries Section) and *Special Regulations and Sportfishing*.
- 5) Division Meetings – Division meetings of the FMS were held at the Western, Southern, and North Central AFS Division Meetings to date. A Northeast Division FMS Meeting is planned in April at the Northeastern Association of Fish and Wildlife Agencies Conference in Saratoga Springs, New York. The Western Division Meeting will be held in conjunction with the National AFS Conference and FMS annual business meeting in Phoenix in August.
- 6) Website Development/Status – The FMS now has its own website at <http://www.sdafs.org/fmsafs/>. Steve Filipek has had primary responsibility for seeing this to fruition. Fred Janssen, with Texas Parks & Wildlife, is our current webmaster. Any material to be posted on the website should be sent to Fred at fred.janssen@tpwd.state.tx.us.
- 7) Fish Management Section Archives – Jeff Boxrucker has agreed to maintain these files.
- 8) Others – Salary Survey – FMS Representative on any new Salary Survey will be Wes Porak of Florida; FMS Representative Steve Rideout provided comments to the Executive Director in regard to Fish Passage Policy to be passed along to the U.S. Fish and Wildlife Service.

FMS INFORMATION

Fisheries Management Section

Fisheries Management Section Newsletter is published two times yearly. It is dedicated to maintaining the professional standards of the American Fisheries Management Section, and Fisheries management throughout North America.

Executive Committee:

- Tim Hess, *President*
- Jeff Boxrucker, *Immediate Past President*
- Cliff Stone, *Secretary / Treasurer*
- Steve Rideout, *President-Elect*
- Randy Schultz, *North Central Division Representative*
- Vic DiCenzo, *Southern Division Representative*
- Tim Brush, *Northeast Division Representative*
- Ron Remmick, *Western Division Representative*

Editorial Staff:

- ⚙ Southern Illinois University Unit of the Illinois Chapter of the American Fisheries Society, *Editors*
- ⚙ Ryan A. Oster, *Managing Editor*
- ⚙ Steven Kerr, *Ontario Editor*
- ⚙ Wendell Willey, *Western Regional Editor*
- ⚙ Michael Vanderford, *North Central Regional Editor*
- ⚙ Bill Hyatt, *Northeast Regional Editor*
- ⚙ Ron Moore, *Southern Regional Editor*

Editor's Note

I would like to take this opportunity and say that I enjoyed serving as the FMS's managing editor for the Spring 2001 edition. Additionally, I would like to thank all those individuals who contributed articles and also those who helped in the publication of this newsletter.

--- Ryan A. Oster

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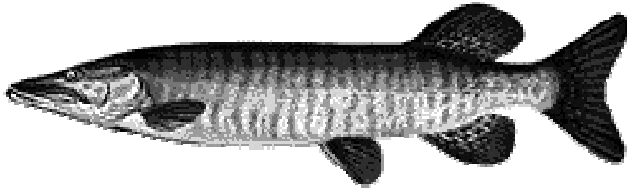
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Fisheries Management Section dues are \$5 per year. Notification of address change should be submitted to the American Fisheries Society office in Bethesda, Maryland.



Fisheries Management Section

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