

Volume 2

May/June 1993

Number 3

Help Save America's Interjurisdictional Rivers

Congressman Steve Gunderson, (R/WI) recently sent a "Dear Colleague" letter under the subject title to over 70 Congressional Offices announcing the forthcoming introduction of the "Cooperative Interjurisdictional Rivers Fisheries Resources Act".



The text of Gunderson's letter follows:

"Dear Colleague:

'I will soon introduce 'The Cooperative Interjurisdictional Rivers Fishery Resources Act of 1993'. 'The bill is intended to take an important step forward in preserving and protecting the future well-being of the interjurisdictional rivers of the United States, and the fishery resources of those rivers.

'The Cooperative Interjurisdictional Rivers Fishery Resources Act of 1993 builds on a highly successful interjurisdictional rivers management program now in place on the Upper Mississippi River. Through the Environmental Management Program the five states of the Upper Mississippi are successfully coordinating management and husbandry of their shared river resources.

'Interjurisdictional rivers, those rivers that flow between or are common to two or more state boundaries, and associated wetlands provide habitat critical to an abundance of fish and wildlife. These same rivers are also conduits for much of the nation's industrial and domestic wastes, and for the transport of raw materials and manufactured goods.

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'Consequently, large rivers and large river fisheries are impacted by a wide variety of waterway development programs, many of which are federal. These developments are accelerating and increasingly degrading large rivers and large river fishery habitats.

'Individual state natural resource agencies have not been as effective as they could be in managing and protecting these rivers because of this fragmented jurisdiction. That is why I have introduced the Cooperative Interjurisdictional Rivers Fishery Resources Act of 1993.

'The Act would establish a council, chaired by the Secretary of Interior and consisting of representatives of state and federal agencies that play a role in fish and wildlife management. The council would be responsible for developing a national interjurisdictional rivers management strategy, and establishing comprehensive plans for the five highest priority interjurisdictional rivers in the nation.

'In addition, the Act establishes a pilot test of the Mississippi Interstate Cooperative Resource Agreement, which was entered into in 1991 by 29 states of the Mississippi River Basin and the U.S. Fish and Wildlife Service to develop cooperative fisheries and resource management programs.

'The Cooperative Interjurisdictional Rivers Fishery Resources Act is supported by the U.S. Fish and Wildlife Service as well as the national and local chapters of the major river resource management organizations.

'If you would like to join me as an original cosponsor of this legislation, or if you have any questions about the bill, please contact me or Judy Gifford at 5-5506 by June 10."

Sincerely,

Steve Gunderson

As of May 31, Pat Williams (D/MT) and Martin Sabo (D/MN) have signed on as "original cosponsors". Other cosponsors are needed, and MICRA members and enthusiasts are encouraged to contact their respective Congressman soliciting support for the Bill.

Congressman Gunderson plans to introduce the Bill shortly after the June 10th deadline mentioned in his "Dear Colleague" letter. The new Bill will be forwarded to the Merchant Marine and Fisheries Committee for consideration. A similar bill, H.R. 4169, introduced in the last Congress, became a casualty of a busy agenda. This year's agenda will likely be equally busy, but it is hoped that growing support from the Bill's constituents will elevate its priority with the Committee.

Congressman Thomas J. Manton (D-NY), Chairman of the Merchant Marine. and Fisheries Committee's Subcommittee on Fisheries Management held an oversight hearing on interjurisdictional fisheries management and proposed legislation on May 19th in Washington, D.C.

Representatives of the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, State officials, representatives of commercial and recreational fishing interests, and environmentalist were called as witnesses.

River Crossings

Published by

Mississippi Interstate Cooperative Resource Agreement (MICRA) 608 East Cherry Columbia, MO 65201

MICRA Chairman Wes Sheets, Nebraska Game and Parks Commission, Lincoln

MICRA Policy Committee

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River Crassings is a mechanism for communication, information transfer, and coordination between agencies, groups and persons responsible for and/or interested in preserving and protecting the aquatic resources of the Mississippi River Drainage Basin through improved communication and management. Information provided by the newsletter, or opinions expressed in it by contributing authors are provided in the spirit of "open communication", and <u>do not</u> necessarily reflect the position of MICRA or any of its member States or Entities. Any comments related to "River Crossings" should be directed to the MICRA Chairman.

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The word from Washington is that the "Cooperative Interjurisdictional Rivers Fishery Resources Bill" enjoys broad general support from most Committee members. Now what is needed is for one or two of our respective Congressman to write letters of support to Chairman Manton. If this happens it is likely that a hearing will be scheduled for the Bill before the August recess.

MICRA members and supporters are encouraged to contact both their respective Congressmen and the members of the Merchant Marine and Fisheries the Committee's

SubCommittee on Fisheries Management expressing support for the Bill. Members names and affiliations are displayed in the box above.

June and July are key months when new or renewed Congressional contacts should be made!



Cooperative Interjurisdictional **Rivers Fisheries Resources Act** of 1993

What is the Cooperative Interjurisdictional Rivers Fisheries Resources Act of 1993, and just what will it do?

The bill is very similar to H.R. 4169, introduced by Congressman Gunderson in 1992. It would establish a National Council on Interjurisdictional Rivers Fisheries, chaired by the Secretary of the Interior, and direct the Secretary to conduct a pilot test of MICRA.

The bill has been redrafted from the H.R. 4169 version to satisfy State concerns regarding State approval of any plans developed by the National Council. The following new Section has been added:

"(4) REVIEW AND APPROVAL OF STRATEGIC PLANS BY STATES. - The Council may not issue a cooperative action strategy under this section in final

form unless-

'(A) the Council has submitted each comprehensive fishery strategic plan contained in the strategy to each State having jurisdiction over an interjurisdictional river that is covered by the plan; and

'(B) the head of the fisheries management agency of each of those States has approved the plan."

The most frequently asked questions regarding the Bill include the following:

3

(1) What is the Bill?

 The Cooperative Interjurisdictional Rivers Fisheries Resources Act (Act) would establish a national council that would identify 10 of America's interjurisdictional rivers with the greatest need of cooperative fisheries management. Of these 10, the council would develop comprehensive fishery plans for the 5 highest priority interiurisdictional rivers. The national council would be composed of 13 members: 7 State fish and wildlife agency directors; and 6 Federal agency representatives. The Secretary of the Interior (or his designee) would chair the council.

 The Act would also provide for a pilot test of the Mississippi Interstate Cooperative Resource Agreement (MICRA) which was entered into by 28 states of the Mississippi River Basin in 1991. The U.S. Fish and Wildlife Service, Tennessee Valley Authority, U.S. Bureau of Reclamation, Chippewa-Cree Tribe (Montana), and the Chickasaw Nation (Oklahoma) have also signed on as cooperating entities. MICRA proposes to coordinate management of interiurisdictional fisheries. The MICRA project area and interjurisdictional rivers of the Mississippi River Basin are displayed in the center of this page.

(2) Why is the Act needed?

• The Nation's rivers provide over 3.5 million miles of inland waterway. Throughout history, they have been used for commercial and private transportation; domestic, industrial and agricultural water supply; commercial, subsistence, and recreational fishing and hunting; hydropower production and other electrical generation; waste disposal;

and non-consumptive recreation. These multiple uses have come at high cost to the fish and wildlife resources these rivers support.

• Interjurisdictional rivers flow between, or are common to, two or more states, countries, and/or other jurisdictions. These rivers form large ecosystems that must be managed comprehensively and holistically if they are to continue to provide environmental, recreational, and economic benefits to the Nation. Piecemeal management by the multitude of individual States, Tribes,



Interjurisdictional Rivers of the Mississippi River Basin and the MICRA Project Area.

and Federal agencies has produced fragmented conservation efforts that have allowed these resources to steadily decline.

• This Act would help reverse these declines by encouraging all concerned management entities to work together to identify and solve fishery resource problems.

(3) How would the Act be Implemented?

Once enacted into law, funding would need to be appropriated through the

Secretary of the Interior to establish the national council. The Council would be convened to establish an action agenda that relies heavily on existing information and on MICRA project plans that have already been developed.

The Act would authorize \$1 million per year to fund the actions of the Council and \$2 million per year to fund the MICRA pilot programs. These funds would be authorized for each of the 3 years following enactment.

(4) Who would be on the Council on Interjurisdictional Rivers Fisheries?

 The Director of the U.S. Fish and Wildlife Service, acting for the Secretary, would serve as chairperson of the Council. Seven State Directors of fish and wildlife management agencies would be appointed to the Council with each representing one of the following River Basins: Upper Mississippi, Lower Mississippi, Ohio, Colorado, Missouri, Pacific Coastal, and Atlantic Coastal. The heads (or their designees) of the National Marine Fisheries Service. Department of Energy, Department of the Army Civil Works Division,

Tennessee Valley Authority, and the Federal Energy Regulatory Commission would also serve on the Council.

(5) What is an Interjurisdictional River?

• The Bill defines an interjurisdictional river as "a river that flows between, or is common to, 2 or more State boundaries or a State and a foreign country.

(6) What Is MICRA?

• The Mississippi Interstate Cooperative Resource Agreement, entered into by all 28 States wholly or partially located in the Mississippi River Basin.

• The U.S. Fish and Wildlife Service, coordinates the management of interjurisdictional fishery resources in the Basin. Under the Comprehensive Strategic Plan developed by the MICRA signatories, fisheries managers have agreed to share facilities and funding for implementing fishery management efforts that have common interagency ramifications.

(7) Which rivers would likely be addressed under the Act?

• The Act would direct the Council to identify high priority rivers by considering the severity of problems, the adequacy of existing management programs, the status and trends of fishery resources, the physical and biological characteristics of the basins, and the economic demands on the river. The Council would diligently try to select the highest priority rivers by consensus. Rivers such as the Mississippi, Missouri, Connecticut, and Ohio would undoubtedly be among the rivers considered.

(8) How would this Bill affect State prerogatives?

• Great care has been taken in drafting this proposed legislation to address concerns expressed by the States regarding maintaining State prerogatives under the various provisions of the Act. The Act would state that each State having jurisdiction over an interjurisdictional river that is covered by the plan can elect to participate in the plan or not.

(9) What is the Federal Government's role?

• Funding for implementation of this legislation would be provided to the Secretary of the Interior, acting through the Director of the U.S. Fish

and Wildlife Service. The Service would act as coordinator/facilitator to ensure that the Council functions efficiently and would provide administrative support to complete the assigned work of the Council. The Service would also provide staff support to implement, evaluate and assist in reporting on all MICRA test projects.

(10) When would the provisions of the Act be completed?

• The Act would require the Secretary to submit final reports to Congress on the Council activities and on the success of the MICRA test projects within 36 months after enactment of the legislation into law.

MICRA Steering Committee Meeting

The MICRA Steering Committee will meet on June 28th at the Kansas City, Missouri International Airport Holiday Inn.

The meeting agenda will include (1) review and approval of the Paddlefish/Sturgeon Committee's Strategic Plan, (2) the Framework for the Conservation and Management of Paddlefish and Sturgeon Species in the United States, (3) the Interjurisdictional Rivers bill, (4) MICRA funding through joint federal aid projects, and (5) election of new MICRA officers.

Lee Hillwig a biologist with the U.S. Fish and Wildlife Service in Arlington, VA is the National Coordinator for the Framework for Paddlefish and Sturgeon Management. Lee will attend the Steering Committee meeting to discuss the "framework document" and its potential implications to MICRA. The recently completed "framework" recognizes MICRA as the mid-continent coordination point for paddlefish and sturgeon management.

Regarding MICRA funding, Nebraska

recently joined the growing number of States who have submitted \$1500 in annual dues payments for support of MICRA and its mission.

MICRA Paddlefish/Sturgeon Committee Completes Draft Strategic Plan

The MICRA Paddlefish/Sturgeon Committee completed their "Draft" Strategic Plan in mid May. It has been forwarded to the Steering Committee for review and comment, with hopeful adoption at the June 28th Steering Committee meeting in Kansas City.



The Plan includes the following seven goals:

Goal 1 - Identify and prioritize issues and concerns affecting paddlefish and sturgeon resources in the Mississippi River Basin and develop a mechanism for addressing them.

Goal 2 - Facilitate communication and coordination among entities responsible for paddlefish and sturgeon resource management in the Mississippi River Basin.

Goal 3 - Develop a basin-wide information management program based upon standard methods for collecting and reporting paddlefish and sturgeon fishery resource data.

Goal 4 - Identify and coordinate paddlefish and sturgeon research, management, culture and recovery programs to address species and habitat concerns from an ecosystem perspective.

Goal 5 - Encourage basin-wide conservation, protection, and

restoration of paddlefish and sturgeon habitats.

Goal 6 - Seek basin-wide consensus regarding paddlefish and sturgeon conservation and management through development of uniform, compatible regulations and policies.

Goal 7 - Increase public awareness and appreciation of the ecological and economic importance of paddlefish and sturgeon species and the environmental and human-related impacts that threaten their welfare and continued existence.



The MICRA document addresses some of the major concerns regarding basinwide paddlefish management which prompted formation of MICRA in the late 1980s. Adoption and funding of the Interjurisdictional Rivers Fisheries Bill, would provide a big boost to implementation of the Plan, since that bill provides funding for MICRA over a three year period at \$2 million annually.

Lower Mississippi River Conservation Committee Becoming a Reality

In April 1992, representatives from Mississippi, Louisiana, Arkansas, Missouri, Texas, U.S. Fish and Wildlife Service, and Army Corps of Engineers participated in a meeting in Vicksburg, Mississippi, to discuss the formation of the Lower Mississippi River Conservation Committee (LMRCC).

A mission statement, goals, objectives, and a constitution and by-laws have been developed for the LMRCC, borrowing much from similar documents of the Upper Mississippi River Conservation Committee (UMRCC) and the Missouri River Natural Resources Committee (MRNRC).

While the UMRCC and MRNRC have provided a basis for the development of the LMRCC, the details of how that entity will be structured and function are currently under further review by member agencies.

1. The LMRCC will be concerned with the fish, wildlife, and habitats of the Mississippi River and its floodplain from the Ohio River south (see map on this page).

2. Member agencies of the LMRCC will tentatively include both the "fish and wildlife" and "water quality" agencies of the States of Arkansas, Kentucky, Louisiana, Mississippi, Missouri, and Tennessee. One representative from each of these agencies will make up the LMRCC Executive Committee. Each agency will have one vote on the Executive Committee.

3. Other agencies and organizations may affiliate with the LMRCC as "Cooperating Agencies and Organizations." Three of these agencies have been identified to date: Texas Parks and Wildlife Department; U.S. Army Corps of Engineers; and the U.S. Fish and Wildlife Service. Cooperating Agencies and Organizations may participate in Executive Committee meetings, but may not vote.

4. The Fish and Wildlife Service will provide a Coordinator to facilitate the day-to-day operation of the organization.

 Technical Sections (subcommittees) will be established for the following areas for: (1) Fisheries, (2) Recreation,
(3) Wildlife, (4) Water Quality, (5) Law Enforcement, and (6) Red River (see map). Technical Section participation is open to all interested individuals.

Mr. Bill Dieffenbach, Assistant Planning Division Chief of the Missouri Department of Conservation, has volunteered to serve as initial chairperson of the LMRCC until the first meeting is held. The first meeting is scheduled for the last week of February 1994 in Little Rock, Arkansas, in conjunction with the Southern Division meeting of the American Fisheries Society. Following: that meeting, one of the agency delegates from Arkansas will take over as chairperson.

Mr. Dieffenbach was selected as initial



Lower Mississippi River Conservation Committee (LMRCC) Project Area (i.e. Lower Mississippi River mainstem). The Red River (also shown) will be addressed as appropriate under a technical committee of the LMRCC.

chairperson because he has had extensive experience as a chairperson of the UMRCC, headquartered in Rock Island, IL. The UMRCC has served as a successful advocate for fish and wildlife resources on the Upper Mississippi since 1943.

MICRA will use the UMRCC, LMRCC, and MRNRC as primary coordination points for fisheries issues in the Upper Mississippi, Lower Mississippi, Red, and Missouri rivers.

For more information on the LMRCC contact: Doug Fruge, U.S. Fish and Wildlife Service, Gulf Coast Fisheries Coordination Office, P.O. Box 825, Ocean Springs, Mississippi 39564.

Babbitt Endorses Ecosystem Protection Plan

In the first major endangered species listings since President Clinton took office, the U.S. Fish and Wildlife Service in March announced four noteworthy additions to the threatened species list that affect timber, irrigation and development interests in several western states.

These species include three bird and one fish species: Coastal California gnatcatcher, Mexican Spotted Owl, Western Snowy Plover, and Delta Smelt.

The highest profile listing was the coastal California gnatcatcher, which Interior Secretary Bruce Babbitt personally announced on March 25. The gnatcatcher resides along the Southern California coast on expensive real estate.

Developers have agreed to halt development on 210,000 acres of coastal sage scrub until November as part of a State program to develop a habitat protection plan for the area.

In listing the bird

as a threatened species, Babbitt also proposed a special rule to allow destruction of some of the bird's habitat if specific guidelines are followed while State and local authorities develop an acceptable habitat conservation plan for the bird **that will also benefit other rare species** (emphasis added).

"We are taking a risk here because we simply must break through these environmental and economic stalemates," Babbitt said. "We have to be able to point to one community and prove they were able to, from start to finish, **protect both a species** and the local economy (emphasis added). If we don't, we'll run ourselves right off a cliff."

The Natural Resources Defense Council (NRDC), which petitioned the federal government to protect the bird, applauded the decision to list it as a threatened species "in the face of tremendous opposition."

The administration's support of the State's effort under the Natural Communities Conservation Planning Program to preserve a 6,000 square-mile ecosystem that the gnatcatcher and many other rare species use while allowing some development to go forward is being touted as a wave of the future for controversial listings (emphasis added).

About 2,600 pairs of the gnatcatchers remain in Southern California, while an additional 2,800 pairs live in Mexico. Colorado rivers, among others.

On the middle and lower Mississippi and Missouri rivers the pallid sturgeon and a whole compliment of other large river species are in significant trouble due to habitat loss to channelization and flood control projects. Portions of these rivers must be restored to more natural riverine condition if these species are to survive. These natural river conditions include periodic access of riverine waters to portions of the natural floodplain.

A change in river management philosophy will thus be necessary to restore these species, but this change does not have to adversely impact other river uses. A new concept called, "Riverine Resource Conservation Areas", could be established. These areas would restore segments of the natural floodplain, while providing significant

> economic benefits in the form of both flood control and recreation benefits.

Cooperative action is currently underway by MICRA, the U.S. Fish and Wildlife Service and the States on both the Iower Missouri River (Sioux City to St. Louis) and

The gnatcatcher depends upon coastal sage brush, up to 90 percent of which has been destroyed by farming and home construction.

The cooperative actions taken in California to reverse the demise of the California gnatcatcher and its ecosystem are encouraging because, in many ways, they are similar to actions which will be needed on many of our large river ecosystems in order to stem the loss of our native large river fish species. Cases in point being the middle and lower Mississippi, the Missouri, and the the Middle Mississippi (St. Louis to the Ohio River confluence) to investigate opportunities for restoration of this type of river/floodplain connectivity.

Using Secretary Babbitt's philosophy, restoration of more natural riverine conditions in selected "conservation zones" could thus head off future confrontations over listings of numerous species of native Missouri and Mississippi river fish species.

Source: Land Letter, The Newsletter For Natural Resource Professionals, April 1,1993, Vol. 12, No. 10.



Strategy for Fish Habitat Restoration and Enhancement on the Middle Mississippi River

Missouri and Illinois fisheries biologists are cooperating with U.S. Fish and Wildlife Service biologists through MICRA to develop a strategy for fish habitat restoration and enhancement on the Middle Mississippi River.

The group met for the second time in Collinsville, IL on May 24-25 to develop ideas and an outline for preparation of the draft strategy. The project is in direct support of Interior Secretary Babbitt's interest in heading off environmental/economic collisions (discussed previously) through improved ecosystem management.

The project grew out of discussions last August between the MICRA Coordinator and St. Louis District Corps of Engineers hydraulic engineers and planners, who had expressed an interest in working with biologists to improve fisheries habitat, while maintaining the 9-foot navigation project.



blue sucker

Biologists hope to use the strategy (1) to achieve consensus between the States and the Fish and Wildlife Service on desired habitat conditions, (2) identify and develop new management opportunities, (3) provide engineers with information useful in making the navigation project more compatible with fisheries resources, (4) promote ecosystem restoration and management, (5) head off future confrontations between environmental and economic interests, and (6) reduce or eliminate the need to list Middle Mississippi River fish species on federal or State endangered species lists.

The Fish and Wildlife Service's Missouri River Initiative, scheduled for funding in FY 94, will in part, initiate a similar effort on the Missouri River (Gavin's Point Dam to St. Louis).

Large River Sampling Work Group

Difficulties involved in sampling large river fisheries populations have long been a dilemma to fisheries biologists.

Recent channel maintenance technology (bendway weirs) being tested by the St. Louis District Corps of Engineers to better manage the nine-foot navigation channel project, while providing for fishery habitat has elevated the need to better sample fish populations associated with deep, swift water habitats.

In response Charles Theiling, Illinois Natural History Survey, is organizing a group to address this problem. Anyone interested in participating or having ideas should contact Mr. Theiling at the Illinois Natural History Survey, Long Term Resource Monitoring Field Station, P.O. Box 368, West Alton, MO 63386, (314) 753-2221.

Dissolved Oxygen Problems At Hydropower Dams

In the last year or so Arkansas Game and Fish Commission biologists became increasingly concerned about low dissolved oxygen problems in waters below their State's hydropower dams, especially the Bull Shoals and Norfork dams.

Growing out of that concern they conducted a national survey of State fishery managers to develop information on the extent of the problem in other areas. Arkansas biologists felt such a survey would likely demonstrate that this is a national problem, that may be caused, in part, by inconsistent federal policy.

Thirty eight states responded, and some of the findings follow:

• Information provided verified a nationwide occurrence of low DO discharges below hydropower dams.

• Twenty states cited impacts from low DO.

• Some States apparently accommodate the impact by writing off the tailwater reach immediately below the dams. Others are content with, or are limited to, seasonal put-and-take fisheries.



rainbow trout

• Much of the national mitigation effort has focused on hydro impacts to anadromous fisheries.

• States with put-grow-and-take fisheries or trophy fisheries are the most concerned with low DO impacts.



brown trout

• Tailwater trout fisheries (themselves mitigation features) are being impacted by the very projects they were designed to mitigate.

• The TVA is the agency showing the most initiative and creativity in solving DO problems with a strategic, system-wide approach. - - It is worthy of note that the TVA is an official cooperating entity member of MICRA.

• The Corps of Engineers (COE) approaches the problem through "a cost shared project-by-project study with incremental justification required for each reallocation to non-authorized purposes." Operational concessions are made for fish and wildlife, only within the constraints imposed by authorized project purposes, typically flood control and hydropower. - - The COE is not presently an official cooperating entity member of MICRA.

• A casual look at two decades of data from Bull Shoals shows increasing frequency and duration of DO levels below 2mg/l at the hydro intake. Intuitively, this reflects an increasing BOD resulting from the exploding human and animal populations in the White River watershed.

• States have the opportunity to require Water Quality compliance in private hydro development, but federal projects are exempt from the FERC licensing process.

• Hydropower problems require site-specific solutions. Direct impacts may be generally categorized as water quality, water quantity, intake/turbine fish mortality and structural fish barrier impacts.

• Low dissolved oxygen is a water quality impact to the receiving tailwater, resulting from the use of oxygen deficient waters from a stratified reservoir to generate electricity.

• Technical solutions aim at increasing oxygen content in-reservoir, as the water passes through the intake and turbines, or as it reaches the tailrace.

• In addition to the lethal effects of low DO, there are impacts to fish production and growth.

• Dissolved oxygen in the gravel spaces where eggs, larval fishes and invertebrate food organisms must survive frequently measures well below that of the water column.

• Coldwater fishes other than trout, some of which are forage species, are affected by low DO.

• Marginal temperature situations are aggravated by low DO. Though fish may acclimate somewhat or seek refugia, the on-off character of the high flows associated with peaking power generation reduce those possibilities.

• Fishermen are also affected by low DO in hydro electric project tailwaters. Studies in Missouri at Lake Taneycomo/White River documented a linear decrease in angler success with the decline of DO below 6ppm. The economic impact to Taney County from low DO was estimated to be \$358,000. That figure can be adjusted for inflation over the last decade and multiplied by the other impacted tailwaters in the White River system.



Another Missouri Department of Conservation study credited the Taneycomo trout fishery with 7% of the total economic activity in the area, yielding a 22:1 cost benefit ratio for Missouri's trout stocking program.

• Arkansas found the value of its trout fishery to be \$143 million in 1988.

• Dissolved oxygen mitigation technologies are numerous and well studied. All have advantages and disadvantages. The main disadvantages are loss of power producing capacity and the cost of installing modifications. Some solutions, such as retrofitting turbines to an auto-venting design, would improve dissolved oxygen levels and yield an efficiency bonus which could attract a financial sponsor.

Arkansas biologists make the following recommendations:

(1) Recognize low DO as a significant regional problem amenable to system-wide solution through cooperative federal-state-private efforts.

(2) Task a committee of the Southeastern Association of Fish and Wildlife Agencies and/or the International Association of Fish and Wildlife Agencies with preparation of an association position on low DO. Address the inconsistency of requiring

> private hydropower projects to comply with State water quality standards while federal projects are exempt from licensing and compliance. Prepare testimony for Clean Water Act reauthorization hearings.

> (3) Do not accept existing projects as the baseline environmental condition. Public values and benefits have changed. Energy

rate structure and project payback calculation should be reexamined.

(4) COE should be required to study and report on dissolved oxygen problems/solutions in the region.

(5) Technical solution research should focus farther upstream in both time and space. Anticipation of increased BOD and prevention of hypolimnetic DO depletion should be feasible if aeration is begun prior to stratification. Is it possible to accept some warming in exchange for increased DO? If so, a bank of wind-powered aerator/ mixers near the upstream margin of the metalimnion might prevent DO depletion.

Arkansas biologists conclude that we should not settle for existing conditions in federal peaking power/flood control reservoirs. Reexamination of public benefits and associated economic values will reveal the need for operational and structural changes which are both politically and economically feasible.

Arkansas biologists further believe that COE policy on hydropower is obviously out of step with Congressional intent as expressed in the Electrical Consumers Protection Act of 1986 and implemented by FERC for licensed hydroelectric projects. COE hydroelectric projects are the largest remaining category not required to comply with State water quality standards and give equal consideration to fish, wildlife and recreation.

This issue needs to be brought to the attention of Congress through various means, including organized State testimony for the upcoming Clean Water Act reauthorization hearings.

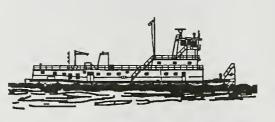
This may be an issue which MICRA will want to become involved in from the basinwide perspective.

For more information on the Arkansas survey contact: F. Allen Carter, Chief Fisheries Division, Arkansas Game & Fish Commission, 2 Natural Resources Drive, Little Rock, Arkansas 72205, (501) 223-6371.

Long-Distance Dispersal of Zebra Mussels Via Commercial Vessel Hulls

In April 1992, a barge (EMT-211B) owned by Eagle Marine Transport Co. was put into dry-dock at National Maintenance and Repair, Inc., in Hartford, IL. The St. Louis District Corps of Engineers was contacted by the company when more than 1,000 live zebra mussels were found on the hull.

Investigators; Thomas M. Keevin, Ronald E. Yarbrough, and Andrew C. Miller, U.S. Army Engineer District, St. Louis and Waterways Experiment Station, Vicksburg, MS; found clumps of zebra mussels (*Dreissena polymorpha*) attached to the lower



seam of the bumper plate on the sides of the hull and along weld seams on the bottom of the hull. Clumps appeared to be randomly distributed but always on weld seams.

Numbers of individuals in six clumps along the bumper plate ranged from 8 to 34. Two clumps examined on the underside of the hull contained 66 and 96 individuals. Over 1,000 mussels were counted on the exposed part of the hull.

Mean shell length (SL) of 100 randomly chosen zebra mussels from several clumps was 17.3 mm (standard deviation - 1.6), minimum and maximum length were 11.6 and 21.1 mm, respectively.

Zebra mussels are reported to grow at a rate of 1.0 to 1.6 cm/year in slow and fast growing populations, respectively. It appeared to the investigators that the zebra mussels attached to the barge were approximately one year old.

Information on the barge's movement provided by Eagle Marine Transport

Co. gives an indication of a probable veliger attachment site.

Barge EMT-211 B was in the Illinois River at Hennepin, IL on February 26, 1991; however, water at that time of year was too cold for spawning. The barge left the Illinois River (Spring Valley, IL) in May 1991. It is likely that veliger attachment took place in the Illinois River during the early spring or summer of 1991.

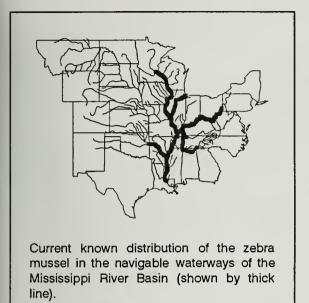
Assuming that the zebra mussels attached to the barge hull in Spring Valley, IL in May 1991, these mussels were transported a total distance of approximately 15,884 km before dry-docking. This included the upper Mississippi (as far north as Winona, MN), lower Mississippi (to Louisiana and Mississippi), and Illinois rivers.

During barge transit, locking and fleeting, there was a potential for dislodgement and spawning of the attached mussels. The investigators concluded that the potential for long-distance transport and dispersal of zebra mussels on the hulls of barges is considerable.

A map showing most of the current distribution of zebra mussels in the Basin is displayed on the next page. With the exception of the Missouri River, this map shows that much of the Basin's commercial waterway transportation network (i.e. the Mississippi, Ohio, Cumberland, Tennessee, and Arkansas rivers) has already been infected with zebra mussels. According to the findings in the St. Louis District study, there is strong reason to believe that the mussels were spread throughout the system by barge movements.

Lack of mussel infestation in the Missouri River, to date, could be for two reasons: (1) the relatively swift, turbid waters of the Missouri have not provided desirable habitat for the zebra mussel, or (2) the significantly lower volume of navigation traffic on the Missouri River simply hasn't provided adequate inoculation with zebra mussels to start a noticeable infestation.

In addition to the Basin's navigable waterways, the zebra mussel has been documented at four interior sites



in the Basin. These are in West Virginia (near Charleston), Ohio (near Columbus), Indiana (near Ft. Wayne), and Iowa (near Decorah). This is according to information provided by the New York Sea Grant (exact tributary were the infestation was documented was not provided in the article reviewed for "*River Crossings*").

It seems obvious from looking at the results of the study conducted by Keevin, Yarbrough, and Miller; and at the zebra mussel's current distribution; that the commercial towing industry has been an important, if not the primary, vector in the early spread of zebra mussels throughout the Basin's major rivers.

Sources: Various, including: Dreissena polymorpha Information Review, Vol. 4, No. 1, Zebra Mussel Clearinghouse, New York Sea Grant Extension, 250 Hartwell Hall, SUNY College at Brockport, Brockport, NY 13320-2928.

Clinton Administration Backs Tribal Claim to Fishing Rights

According to an Associated Press article appearing in the South Dakota

Capitol Journal on March 3rd, the Clinton Administration told the U.S. Supreme Court that the Cheyenne River Sioux should be allowed to control hunting and fishing where the Missouri River passes along the tribe's reservation

The government took over 100,000 acres of land along the reservation's eastern edge when the River was dammed to form Lake Oahe in the 1950s. But according to James Feldman, a Justice Department lawyer, the tribe still may regulate hunting and fishing there. Feldman said "It's a mistake to look at that...as the Indians being left with a bare vestige of rights".

The state of South Dakota is fighting the tribe's claim to regulate hunting and fishing for non-Indians. The case is being watched by tribes up and down the Missouri River and by several Western states.

At one point, Chief Justice William Rehnquist called the case "an incredibly muddled situation." Feldman said the State and the tribe may actually share jurisdiction over the area.

The Cheyenne River Sioux and the State had for years successfully negotiated agreements for regulating hunting and fishing on and around the lake.

But in 1988, the tribe said it would no longer honor State game licenses, and the State sued. A federal judge sided with the State, but the 8th U.S. Circuit Court of Appeals reversed his ruling last November. Seven states – Montana, Alabama, Arizona, California, North Dakota, Utah, and Washington – filed a brief supporting South Dakota's appeal.

In recent years, the Supreme Court has been limiting the powers of Indian tribes over people who are not members of the tribe.

However, the Cheyenne River Sioux argued that they never gave up the right to regulate the Lake Oahe acreage, even after the government took it over.

The Supreme Court won't issue a decision for several month, but some justices questioned how the tribal Authority could be squared with the legal requirement to allow public access to the reservoir.



"If the public has access to the project for fishing where do you get the authority to charge a fee?", Justice David Souter asked. Rehnquist questioned why the tribe had waited so long to assert its rights over the area. The justices also raised questions about the tribe's jurisdiction, given that some of the disputed land was owned by non-Indians before the government took it over.

In Congress, according to a February 19th article in the Sioux Falls, SD Argus Leader, Representative Bill Richardson, Chairman of the Native American Affairs subcommittee of the Natural Resources Committee presided over a hearing designed to identify tribal concerns that he may include in a proposed Native American Fish and Wildlife Enhancement Act.

Ken Poynter, acting director of the Denver-based Native American Fish and Wildlife Society of 70 tribes testified that the 52 million acres of reservation lands, combined with other areas where tribes have authority over natural resources, would constitute a land mass the size of Montana.

"At least nine officially recognized endangered avian species, seven threatened or endangered mammalian species, 11 threatened or endangered fish species, 12 threatened or endangered plant species and one threatened reptile species occur on reservation lands," Poynter said in written testimony.

"Tribal fish hatcheries produce millions of salmon, steelhead trout, walleye and other species which support large and diverse fisheries." He complained that funding for tribal wildlife management personnel is inadequate, noting that the U.S. Forest Service employs 1,320 fish and wildlife experts to manage 190 million acres of lands.

Tribes and the federal Bureau of Indian Affairs together employ about 300 to manage more than 100 million acres, and most of their employees have multiple duties, Poynter said.

Missouri Basin Tribes Develop Tribal Water Rights Coalition

In January of 1993, the Mni Sose Coalition became an active non-profit corporation established to address all aspects of Indian water rights issues in the Missouri River Basin.

Presently, the coalition includes: Great Sioux Nation Tribes - Oglala, Standing Rock, Rosebud, Devils Lake, Sisseton-Wahpeton, Cheyenne River, Yankton, Winnebago, Lower Brule, Crow Creek and Santee Sioux Tribes, Rocky Boy Chippewa-Cree, Three Affiliated Tribes, Turtle Mountain Chippewa, Ponca Tribe, Omaha Tribe, Kickapoo of Kansas, Prairie Band of Potawatami and Sac and Fox of Missouri.



The primary purpose of the Coalition is to educate its membership on the nature, character and extent of their Indian Winters Reserved rights to the use of Missouri River water and tributary streams, including groundwater that underlies, borders or traverses their respective reservations.

The Coalition will assist member Tribes in developing plans to protect, preserve, utilize, administer, manage and develop their water resources for the economic and social benefit of all present and future Tribal members. When requested, the Coalition will act as an advocate for Tribes on specific water issues.

Historically, court decisions, lack of Federal funding and technical support, and restrictive Federal water policies have prevented Tribes from developing and implementing realistic and feasible water projects for their reservations. Therefore, a consensus was established between Federal and Tribal officials at a recent meeting in Washington, D.C. that there is an urgent need for both the Administration and Congress to reaffirm and fulfill its trust obligations to Indian Tribes in the protection and preservation of their valuable Indian Winters reserved water rights.

To clarify the Federal role in Indian water issues, the Tribal representatives determined that the Federal Administration, acting through the Secretary of Interior, should reaffirm its commitment to the precepts of the governmentto-government relationship, Indian self-determination, and Tribal economic independence, by developing a policy statement that:

1. Provides independent Tribal Legal Counsel on Water Rights for both litigation and negotiation of water rights claims;

2. Repeals the criteria and procedures for water settlements developed by OMB and DOI with Tribal consultation;

3. Allows Tribes to directly contract expert witnesses and data collection for both litigation and negotiations;

4. Creates independent legal counsel for the BIA to eliminate potential conflicts of interest between the Departments of Justice and within the Interior Department's Solicitors Office and other Bureaus;

5. Continues support of working groups on water settlements and eliminates inherent delays in the process;

6. Appropriates sufficient funding to implement the water policy, including the creation of separate Indian water settlement and development funds;

7. Budgets monies to include costs incurred prior to and as a result of water settlement agreements;

8. Supports Tribal and off- reservation water marketing;

9. Supports the measurement of Indian Winters Rights based on a Permanent Homeland concept as well as Practicably Irrigable Acreage (PIA);

10. Supports establishment of a process for Tribes, as preference customers, to participate in and

receive an allocation of low-cost hydropower generated at six-mainstem Missouri River dams;

11. Initiates the process to lift the Interior Department's Moratorium on approval of Tribal Water Codes; and

12. Supports amending the McCarran Amendment to prohibit adjudication of Indian Water Rights in State court proceedings.

Daryl Wright, a Chippewa-Cree from the Rocky Boy Reservation, is Executive Director of the Coalition, and Everett Iron Eyes, a Hunkpapa from the Standing Rock Sioux Indian Reservation, is Assistant Director.

For further information about the Coalition contact: Mni Sose Inter-Tribal Water Rights Coalition, Inc., P.O. Box 226 or 818 East Andrew St., Rapid City, South Dakota 57701, (605) 343-6054.

The Chippewa-Cree Tribe (Montana), and the Chickasaw Nation (Oklahoma) are Tribal entity members of MICRA. All the tribes in the Basin were extended invitation to join. We would welcome their participation.

Source: The Missouri River Report, The Official Publication of the Missouri River Basin Association, P.O. Box 9193, Missoula, MT 59807.

Army Creates Environmental Center

The U.S. Army has reorganized its environmental programs under a new agency called the Army Environmental Center.

Formerly the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) at Aberdeen Proving Ground, Md. The Center will consolidate several functions performed separately, such as environmental restoration, pollution prevention and conservation of natural and cultural resources.

Col. Ralph G. Wooten, THAMA commander since 1991, will command the new Center as the first officer assigned full time to oversee the Army's environmental programs and implement the Army "Environmental Strategy into the 21st Century."

The new Center gives more local environmental support to Army installations and more direct liaison to state and federal regulatory agencies. Col. Brown will implement the Army strategy with four aims: (1) to give priority to compliance with environmental laws and regulations; (2) to restore previously contaminated sites as quickly as funding permits; (3) to minimize or eliminate pollution at the source; and (4) to conserve natural resources for future generations.

Source: Runoff Report, Watershed Information Network News, Vol. 1, No. 1, Spring 1993.

Corps Reorganization On Hold

Secretary of Defense Les Aspin has placed a hold on implementation of the Army Corps of Engineers reorganization plan. The plan was developed under the Bush Administration and was scheduled to begin on February 1, 1993.

The plan involved the elimination of five Corps Divisions, and substantial restructuring of the district offices (See "*Rīver Crossings*" Vol. 1, No. 6). Secretary Aspin's hold on the plan will allow the Clinton Administration to review the plan developed by their predecessors.

The hold on the plan is indefinite, and no schedule for the review has been announced.

Source: The Missouri River Report, The Official Publication of the Missouri River Basin Association, P.O. Box 9193, Missoula, MT 59807.

Clinton's Green Team

According to a recent Washington Post article, the team being assembled to run the Interior Department is as "green and southwestern as a jalapeno pepper.".

Serving under Interior Secretary Bruce Babbitt, and having a large input on nonpoint source pollution policy (if approved in confirmation hearings) will be the following Clinton appointees:

• George T. Frampton, president of the influential Wilderness Society will be assistant secretary for Fish, Wildlife and Parks. Frampton will oversee the National Park Service and U.S. Fish and Wildlife Service.

• Bob Armatron, who pushed a coastal management plan as energy aide to Texas Gov. Ann Richards (D), will be assistant secretary for Land and Minerals Management.

• Elizabeth Ann Rieke, former water and utilities lawyer, and director of Arizona's department of water resources is to be assistant secretary for Water and Science. Rieke will oversee the Bureau of Reclamation and its vast western water projects.

• Bonnie Cohen, a senior vice president with the National Trust for Historic Preservation, is to be assistant secretary for Policy, Management and Budget.

• Leslie M. Turner, a Washington, D.C. attorney, will be assistant secretary for Territorial and International Affairs.

• Jim Baca, New Mexico's land commissioner, is to head the Bureau of Land Management.

• John Leshy, an Arizona law professor with the House Natural Resources Committee, will be department solicitor.

Secretary Babbitt also named:

• Thomas E Lovejoy, the Smithsonian Institution's assistant secretary for external affairs and a conservationist who worked for the World Wildlife Fund, to be his scientific adviser.

Recent White House appointments to the Environmental Protection Agency include:

• Robert Sussman, an attorney, to be deputy administrator.

• Bailus Walker Jr, dean of Oklahoma's College of Public Health and former official with the U.S. Department of Labor, will be assistant administrator for the Office of Research and Development.

• Steven Herman, a Justice Department environmental attorney, is to be assistant administrator for Enforcement.

• David Gardiner, Sierra Club legislative director, is to be assistant administrator for Policy Planning and Evaluation.

EPA Administrator Carol M. Browner named two top aides who do not need Senate confirmation. These include:

• Loretta Ucelli, a presidential campaign operative, to be Browner's chief spokeswoman.

• Robert W Hickmott, a former aide to Sen. Timothy Wirth (D-Colo.) will handle EPA's congressional liaison.

At the U.S. Department of Agriculture, the president has nominated:

• James Lyons, is to be assistant secretary for Natural Resources and the Environment - - the top environmental job at USDA. Lyons, a House Agriculture Committee aide, was an agricultural adviser to OMB Director Leon E. Panetta when Panetta was in the House.

Clinton nominees at the State Department include:

• Elinor Constable, a senior State department economist in the inspector general's office, to be assistant secretary for International Environmental and Scientific Affairs.

Source: Runoff Report, Watershed Information Network News, Vol. 1, No. 1, Spring 1993.

The Redear vs The Zebra

One look at the title of this article and one might think that we're talking about an old Japanese "Godzilla" movie, or a World Wrestling Federation cage match! But no, we're still talking about fish.

Specifically, the redear sunfish, Lepomis microlophus, the latest entry in the battle against the zebra mussel in the Great Lakes drainage Basin.



redear sunfish

Since small snails and shellfish comprise a part of the redear sunfish's normal diet, the Michigan Department of Natural Resources (DNR) decided to test use of the sunfish as an ally in the fight to stop the spread of zebra mussels in their State.

The DNR, the U.S. Fish and Wildlife Service, Michigan Sea Grant, and Michigan State University cooperated in a recent study to see whether redear sunfish would eat zebra mussels over other foods. The result: "They would!"

Native to the southern U.S., redears were imported to Michigan in 1956 by the DNR to improve sport fishing for panfish. The sunfish grows to lengths averaging 9 inches, reaching maximum lengths of 14 inches.

Teeth in the back of the redear's jaw act like large molars which can split open shells against the upper part of its mouth. The redear extracts the meat and spits out the shells, much like a person eating sunflower seeds.

In 1984, the DNR began a stocking program in inland lakes along a swath of central Michigan south of Lansing to the Indiana border. Redear may be stocked over a large portion of the State.

Donald Garling, a professor of fisheries and wildlife at Michigan State University, said redears could be a major help in controlling zebra mussels in inland lakes and ponds, but whether many can survive in the Great Lakes is another matter.

Garling said the redear would likely be limited to warmer spots such as Lake St. Clair or Saginaw Bay, and scientists don't k what effect redear would have on other Great Lakes fish. He said the latter is a question that needs to be answered on the international level.

Source: Port Huron Times Herald, January 5, 1993.

Smallmouth Bass Found on Streets in Springfield, Missouri

Taking after a concept developed for the Chesapeake Bay watershed, the Missoun's Household Hazardous Waste Project (HHWP) is launching a statewide program to stencil storm drains to "curb" their improper use for waste disposal. The HHWP stencil displays the image of a smallmouth bass and carries the message, "Dump No Waste, Drains to Stream".

The Missouri Storm Drain Stenciling Project also involves a litter clean-up and a community education campaign. HHWP is developing this pilot program through a \$9,220 grant from the Missouri Department of Natural Resources.



Storm drains are commonly misused for dumping paint, motor oil, antifreeze, pesticides, and other wastes. People are looking for a convenient place to dispose of these items and often are not aware that storm drains lead to nearby streams, rivers, lakes, or even sinkholes. In addition, each time it rains, water runoff carries street litter, yard debris, pet wastes and other pollutants into storm drains.

This nonpoint source pollution is a significant source of contamination of our water resources. The improper use of storm drains for waste disposal is a growing concern across the country. The Washington, D.C. based Center for Marine Conservation (CMC) is coordinating nationwide stenciling efforts in its "Million Points of Blight" campaign.

Information obtained by the Missouri Storm Drain Stenciling Project will be added to the CMC database of storm drain stenciling activities. For more information on the Missouri program contact: Sarah Dewey, HHWP, Storm Drain Stenciling Project, 1031 E. Battlefield, Suite 214, Springfield, MO 65807, (417) 889-5000.

Comprehensive Plan for National Wildlife Refuges

On January 15, 1993, the U.S. Fish and Wildlife Service announced completion of a draft long-term plan to guide management of the National Wildlife Refuge System.

The plan, entitled "Refuges 2003–A Plan for the Future," represents an effort to explore management options for the 91 million acres presently in the National Refuge System.

The system of over 485 refuges in all 50 states is managed primarily to benefit wildlife by providing vital habitat for migratory birds, mammals, fish, endangered species, and a wide variety of other wildlife species.

A combined draft management plan and environmental impact statement, the report represents a new approach to the planning process, offering an in-depth look at the current status of the Refuge system as a whole--its history, the policies and regulations under which it is managed, and its future.

Reader Survey Results

The Mandatory Reader Survey circulated with the Vol. 2, No. 1 issue of "River Crossings" produced 462 responses, all of which checked the box saying, "I like the format of the Newsletter, please keep sending it to me".

Not everyone provided suggestions and additional comments, but quite a few did, so we thought we'd share them with you. They included the following (in no particular order of receipt, priority, editing, or culling to eliminate duplication) - - What you see is what we got:

• Provide highlights by pool or

stretch.

- Provide a listing of agency reports.
- Provide a directory of newsletter
- recipients especially private groups.
- I like it keep up the good work.
- Good job very informative.
- Excellent Newsletter!

• Use two columns and larger print - easier to read.

- I end up not reading long articles.
- I always find something of real interest in "River Crossings".

• Keep up the good work, and I hope I can be of help.

- Keep up the good work.
- Keep up the good work.
- Thank you!
- Doing a good job!
- Use lighter color paper.
- Some articles are too long, but that
- is a minor issue.
- Keep MICRA going!Its getting a bit long cut to 10
- pages max.

• It would be good if more Ohio River articles were submitted and included.

• "River Crossings" is extremely important to <u>me</u> and hopefully is extremely important to <u>others</u> who might be in a better position to improve our great resource, the Mississippi River! As a student of the Mississippi River and former striped bass fishing guide on the River I am elated with your publication and its timely message. If I can ever be of any assistance to you please don't hesitate to contact me. More graphics and charts would help explain some subjects.

• I love the variety of articles and pictures!

• I read every word! Excellent publication.

• Good job Jerry - Keep up the good work

• Could you have a regular column on big river fish management ideas, projects successes, failures, etc. The Nebraska article on Missouri River organic waste is an example of an article for the column. My goal is to "plant some seeds".

• Include a Table of Contents or "In This Issue" section at the front of the Newsletter. • Good balance of agency and nonprofit activities on behalf of the River.

Wonderful as is.

• Consider an electronic format ccmail - save some trees. If not use some recycled paper.

• Keep up the good work.

 Include more information on the Arkansas River and other large Mississippi River tributaries (e.g. Ohio River).

• Hide some one-liners, river jokes, and mini-cartoons among the heavy paragraphs; nothing helps reading more than anticipating an occasional smile!

• I find the newsletter very useful and informative.

• Good job Jerry - Keep it going.

• Thanks for preparing it!

• A more balanced assessment of commercial uses of the River System is needed.

• This is the best newsletter I receive - Keep up the good work.

• Thank you - Keep up the good work.

• Use white paper, it is easier to recycle.

• Looks good! How about some details on the Missouri River mitigation work?

• Very good newsletter! I especially like the articles that abuse the refugees and duck meisters!

• This newsletter is a vital resource for resource managers in the Mississippi River Basin (and beyond). Keep up the good work.

• Good source of information for water resources managers!

• It is evident that a tremendous amount of hard work and creative effort is being expended in the production of this newsletter - please accept my thanks and appreciation for the work being done.

• Good format - No changes necessary!

• Thanks for the information.

• Info is good. Brevity is good because we are all trying to stay current on so many issues.

• Keep the "Meetings of Interest" section.

• Suggest larger type on titles, or

better division between articles.

• These are important issues and this is one way to keep everyone informed. Thanks!

• Condense articles from UMRCC newsletters just a bit, but it doesn't hurt to read things twice.

• Perhaps members of MICRA's Policy Committee could contribute articles/editorials.

• A map showing drainage area covered under the agreement would be informative.

• Very informative. Thanks.

• It would be interesting to see what research is currently being conducted by natural resource agencies in states within the Mississippi River Basin.

• I am hoping that MICRA can be more informative and effective in regard to information regarding recreation impacts, than UMRCC has been.

• All Congressional offices in the Mississippi River Basin states should be placed on the mailing list.

• I k this is a tough job - keep up the good work. Thanks for sending it to me.

• Keep up the excellent work.

• I'd like to see more current listings of research reports on global warming and ozone depletion.

• Consideration should be given to fishery and energy issues, such as dams, thermal discharges?

• Consideration should be given to the upcoming re-authorization of the Clean Water Act from a fisheries viewpoint?

• Keep up the excellent work. I k how hard it is to produce a newsletter!

• Perhaps infrequent updates could be provided on aquatic species within MICRA's junsdiction that are being considered for listing under the Endangered Species Act, etc.

• Well done! Doing a great job with pertinent story items and news tidbits.

- MICRA has come a long way!
- Best one yet! Thanks Jerry.

• Newsletter has a northern bent w/conspicuous absence of southern water items. How about regional Assistant Editors mandated to solicit and forward items of interest to the editor. • I find the newsletter a useful summary of U.S. activity in river management.

• Keep sending the MICRA information, its going well and catching more wind all the time. Good work!

• The March/April issue was especially informative.

Needless to say, the response and suggestions were very encouraging, and we will address as many of your ideas as possible in coming months. You may have already noticed that some of our reader's ideas were put to use with the Vol. 2, No. 2 issue.

One suggestion we hope to focus on is to provide broader, more basinwide coverage, but to do that we need your help. With a "little help from our friends" coverage can easily be expanded. What may be "old" news to you, may be "new" news to someone else, so your help would be greatly appreciated in keeping us abreast of events of river interest basinwide.

One suggestion we're considering is to ask our Policy Sub-Committee members to also serve as "Regional Editors", providing the Coordinator with articles of interest from their respective geographic areas.

In closing, we want to thank all of our readers for responding to our survey, and for the interest and the helpful suggestions provided. They will only make "*River Crossings*" a better, more useful document for everyone!



"Enjoy the Summer!"

MICRA Steering Committee, June 28, 1993, Kansas City International Airport Holiday Inn, Kansas City, MO, Contact the MICRA Coordinator, (314) 876-1911.

Mississippi River - Past, Present, and Future, Izaak Walton League of America National Convention, July 13-17, 1993, Holiday Inn, Davenport, IA, Contact Paul Hansen (612) 922-1608 Missouri River Natural Resources Committee, August 2-5, 1993, Red Lion Hotel, Omaha, NE, Contact Gene Zuerlein, (402) 471-5555.

Wetlands Engineering Workshop, August 3-5, 1993, Adams Mark Hotel, St. Louis, MO, Contact Chery Lloyd (601) 634-3711.



Status and Management of UMRS Nongame Wildlife "Focusing on the Future", September 8-10, 1993, Radisson Hotel, LaCrosse, WI, Contact Craig Thompson, (608) 785-9014.

Sustaining Ecological Integrity of Large Floodplain Rivers: Application of Ecological Knowledge to River Management, July 12-15, 1994, La Crosse Center and Radisson Hotel, La Crosse, WI, Contact Dr. Kenneth Lubinski (608) 783-7550.

Congressional Action Pertinent to Mississippi Basin Rivers

Blodiversity

H.R. 305 (Porter, R-III.) establishes a national policy for biological diversity conservation.

Flood Insurance

H.R. 156 (Deutsch, D-Fla.) requires flood insurance claim payments to include 75 percent of cost of elevating buildings so they will remain eligible for insurance.

Forests

H.R.229 (LaRocco, D-Idaho) requires an inventory of tree health in national forests and directs agencies to develop strategies to manage those forests.

H.R. 432 (Wilson, D-Texas) bars raw log exports from public lands to countries such as Japan that bar access to their markets for U.S. finished-wood products and paper.

Government Operations

H.R. 109 (Boehlen, R-N.Y.) elevates Environmental Protection Agency to cabinet status.

Land Conservation

H.R. 428 (Walker, R-Pa.) excludes value of land with permanent conservation easement from estate taxes.

Military Lands

H.R. 202 (Jacobs, D-Ind.) requires Defense Department to protect natural areas on military bases that are being closed.

Mining

H.R. 194 (Hefley, R-Colo.) withdraws Fort Carson, Colo. from mineral development.

H.R. 322 (Rahall, D-W.Va.) is major mining law reform bill.

H.R. 363 (Smith,D-Iowa) requires Interior Department to develop program to preserve and replace top soil at surface mining projects.

Water and Wetlands

H.R 242 (D-IL.) authorizes \$12 billion in public work project spending over three years, including \$1 billion annually for wastewater treatment construction.

H.R. 340 (Schaefer, R-Colo.) clarifies waiver of immunity from Clean Water Act regulations at federal facilities.

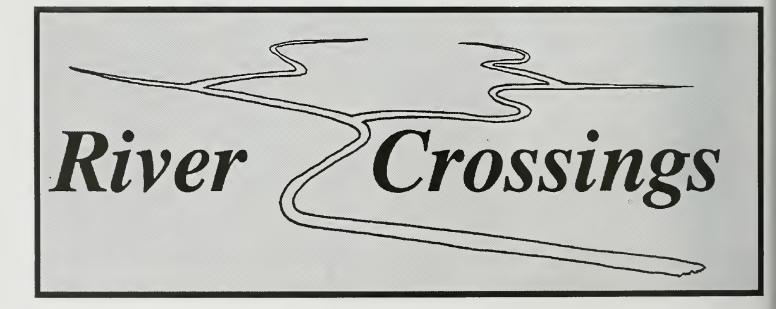
H.R. 350 (Edwards, D-Calif.) is wetlands reform bill favored by environmentalists that aims to speed up permit processing and offers incentives to private landowners to preserve wetlands.

Wilderness

H.R. 195 (Hefley, R-Colo.) is Colorado Republicans' wilderness proposal, similar to the bill the Senate originally passed last Congress, that sets aside 600,000 acres of BLM and Forest Service land.

Source: Land Letter - A Newsletter for Natural Resource Professionals, Vol. 12, No. 2,3, January 20, 1993.





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U.S. Department of the Interior Fish and Wildlife Service Large River Fishery Coordination Office 608 East Cherry Columbia, Missouri 65201

