River Crossings

Volume 5 November/December 1996 Number 6

Reader Survey

This ends our fifth year of publishing *River Crossings*. We hope our newsletter has provided a service not only to our members, but to the "River Community" as well.

We have conducted reader surveys every other year since publication of *River Crossings* began in 1992, and have received many useful comments and words of encouragement. We've tried to use our reader's comments to continually improve the publication.

Also, since *River Crossings* is provided to our readers at no cost, we need to constantly trim our mailing list in order to reduce our costs and eliminate mailings to those who aren't finding it useful enough to respond.

So please fill out and return the "Reader Survey" sheet provided as an insert to this issue; it will ensure that your name remains on our mailing list.

Merry Christmas

In the meantime, we wish everyone a very happy holiday season; and thank you for your continued interest in and support of our rivers!

ND/MT Paddlefish Research

Fred Ryckman, a biologist for the ND Game and Fish Department stationed in Bismarck, has worked with other ND and MT biologists for a number of years on paddlefish research and management on the Upper Missouri and Yellowstone rivers. Fred and his colleagues have been involved in managing what is known as the Yellowstone-Sakakawea paddlefish stock (i.e. paddlefish that move between Lake Sakakawea in ND and the Yellowstone River in MT.

Fred is now involved with MICRA, working with biologists from 22 states across the entire Mississippi River Basin assessing basinwide paddlefish movements, survival, and population status using coded wire micro tags. We are grateful to Fred for summarizing some of his work on the upper Missouri and Yellowstone rivers for *River Crossings*. Fred's summary follows:

Dr. Dennis Scarnecchia, University of ID, has coordinated much of the ND/MT paddlefish research in the past few years. This work included the collection of thousands of dentaries from harvested paddlefish in both states, and the determination of age and growth information using the Optical Pattern Recognition System. Though there appears to be

INSIDE THIS ISSUE

Reader Survey	1	Diversion Dam Uproar	13
ND/MT Paddlefish Research	1	VA Coal Waste Fishkill	13
Round Goby Invasion	3	Polluted U.S. Waterways	13
Invasive Species Act	5	Creek Restoration	14
Aq. Nuisance Species Costs	5	MA River Cleanup	14
ESA Issues	5	Hormones and Fish	15
Grazing Issues	7	Genetics/Pesticides	15
Grand Canyon Update	8	Prop Rights/Wetlands	16
Water Rights for Fish	8	Nat. Resource Budgets	16
Floodplain Wetlands for Fish	9	Const. Amend on Env.	18
Fish Stocking Agreement	10	Public Env. Views	19
Water Purchased for River	11	Env. Repot Card	20
Repairs Damage Stream	11	River Groups Merge	20
Mudslides/Forestry	11	River Index	20
Appalachian Streams Initiative	12	Meetings of Interest	20
Rhine/Miss Rivers Exchange	12	Congressional Action	21
LMR Levee Lawsuit	12		

significant recruitment, at least in some years, many of the fish aged to date are quite old. Age of harvested male paddlefish in recent years has averaged from 15-20 years, while average female age has varied from 23-28 years. Many fish, however, were over 40 years old.

"Adult Paddlefish"

Focus of research activities on the Yellowstone-Sakakawea stocks has traditionally been on tagging adult paddlefish. Since 1964 MT has tagged over 6,000 adult paddlefish in the Yellowstone River, mostly at the Intake Diversion Dam. Approximately 2,500 additional adult paddlefish have been tagged near the confluence of the Missouri and Yellowstone rivers in ND over the past 4 years, including 444 fish tagged in 1996. As a result of this intensive effort, important information has and will continue to be obtained regarding exploitation rates, population size and structure, movements, and reproductive periodicity of adult paddlefish in this stock.

Bill Gardner, MT Fish, Wildlife and Parks, has extensively sampled the lower Yellowstone River for paddlefish eggs and larvae in an attempt to identify specific spawning sites. From his and other recent work, it is becoming apparent that during years when the Yellowstone River rises steadily for a prolonged time period (with flows remaining over 40,000 cfs for at least a few weeks), good to excellent paddlefish reproduction occurs.

"Larval Paddlefish"

Over the past few years, graduate students from the University of ID, along with ND Game and Fish Department personnel, have been using boats to complete visual transect counts of young-of-the-year (YOY) and yearling (YRL) paddlefish in Lake Sakakawea's upper reaches. This technique has proven to be the most promising method to date for developing indices of abundance for these two age cohorts. Observations of wild YOY paddlefish in 1991 and transect counts collected in 1993 and 1995 were sufficiently strong (up to 1,756 YOY in 1993) to speculate that it would be possible to capture and micro tag significant numbers of wild YOY paddlefish in years exhibiting high reproductive success.

On August 1, 1996 biologists noted the presence of large numbers of YOY paddlefish swimming near the surface of the upper reaches of Lake Sakakawea, and a micro tagging effort was initiated. During 9 days of field work between August 2-15 a total of 2,360 YOY and 59 YRL paddlefish were captured. Biologists used small boats to cruise slowly back and forth across the lake and collected the young fish using long-handled dip nets. Approximately 93 boat hours of netting effort were expended. A total of 2,346 YOY were tagged; 14 of these were recaptured fish which had been tagged earlier during the August tagging period. Catch rates, estimated as catch per boat-hour, ranged from 20 fish on the beginning and ending sampling dates to 50 fish per boat-hour during the middle of the sampling period.

Biologists estimated that one-third of the YOY observed and one-tenth of the YRLs observed were captured. Two of 59 YRLs captured were identified as recaptures from the 9,093 hatchery reared fish that had been coded wire tagged just prior to being stocked in 1995. Recapture location for both of these YRL fish was approximately 30-35 river miles upstream of their stocking location. A few paddlefish noticeably larger than YRLs, perhaps 2- or 3-year olds, as well as several large adults, were seen but not captured or quantified. Some evidence of gull and fish predation on YOY paddlefish was observed.

River Crossings

Published by

Mississippi Interstate Cooperative Resource Association
(MICRA)
P.O. Box 774
Bettendorf, IA 52722-0774

River Crossings 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 do not necessarily reflect the position of MICRA or any

Results of this and past research, indicate that upper Lake Sakakawea is consistently inhabited by YOY, YRL, and older paddlefish in July and August. This work also proved that YOY paddlefish can be captured and tagged in large numbers, at least under certain conditions. The transect approach for developing YOY and YRL indices of abundance has also shown promise and will continue. Future coded wire micro tag returns will allow for further assessment of year class strengths of both hatchery stocked and wild paddlefish, as well as document tagged fish movements, allow for validation of age-growth studies, and provide information on other aspects of paddlefish ecology necessary for the effective management of this stock.

When the ND/MT work is coupled with similar work being conducted by biologists in 21 other states across the basin through the MICRA basinwide paddlefish tagging project, biologists will be able to develop a systemwide information data base on paddlefish never before dreamed possible.

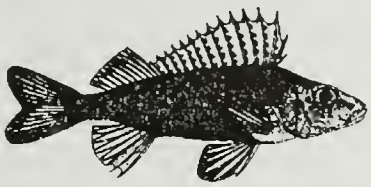
Meanwhile, a world caviar shortage has increased the demand for paddlefish eggs. The supply of caviar is said to be shrinking because Iranian and Russian producers are over-fishing the Caspian Sea's sturgeon population, the traditional prime source for caviar. Since the breakup of the Soviet Union, the Caspian Sea is said to be fished without regulation.

Paddlefish caviar taken from the Missouri and Yellowstone rivers near Williston, ND, not considered as good as Russian Beluga caviar but equal to the Russian's second-best Sevruga caviar, has more than doubled in price in recent years. Ultimately, consumers pay from **$65-$70 an ounce** for the "made in ND" product! This according to the *Minot Daily News* (11/18/96).

Contact: Fred Ryckman, State Game and Fish Dept., 100 N. Bismarck Expressway, Bismarck, ND 58501, (701) 328-6352

Round Gobies Poised to Invade the Mississippi River Basin

Ports around the Great Lakes have increasingly become major North American points of entry for several exotic aquatic species. Representing several different aquatic taxa and trophic levels, these species include the spiny water flea (*Bythotrephes cederstroemi*), the zebra mussel (*Dreissena polymorpha*), and the river ruffe (*Gymnocephalus cernua*).



"River Ruffe"

Most of these foreign immigrants are native to Eurasia and are presumed to have been initially introduced to the Great Lakes during the 1980s as a result of unregulated ballast water exchange. Proliferation of populations of these organisms has produced serious ecological and economic consequences in portions of the Great Lakes region, and in the case of the zebra mussel, across major portions of the Mississippi River Basin. The zebra mussel is presumed to have used the Great Lakes and the Illinois Waterway System near Chicago as its invasion route. The Illinois Waterway System provides a direct connection for continuous transfer of water from Lake Michigan to the Illinois River. Assisted by barge traffic, zebra mussels are spreading across the entire Mississippi River drainage basin. The round goby (*Neogobius melanostomus*) now appears to be poised to follow the same path.

Initially observed in the St. Clair River near Detroit in 1990, the round goby had spread to other portions of the Great Lakes drainage basin as distant as Duluth, Cleveland, and Chicago by 1995. This sedentary benthic fish resembles a sculpin in its general appearance and certain behavioral traits and is displacing sculpin at some Great Lakes locations. A second species, the tubenose goby *(Proterorhinus marmoratus)*, also appeared in the St. Clair River in 1990; but this species, which is endangered in its native habitat, has remained uncommon.

Concern for the potential spread of round gobies led the U.S. Fish and Wildlife Service to organize and lead a cooperative sampling effort this fall to assess the current distribution of round gobies in a portion of the Illinois Waterway System. Cooperators included staff from seven government agencies (federal, state, and municipal) and three university systems, as well as members of two public interest groups.

Sampling was conducted in mid-autumn at several sites in Chicago's south and southwest metropolitan areas using a variety of gears that included modified Windermere traps, minnow traps, set lines, bottom trawls, and angling.

A total of 61 round gobies were captured in the Little Calumet River in south Chicago at locations upstream of river mile 321 (i.e., within 12 river miles inland from Lake Michigan). No round gobies were captured at any other sampling locations in connecting channels downstream of this point as far away as Joliet (river mile 286). Bottom trawling near rocky shorelines was the most efficient method of capture, accounting for 87% of the total round goby catch.

"Round Goby"

The rocky substrate favored by round gobies in the upper reaches of the Little Calumet River is less common over a short reach of the river (about 1 mile) downstream of river mile 321. This lack of preferred substrate may temporarily restrict the round goby's downstream distribution in this portion of the Illinois Waterway System. It is anticipated, however, that as round goby densities increase in upstream reaches, additional downstream

movement will occur. Also it is feared that the goby will move opportunistically through deliberate or unintended human intervention.

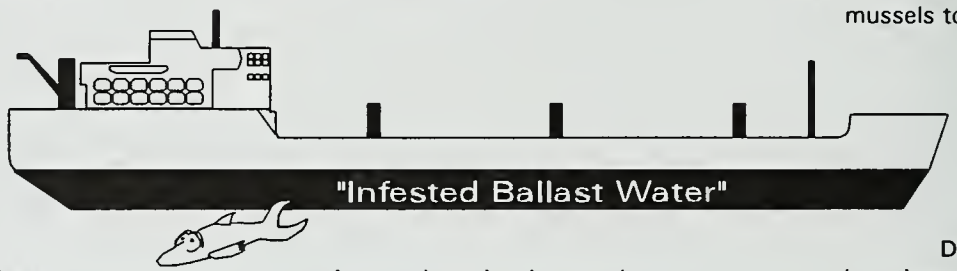
Round gobies can grow to a length of 250 mm (10 inches) as adults. They have large heads, soft bodies, and dorsal fins lacking spines, slightly resembling large tadpoles. The unique feature of gobies is their fused pelvic (bottom) fins, which form a suctorial disk. In flowing water habitats, this suction disk aids in anchoring the fish to hard substrates such as rocks. Young round gobies are a solid slate gray; while larger individuals have blotches of black and brown over their bodies, and their dorsal fin may be tinged with green.

Round gobies look similar to sculpins, a native, bottom-dwelling fish occasionally caught by anglers. Sculpins *(Cottus bairdi and C cognatus)*, also called muddlers or Miller's thumb, are usually solid brown or mottled. Both sculpins and goby males can appear almost solid black during spawning. Round gobies have a distinctive large black spot on the front dorsal fin; and sculpins often have a dark spot in the same location. Sculpins can most easily be distinguished from gobies by their separate pelvic fins.

After entering a new area, gobies are capable of rapid population expansion. Densities in rocky areas of Lake Michigan's Calumet Harbor already exceed 20/m^2, equivalent to 20 fish in a space the size of a bathtub. The fish in this harbor range from 12 to 140 mm (0.5 to 5.5") in length, and likely represent at least two age groups.

Round gobies possess four characteristics that make them effective invaders:

- They are aggressive, pugnacious fish that feed voraciously and may eat the eggs and fry of native fish such as sculpins, darters, and logperch. They will aggressively defend spawning sites in rocky habitats, thereby restricting access of native species to prime spawning areas.
- They have a well-developed sensory system that enhances their ability to detect water movement. This allows them to feed in complete darkness, and gives them a major competitive advantage over native fish in the same habitat.
- They are robust and are able to survive under degraded water quality conditions. This ability and their propensity to swim into holes and other crevices probably allowed round gobies to enter and survive in the ballast water of ships.
- Round gobies spawn over a long period during the summer months so they can take advantage of optimal temperature and food conditions. Females mature at 1 to 2 years and males mature at 3 to 4 years. Spawning can occur frequently from April through September. Each female produces from 300 to 5,000 large (4 x 2.2 mm [0.16 x 0.09"]) eggs; these eggs are deposited in nests on the tops or undersides of rocks, logs, or cans; which are guarded by the males.



As noted previously, round gobies prefer rocky or gravel habitat and hide in crevices or actively burrow into gravel when startled. In the Black and Caspian Seas, gobies generally inhabit the near shore area, although they will migrate to deeper water (up to 60 m [197 feet] depth) in winter. They also are found in rivers and in slightly brackish water. In Europe, the round goby diet consists primarily of bivalves (clams and mussels) and large invertebrates, but they also eat fish eggs, small fish, and insect larvae.

Studies in the U.S. indicate that round gobies are aggressive and known to feed on a variety of small native fishes (e.g. darters) and insects, as well as zebra mussels that can bioconcentrate certain contaminants. Round gobies are themselves preyed upon by several sport fish species and may therefore represent a new link in the transfer of contaminants to higher trophic levels.

Gobies may compete successfully with native benthic fish such as sculpins and darters, and substantial reductions in local sculpin populations already have been reported after gobies have become established. On the positive side, zebra mussels are an important component of goby diets in their native range; and, in laboratory studies in North America, a single round goby can eat up to 78 zebra mussels/day. However, it is unlikely that gobies alone will have a detectable impact on zebra mussels. The round goby is expected to be one of several species (including ducks, crayfish, diseases, and other fish species) that eventually will reduce zebra mussel abundance.

Gobies are preyed upon by several sport fish species including smallmouth and rock bass, walleyes, yellow perch, and brown trout. Because the diet of round gobies consists predominately of zebra mussels, they may provide a direct transfer of contaminants from zebra mussels to sport fish.

Anglers are effected by gobies because they aggressively take bait from hooks. Anglers in the Detroit area have reported, at times, that they can catch only gobies when they are fishing for walleye. In fact goby fishing tournaments are now being reported in some areas of the Great Lakes, with the largest reported specimen so far being 7" long.

Eliminating an invading species once it becomes established usually is impossible, however, it may be possible to slow the spread of the round goby invasion through angler cooperation. Anglers and others can avoid accidentally spreading these species by dumping their bait buckets only in areas where they were filled, and by not taking unusual animals home to an aquarium. Anglers should also be aware that transportation of gobies or other exotic species across state lines is illegal.

Ballast water exchange at sea is one method of reducing additional introductions of foreign organisms.

Regulations to control ballast water dumping within North American waterways may help to prevent the spread of these exotic species (See the following article).

Contact: Mark Steingraeber, U.S. Fish and Wildlife Service, Fishery Resources Office Onalaska, WI, (608) 783-8431; and Illinois-Indiana Sea Grant Program in cooperation with the Michigan and Ohio Sea Grant College Programs as IL-IN-SG-95-10, (217) 333-9448.

Invasive Species Act

Minutes before final adjournment, the Senate unanimously approved the National Invasive Species Act (NISA). NISA is aimed at controlling the release of ballast water in aquatic ecosystems and thus the introduction of foreign species into North American waters. There were no changes between the House-passed version of September 28 (HR 4283) and the Senate passed bill. Copies of the bill can be obtained on the Internet through "Thomas" on the World Wide Web (WWW).

President Clinton signed NISA into law on October 26th. The bill, sponsored by Rep. Steve LaTourette (R/OH), updates and expands a 1990 bill requiring ships to dump ballast water at sea before entering U.S. waters. The legislation authorizes $33.1 million annually over the next seven years to fight non-indigenous organisms. It also allots $3 million for the U.S. Army Corps of Engineers to research zebra mussels. Bill co-sponsor Rep. Sherrod Brown (D/OH) said that dealing with the zebra mussel problem alone is expected to cost U.S. taxpayers $5 billion by the year 2000.

Among other things, the new national ballast water management program provides for
- enforcement measures,
- a five-year ballast technology demonstration program,
- research authority,
- more regional coordination, and
- prevention guidelines for recreational vessel owners.

Most importantly, the bill sends the International Maritime Organization a strong signal to keep up the pace in developing an international convention on ballast water management.

It is important to note that while very helpful, the bill will not provide complete protection against new exotic species invasions. Regulation of ballast water exchange will likely have limitations. It is essential therefore that reporting and sampling requirements be developed to assess its effectiveness, and that the ballast technology demonstration program be continued to develop alternative tools.

Sources: Greenwire Vol. 6, No. 103 and 124; and Northeast Midwest Institute

Aquatic Nuisance Species Costs

Non-native species have cost the U.S. economy billions of dollars and contributed to the decline of 42% of U.S. threatened and endangered species, according to a report released in late October by The Nature Conservancy (TNC).

The report, "America's Least Wanted," profiles a "dirty dozen" list of "the most damaging animal and plant invaders...introduced either accidentally or intentionally" into the nation's natural ecosystems. The list includes the flathead catfish, now in rivers and reservoirs in 18 states

"Flathead Catfish"

where it was previously unknown; the zebra mussel in the Great Lakes and the Mississippi River Basin; the rosy wolfsnail in Hawaii; the green crab in California and Northeast coastal states; the Australian brown tree snake in Hawaii; and the balsam wooly adelgid, an aphid-like insect that has "destroyed" about 75% of the South's spruce-fir forests.

The six most invasive plants include purple loosestrife, an "especially serious" threat to Northeast and upper Midwest wetlands; tamarisk, which consumes vital water supplies in the Southwest; leafy spurge, which is pushing out native grasses on grazing lands and elsewhere nationwide; hydrilla, a fast-growing plant clogging Florida waterways; the toxin-releasing Chinese tallow in the Southeast; and miconia, which is shading out native plants in Hawaii.

While the effects of invasive species are well documented in the agricultural world, industries such as fishing, electric utilities and tourism lose more than $1 billion a year, according to the Congressional Office of Technology Assessment. The TNC report claims that 79 animal and plant species have cost the U.S. economy $97 billion from 1906 to 1991.

TNC President and CEO John Sawhill says that although it "will not be cheap" to handle the alien species problem, it is not impossible. Four keys to safeguarding the U.S. from alien pests are suggested:
- prevention of new additions,
- early detection and eradication of new pests,
- control and management of established alien species, and
- protection and recovery of native species and ecosystems.

Source: Greenwire Vol. 6, No. 120

ESA Issues

The 9th U.S. Circuit Court of Appeals ruled on October 31 that the federal government has one year to make final decisions on its own proposals to protect species under the Endangered Species Act (ESA). The ruling came from a case involving the coho salmon on the West Coast.

Meanwhile in a mid November hearing regarding a case before the U.S. Supreme Court, three justices "sharply questioned" the Clinton Administration's view that the ESA allows private citizens to sue only for greater protection of species and not for less protection. The case could affect how future lawsuits proceed under most major environmental statutes.

The specific case involves two OR

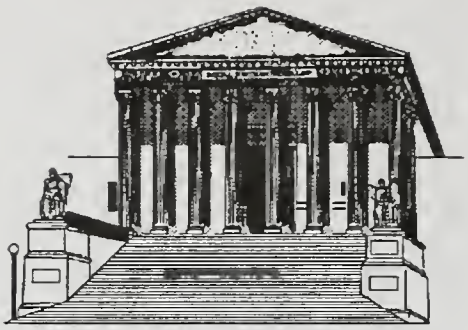
ranchers and two OR irrigation districts that in the early 1990s sued to stop the U.S. Dept. of the Interior (DOI) from reducing water flows into reservoirs in order to protect two fish species, the Lost River sucker and the shortnose sucker. The suit said that a U.S. Fish and Wildlife Service (USFWS) report calling for higher water levels was based on poor science, and that the USFWS had failed to consider the economic impact of the proposed action.

Like any other environmental laws, the ESA includes a "citizen suit" provision that permits "any person" to sue officials of the DOI or Commerce Dept. for failing to carry out the law. The 9th U.S. Circuit Court of Appeals dismissed the plaintiffs' lawsuit, ruling that the ESA's "citizen suit" provision does not apply to suits seeking less rather than more protection for a species. Judge Stephen Reinhardt, in the appeals court decision said, "Only plaintiffs who allege an interest in the preservation of endangered species fall within the zone of interests protected by the ESA."

In his arguments before the court, Deputy Solicitor General Edwin Kneedler seconded Reinhardt's assessment and said the citizen suit provision doesn't cover the interests of citizens with economic concerns. But the plaintiffs' attorney, Gregory Wilkinson, said the 9th Circuit ruling would lead to "discrimination against economic-based claimants" and "one-sided enforcement" of the ESA. He said his clients' land value had dropped sharply because of the threatened water supply.

Justice Anthony Kennedy, however, was "openly skeptical" of Kneedler's argument and Chief Justice William Rehnquist and Justice Sandra Day O'Connor also voiced doubts about the Administration's case. Kennedy accused Kneedler of advocating "a one-way law." Kennedy said, "We should be very cautious about receiving an argument that undermines the usual neutrality of law". He went on to say that Kneedler, "...just read resource-user protection out of the act."

While several of the justices' appeared



skeptical of the administration's position, the court was "clearly struggling with how to decide a case that could spark a rash of complaints that government has protected fish at the expense of property owners." The court's ruling is expected by July.

Meanwhile, on November 13 Sen. Larry Craig (R/ID) listed ESA reform as one of his top priorities for the next Congress, saying that he plans to work with Sen. Dirk Kempthorne (R/ID) to reevaluate the act. Kempthorne spokesperson Mark Snider said an ESA rewrite is 70% complete and likely to be introduced early next year. However, Sen. Slade Gorton (R/WA), chair of the Senate Interior Appropriations Subcommittee, "said he was convinced the political climate wasn't ripe for an ESA rewrite.

In a bid to avoid clashes over ESA reauthorization, Reps. Jim Saxton (R/NJ) and Wayne Gilchrest (R/MD) held an all-day ESA forum on November 19th attended by about 30 lawmakers and representatives from groups such as the Sierra Club and timber giant Georgia-Pacific Corp. Saxton said, "We're going about trying to explore ways to find common ground, a coalition in the middle of the ideological spectrum, which could come together and pass a bill."

Saxton said it would take strong public pressure to get the 105th Congress to craft a bill acceptable to both environmentalists and conservatives, who want to protect property rights. He said, "In the absence of a welling of pressure from outside of Congress, I doubt this Congress will pass an Endangered Species Act".

U.S. Forest Service Chief Jack Ward Thomas, speaking at a November foresters' conference in Albuquerque, NM, called for the ESA to be recast to emphasize ecosystem protection rather than single-species protection.

As examples of the difficulties that now arise under ESA enforcement, Thomas cited the year-old logging ban in NM and AZ to protect the Mexican spotted owl and the controversy over logging limits in the Northwest established to protect the northern spotted owl. The true intent of the ESA, he said, is to preserve "ecosystems upon which threatened or endangered species depend ... not the individual species." He also said that forest planners must find a way to combine the science of ecosystem management with the economic and social concerns of the rural West.

Meanwhile in a forest in West Danby, NY, biologists have discovered a form of fungus that can be used to prevent rejection of transplanted organs. The discovery, which supports the need to preserve biodiversity and endangered species, has spurred a local conservation group, the Finger Lakes Land Trust in Ithaca, to "capitalize" on the mold's potential by creating "the first preserve set aside specifically for chemical prospecting outside the tropics," the *New York Times* reports.

The fungus species used to make the billion-dollar drug cyclosporin occurred in an often-visited forest near Cornell University. This "is evidence, scientists say, of how poorly known many organisms still are even in well-studied habitats." Cornell biologist Thomas Eisner and colleagues at the Cornell Institute of Research in Chemical Ecology plan to lead the search for "interesting molecules" in the new preserve.

Schering-Plough Corp., a major pharmaceutical company, has expressed interest in becoming a partner in the search once the new reserve is established, perhaps providing funds for research and a return on royalties for conservation. Eisner said, "This could certainly be a model for setting up other preserves and any preserve could lend itself for this purpose. I sincerely hope we've started something"

Source: Greenwire Vol. 6, Nos. 129, 130, 136, 137, 139 and 142

Grazing Issues/ Grasslands Banking

U.S. District Judge Ancer Haggerty on September 30th ruled that the U.S. Forest Service cannot issue permits for grazing on federal lands in OR unless it first obtains assurances from the OR Dept. of Environmental Quality that grazing will not pollute streams and rivers.

In the ruling, Haggerty granted a summary judgement in a lawsuit filed in 1994 by the OR Natural Desert Association, the OR Natural Resources Defense Council, the Pacific Rivers Council, the Portland Audubon Society and Trout Unlimited that argued that livestock producers need to comply with state Clean Water Act standards. The ruling could be extended to cover logging, road-building, mining and other activities that contribute to pollution from sources other than pipes.

Meanwhile, after three months of talks with ranchers and environmentalists, OR Gov. John Kitzhaber (D) on November 18th announced an agreement to ask the state legislature to pass a $40 million plan to protect streams from livestock damage and pollution. The agreement would include as much as $35 million to help farmers initiate water protection measures and $5.8 million to add 38 employees to the state Dept. of Agriculture and the state Dept. of Environmental Quality to help carry out the plan.

Kitzhaber warned that if the state does not move to clean up its streams, the USEPA might assume responsibility for water quality management in OR. On November 5, OR voters rejected a ballot measure that would have required ranchers to keep animals out of waterways that fail to meet clean water standards. Kitzhaber "had urged voters to reject the measure" to give ranchers and enviros a chance to finish planning a voluntary restoration plan.

"In a major victory" for environmental interests in the Southwest, the Bureau of Land Management (BLM) has agreed to study how cattle grazing along NM streams may be harming several endangered fish and bird species. The agreement, signed in early November by Sante Fe federal Judge James Parker, "raises the possibility" that the BLM will curtail cattle grazing along 600 miles of riparian zones under the agency's control.

The agreement stems from a lawsuit filed in May by Forest Guardians against the BLM for not acting quickly enough to conduct "biological opinion" studies on the effects of grazing. Under the deal, the BLM has until March to study the impact of grazing on riverside-dependent species. Species to be studied include the Southwestern willow flycatcher, the Mexican spotted owl, the Rio Grande silvery minnow, the loach minnow, the spikedace minnow and the Pecos bluntnose shiner.

In a separate action, Parker turned down a bid by ranching interests to intervene in the suit. Bud Eppers, head of the NM Public Lands Council, which represents 3,500 NM ranchers said, "It's regrettable that the people most affected by this can't be participants in the negotiations of how this is going to be handled".

In the meantime the *New York Times* and the *W.S. Journal* report that an alliance between ranchers, environmental groups and government agencies has been formed to restore nearly one million acres of rangeland in southern AZ and NM.

The effort, "cited by Interior Secretary Bruce Babbitt and others as a possible road map for escaping the endless polarization of national environmental feuds," is being spearheaded by the Malpai Borderlands Group, a group of ranchers concerned about restoring the health of public and private grazing lands and protecting the region from urban sprawl.

The high desert region is divided into more than 30 ranches and is "probably the richest [biological] area of this size in the United States," according to Dr. Wade Sherbrooke of the American Museum of Natural History. Sixty species are found only in this region.

Rancher Warner Glenn and his wife Wendy formed the Malpai Borderlands Group in 1993, embracing "a former dreaded enemy," The Nature Conservancy (TNC), in hopes of reversing decades of overgrazing and getting fellow ranchers "off the defense" in Western land-use conflicts.

One innovation being tried by the Malpai group is "grasslands banking" for lands depleted by grazing and drought. Under an agreement, ranchers can grant a conservation easement on land they own to the Malpai group. The easements ban major development on ranch lands forever, while still permitting sporadic grazing. Then, for a small fee, ranchers can rest their own pastures by grazing cattle on an abandoned tract in NM known as Gray Ranch. Four ranchers have joined the grasslands program so far.

The alliance has also taken up fire suppression for the first time as a means of improving rangeland health. Talks between ranchers and government officials after a 1992 fire on federal land led to the area's first prescribed burn of 6,000 acres in June 1996. A second prescribed burn of 9,000 acres is in the planning stages.

Scientists have been pleased with the opportunity to take biological inventories of the region, discovering endangered Chiricahua leopard frog populations. And many ranchers have been "charmed" upon learning of biological treasures on their land, according to Ben Brown of the *Animas Foundation.*

Many ranchers involved in the effort

have praised the shift toward working with ecologists. Wendy Glenn said, "There are irreversible changes going on in the West. ... Ranchers can change with them, or get steamrolled." Rancher W.H. Walter said, "The way I see it, all I've done is protect my land from subdivisions and keep myself in business." TNC's John Cook said, "We think ecologically sound, economically viable ranching may be all that stands between these open spaces and tract housing."

But other ranchers wary of a middle ground have attacked the group's efforts. Outspoken critic and local rancher Wallace Klump has called the efforts "the work of Satan." Environmental groups such as *Gila Watch* and *Greater Gila Biodiversity Project* say that the coalition's efforts have not been enough and they are pursuing lawsuits and other initiatives to further reduce grazing.

Source: Greenwire Vol. 6, Nos. 101, 107, 138 and 142

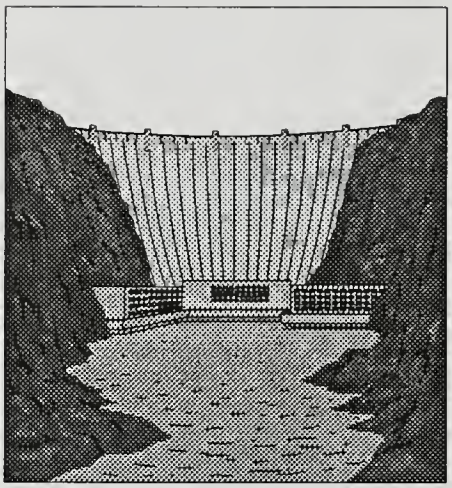
Grand Canyon Update

"Marking a 'sea change' in the way the nation's dams are operated," Dept. of the Interior (DOI) Secretary Bruce Babbitt has signed new regulations permanently giving environmental concerns precedence over power generation in the management of Colorado River flows through the Grand Canyon. The measure, which restricts "a power cooperative's ability to send wildly fluctuating amounts of water through the Glen Canyon Dam, is expected to serve as a blueprint for dam operations across the United States".

The changes, intended to reduce erosion in the Grand Canyon, came after six years of research into the environmental effects of AZ's Glen Canyon Dam, which began operating in 1963. The studies concluded that the canyon had been choked by thirty years of drastic daily fluctuations in water releases from the dam and the absence of natural seasonal flooding.

Babbitt also announced that an intentional flood sent through the canyon in March 1996 brought about "significant improvement in the size and number of the river's beaches" and "creation of backwater habitat for endangered species." The DOI plans to periodically repeat such flooding to rebuild beaches and habitat.

Power rates in the West are not



expected to be greatly affected since they have already risen more than 25% since interim dam-operation restrictions were put into effect in 1991.

However, on a different note, Greenwire reports that the scientist who led the DOI's March 1996 Grand Canyon project quit his job on November 22, "saying the event was more hype than substance and the Interior Department is not committed to making changes at other dams."

Dave Wegner, who worked for the Bureau of Reclamation (BOR) for 20 years, said he decided to quit after the DOI disbanded the research group he oversees. Since 1982, Wegner's Glen Canyon Environmental Studies group has studied the effects of the Glen Canyon Dam on the Grand Canyon and Colorado River. "It is the nation's premiere source of research and information on the impact of dams on the environment," reports the AP.

Wegner said the DOI's decision to disband his group contradicts the agency's public position that it has transformed the way it manages dams so that they cause less environmental harm. Wegner said, "What upsets me is that we had been led to believe we would be taking our expertise, our technology and applying it to other rivers and dams and other systems through the U.S."

But BOR officials said Wegner's group was disbanded because its mission had been completed. In its stead will be the Grand Canyon Research and Monitoring Center to oversee operations at the dam.

Sources: Greenwire Vol. 6, No. 113 and 145

Water Rights for Endangered Fish

A settlement approved October 1 by Judge Thomas W. Ossola of the Division 5 Water Court in Glenwood Springs, CO promises to benefit endangered Colorado River fish while resolving a complicated water rights dispute.

The settlement, which involves operation of Green Mountain Reservoir and various Grand Valley diversion dams and pumping and power plants, will help endangered fish by increasing dry-season flows in the 15-mile reach of the Colorado River between Palisade, CO, and the Gunnison River confluence.

Under the settlement, the Bureau of Reclamation (BOR) agreed not to exercise its water right for the Grand Valley Power Plant during the irrigation season, which will benefit upstream farmers or cities, even when their water rights are "junior." The *Grand Valley Irrigation Company, Orchard Mesa Irrigation District*, and *Grand Valley Water Users Association* made a similar agreement not to exercise their water rights against

upstream beneficiaries of a 66,000 acre-foot "pool" of water from Green Mountain Reservoir during the same season.

"The agreement is a win-win situation," said Brent Uilenberg of the BOR. "It allows more efficient use of irrigation water in the Grand Valley without risking loss of water rights, it keeps more water on the Western Slope, improves water quality and the supply of water for endangered fish and allows upstream junior right holders to protect their ability to use Colorado River water."

The three irrigation companies benefit further by maintaining their current diversion rates and by gaining more involvement in future decisions on management of Green Mountain Reservoir water. During years when the pool will not be entirely used, some of the excess will be delivered to the Grand Valley Power Plant, and then to the Colorado River, indirectly benefitting endangered fish. Also, water delivered from this upstream reservoir is colder and has fewer minerals and less sediment and therefore is higher quality, which will benefit irrigators and municipalities that depend on the Colorado River for water.

The higher flows will improve conditions for endangered Colorado squawfish, which are routinely found in the Colorado River near Grand Junction. The other endangered species targeted for recovery are razorback suckers, which have declined seriously but are being restocked in the Colorado River; the humpback chub, found downstream from this reach of the Colorado; and the bonytail, which is very rare.

"As recently as the mid 1980s parts of that stretch of the Colorado have occasionally dried up in summer," said John Hamill, a U.S. Fish and Wildlife Service biologist who directs the Upper Colorado River Recovery Program. "The agreement will enhance flows at a critical period of the year -- late summer and into fall." The settlement is the product of five years of negotiation and has been signed by all 42 parties involved in the case.

Contact: Connie Young, U.S. Fish and Wildlife Service, P.O. Box 25486, Denver Federal Center, Denver, CO 80225, (303) 236-2985, ext. 227

Floodplain Wetlands for Endangered Fish

Up to 1,200 acres of wetlands along the Green and Colorado rivers could be restored for use by endangered fish in 1997, according to budgetary decisions made in early October by the top-level committee of a multi-agency program to recover the rare fish.

A total of $1.9 million will go toward making wetland areas available to Colorado squawfish and razorback suckers. About $550,000 will be set aside for the U.S. Fish and Wildlife Service (USFWS) to purchase easements from willing landowners for about 1,000 acres of riverside flood plains along the Green River downstream of Dinosaur National Monument. Another $200,000 is available for easements on a total of about 200 acres along the Colorado River between the Gunnison River and Rifle, CO.

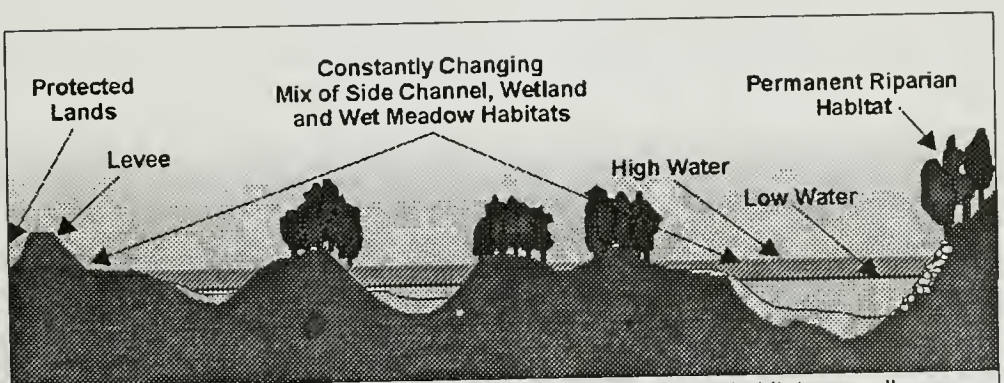
Young endangered fish have been found to grow significantly faster in the warm, shallow, slow-moving waters of these floodplain areas, which are chock-full of the microscopic animals that the young fish eat. Wetlands are known to filter water pollutants, control flooding and provide habitat to hundreds of species of wildlife and plants. Reviving these areas would therefore provide spin-off benefits to the river and to the human environment.

"Restoring these flood plain habitats should provide significant benefits to endangered fish while also rebuilding the river ecosystem for other native fish, riparian wildlife and for the human population," explained John Hamill, USFWS director of the Upper Colorado River Recovery Program.

As part of this project, researchers are studying the effects that selenium has on endangered fish. Selenium, an element that animals need in trace amounts but that can cause deformities and reproductive failures in larger quantities, is present in many riverside wetlands in the upper Colorado River drainage. Identifying the level that is toxic to endangered fish is crucial to determining which floodplain areas can be used as fish habitat.

The committee also agreed to fund several other projects for FY97:

- The Bureau of Reclamation will use $600,000 to build a fish passageway at the Grand Valley Irrigation Company Diversion Dam on the Colorado River. This will allow Colorado squawfish and razorback suckers to pass over this structure at low flows.
- The UT Division of Wildlife Resources is to receive $35,000 to stock bonytails into the Colorado River at Professor Valley. Bonytails are nearly extinct in the upper Colorado River Basin.
- The Ouray National Fish Hatchery in UT will receive about $3 million to build 10 additional half-acre ponds for endangered fish and to operate and make improvements to the hatchery facility. The Grand Valley Fish Facility in Colorado will receive $220,000 for hatchery improvements and



Floodplain wetlands provide seasonal spawning and rearing habitats as well as semi-permanent wintering habitats for native fishes.

operations; the UT Division of Wildlife's "Wahweap" hatchery near Page, AZ, is slated to receive $100,000 for similar purposes. These hatcheries raise endangered Colorado squawfish, razorback suckers, humpback chub and bonytails for research and stocking.

- The USFWS will continue its five-year study on stocking the Gunnison and Colorado rivers with 4-, 8- and 12-inch razorbacks to determine which size of fish has the greatest survival.

Scientists believe the decline of these fish is an indicator of environmental degradation and that improving conditions for the fish also will benefit many other wildlife species and will help maintain river flows that enhance recreation and tourism.

Contact: Connie Young, U.S. Fish and Wildlife Service, P.O. Box 25486, Denver Federal Center, Denver, CO 80225, (303) 236-2985, ext. 227

Non-Native Fish Stocking Agreement

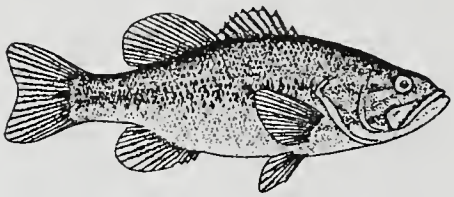
An agreement on procedures for stocking non-native fish in the upper Colorado River Basin received final approval in early October from decision makers in a multi-agency program to recover endangered fish.

The Implementation Committee of the Upper Colorado River Recovery Program endorsed the stocking procedures, which had been developed over the past three years by the U.S. Fish and Wildlife Service (USFWS) and state wildlife agencies in CO, UT and WY. The CO Wildlife Commission approved the procedures in September. A formal agreement is expected to be signed within a few weeks.

"Black Crappie"

The document specifies:

- when non-native fish species can be routinely stocked,
- when stocking is prohibited and
- when case-by-case reviews are required.



"Largemouth Bass"

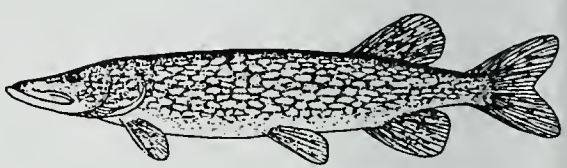
"In negotiating these procedures, some groups wanted to prohibit all stocking of nonnative fish, while others wanted no restrictions whatsoever," said John Hamill, a USFWS biologist who directs the Upper Colorado River Recovery Program. "It hasn't been easy, but I believe we have come up with a reasonable compromise that preserves sport-fishing opportunities while improving conditions for endangered fish."

To help maintain sport-fishing opportunities in western CO, the USFWS has committed to providing 40,000 catchable-size trout each year for stocking in public ponds that are not considered suitable for stocking warmwater fish.

The procedures follow:

- Trout can be stocked anywhere in the upper Colorado River Basin except for river reaches in "critical habitat" for endangered fish.
- The CO Division of Wildlife can implement plans for stocking non-native fish into Chipeta Lake and into the following reservoirs: Rio Blanco, Purdy Mesa, Mack Mesa, Crawford, McPhee and Harvey Gap. Harvey Gap also can be stocked with tiger muskie.
- Largemouth bass, bluegill, black crappie and triploid grass carp can be stocked above the 50-year floodplain in waters that are not connected to the river or are adequately screened to prevent the fish from escaping into the river. (Triploid grass carp are a sterile form of grass carp often used to control vegetation growth in ponds.)
- Corn Lake, upper Connected Lakes and Duke Lake, near Grand Junction, CO, and other waters that are within the 50-year floodplain and are connected to the river can be stocked with these same four fish species as long as berms are constructed to elevate the ponds above the 50-year floodplain and screens are installed.
- Channel catfish and smallmouth bass may be stocked in any water upstream of Flaming Gorge Dam.
- Warmwater fish may be stocked into Strawberry Reservoir and certain other standing waters in UT.

The procedures prohibit stocking non-native species within river reaches designated as critical habitat for endangered fish. Also off-limits in the upper Colorado River Basin is the stocking of black bullhead, yellow bullhead, common carp, flathead catfish, green sunfish, northern pike, red shiner, white crappie and wiper. In a related project, $155,000 has been set aside to "reclaim" up to 25 ponds adjacent to the Gunnison and Colorado rivers. State biologists will work with willing landowners to remove non-native fish species that compete with endangered fish. Preliminary plans then call for restocking the ponds with endangered fish or trout, which generally do not create problems for endangered Colorado River fish.



"Northern Pike"

"The procedures allow widespread stocking of trout and stocking of a variety of warmwater fish species in seven Western Slope reservoirs totaling more than 10,000 surface acres," said Mike Stempel, USFWS. "This is an example of the USFWS's commitment not only to endangered fish recovery but also to maintaining and enhancing recreational fishing."

USFWS's participation in developing the procedures and in providing trout for sportfish stocking reflects the

federal agency's commitment to a policy dealing with the Endangered Species Act and recreational fisheries management, Stempel said. The policy is part of a larger federal effort to improve recreational fisheries required by an executive order signed by President Clinton last year.

Contact: Connie Young, U.S. Fish and Wildlife Service, P.O. Box 25486, Denver Federal Center, Denver, CO 80225, (303) 236-2985, ext. 227

Water Purchased to Restore NV River

In a new use of loan money available under the federal Clean Water Act, local and state governments in NV, federal officials and an Indian tribe have agreed to buy water to help restore the Truckee River, which runs through the city of Reno.

The agreement, signed on October 10, allows local and federal governments to spend $24 million to buy the rights to release water from upstream reservoirs to replenish the Truckee in the summer. During dry periods, most of the Truckee's water presently comes from a sewage treatment plant in Reno. The extra water will help dilute the sewage treatment wastewater and bring the river into compliance with water-quality standards.

The agreement could also improve habitat for two endangered species, the Lahontan cutthroat trout and the cui-ui fish. USEPA spokesperson Loretta Ucelli said the deal is "the first-of-its-kind use of clean-water loans" to buy water for a river. Charles Wilkinson, a water law expert at the University of Colorado Law School, praised the agreement, "I don't think there is any other place in the West where the truly daunting issues of water have been taken on with so much success".

Source: Greenwire Vol. 6, No. 127

"Rainbow Trout"

Flood Damage Repair Damages Streams

Although a flood in January 1996 "swamped" New York's western Catskills area, clogging vital trout streams with silt, according to the *New York Times* some people have complained that the flood relief work "was almost as harmful as the flood,".

After the flood, federal officials appropriated $8.3 million in state emergency funds for the cleanup in Delaware and Sullivan counties. Local residents "launched an armada" of bulldozers and excavators to reopen clogged roads and culverts and clear muck out of the "glistening brooks and winding rivers" that form the "heart"of the region's tourist economy.

But conservation groups like Trout Unlimited, say the gravel and silt disturbed by excessive repair work ended up blocking trout from spawning areas. Trout Unlimited's Jock Conyngham said enforcement of environmental regulations was lax. NY environmental and public works officials agree that some of the work created as many problems as it solved. But they contend that given the public demand to quickly fix the damage, workers did the best they could. With the spawning season just starting, "there is no evidence yet" of a falloff in the trout population.

Source: Greenwire Vol. 6, No. 111

Mudslides, Clear Cut Forestry and Fishery Management

Oregon forestry officials have confirmed that a mudslide that killed four people in a home near Roseburg, OR in early November came down from a steep hillside that had been clearcut 10 years earlier. However, officials said there is no proof that clearcutting caused the slide, attributing it instead to the heavy rainfall that occurred for 10 hours beforehand.

Officials said that *Champion International,* which owned the land in the late 1980s, logged and reforested the area in compliance with the state Forest Practices Act. However, environmentalist say that the OR Dept. of Forestry's recommendations allow harvesting on steep, unstable soils, making mudslides stronger and more prevalent. They point to an aerial survey conducted after last winter's flooding which shows evidence of "an overwhelming number" of landslides that occurred in areas previously cleared or where logging roads have been built.

In the meantime in the state of WA, after months of discussions leaders of state timber, tribal and environmental groups recently "hammered out a compromise" on a major stream-protection rule, which has subsequently been adopted by the state Forest Practices Board.

Tribal leaders and enviros had argued that state maps incorrectly labeled thousands of miles of streams as devoid of fish, an error that allowed streamside logging to occur, damaging fish habitat. Under the compromise, hundreds of streams are now presumed to contain fish, unless landowners can prove otherwise.

The group also agreed to something "potentially much more momentous": a long-term, comprehensive study of ways to protect fish throughout the state's forested lands, with the goal of keeping them off the federal endangered species lists.

The National Marine Fisheries Service next year plans to study several

salmon and trout runs to determine whether federal protection is necessary. Such a listing could have "enormous ramifications" for logging, farming and urban development.

Source: Greenwire Vol. 6, No. 145

Appalachian Clean Streams Initiative

Southeastern OH's Monday Creek will be one of the first streams targeted for cleanup under the U.S. Office of Surface Mining's (OSM) Appalachian Clean Streams Initiative. The program is the agency's "first effort to address the problem of acid mine drainage in streams."

The OSM has announced $650,000 for stream cleanups in OH, half of which will be used for Monday Creek. About 7,500 miles of streams are estimated to be degraded by mining in the Appalachian region, including 660 miles in OH.

Monday Creek drains a 116 $mi.^2$ watershed before emptying into the Hocking River near Nelsonville. Its water is so acidic that almost half of its 27 mi. length supports no fish. One of its tributaries runs through a 20 acre coal slurry pit "surrounded by 30 ft. hills of mining refuse."

The Monday Creek Restoration Project will attempt to restore the watershed, which suffered from 50 years of unregulated mining and "a few more decades of neglect." The cleanup has received $300,000 from the USEPA and another $200,000 from *American Electric Power*, Ohio University and other sources.

Source: Greenwire Vol. 6, No. 126

Rhine/Mississippi River Info Exchange

Although thousands of miles part, the Rhine and Mississippi Rivers share similar histories long celebrated in literature and song. They also share some less romantic attributes - polluted water, frequent flooding, loss of biological diversity, and millions of people who rely on them to sustain their lives. To alleviate some of those pressures, World Wildlife Fund (WWF) recently launched an exchange program to restore the ecological balance to rivers that are stretched to the limit by traffic, people, and pollution.

WWF's Rhine/Mississippi Exchange program is allowing key river managers and decision makers in Germany, the Netherlands, and the U.S. to share the latest information and technological knowhow on integrating environmental and economic objectives into the day-to-day management of these two majestic rivers. Their goal is to meet water quality objectives and restore plant and animal communities while reducing flood damage and improving commercial transportation.

Funded by WWF and the *McKnight Foundation*, river managers and government experts from the U.S. traveled to the Rhine River Basin in September. The U.S. experts visited harbors and exhibition centers, studied recreation areas and nature reserves, and learned about challenges and solutions to river quality ranging from climate change to clay brickmaking. Next summer, a group from the Netherlands and Germany will travel to the Mississippi River Basin.

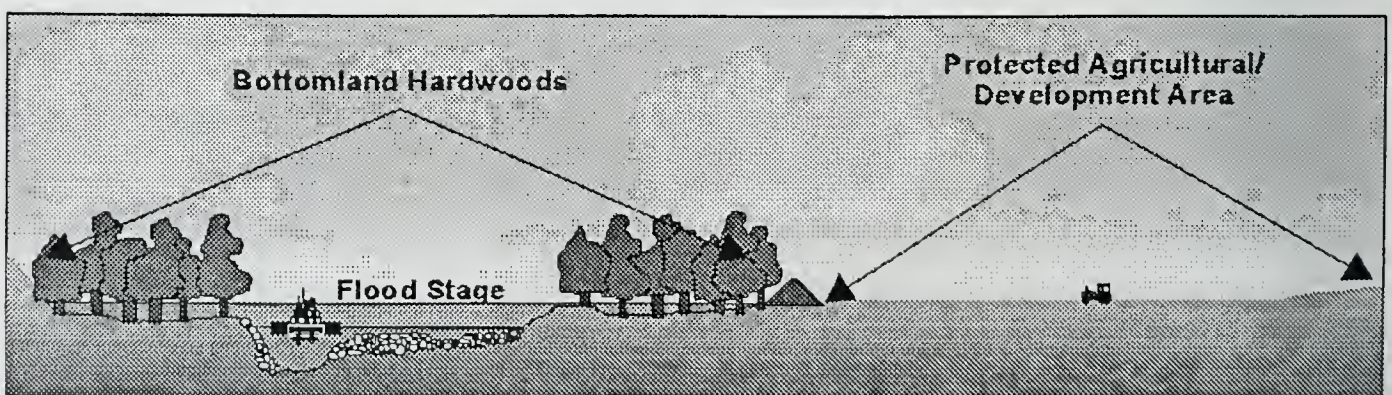
"Every American is touched in some way by the Mississippi River, and every European by the Rhine- and everybody has a stake in how well they are taken care of," said Constance Hunt, who directs WWF's freshwater conservation work in the U.S. "We want to see restoration of these watersheds as part of the solution to flood damage, in addition to water quality enhancement and biodiversity conservation."

Source: Focus (WWF Newsletter), Vol. 18, No. 6

Lawsuit Filed Over LMR Levees

Eight environmental groups on October 2nd filed a suit in U.S. District Court in New Orleans to stop the U.S. Army Corps of Engineers (Corps) from digging up thousands of acres of bottomland hardwood wetlands along the lower Mississippi River.

The Corps plans to use the soil as construction material for a levee-raising project meant to prevent flooding in LA, AR and MS. A Corps spokesperson said currently deteriorating levees along the river could fail in a major flood, causing



Proposed levee raises along the Lower Mississippi River threaten to destroy bottomland hardwoods important to the survival of migrating songbirds and important aquatic species. Rather than taking material to raise the levees from protected farmlands behind the levees, the Corps proposes to clear the hardwoods and excavate materials from between the levees.

ICRA
Mississippi Interstate Cooperative Resource Association
P.O. Box 774 - Bettendorf, IA 52722-0774 - (319) 359-3029

READER'S SURVEY

This "Reader's Survey" is our biannual effort to identify our regular readers, to streamline our mailing list in order to reduce printing and postage costs, and to better serve our readers by soliciting their views. In order to ensure that your name remains on our mailing list, please answer the questions below and return this form to our office at your earliest convenience (preferably before January 15, 1997 in order to make the mailing deadline for our next issue). If you do not respond we will assume that *"River Crossings"* is not being read, and your name may be dropped from our mailing list. We look forward to hearing from you, and especially appreciate receiving your written comments.

_____ I enjoy reading "River Crossings", and wish to remain on your mailing list.

_____ I do not wish to remain on the "River Crossings" mailing list.

Additional Comments:

_____

_____

_____

_____

_____

_____

_____

Thank you for your assistance and continued interest in river issues.

Sincerely,

Jerry L. Rasmussen
Coordinator/Executive Secretary

"catastrophic consequences."

But environmental groups claim the project will destroy wildlife habitat and leave behind barren pits. Robert Apple of the *Arkansas Wildlife Federation* said, "We've already lost 80% of bottomland wetlands along the lower Mississippi River, and almost 90% in Arkansas alone."

The groups, along with the USEPA, the U.S. Fish and Wildlife Service and the LA Legislature, have asked the Corps to reevaluate the environmental impacts of the project before proceeding.

Source: Greenwire Vol. 6, No. 111

Small Yellowstone River Dam Raises Uproar

The U.S. Army Corps of Engineers granted permission to a Montana rancher in mid November to build a temporary diversion dam on a waterway created during June flooding of the Yellowstone River. But the project has raised questions about whether dams should be allowed on the Yellowstone at all.

When rancher Jerry O'Hair first proposed the dam, many fishers "applauded the idea." Even The Nature Conservancy (TNC) offered to raise money to help O'Hair build the dam, which was needed to restore Armstrong's Spring Creek, a famous trout stream where anglers pay $50 a day to fish. But after opponents argued that blocking the river for commercial fishing purposes would set a bad precedent,TNC withdrew its support.

Meanwhile, supporters say diversion dams are nothing new and point to four that already exist on the river. Robert Auger, a local "riverkeeper" who has won awards for his river restoration efforts, said such structures do not block the river's flow, but obstruct it enough to allow farmers and ranchers to divert water for irrigation. He worries that if O'Hair is forced to sell the land, the trout creek will become off-limits to the public.

Source: Greenwire Vol. 6, No. 144

Virginia Coal Waste Fish Kills

A massive October 24th mountain coal field accident that sent "millions of gallons" of mining sludge into creeks and streams in far southwest VA killed fish along nine miles of waterways and threatens the "remaining state stronghold of several rare mussels."

The spill has "blackened" clear waters as a far as 50 mi. from the spill, which began when a 3 acre slurry pond run by a division of St. Louis-based *Arch Mineral Corporation* caved into an abandoned mine shaft. "The roaring river of sludge ... ran a half-mile underground before blasting out a hole at a rate of 3,000 gallons a minute." The company plugged the hole after some 36 hours.

But the VA Dept. of Environmental Quality said that the escaped slurry has killed about 11,200 fish and that two endangered species of fish, as well as the mussels, are at risk downstream.

Arch Mineral officials said the accident was the worst in company history. Senior VP Jeff Quinn said, "We obviously take full responsibility." He said the company, the 10th largest coal producer in the nation, is committed to doing "whatever is necessary to remedy the situation".

In another incident on November 26, coal waste blackened 20 additional miles of streams in southwest Virginia. An undetermined amount of "water laced with fine coal" began spilling at about 5 a.m. from a *Consolidation Coal Co.* waste pond, rushing into an abandoned underground mine and spilling into a creek that leads to Levisa Fork in Buchanan County.

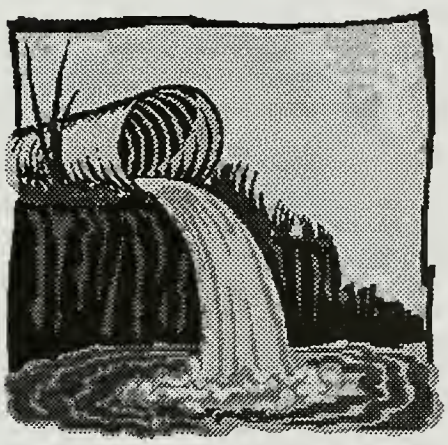
The spill occurred when a barrier between the pond and the abandoned mine failed, but the exact cause is still under investigation. VA Dept. of Mines, Minerals and Energy spokesman Mike Abbott said the accident was "very serious" and disciplinary action will be taken. The accident is similar to the October 24 spill of more than six million gallons near Lee, VA, which killed more than 11,000 fish.

Abbott said the "tainted streams are not used for drinking water" and so far state officials are not reporting fish kills for the November 26 incident. The flow was expected to stop when it crosses the state line and reaches an impoundment in Kentucky.

Source: Greenwire Vol. 6, No. 143 and 146

Polluted U.S. Waterways

Two private organizations -- the *Environmental Working Group* (EWG) and the *U.S. Public Interest Research Group* (PIRG) -- recently analyzed the USEPA's annual inventory of industry's self-reported toxic discharges. The EWG/PIRG analysis reported that an estimated 1.5 billion lbs. of toxic chemicals were discharged into U.S. waterways from 1990 to 1994.



The groups analyzed industry data reported under the USEPA's Toxics Release Inventory (TRI). During the four-year period, sources released more phosphoric acid, ammonia and sulfuric acid than any other TRI chemicals, at 544 million lbs., 188 million lbs. and 122 million lbs., respectively. In addition, 30 million lbs. of carcinogens, reproductive toxics and "persistent toxic metals" such as arsenic, lead, chromium and zinc were discharged.

Some 700 million lbs. of toxic chemicals were reported dumped into the Mississippi River, more than twice the amount released into all other U.S. waters combined. Ninety percent of toxic pollution came from three fertilizer plants in LA, which dumped 643 million lbs. of chemicals from 1990 to 1994. The next most polluted waters were spots on the Pacific coast, the Ohio and Tennessee rivers, the Houston Ship Channel, AK's Ward Cove, the Savannah River between GA and SC, and the Delaware River between NJ and PA.

The report also provides the "first estimates" of toxic material transfers to sewage treatment plants. More than 1.8 billion lbs. of toxic chemicals -- almost twice the amount released directly during the same time period -- were sent to sewage treatment plants from 1990 to 1994. The USEPA does not list these transfers as releases under the TRI, but the agency estimates that as much as 25% of the toxics sent to sewage plants eventually flow into waterways.

The authors note that "the massive legal dumping represents only a fraction of the overall toxic problem." Many polluters, including sewage treatment plants, mines, utilities and municipal incinerators are not required to report their discharges.

The report suggests that one approach to cleaning up rivers is targeting big polluters. For example, one polluter -- *IMC Agrico Co.* -- accounts for all reported discharges in 80% of the waterways. Other "top polluters" are Arcadian Fertilizer LP, Louisiana-Pacific Corp. and the *Mobil Mining and Minerals Co.* The authors also recommend expansion of the TRI to cover any facility that "uses or releases a toxic substance that may pose a risk to human health or the environment" and full disclosure rules for all reporting facilities.

Meanwhile, the Clinton Administration has announced that it may launch a large cleanup project for the Mississippi River. The "still-sketchy" plan, under consideration by the Interior and Justice departments, "would echo last term's cleanup effort in the Florida Everglades and would involve a coordinated attack on polluters by U.S. attorneys." The goal, said one official, is to make the river "as clean as it was in the days Huck Finn swam in it".

Source: Greenwire Vol. 6, No. 101 and 139 and U.S. News & World Report Sept. 30, 1996

Pipeline Companies Fund Creek Restoration

Boosted by a $2.8 million settlement with two pipeline companies, the U.S. Fish and Wildlife Service (USFWS) will join the States of OH and IN in a full scale restoration effort for a biologically rich stream fouled by a diesel fuel spill in 1993.

A ruptured pipeline spilled 30,000 gallons of diesel fuel into Fish Creek in northeastern IN and northwestern OH, killing fish, endangered mussels, and other wildlife and fouling a waterway considered one of the most biologically diverse in the region.

The spill contaminated a 7 mi. stretch of the creek killing a variety of wildlife including muskrats, migratory birds such as kingfishers and wood ducks, sport and nongame fish, crayfish, and frogs. The oil also threatened populations of the 30 species of freshwater mussels.

Fish Creek is the only known home of the endangered white cat's paw pearlymussel. The creek also harbors two other Federally endangered mussels, the clubshell and the northern riffleshell, and several state endangered mussels. The presence of these and other mussel species is testimony to the creek's high water quality and the diversity of wildlife it supports.

Prior to the spill, Fish Creek was the focus of a partnership of public and private agencies to conserve and protect the watershed's rare and endangered species. The Nature Conservancy, the USFWS, resource agencies in OH and IN, the Consolidated Farm Services Agency, the Natural Resources Conservation Service, and local Soil and Water Conservation districts are cooperating in the Fish Creek Preservation Project to ensure the future of this rich ecosystem.

The agencies are working to complete a draft restoration plan which will be made available for public comment. The plan will suggest strategies to improve water quality and bring back mussel and wildlife populations to pre-spill levels, implement local education programs, and protect the waterway from future harm.

Source: Fish and Wildlife News, October 1996

Massachusetts River Cleanup

After two years of negotiations among federal, state and local officials and activists, the USEPA plans to announce a $145 million cleanup plan to remove 170 acres of heavily contaminated sediments from a river in New Bedford, MA.

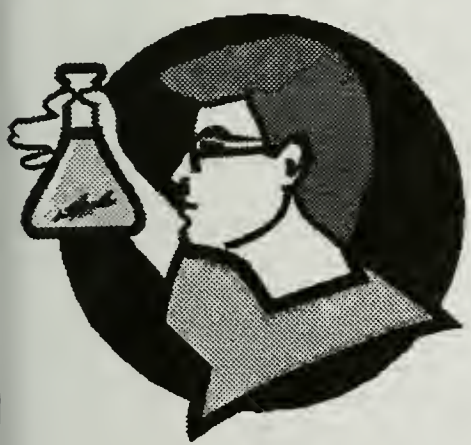
The plan was delayed years by "wrangling" over a 1992 EPA plan to incinerate the most contaminated sediments. The sediments that would be pulled under the EPA's new plan were never scheduled to be burned. "But the uproar" over the 1992 proposal to burn some sediments -- about five acres that contain what is believed to be the highest underwater concentration of PCBs in the world -- "forced" the EPA to drop the plan. The battle attracted national attention "as an example of the EPA showing less concern for hazardous waste sites in neighborhoods with large minority populations."

The new EPA plan "essentially" cancels the incinerator. According to Kristen Conroy, "Everyone was so focused on the incinerator that we decided it would be better to wait." Under the plan, the EPA will agree to remove "even more" contaminated sediment than it originally proposed and not to contain the waste in a lagoon frequented by wildlife. The agency, along with *Eco Logic of Michigan*, is exploring ways to neutralize the PCB-laced sediments.

Source: Greenwire Vol. 6, No. 130

Chemical Pollution, Hormones and Fish

Scientists released a report on November 18th citing "disturbing" evidence that common chemical pollution may be harming the reproductive systems of fish in Lake Mead and 20 other sites across the U.S. The lake, which straddles the border of NV, AZ and CA, attracts 7 to 8 million visitors a year and is a "major source of drinking water for Las Vegas and southern California." Researchers from the U.S. Geological Survey (USGS) sampled carp from areas of Lake Mead that receive much of the treated and untreated waste from the Las Vegas area, including organic chemicals from wastewater, pesticides and industrial chemicals. Evidence of hormone disruption was revealed by "female egg protein in blood plasma samples of male carp." The study was released at the annual meeting of the Society of Environmental Toxicology and Chemistry in Washington, D.C.



This research supports a "growing body of science" indicating that chemical contaminants can feminize male animals and "[wreak] havoc with sexual development in several types of wildlife." Researchers are also "exploring possible connections between chemical contaminants, low sperm counts and high rates of prostate and testicular cancers" in humans.

USGS chief biologist Dennis Fenn said, "These findings suggest the potential for a significant problem." But Alan O'Neill, Supt. of the Lake Mead National Recreation Area, called for more research saying, "We want to stress that Lake Mead has outstanding water quality".

Routine measurements of water pollution in Lake Mead by the Las Vegas Water District show "almost undetectable levels" of possible hormone disrupters. But scientists have found such compounds can harm hormonal systems even at very low levels.

Meanwhile, a government sponsored study published in November in the United Kingdom (UK) found that, human "Female hormones are so potent" that they are causing fish living near sewage outfalls in UK rivers to change sex.

Scientists from Brunel Univ. and the Ministry of Agriculture found three human female hormones in effluent from sewage works: estrone and 17B estradiol, which are excreted in women's urine, and, at much lower levels, ethinyl estradiol, used in some birth-control pills. Although the concentrations of hormones found in effluent are "extremely low," they are still high enough to make male fish start producing egg yolk protein, the researchers said.

The study "establishes" that the natural hormones are causing the fish feminization -- "not any of the tens of thousands of other chemicals found at low concentrations in sewage effluent." The finding is "significant" because some scientists think a wide range of synthetic chemicals used in detergents, plastics and farming can act as estrogen mimics, reports the *London Independent*. Estrogen mimics have been linked to falling sperm counts in men, "genital malformations in boys" and other health effects. The news came as a "relief" to birth-control pill and chemical manufacturers.

The researchers also found that female hormones affect fish at "astonishingly" low levels -- less than one billionth of a gram/liter, or the equivalent of one gram of hormone in a small lake. The UK Environment Agency, which commissioned the research, is organizing further studies to determine how female hormones may be affecting fish in rivers around the country.

But the Environment Agency "is so worried" about the results that it has already ordered water companies to find a way to neutralize the hormones in sewage works.

Source: Greenwire Vol. 6, Nos. 135 and 141

Genetic Engineering/ Pesticide Use

St. Louis-based *Monsanto Co.* has "faced a stampede" this year for its genetically engineered crops. The technology has been "heralded" as a way to reduce dependency on chemicals -- it was hoped that pest-resistant crops would be created. But environmentalists are protesting that, instead, some of the altered crops are resistant to pest-killing pesticides and are therefore boosting chemical use.

In particular, *Monsanto's* altered soybean is resistant to the company's top-selling pesticide, Roundup, and the company "faces rising concern about its strategy of pushing more pesticide rather than designing seeds that require less."

The so-called "Roundup Ready" soybean is now a "lightning rod" for environmental activists. Earlier this month, one protesting group dumped a bag of genetically engineered seed in front of the Chicago Board of Trade. And Greenpeace activists have sprayed a test plot of *Roundup Ready* soybeans near Atlantic, IA with pink

milk-based paint. In Europe, some enviro groups have called for labeling of genetically altered crops.

Dennis Keeney, Director of the Leopold Center for Sustainable Agriculture, fears that farming's focus on genetically altered crops is eliminating interest in more environmentally friendly strategies, such as deploying natural predators against pests.

Some scientists worry that as other companies introduce seeds immune to pesticides, the continued use of the crops will speed the evolution of tougher insects and weeds. "Scattered reports" from Australia indicate that ryegrass has developed a resistance to *Roundup*.

But *Monsanto* Executive Vice President Hendrik Verfaillie says the overall environmental effect of genetically altered crops should be positive. The firm's pest-resistant cottonseed, for instance, has already had a negative impact on pesticide sales.

Regardless, the trend toward genetically altered crops appears strong. *Monsanto* plans to put Roundup Ready cotton and pest-resistant corn on the market. And "many predict that within five years, half of the Farm Belt might be planted with crops capable of making their own insecticide or withstanding weedkillers".

Source: Greenwire Vol. 6, No. 122

Property Rights vs Wetlands

In a "defeat" for property-rights groups, the U.S. Supreme Court has refused to consider whether a NC county school board was wrong to use the Clean Water Act "as a basis for taking over private property." The court turned down an appeal of a NC Supreme Court decision that upheld the Dare County Board of Education's condemnation of the land.

The case involved a high school that needed to expand its athletic field to be accredited by a regional association. The school's first two expansion plans were stalled because they required filling in about three acres of wetlands in violation of environmental regulations, including the federal Clean Water Act. The school then proposed a "so-called mitigation plan," under which it would acquire privately owned property and convert it into wetlands to make up for the loss of wetlands at the site. But two of the families that owned the private land refused to sell, saying they planned to build retirement homes on the beachfront property.

The school board then condemned and took ownership of the property. A state trial judge backed the seizure, "saying the board was acting within its general condemnation authority." Two state appeals courts, including the state Supreme Court, upheld the decision.

Source: Greenwire Vol. 6, No. 130

Natural Resource Budgets for FY 97

In marked contrast to last year's harshly partisan budget battles, the 104th Congress in the waning days of its final session amicably reached agreement on spending priorities for FY97. The omnibus appropriations bill funds programs that in less interesting times would have been addressed in separate defense, interior (DOI), labor-health and human services, foreign operations, commerce, justice-state, and treasury-postal service bills. Congress earlier passed the Veterans Administration-Housing and Urban Development appropriations bill, which includes $6.7 billion for the USEPA.

For the most part, the final compromise differs only slightly from Clinton's budget plan. The starting figures were derived from funding levels approved earlier this year by the House and Senate during consideration of individual appropriations bills, but last minute negotiations with the White House resulted in the attachment of $6.5 billion in additional domestic spending sought by the Clinton Administration.

Operations programs of the National Park Service (NPS), the Fish and Wildlife Service (FWS), and the Bureau of Land Management (BLM) will receive $2.35 billion, an increase of $98.2 million or 4.4% over 1996. This is 1.7% or $49 million less than the President sought. The omnibus act provides no funding for Clinton's proposal for a $100 million Everglades Fund to continue land acquisition programs in the region, but $12 million was included in the regular NPS acquisition account. The act also rejects a $111 million request for the full cost of restoring significant salmon runs in the Elwha River on WA's Olympic Peninsula by buying and removing the dams.

Major policy directives were mostly left out of this year's package. The once controversial mining patent moratorium, in place since FY95, was approved without debate. The provision bans the processing of new mineral claims for one year or until a comprehensive revision of the 1872 mining law that governs hard-rock mining on public lands is approved.

An attempt led by Rep. Elizabeth Furse (D/OR) to "defund" implementation of last year's timber salvage rider failed. The rider, the bane of environmentalists, directs the U.S. Forest Service (FS) and BLM to step up logging of dead and dying timber in an effort to control wildfires and improve forest health.

FY97 enacted spending for selected natural resource programs at the BLM, FWS, FS, and the NPS is displayed below. Spending enacted for FY96 and President Clinton's FY97 funding request are also shown. All amounts are in thousands of dollars ($000) of budget authority.

BLM ($000)

	FY96 Enacted	FY97 Request	FY97 Enacted
Mgmt. of Lands & Resources	566,537	575,892	572,164
Energy & Minerals	69,161	69,503	69,503
Range Management	49,983	52,252	52,052

Maintenance		
30,100	32,754	32,754
Cultural Resources		
11,000	12,059	11,995
Recreation		
44,139	45,864	45,864
Wilderness Mgmt.		
14,000	15,072	15,072
Recreation Resources		
26,139	27,772	27,772
Resource Mgmt. Planning		
8,500	8,544	6,000
Soil, Water & Air		
17,000	22,091	19,591
Wild Horses & Burros		
14,845	15,925	15,925
Wildlife & Fisheries		
25,100	27,232	27,234
Land Acquisition		
14,100	13,060	10,410
Acquisition Management		
3,250	3,250	2,500
Construction and Access		
3,115	3,103	4,333
Range Improvements		
9,113	9,113	9,113
O&C Grant Lands		
97,295	108,379	100,515
Payments in Lieu of Taxes		
113,500	101,500	113,500
Wildland Fire Management		
235,712	247,924	252,042
Total Agency		
1,065,970	1,096,069	1,090,675

Overall, the BLM got a modest $25 million boost this year. The omnibus act funds the management of land and resources at $572.2 million, $5.6 million higher than the FY96 level, but $3.7 million lower than the President requested. The bill funds $14.7 million in increases requested in the budget for land resources, fisheries and wildlife, recreation and facilities maintenance. Congress restored $6 million of the $8.5 million requested for resource management planning, rejecting a House proposal to eliminate the program. The act provides $1 million of the $4 million requested by the administration for abandoned mine reclamation. BLM's land acquisition program continues to be chipped away, down $4 million this year. The BLM manages 270 million acres of public land in the West and Alaska while supervising mineral leasing on an additional 300 million acres of public land.

FWS ($000)

FY96 Enacted	FY97 Request	FY97 Enacted
Resource Management		
505,441	540,372	523,947
Habitat Conservation		
53,808	53,808	55,292
Endangered Species		
57,047	83,076	67,550
Consultation		
15,997	23,997	18,000
Listing		
4,000	7,483	5,000
Candidate Cons. Agrmnts (Prelist.)		
3,800	5,237	4,800
Recovery		
36,500	46,359	39,750
Env. Contaminants		
8,821	8,821	8,821
Fisheries		
64,698	69,098	66,248
Law Enforcement		
35,265	35,265	35,265
Migratory Bird Mgmt.		
15,255	15,255	15,252
Refuge O&M		
169,237	179,237	178,240
Land Acquisition		
40,319	38,290	44,479
Acquisition Mgmt.		
8,500	9,700	8,500
Nat'l Wildlife Refuge Fund		
10,779	10,779	10,779
N. Amer. Wetlands Cons. Fund		
6,750	11,750	9,750
Coop. End. Species Cons. Fund		
8,074	16,085	14,085
Construction & Anadromous Fish		
37,605	37,587	43,365
Total Agency		
645,831	660,715	652,605

The FWS got a $10 million shot in the arm this FY for its embattled endangered species program. The Clinton administration had sought a total of $99.2 million for endangered species programs, including a $22.8 million increase in the resource management account for endangered species program operation and $6 million for habitat conservation plan grants. The omnibus act includes $81.6 million total for endangered species, an increase of $13.3 million over FY96, but $17.5 million less than the president requested. The endangered species listing program resumed operation in April after a one-year moratorium imposed by Congress in FY95. The program now faces a backlog of 242 proposed species; 182 candidate species, pending court orders to designate critical habitat for six species; and unresolved petitions to list or delist 57 species. The Clinton Administration requested $7.5 million for the program and received $5 million, an increase of $1 million from FY96. Congress increased slightly funding for the FWS's land-buying account, approving $4.1 million more than in FY96. Included in the amount is $3 million to establish a new national wildlife refuge at Clarks River in Kentucky. The agency received $18 million for consultation programs, which includes the 300 habitat conservation plans established to involve local communities and landowners in endangered species protection efforts. While this is $2 million more than last year, it fell $6 million short of the administration's request. The funding will be provided though a direct FWS grant, rather than through the National Fish and Wildlife Foundation as in the past. The FWS manages 92 million acres of public land, including 510 national wildlife refuges and 32 wetland management districts.

FS ($000)

FY96 Enacted	FY97 Request	FY97 Enacted
National Forest System		
1,282,267	1,292,553	1,274,781
Ecosystem Planning		
130,008	145,000	---
Land Management Planning		
---	---	130,088
Minerals & Geol. Activities		
35,017	35,000	35,787
Landownership Management		
57,053	57,000	57,053
Range Management		
27,012	31,000	38,012
Recreation Use		
211,151	211,000	211,151

Heritage Resources		
13,570	14,000	13,570
Recreation Mgmt.		
164,314	164,000	164,314
Wilderness Mgmt.		
33,267	33,000	33,267
Forestland Vegetation Mgmt.		
51,768	52,000	55,768
Soil, Water & Air		
42,014	48,000	42,114
Timber Sales Admin.		
188,641	190,000	196,000
Wildlife & Fish Habitat		
85,561	91,000	85,811
Land Acquisition		
39,392	41,200	40,575
Acquisition Mgmt.		
7,392	7,500	7,500
Construction		
224,280	169,662	174,974
Road Construction		
94,942	91,000	93,000
Trail Construction		
20,009	26,000	22,000
Forest Research		
178,000	180,000	179,786
State & Private Forestry		
136,833	164,000	155,461
Wildland Fire Management		
485,485	495,016	530,016
Total Agency (discretionary)		
3,157,628	3,152,522	3,166,898

The FS budget will decrease by 5.6% (-$188.1 million) for FY97 with most of the cuts coming from construction (-$49.3 million). Firefighting programs have been consolidated into one wildland fire management account, funded at $530 million. An additional $550 million has been set aside in an emergency account to pay for firefighting needs if, as expected, total costs exceed appropriations. The state and private forestry account, which funds programs to help improve management of non-federal forests for timber harvest, disease control and other purposes, got a $18.6 million boost. Range management also was increased considerably (+ $11 million). Timber sale administration funds increased $7.4 million, with which the administration plans a total harvest of 4.18 billion board feet (bbf). Of that, 2,751 bbf is to come from regular green sales, while 1.429 bbf is expected to come from the salvage program. The salvage timber rider, passed last year as part of the FY95 rescissions package, expires December 31, 1996. The FS manages 191 million acres of national forest and grasslands, provides assistance to state and private foresters while carrying out major forest research and working on international forestry issues.

NPS ($000)

FY96 Enacted	FY97 Request	FY97 Enacted
Operation of the Park Sys.		
1,081,481	1,173,304	1,152,311
Resource Stewardship		
171,359	209,410	193,610
Visitor Services		
251,555	270,177	270,177
Maintenance		
349,280	366,001	367,898
Park Support		
221,345	234,324	227,967
Land Acquisition (total)		
44,262	34,550	53,915
Park Service Land Acquisition		
35,562	26,250	45,215
Acquisition Mgmt.		
7,200	6,700	7,200
State LWCF Grants		
---	---	---
State Administrative Expense		
1,500	1,500	1,500
Construction		
145,225	143,225	163,444
Nat'l Rec. & Pres.		
37,579	40,218	37,967
Historic Pres. Fund		
36,212	38,290	36,212
Urban Park & Rec. Fund		
---	---	---
Total Agency		
1,313,759	1,611,184	1,414,258

The NPS got a major $69.8 million hike in FY97 operations funding, and overall funding increased 8%, or nearly $100 million. In allocating these funds, the committee said it placed a high priority on NPS operations and base programs which reflects the NPS's highest priority initiatives. The increases provided the NPS are higher than any other agency funded in the omnibus bill. A total increase of $21.3 million is provided for resource stewardship. Included in that amount is $6.7 million for across-the-board increases, $2.1 million for park operations, $2 million for inventory and monitoring, $8 million for South Florida Ecosystem Research, and $2.5 million for cultural resource preservation. Visitor services funds were increased by $18.6 million, while maintenance spending increased $19.2 million. The NPS consists of 367 units covering 80 million acres across the country. Congress maintained essentially even funding for recreation and preservation programs. Once again, conferees denied funding for the urban parks and recreation program, which gives money to cities to restore park and recreation areas.

Land and Water Conservation Fund (LWCF) Spending ($000)

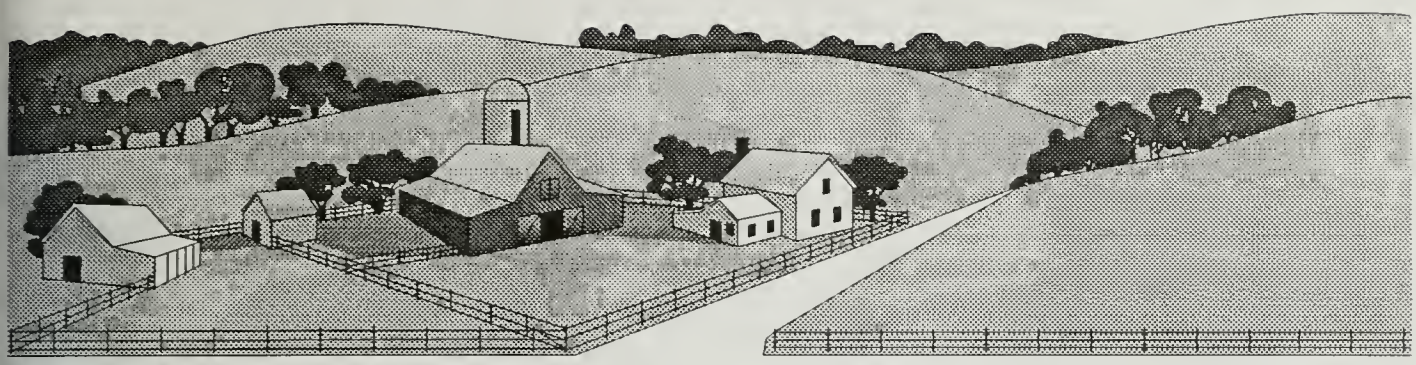
	FY96 Enacted	FY97 Request	FY97 Enacted
BLM	14,100	13,060	10,410
FWS	40,319	38,290	44,479
FS	39,392	42,000	40,575
NPS	44,262	34,550	53,915
State Grants (minus adm. exp.)			
---	---	---	---
Total	138,073	127,900	149,379

Although congressional support of land acquisition is tepid at best, the final agreement boosts LWCF spending by more than $20 million over the Clinton Administration's request. Acquisition spending remains historically low, the $149 million amount being nearly 40% less than that provided just two years ago. Although last year Congress refused to stipulate specific projects and required the DOI and FS instead to submit a list of priorities for approval, this year's agreement returns to the tradition of congressionally-directed appropriations. Projects include $12 million for the Everglades, $3 million to establish the Clarks River National Wildlife Refuge in KY, $6 million for the Columbia River Gorge, and $6 million for the Appalachian Trail.

Source: Land Letter Special Report Vol. 15, No. 28

Constitutional Amendment on the Environment

A coalition of legislators in 37 states on September 25th called on Congress to adopt a constitutional amendment aimed at protecting the environment. Led by Rep. Leon Billings (D/MD) and Rep. Richard Brodsky (D/NY), the National Caucus of Environmental



Legislators hopes to counter what it sees as "anti-environmental trends" in the 104th Congress and recent Supreme Court rulings.

Thirty-four of the 37 legislators are Democrats; three are Republicans. According to Brodsky, "The American people are way ahead of the government; they want their air and water and the natural resources of the nation protected".

As much as 62% of the public supports the "broad concept" of a constitutional amendment to protect the environment, according to a poll conducted by *Greenberg Research*. The survey was conducted for the coalition of legislators asking for support from Congress and presidential candidates for a Clean Environment Constitutional Amendment.

The survey showed support rising to 67% after those polled heard the actual wording of the amendment: "The natural resources of the nation are the heritage of present and future generations. The right of each person to clean and healthful air and water, and to the protection of other natural resources, shall not be infringed by any person." And 58% percent of the 751 likely voters surveyed still favored the amendment "after listening to a series of attacks against it." The poll has a margin of error of +/- 4%.

Defenders of Wildlife Pres. Rodger Schlickeisen, who last year called for such an amendment said, "The Constitution already guarantees to 'our Posterity' legal rights to go along with their moral rights. ... What is necessary is to establish that our Posterity has an equal moral right to benefit from the natural environment and that [they] should be equally protected by a legal right stated in the Constitution."

The states where the amendment will be offered are: AK, AZ, AL, CA, CO, CT, GA, IL, IN, IA, KS, KY, LA, ME, MD, MA, MN, MS, MO, MT, NE, NV, NH, NJ, NM, NY, OH, OK, OR, PA, RI, SD, TX, VT, WV, WI and WY. To take effect, the amendment would have to be passed by Congress and ratified by 38 states or ratified by a constitutional convention of the states.

Source: Greenwire Vol. 6, Nos. 104 and 113

Public View On Environmental Issues

A recent *MTV* poll conducted by "Vital Statistics on American Politics" revealed that 82% of adults under 30 feel that proposals for "strong environmental laws" are good for the country.

In another poll released on November 5 by the *Washington Post*, among five topic areas, environmental concerns received the highest amount of support from young adults. Proposals to raise the minimum wage and enact a balanced budget amendment came in at 81%; abortion rights, 59%; and barring Internet pornography, 57%. However, in a separate question, the young adults did not cite environmental issues among their top five concerns, which were crime, education, high taxes, unemployment and welfare reform.

According to an interim report released by the Heinz Family Foundation's *Democracy Project*, some 72% of voters between 18 and 24 years of age say that having a clean environment is one of their biggest concerns or a major concern. The study found that 58% of young voters prefer candidates who favor strengthening environmental protections, while 27% prefer candidates who aim to reform environmental regulations to reduce burdens on business. Also, 66% say it would be very important to vote if a candidate wanted to significantly weaken environmental protections. The poll, conducted in July by *Lake Research* and *Deardourff/The Media Company*, surveyed 984 voters.

However, according to a poll conducted by the University of Chicago's *National Opinion Research Center* (NORC) during the 1990s, Americans have become less supportive of spending money on the environment. The General Social Survey, an annual fixed-question poll of 2,904 people that the NORC has conducted for the past 24 years, found that between 1989 and 1996, there was an 18% drop in the percentage of Americans who favor greater spending on the environment. Tom Smith, director of the survey, said that the environment was a "strong gainer" in the 1980s, but he attributed the recent decline in support partially to a "reduced perception of environmental crisis," as well as a drop in per-capita income among Americans.

Some 85% of voters do however consider a congressional candidate's stand on the environment to be an important factor in deciding how to cast their vote. This according to a poll released on November 6 by the Washington, DC-based *Environmental Information Center (EIC)*. This poll

surveying 788 adults between October 30 and November 3, found that 53% said a congressional candidate's position on environmental protection and clean air and water standards was "very important," 32% said it was "somewhat important," 8% called it "not too important", and 5% said it was "not important at all."

The results showed a "sea change" in opinion from earlier polls conducted by Democratic pollsters Lake Research and *Greenberg Research* that found 58% of voters rating the environment as an important issue in judging candidates in 1995 and only 30% in 1994. The EIC released poll was conducted by *ICR Survey Research* of Media, PA; margin of error was +/- 2.5%

Sources: Greenwire Vol. 6, No. 118, 130 and 133

Gore Calls for Environmental Report Card

Vice President Al Gore on September 25th called for federal agencies to work with scientists and interest groups to issue a report card on the health of the nation's ecosystems by 2001

The report card would assess "key indicators" -- such as wetland and forest preservation, timber productivity, croplands fertility and fisheries recovery and production -- to help policy makers determine whether environmental protection laws are working. Gore said, "We must improve coordination of the 15,000 federal environmental monitoring sites".

Source: Greenwire Vol. 6, No. 107

River Groups Merge

The American River Management Society and the *River Federation* have merged into ***The River Management Society*** (TRMS). The TRMS is presently electing new national officers. Nominations are being mailed to: Ken Vines, Gold Beach Ranger District, 29279 S. Ellensburg, Box 7, Gold Beach, OR 97444.

River Index

- Number of dams 15 m. or higher on the world's rivers -
  - as of 1950: 5,270
  - as of today: approximately 40,000
- Number of dams 15 m. or higher under construction worldwide (1995): 1,118
- Estimated number of dams begun each year, worldwide: 300
- Percent of U.S. freshwater resources considered too contaminated to swim in or drink: 40
- Kilometers of the world's once free-flowing rivers that had been altered for navigation -
  - by 1950: 8,759
  - by 1980: 498,000
- Percent increase in per-capita water use 1900-1980, worldwide average: 200
- Percent increase in water withdrawal from the world's freshwater resources from 1900 to 1980: 566
- Amount of water required to manufacture the average U.S. car: 140,000 liters
- Amount of water used annually by a faucet dripping one drip/second: 3,785 liters.

Source: World Rivers Review, September 1996

Meetings of Interest

January 14-16: 1st Annual Conference on Natural Resources of the Missouri River Basin, Columbia, MO. A multi-disciplinary conference is being established to provide a forum for information exchange between researchers and resource managers on issues related to the stewardship, ecology, and management of the Missouri River mainstem, floodplain and tributaries. Contact: Mark Laustrup, USGS-BRD, Midwest Science Center, Route 2, 4200 New Haven Road Columbia, MO 65201, (573) 875-5399 X1703, E-mail: mlaustrup@msc.nbs.gov

January 21-22: Ohio River Conference, Cincinnati Convention Center, Cincinnati, OH. Held in conjunction with the Cincinnati Travel, Sports and Boat Show, the conference focus will be on the importance and status of the Ohio River fishery resource. Contact: Randy Miller, Ohio Division of Wildlife, (614) 265-6554.

January 28-31: Zebra Mussel and Aquatic Nuisance Species Conference, Radisson Hotel, New Orleans, LA. Contact: Elizabeth Muckle-Jeffs, Conference Administrator, 567 Roy Street, Pembroke, ON K8A 6R6 Canada, 1-800-732-3386

February 6-7: 2nd Upper Mississippi River Summit Meeting, Airport-Marriot, St. Louis, MO. Accomplishments of the five study teams will be reviewed and the Big River Partnership as whole will be evaluated. Contact: Bob Post, U.S. Army Corps of Engineers, (612) 290-5303.

March 8-11: Sixth International Symposium on the Ecology of Fluvial Fishes, Univ. of Lodz, Lodz, Poland. Contact: Tadeusz Penczak, Dept. of Ecology and Vertebrate Zoology, Univ. of Lodz, 12/16 Banacha St., 90-237 Lodz, Poland, 011/048-42-781364.

March 11-13: 53rd Annual Meeting of the Upper Mississippi River Conservation Committee, Riverport

Inn, Winona, MN. Contact: Jon Duyvejonck, UMRCC, 2269-48th Ave. Court, Rock Island, IL 61201

March 14-18: 62nd North American Wildlife and Natural Resources Conference, Omni Shoreham Hotel, Washington, D.C. Contact: Richard McCabe, Wildlife Management Institute, 1101 14th Street, NW, Suite 801, Washington, D.C. 20005, (202) 371-1808, FAX (202) 408-5059.

April 24-25: 29th Annual Meeting of the Mississippi River Research Consortium, Holiday Inn, La Crosse, WI. Contact: Mark Steingraeber, U.S. Fish and Wildlife Service, Fishery Resources Office, 555 Lester Avenue, Onalaska, WI 54650.

May 7-9: Communities Working for Wetlands, Radisson Plaza Hotel, Alexandria, VA. The conference will be a gathering of people interested in community-based wetlands conservation who will share their experiences and thus expand their wetlands knowledge. Contact: Terrene Institute, 4 Herbert Street, Alexandria, VA 22305, (800) 726-4853.

June 3-4: Pathogens and Diseases of Fish in Aquatic Ecosystems: Implications in Fisheries Management, Portland, OR. Contact: Ray Brunson, Olympia Fish Health Center, U.S. Fish and Wildlife Service, 3704 Griffin Lane, Suite 101, Olympia, WA 98501, (360) 753-9046, FAX (360) 753-9403.

June 3-5: Fisheries Management under Uncertainty - International Symposium, Bergen, Norway. Contact: Ann Gro Vea Salvanes, Dept. of Fisheries and Marine Biology, Univ. of Bergen, Bergen, Norway, Anne.Salvanes@ifm.uib. no.

June 29 - July 3: Annual Symposium of the American Water Resources Association and the Universities Council on Water Resources, Keystone Resort, Summit County, CO. Contact: AWRA, 950 Herndon Parkway, Suite 300, Herndon, VA 22070-5531, (703) 904-1228; or UCOWR, 4543 Faner Hall, Mailcode 4526, Southern Illinois University - Carbondale, Carbondale, IL 62901-4526, (618) 536-7571

July: III International Symposium on Sturgeon, ENEL Training Centre, Piacenza, Italy. Contact: Dr. P. Bronzi, ENEL spa - CRAM via Monfalcone, 15-20132 Milan (Italy) phone: + +39-2-72243412 or 3452, FAX: + +39-2-72243496, E-mail: bronzi@cram.enel.it.

August 18-20: Wild Trout VI, "Putting the Native Back in Wild Trout", Montana State Univ., Bozeman, MT. Contact: Robert Gresswell, U.S. Forest Service, Pacific Northwest Research Station, 3200 SW Jefferson Way, Corvallis OR 97456, (541) 750-7410, gresswer@ccmail.orst.edu

August 24-28: 127th Annual Meeting of the American Fisheries Society, Monterey, CA. Contact: Paul Brouha, (302) 897-8617, Ext. 209.

Early November 1997: Ecological Restoration as a Key Element of Regional Conservation Strategies - 9th Annual Society for Ecological Restoration Conference , Ft. Lauderdale, FL. Contact: SER, 1207 Seminole Highway, Suite B, Madison, WI 53711, (608) 262-9547.

May 23-28, 1998: First International Ictalurid Symposium - Catfish 2000, Davenport, IA. Contact Steve Eder, Missouri Dept. of Conservation, P.O. Box 180, Jefferson City, MO 65109-0180. (573) 751-4115, FAX (573) 526-4047.

Congressional Action Pertinent to the Mississippi River Basin

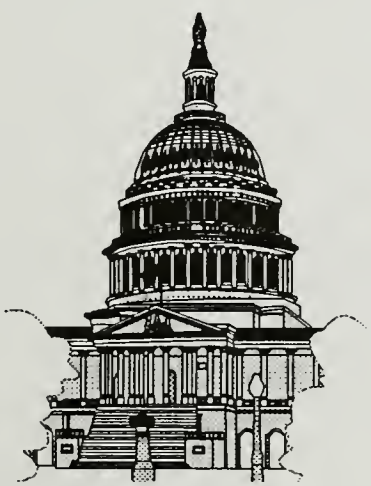
Fish and Wildlife

S. 2115 (Shelby, R/AL) and H.R. 4144 (Brewster, D/OK) to protect and enhance **sportsmen's opportunities and conservation of wildlife.**

Forests

H.R.4087 (Browder, D/AL) designates certain federal lands in Alabama as the **Dugger Mountain Wilderness.**

H.R.4145 (Bryant, D/TX) amends the **Forest and Rangeland Resources Planning Act of 1974** and related laws to strengthen the protection of native biodiversity and ban clearcutting on federal lands.



Land Use

S. 2185 (Wyden, D/OR) to improve federal environmental policy by providing incentives for state and local growth management plans and land use programs.

Public Lands

S. 1844 (Murkowski, R/AK) to amend the **Land and Water Conservation Fund Act** to direct a study of the opportunities for enhanced water based recreation and for other purposes. Approved by the Energy Committee in September.

H.R. 3619 (Campbell, R/CA) to

provide off-budget treatment for the **Land and Water Conservation Fund.**

H.R. 3752 Young, R/AK) a bill to preserve the sovereignty of the United States over public lands and acquired lands owned by the U.S., and to preserve **state sovereignty and private property rights** in non-federal lands surrounding those public lands and acquired lands.

S. 2089 (Thomas, R/WY) to transfer **Bureau of Land Management Lands** to the state in which they are located.

S. 2181 (Dorgan, D/ND) to provide more effective management of **national grasslands.**

Water and Wetlands

H.R. 3217 (LaTourette, R/OH) to provide for **ballast water management** to prevent the introduction and spread of nonindigenous species into the waters of the U.S. and for other purposes. Passed and signed into law by President Clinton as the *National Invasive Species Act* (NISA).

Source: Land Letter

River Crossings

Mississippi Interstate Cooperative Resource Association
P.O. Box 774
Bettendorf, IA 52722-0774

BULK RATE
U.S. POSTAGE
PAID
BETTENDORF, IA
PERMIT NO. 83

Address Correction Requested

"When you are finished with this document, please pass it along to another reader, a school/public library, or appropriate club."