

River

Crossings

NATURAL HISTORY SURVEY
LIBRARY

Volume 7

January/February 1998

Number 1

New Telephone Number

Please note that MICRA's telephone number has changed to (309) 793-5811. Our FAX number is (309) 793-5812, and we can be reached by email at IJRIVERS@AOL.COM.

Sturgeon and Paddlefish Listing Update

As noted in the last issue of *River Crossings* (Vol. 6, No. 6) all sturgeon and paddlefish, and their products are now listed in Appendix II of the *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES). This listing decision, reached at the Tenth Conference of the CITES Parties (COP10) in June, becomes effective April 1.

CITES is an international treaty designed to control the international trade in certain animal and plant species which are or may become threatened with extinction, and are listed in Appendices to CITES. Currently, 143 countries, including the U.S., are CITES Parties. The U.S. Fish and Wildlife Service (USFWS) is the lead agency for U.S. implementation of CITES. With the recent listing, all paddlefish and sturgeon products are now covered by USFWS regulations regarding import or export of wildlife.

Sturgeons are fished for meat and caviar, with caviar being the most

valuable product and in highest international demand. As noted in previous issues of "*River Crossings*", many species of sturgeons, the primary source of commercial caviar, have experienced severe population declines worldwide because of both habitat destruction and excessive take for international trade. Some are at serious risk of extinction.

The order, *Acipenseriformes* (to which the sturgeon and paddlefish belong), are a primitive group of approximately 27 species of fish, whose biological attributes make them vulnerable to intensive fishing pressure or other agents of elevated adult mortality. Although females produce large quantities of eggs, juvenile mortality is high; sturgeons are generally long-lived and slow to mature (reaching sexual

maturity at 6-25 years); and depend on large rivers to spawn.

Sturgeons of the Caspian Sea produce what is claimed to be the highest quality caviar and are the source of more than 90% of the world caviar trade. Russia, Kazakhstan, Azerbaijan, Turkmenistan, and Iran now supply most of the caviar from the Caspian Sea. Since the mid-1970's very marked declines in the populations of all six Caspian Sea sturgeon species have been noted, especially beluga (*Huso huso*), Russian (*Acipenser gueldenstaedtii*), and stellate (*A. stellatus*) sturgeons. Five of the six species of Caspian Sea sturgeons are considered endangered by the IUCN (*the World Conservation Union*).

This problem has become exacerbated in recent years due to deteriorating

IN THIS ISSUE

New Telephone Number	1	Sediments Report Released	9
Sturgeon/Paddlefish Update	1	Pollution Efforts Failing?	10
Pallid Sturgeon Recovery Closer	2	Conservation Farming	10
Natural Variability/Restoration	3	Livestock Wastes	11
Dam Modifications/Removals	5	Pfiesteria Update	12
Flow Diversions	5	Contaminated Fertilizers	13
100 th Meridian Initiative	6	White House Hypoxia Study	14
Western Regional Panel	6	Miscellaneous River Issues	15
Biodiversity Locations	7	American Heritage Rivers Update	18
Bioprospecting in Yellowstone	7	Climate Change Treaty	18
Natural Capital	8	Fishing and the Economy	20
Conservation Plans/Data	8	Riverkeepers - A Book	21
Teaming With Wildlife	8	Meetings of Interest	21
Mussel Indictments	9	Congressional Action	22

fishery management and enforcement capabilities in the region, resulting in significant levels of poaching and illegal trade. The total present take is believed to far exceed sustainable levels. These concerns led to development of the CITES listing proposal (co-sponsored by Germany and the U.S.) to include all presently unlisted sturgeon species. The proposal was adopted by consensus of the other members.

Prior to COP10, shortnose sturgeon (*A. brevirostrum*) and Baltic sturgeon (*A. sturio*) were listed in CITES Appendix I and Atlantic sturgeon (*A. oxyrinchus*) and American paddlefish (*Polyodon spathula*) were listed in CITES Appendix II. Five of the newly listed species were listed in Appendix II because of their population status and trade levels: beluga, Russian, stellate, Siberian (*A. baeri*), and ship or spiny (*A. nudiiventris*) sturgeons. All other species of sturgeons not already listed in CITES before COP10 were included in Appendix II because of the "similarity of appearance of their caviar to that of the Caspian Sea species". This includes the white sturgeon (*A. transmontanus*) from North America.

The end result of this is that all sturgeon and paddlefish species worldwide, are now covered under the provisions of CITES. It is hoped that this measure will provide a regulatory mechanism for the import and export of sturgeon and their products, thereby curtailing illegal caviar trade and the detriment to wild populations, notably those of the Caspian Sea. Under the listing, all sturgeon species, their parts and products, including meat and caviar, will now have to be declared to the USFWS upon import or export, as well as meet applicable permit, port and licensing requirements.

Prior to the 4/1 implementation of the CITES listing, the USFWS held two public meetings, one in New York (1/17) and one in Los Angeles (1/27) to discuss its implications. These meetings provided opportunities for importers and exporters of sturgeon and their products, notably caviar, Customs brokers and other interested persons to meet with USFWS officials. The meetings were held in

New York and Los Angeles because of the high volume of caviar imports through these ports, and the corresponding concentration of affected members of the general public.

The USFWS has prepared a fact sheet, "Sturgeons and CITES" to help answer questions on the listing and its implementation. Proposed rules for implementation of the CITES regulations were published in the Federal Register, 12/5/97, Vol. 62, No. 234, pp. 64347-64348.

Meanwhile, the Germany-based power company *RWE Energie* hopes to market its own brand of home-grown caviar by raising sturgeon in the shadow of one of its coal-fired power plants near Cologne. RWE's Friedhelm Guenter said that the warm waters of the plant's reservoirs were thought to be helping the nearly 60 fish grow bigger and more quickly than normal. The company hopes to begin breeding

the fish in 1999 and introducing them into inland waterways.

Sources: USFWS News Release and *Long Island Newsday*, 1/15/97. USFWS contact: Dr. Rosemarie Gnam, Office of Management Authority, 4401 N. Fairfax Drive, Rm. 700, Arlington VA 22203, (703) 358-2095 or fax (703) 358-2298

Pallid Sturgeon Recovery - a Step Closer

The *Pallid Sturgeon Recovery Program* is a small, but significant, step closer to achieving recovery objectives after the crew at the Gavins Point National Fish Hatchery (NFH), Yankton, SD, successfully spawned two females and three males on 6/16-18/97. These five fish were captured from the Missouri and Yellowstone rivers in ND under direction and guidance of the Missouri River Fish and Wildlife Management Assistance

River Crossings

Published by

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

MICRA Chairman

Marion Conover, Chairman, Iowa Department of Natural Resources, Des Moines

Executive Board

Marion Conover, Member at Large

Bill Reeves, Vice Chairman, Tennessee Wildlife Resources Agency, Nashville

Jack Wingate, Minnesota Department of Natural Resources, St. Paul

Mike Armstrong, Arkansas Game and Fish Commission, Little Rock

Dennis Unkenholz, South Dakota Game, Fish & Parks Department, Pierre

Tom Flatt, Indiana Department of Natural Resources, Avoca

Gary Edwards, U.S. Fish & Wildlife Service, Washington, D.C.

Ron Pasch, Tennessee Valley Authority, Chattanooga, TN

MICRA Coordinator/Executive Secretary and Newsletter Editor

Jerry L. Rasmussen, U.S. Fish & Wildlife Service, Bettendorf, IA (309) 793-5811

MICRA email: ijrivers@aol.com

MICRA WebPage: <http://www.waux.msc.nbs.gov/MICRA>

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 of its member States or Entities. Any comments related to "River Crossings" should be directed to the MICRA Chairman.

Office (MRFWMAO), Bismarck, ND. The successful event produced nearly 300,000 green eggs, with 75,000 of those being shipped to facilities throughout the country to accomplish research regarding genetics, taxonomy, environmental contaminants, habitat selection and behavior. Approximately 5,000 juveniles were retained for population augmentation, broodstock development, other research needs, and outreach.



Fish and wildlife agency official with large pallid sturgeon collected from the upper Missouri River.

The five sturgeons spawned this year have an interesting history. Two of the three males (41 and 37 lbs.) were captured in ND in 9/93 by MRFWMAO staff. They were transported approximately 500 miles to the Gavins Point NFH to be held as broodstock. The other male (26 lbs.) and the two females (55 and 50 lbs.) were captured by biologists in the fall of 1996. These fish were temporarily held at the Garrison Dam NFH before being relocated to the Gavins Point NFH when netting operations ended for the year. While at Garrison Dam NFH, the 55-pound female contracted a fungal infection on her abdomen. She had to be treated and recover before being transported. She did not heal sufficiently to travel the long distance until 1/6/97, when the Dakotas were in the heart of a record cold winter. Ice was forming on the large round tank where she

was being held at the Garrison Dam NFH in the unheated building. Despite her troublesome adventure, she was the best producing female.

The juvenile pallid sturgeons are being cultured as separate family lots to maximize genetic diversity. Recovery plans call for spawning and population augmentation in each of the next 6 years. Starting in 1998, approximately 1,500 juveniles will be released back to the wild in the upper basin. Even with this year's success, population augmentation is just one ingredient in the recipe of recovery. Species protection and habitat restoration will continue to achieve equal attention on other fronts.

Prior to this year's success at Gavins Point NFH, Jerry Hamilton, Missouri Dept. of Conservation, Blind Pony State Fish Hatchery (Sweet Springs) pioneered pallid sturgeon spawning. Hamilton began spawning "wild" lower Missouri River and Middle Mississippi River pallid sturgeon in 1994. Hamilton's fish have been collected as "by-catch" from commercial fishermen. The upper Missouri River fish spawned at Gavins Point this year are thought to be a different strain than those present on the lower river because they seem to reach larger adult size.

Source: *Pallid Sturgeon Recovery Update*, 11/97, Issue No. 9. Contact: Mark Dryer, Missouri River FAO, Bismarck, ND, (701) 250-4419 or Herb Bollig, Gavins Point NFH, Yankton, SD, (605) 665-3352

Natural Variability Key to River Restoration

Managing a river to maintain minimum water flow or sustain a single "important species" is like teaching pet tricks to a wolf: The animal may perform, but it's not much of a wolf anymore. That is the conclusion of a six-university panel of river experts whose report, *"The Natural Flow Regime: A Paradigm for River Conservation and Restoration,"* is published in the 12/97 issue of *BioScience* (Vol. 47, pp. 769-784).

Letting a river do its own thing -- come drought or high water -- is more complicated than anyone realized until

recently, the panel agrees, but at least scientists now know why natural flow is important and how to help. "People say you can never return the Ohio River to its natural state, and you can't -- without displacing a lot of people," said Mark B. Bain, a fish ecologist at *Cornell University* and one of eight authors of the *BioScience* report. "But you can enhance different portions of the Ohio's flow regime, by changes to dams and water-use operations, for example, and return some of the ecological integrity with relatively minor changes," he said.

"It is now clear that natural river systems can and should be allowed to repair and maintain themselves," said N. LeRoy Poff, a biologist at *Colorado State University*. "Every river system is different, and each will take a different mix of human-aided and natural recovery methods. But the key to management of healthy river ecosystems has to revolve around restoring their natural dynamic character."

The river system study was funded by a grant from the *George Gund Foundation*, with logistical support from *The Nature Conservancy*. Participating in the study were Bain, an associate professor of natural resources at *Cornell*; Poff, an assistant professor of biology, *Colorado State*; J. David Allan, professor of natural resources, *University of Michigan*; James R. Karr, professor in the departments of fisheries and zoology, *University of Washington*; Karen L. Prestegard, associate professor of geology, *University of Maryland*; Brian D. Richter, hydrologist for *The Nature Conservancy*; Richard E. Sparks, director of river research, *Illinois Natural History Survey*; and Julie C. Stromberg, associate professor of plant biology, *Arizona State University*.

The scientists said there's more to natural flow than tolerating the occasional "100-year flood" or creating human-made floods. They identified five often overlooked components of a river's flow regime:

- magnitude,
 - frequency,
 - duration,
 - timing and
 - rate of change,
- saying: "Modification of flow has cascading effects on the ecological integrity of rivers."

Cornell ecologist Bain cited five examples of American rivers that still run free, and four that could with a little help:

- Cahaba River (AL): "Undammed, with no major water withdrawals, this is one of the country's most species-diverse rivers."

- Yampa (CO) and Little Colorado (AZ): "The last rivers supporting the largely exterminated fishes of the Colorado River system."

- Hudson River (NY/NJ): "A lot of diversity for a river that flows through the most densely populated region in the U.S." Because the lower Hudson never had controlled flows, Bain said, the river remains a stronghold for many Atlantic Coast migratory fishes.

- French Creek (river-sized system in NY and PA): "Retaining its record-high diversity of fish and mussels, this large stream holds species that used to be in the Allegheny River prior to dams."

- Mohawk River (NY): "Dammed, channelized and almost entirely controlled, the Mohawk River is now dominated by hearty, non-native species and recreational boats."

- Columbia River (WA/OR): "Despite intense public interest, a major salmon industry and hundreds of millions of dollars annually devoted to mitigation, restoring the river's famous fish runs hasn't worked."

- Colorado River (AZ/UT/CO): "The original fish fauna have disappeared and many other organisms in the native community are nearly extinct." However, all the human demands for the Colorado's water probably preclude major changes in river management, Bain said, adding: "Fortunately, Grand Canyon looks fine without water; it's a good thing it's supposed to be arid."

- Kissimmee River (FL): "By dismantling flood-control dams and connecting with swamps and wetlands, the largest ecosystem restoration effort in U.S. history will return this river to its winding, swampy path and greatly increase water quality."

The river scientists said they hoped the report -- by presenting state-of-the-art knowledge about the importance of natural variability to aquatic and riparian ecosystems -- will help

river managers and agencies make the argument that unfettered rivers have multiple benefits for nature and for human society. The authors made the following major summary points about the "*The Natural Flow Regime*":

- River ecosystems are damaged and degraded due to multiple human actions. Changes to the natural flow regime constitute one particularly important and underappreciated cause of declining health of rivers.

- Natural variability characterizes all ecosystems. Variability in river flow is a prime example of such natural variability. Each river has a natural flow regime, which can be altered by a variety of human actions including dams, diversions and diverse ways in which hydrologic pathways are al-

tered. Examples include not just salmon migrations but recruitment of riparian trees, maintenance of sandbars in river channels, and sustenance of wetland habitat dependent upon flood plain inundation.

- Scientific knowledge allows us to characterize the natural flow regime of a river and determine the extent to which it has been altered. Our understanding of the linkages between natural flow regime and the ecological functioning of rivers provides a powerful scientific basis for river management and restoration.

- Current river management too often fails to consider the importance of natural variability. The standard practice of managing for one or a few "important" or imperiled species by defin-



Natural variability in aquatic (i.e. channel, sand bar, and gravel) and riparian habitats created by the upper Allegheny River during the 100-year flood of 1979.

tered.

- Natural variability in river flow creates a wide range of habitat types and ecosystem processes that maintain the natural biological diversity of aquatic and riparian (stream side) species. A major consequence of this natural variability is that all species experience favorable conditions at some time, preventing any one species from dominating.

- Alterations of the natural flow regime result in numerous physical, chemical and biological changes to

ing how little water can be left in the river is not adequate based on new scientific understanding. Some examples of restoring the natural flow regime (e.g. Glen Canyon) provide encouragement that the adaptive management approaches can be used to manage for whole river ecosystems.

Source: *Ecological Society of America* On-line News Release, 12/4/97; Contact: Roger Segelken, (607) 255-9736, E-Mail: hrs2@cornell.edu

Dam Modifications/Removals

The U.S. Army Corps of Engineers (Corps) is recommending that it "go ahead" and blast a notch in OR's Elk Creek Dam to allow spawning salmon free access upstream, rather than wait on a proposed environmental impact statement. The \$7 million cost to blast the notch would be cheaper "and more biologically sound" than the current program of trapping salmon and steelhead below the dam and hauling them upstream by truck, according to Corps officials.

But Rep. Bob Smith (R/OR), who wanted to continue the Corps' trap-and-haul program until an environmental impact statement was completed, was "surprised" at the Corps' decision. However, Smith said he has no plans to stall the project. The Corps hopes to award a contract in 3/98 and finish blasting the notch and realigning Elk Creek by 10/98. Enough of the dam would remain for it to be completed in the future.

Also in OR, the *Grants Pass Irrigation District's* new board has renewed efforts to keep Savage Rapids Dam on the Rogue River from being removed to help threatened salmon populations. The board approved a resolution overturning an 11/97 order by the *OR Water Resources Commission (OWRC)* to produce a plan for the dam's removal. It also pledged to "fine-tune" operation of the dam and fish ladders to minimize risks to salmon and steelhead. Meanwhile, the *OWRC* has threatened to revoke a conditional water right that allows the district to continue operating if the dam is not removed.

In a 1/7/98 speech to industrial and agricultural users of the Columbia River, OR Rep. Elizabeth Furse (D) "admonished" regional leaders "for not doing enough to save salmon" and said she might support returning a portion of the Columbia to its free-flowing state. Furse called for lowering the reservoir behind the John Day Dam east of Portland, which could recreate about 35 miles of swift-flowing river, but which also could cut the dam's power output by half, halt barge travel, and impede irrigation.

Environmentalists and some advisors to the *Northwest Power Planning Council* see the plan as a "worthy alternative" that would "balance hydropower generation against the needs of fish and wildlife." But industrial users of the river stand to lose economically. Dan Ten Eyck of *Reynolds Metal Co.* said salmon programs have already cost the company's aluminum smelters \$15 million in increased electricity costs. Sen. Slade Gorton (R/WA) called the idea "silly." But Furse, last month, sent a letter to all 435 House members, criticizing their failure to aid in salmon recovery. She said, "We are going to have to do some tough things ... There are not solutions without pain. We need to modify the system".

Meanwhile in NC, State and federal officials on 12/17 began demolition of the Neuse River's Quaker Neck Dam, making it "the first large dam in the nation to be removed for environmental reasons". The two-week demolition project will open 75 miles of the Neuse and more than 900 miles of tributaries to striped bass, American shad, hickory shad and shortnose sturgeon. The saltwater fish have been unable to spawn in the Neuse for 45 years. The dam, built by *Carolina Power & Light Co.* in 1952 to provide a steady supply of water for a coal and oil-fired power plant, will be replaced by a weir -- "a metal structure that will back up just enough water to meet the cooling needs while leaving the river itself free".

Interior Secretary Bruce Babbitt was on hand for the start of demolition of the 260 ft. high dam and "gamely flailed] away at the concrete with a sledgehammer before a wrecking ball took over". Babbitt "spoke about his mission to heal the environmental damage caused by the country's 75,000 dams" and "credited North Carolina with setting a national example". Babbitt said, "It's an act of removal, but it's really an act of restoration and renewal".

The Quaker Neck "is in the lead of a national dam-busting trend". Last month, the Federal Energy Regulatory Commission ordered the removal of the Edwards Dam on ME's Kennebec River to restore fish habitat. *American Rivers* Pres. Rebecca Wodder praised

the demolition, calling it "a milestone in the growing trend toward taking out dams that provide little or no economic benefit".

In FL "after more than 30 years of controversy," environmental officials have filed applications to destroy Rodman Dam and restore the natural springs of the Ocklawaha River. The Dept. of Environmental Protection must now obtain permits from the *St. Johns River Water Management District* and the Corps to alter the reservoir. Meanwhile, in an effort to provide northeast FL with "far-reaching river protection," the *St. Johns Water Management District* has unveiled a five-year, \$55.8 million plan to clean the lower St. Johns River.

The protection effort would be "the largest in decades" to improve water quality along the 100-mile-long lower basin. The proposal would earmark more than \$27 million to reduce pollution from urban and suburban areas by extending waste-water treatment and retrofitting stormwater systems, while \$9 million would help reduce agricultural runoff. Almost \$13 million would go to manage pollution, sediment and aquatic habitat, with nearly \$6 million aimed at restoring degraded aquatic habitats. Other local agencies are developing separate proposals.

Sources: *AP/Seattle Daily Journal of Commerce*, 1/8 and 1/9/98; Jonathan Brinckman, *Portland Oregonian*, 1/8/98; James Eli Shiffer, *Raleigh News & Observer*, 12/18/97; James Gerstenzang, *Los Angeles Times*, 12/18/97; Bruce Henderson, *Charlotte Observer*, 12/18/97; *American Rivers* News Release, 12/17/97; and *GREENWIRE, The Environmental News Daily*, 12/9, 12/11, 12/18/97, 1/9 and 1/12/98

Flows Diverted for Fish/Tribes

Across the country, "water from subsidized farms and playgrounds created by [federal] government irrigation is being diverted to nearly extinct fish and wildlife, long-forgotten Indian tribes and cities", reports the *New York Times*. "Perhaps the most significant" example of this trend is occurring on NV's Truckee River, where the government is buying back water from alfalfa farms and cattle ranches and giving it to the

Pyramid Lake Paiute Indians, to fish-restoration projects, and to new communities in the State.

"The biggest losers will be the biggest water users -- the irrigated farms in the desert." Ted DeBraga, a third-generation farmer about 50 miles east of Reno said, "I'm the first to say that the Indians got the short end of the stick years ago. But now they're trying to do the same thing to us."

The idea driving the change, first championed by the Bush Admin. and now enacted by the Clinton Admin., is that "natural systems ... deserve as much water as agricultural lands." Many "who control water policy say the Truckee plan is a model for the reordering of river systems now taking place from the FL Everglades to the Platte River in the Plains to the Olympic Peninsula in WA".

"In (CA) a move that could influence state and federal policy for decades," San Diego and Imperial Valley in mid December announced a "tentative" deal to shift water from farms to the city. The deal "could provide San Diego with enough water for up to 2.4 million people for less money than the country has been paying to the mighty *Metropolitan Water District (MWD)*" in Los Angeles. It could be completed as early as this week-end if San Diego reaches an agreement with the *MWD* over the use of its Colorado Aqueduct to transport the *Imperial Irrigation District* water from the Colorado River. Under the tentative 45-year deal, San Diego would always pay the Imperial Valley less for its water than what it would have paid the *MWD*. The Imperial Valley would use the money for conservation measures and more efficient irrigation equipment.

The three parties are motivated to finalize the deal in part to "forestall" Interior Secretary Bruce Babbitt "from cutting back on CA's draw on the Colorado River". The state already overdraws its limit by 20%. Also, the parties want to discourage the State legislature from intervening in the water issue, and they want to "keep together the fragile alliance that has been trying to find a solution to the pollution and

salt-water problem" in the Sacramento-San Joaquin River Delta.

Sources: Timothy Egan, *New York Times*, 11/30; Tony Perry, *Los Angeles Times*, 12/12; and *GREENWIRE*, *The Environmental News Daily*, 12/1 and 12/12/97

100th Meridian Initiative

Congress recognized the expanding threat to our natural resources by strengthening the *Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990*. The 1990 legislation established the *Aquatic Nuisance Species (ANS) Task Force* with representatives from seven federal agencies. The Task Force is co-chaired by the National Oceanic and Atmospheric Administration and the Fish and Wildlife Service (FWS). In the reauthorization the name was changed to the *National Invasive Species Act (NISA) of 1996*.

The Act includes language recognizing that coordinated prevention and control activities concentrated along the *100th Meridian* present a unique opportunity to slow or stop the westward spread of zebra mussels and other aquatic nuisance species. The *100th Meridian* defines the large western border of OK (not the panhandle) and crosses the western sections of TX, KS, NE, SD and ND, and the Canadian Province of Manitoba.

The *100th Meridian Initiative* will require the formation of a large partnership, with cooperation from federal,

provincial, state, tribal and local agencies, as well as municipalities and private businesses to function effectively. Although not fully developed, components of the *Initiative* may include voluntary boat trailer inspection and cleaning sites with a related information and education campaign. Data will be collected to determine the risk of interstate transportation of aquatic nuisance species. High risk waters will be monitored for new infestations so that a rapid response to eradicate or contain new colonies can be put in place. Those groups known to be moving aquatic equipment with a high risk of transporting zebra mussels, like commercial boat haulers will be targeted for educational outreach.

Limited funding has been appropriated to the FWS, as the lead agency for the *100th Meridian Initiative*, to form this large cooperative effort. The FWS will provide financial assistance to participating State agencies to defray costs related to the effort. Some western stakeholders are willing to help pay expenses for this network of filters designed to stop the spread of zebra mussels and other aquatic nuisance species to their region. The *Western Regional Panel of the ANS Task Force* will provide advice for successful operation of the network.

Important waters are at risk. We have the opportunity, and share the responsibility, to protect noninfected watersheds for as long as possible. The educational spinoff from the *100th Meridian Initiative* could protect many watersheds from the invasion of aquatic nuisance species.

Article Submitted by Bob Pitman,
Nonindigenous Species Coordinator -
Region 2 - FWS

Western Regional Panel - Aquatic Nuisance Species

The *Nonindigenous Aquatic Nuisance Species Act of 1990* (P.L. 101-636), also referred to as the *National Invasive Species Act* (NISA) in the 1996, reauthorization was passed in part to respond to the damage caused by zebra mussels to water delivery systems and aquatic ecosystems in the Great Lakes Region. Other aquatic nuisance species have now been identified and must be



Infested boat hulls must be cleaned before being transported to prevent the spread of zebra mussels to uninfested waters.

confronted. In the West, miles of aqueducts are at risk from infestations of zebra mussels. Valuable water resources will be diminished in quality and quantity. The *Central Arizona Project* estimates that an infestation by zebra mussels could increase its operation and maintenance costs \$4-5 million annually. Marine and estuary environments are continually assailed by exotic species introductions from ballast water exchange.

Throughout the west public and private sector organizations are addressing the impacts of aquatic exotic plants and animals. In order to better coordinate efforts between the private and public sector and with the aid of Sea Grant programs, groups such as the *Western Zebra Mussel Task Force (WZMTF)* have formed. However, the influx of new exotics into the west required a more comprehensive view of the exotics problem on the part of established organizations.

Reflecting this need, Section 1203 of NISA was amended in 1996 to call for the formation of a *Western Regional Panel on Aquatic Nuisance Species (WRP)*. According to statute, the *WRP* is to comprise Western region representatives from Federal, State, and local agencies and from private environmental and commercial interests. The Act charges the Panel with six specific tasks which guide development of a regional response:

- Identify priorities for the Western region with respect to aquatic nuisance species;
- Make recommendations to the Task Force regarding an education, monitoring (including inspection), prevention, and control program to prevent the spread of the zebra mussel west of the 100th Meridian pursuant to section 1202(l) of this Act;
- Coordinate, where possible, other aquatic nuisance species program activities in the Western region that are not conducted pursuant to this Act;
- Develop an emergency response strategy for Federal, State, and local entities for stemming new invasions of aquatic nuisance species in the region;
- Provide advice to public and private individuals and entities concern-

ing methods of preventing and controlling aquatic nuisance species infestations; and

- Submit annually a report to the Task Force describing activities within the western region related to aquatic nuisance species prevention, research, and control.

At its 11/96 meeting, The *Aquatic Nuisance Species Task Force (ANSTF)* requested that the *WZMTF* work with the *San Francisco Estuary Project*, the *Prince Williams Sound Regional Citizens Advisory Council* and the *Washington and British Columbia Exotic Species Work Group* to develop a proposed membership list, including marine and freshwater interests, for the *WRP*. Representatives formed the *WRP* work group, began the task of developing a proposed membership list, and planned the first organizational meeting.

Co-Chairs of the intergovernmental *ANSTF*, invited selected representatives to participate on the *WRP*, a committee of the *ANSTF*. The *WRP* is presently comprised of 47 members representing State, federal, tribal, provincial, academic, industry, conservation organizations, and freshwater and marine interests. The geographic range of the *WRP* reaches east to KS streams, west to the CA coast and Hawaiian islands, north to AK and south to TX. Because aquatic exotics do not respect boundaries, the inclusion of freshwater and marine representatives on the *WRP* will ensure that aquatic exotic issues such as introduction and control are dealt with in a comprehensive and coordinated fashion from coast to interior waters.

The first forum and *WRP* meeting was held on 7/8-9/97 at *Portland State (OR) University*. Participants represented the geographic and organizational range of the proposed *WRP*. Attendees spent the first day becoming acquainted with invasive species issues through various presentations. The second day was devoted to organizational matters and development of draft work plans. A facilitated discussion on draft *WRP* operating guidelines and committee structure followed. Education/Outreach, Legislative/Policy and Management/Research Committees were formed to draft work plans. These work plans should

be finalized at the 3/18/98 *WRP* meeting to be held in Sacramento in conjunction with the *8th International Zebra Mussel and other Aquatic Nuisance Species Conference*.

Article submitted by Linda R. Drees, *WRP* Coordinator, Region 6 - U.S. Fish and Wildlife Service, (913) 539-3474 X20 or email: Linda_Drees@fws.gov

Biodiversity Locations

More than 66% of the world's plant and animal species and 80% of endangered species are concentrated in 17 countries, according to a study by the DC-based *Conservation International*. Latin American countries, including Colombia, Mexico, Peru, Venezuela and Ecuador, host the greatest biodiversity, followed by Asian countries such as China, Malaysia and the Philippines. Brazil is the most biologically diverse country, with 20% of the world's species and 30% of tropical rainforests. Indonesia ranks second, while South Africa, Madagascar, the Democratic Republic of the Congo, Papua New Guinea and India also made the list. The U.S. and Australia are the only two developed countries listed.

The findings, according to researchers, "could make preserving biodiversity easier if a few governments are willing to protect their environments -- and very tough if they are not". This research is included in the book *Megadiversity: Earth's Biologically Wealthiest Nations*.

Sources: *GREENWIRE, The Environmental News Daily*, 12/10/97

Bioprospecting In Yellowstone

The DC-based *International Center for Technology Assessment* and WA-based *Edmonds Institute* have sued Interior Secretary Bruce Babbitt in federal court over his refusal to release information related to a bioprospecting contract that the National Park Service (NPS) signed in August with *Diversa Inc*. The contract allows the biotech company to remove microbes that live in Yellowstone's cauldrons and develop them for commercial applications. Some enviros

say the feds got the short end of the "landmark deal -- which was quietly negotiated by the park outside of the traditional public-hearing process."

The two groups petitioned the NPS in 8/97 to gain access to key documents relating to the deal, but the agency never responded. On 11/10, NPS Director Robert Stanton issued a "blanket denial" to a Freedom of Information Act request by the *Salt Lake Tribune* and others seeking release of a "secret appendix to the *Diversa* deal that outlines the royalties the company will pay Yellowstone in return for commercializing" the microbes. The newspaper on 12/2 appealed Stanton's decision.

Sources: Christopher Smith, *Salt Lake Tribune*, 12/5/97 and *GREENWIRE*, *The Environmental News Daily*, 12/5/97

Natural Capital

The economic value of nature's goods and services are estimated at about \$2.9 trillion annually, according to a study recently released by *Cornell University* ecologist David Pimentel. This figure is significantly lower than the U.S. - Netherlands - Argentina study published last May, which valued the global ecosystem at \$33 trillion a year. In his study, published in the current issue of the *Bio-Science*, Pimentel established 21 specific categories for goods and services that are either directly or indirectly linked to the environment.

Worldwide, the value of seafood totaled \$82 billion, plant extracts for pharmaceuticals equaled \$84 billion and wood products hit \$84 billion. Bees pollinate an estimated \$40 billion worth of crops each year, while predator insects perform nearly \$17 billion in pest-killing services. The study says that replacing annual grains with perennial cereal grains that do not require annual tilling and replanting could reduce up to 50% of soil erosion, saving nearly \$20 billion worth of soil and \$9 billion in fuel for farm equipment every year in the U.S. alone. The U.S. currently derives about \$320 billion in environmental benefits each year.

Sources: *Ithaca Journal/Salt Lake Tribune*, 12/15/97 and *GREENWIRE*, *The Environmental News Daily*, 12/17/97

Conservation Plans Lack Basic Data

The "first large-scale scientific study" of voluntary habitat conservation plans (HCPs) has found that they "suffer from a variety of problems, chief among them a lack of key biological information," reports the *New York Times*. The as-yet unpublished research, conducted by a team of 119 scientists from eight universities and financed by the *National Science Foundation* and *American Institute for Biological Sciences*, "comes at a time of keen interest" in HCPs. The voluntary plans are becoming increasingly popular as a means of allowing development of endangered species habitat while still complying with the Endangered Species Act.

The researchers evaluated 206 HCPs in total and 44 plans in detail. The scientists concluded that HCPs "can work well ...when enough is known about the biology of the species involved." But for most species, "the crucial scientific information does not exist, making reliable planning difficult or impossible," the *New York Times* reports.

For example, in 80% of the plans, data was unavailable on the rates of change in species' population sizes and habitat. Monitoring was deemed inadequate in 56% of the cases. Researchers also said the methods being used to mitigate the impacts of development were generally untested. "Worse still," in some cases, the mitigation strategies being implemented "were already known to do more harm than good". *University of Washington* zoologist Peter Kareiva, who organized the study said, "The [HCP] process is not intrinsically bad. ... [But] if you don't know this basic biology, it's sort of a delusion to think you're doing anything to help these species".

Sources: Carol Kaesuk Yoon, *New York Times*, 12/23; *AP/Portland Ore-*

gonian online, 12/23; and *GREENWIRE*, *The Environmental News Daily*, 12/23/97

Teaming With Wildlife

Conservationists are "trying to revive a politically sticky" proposal for a federal tax on outdoor recreation equipment to benefit wild plants and animals not hunted for sport or protected under the Endangered Species Act. Under the proposal, a 0.25% to 5% tax would be added to the manufacturer's price -- not the retail price -- of products such as binoculars, bird seed, cameras and recreational vehicles.



TEAMING WITH WILDLIFE *a natural investment*

Although the idea "suffered a serious setback last year, when the Clinton administration distanced itself" from Interior Secretary Bruce Babbitt's personal endorsement, backers led by the *International Assn. of Fish and Wildlife Agencies* (IAFWA) "say they are gaining momentum for another try this year." They point to a "growing number" of corporate sponsors supporting the tax, which would raise about \$350 million a year. "Prominent names" among the 70-plus corporate sponsors include California-based *PETCO Animal Supplies* and Utah-based *Browning Inc.*, a gunmaker. Twelve governors are also supporting the proposal.

But the idea has received a "chilly response" from key lawmakers such as Reps. Bill Archer (R/TX) and Don Young (R/AK) who question the need for another tax. IAFWA's Naomi Edelson said the "biggest opposition" is coming from the camping industry. Myrna Johnson of the Colorado-based *Outdoor Recreation Coalition of America*, which represents equipment companies such as WA-based *REI*, said some consumers never use products like hiking boots and backpacks outdoors so to describe the proposed tax as a user fee is misleading.

Sources: Scott Sonner, *AP/Anchorage Daily News*, 12/1/97 and National Journal's GREENWIRE, *The Environmental News Daily*, 12/2/97

Two Indicted for Trafficking Mussels

A MN clammer and his wife are accused of transporting tens of thousands of mussels that had been illegally harvested in MN and ND. Gregory Myers and Lisa Ann Myers of Brownsville were indicted in November by a federal grand jury in Des Moines, IA.

Authorities say the case is part of an illicit market in which freshwater mussel shells are funneled to Japan. There, small beads are drilled out of the shells and inserted into oysters to create cultured pearls. Harvesting of certain species is allowed on the Mississippi River south of the St. Croix River, but it is banned on inland waters in MN, WI, IA and IL. Richard Dickinson, senior resident agent with the U.S. Fish and Wildlife Service in MN, said his agency increased enforcement efforts on legal harvesters on the Mississippi last year and found violation rates of more than 50%, an indication of widespread poaching. In recent years, poachers also have been caught in ND and on the Ottertail River in Fergus Falls, MN, he said.

The indictment charges the couple with violations of the federal Lacey Act, which prohibits the interstate transportation and sale of wildlife taken in violation of state laws. Gregory Myers, a licensed clammer and buyer, was named in 13 counts and Lisa Ann Myers was named in two counts. Each also was charged with conspiring to violate the act. Each of the allegations, including the conspiracy count, carries a penalty of up to five years in prison and up to \$250,000 in fines.

The indictment says that between 9/13/95, and 11/4/96, freshwater mussels with a total wholesale value of \$34,238 were taken in MN and ND, transported to Muscatine, IA, and sold to a dealer. Four counts allege that false records were made

in Muscatine in connection with the sales.

IA environmental officials are likely to tighten restrictions on freshwater mussel harvesting as poaching, pollution, and the invasion of the zebra mussel threaten the survival of several species across the Midwest. The IA Dept. of Natural Resources this year will probably further limit the harvest of valuable washboard mussels, following a number of incidents of poaching the species in recent years.

Sources: The Associated Press, 11/28/97, *Minneapolis Star-Tribune*; Juli Probasco-Sowers, *Des Moines Register*, 12/1/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 12/5/97

Sediments Report Released

In the first-ever national report on contaminated sediments in U.S. rivers, lakes and coastal areas, the USEPA has found "widespread risks" to human health and the environment. The three-volume report, ordered by Congress five years ago and released on 1/7/98 in Washington D.C., also offers the first-ever regional comparisons and sets priorities for addressing the areas posing the highest risks.

Working with the National Oceanic and Atmospheric Admin., the Army Corps of Engineers, and other federal, State and local agencies, the EPA created a *National Sediment Inventory* based on data gathered between 1980 and 1993 at 21,000 sites in 65% of the watersheds in the continental U.S. The researchers concluded that harmful effects from polluted sediment are "likely" at about one-quarter of the locations. "Possible" but infrequent harm is expected at almost 50% of the locations, while no harmful effects are likely at the remaining one-quarter of the sites. Seven percent of the watersheds studied are "sufficiently contaminated" with PC8s, mercury or other toxics to threaten fish and wildlife and people who eat fish from those areas. The agency plans over the next three months to finalize a strategy to deal with the issue.

Although most of the 96 watersheds posing the highest risks were in the

Northeast, the evaluation found high risks in waters in every State. Some of the most severely contaminated sites were in the New York City area, Puget Sound, Boston Harbor, Detroit and Los Angeles, resulting from decades of heavy shipping traffic, local industrial pollution and contaminants flowing from sources upstream.

Coastal groups around the country applauded the long-awaited report. Pollution released into rivers, lakes, bays and estuaries often settles onto the mud that lines these waterbodies. Fish live and feed on or in these muds, and take-up many of the contaminants. According to the EPA, consumption of contaminated fish is a major source of human exposure to toxic chemicals such as mercury and dioxin.

Besides listing water-bodies that are most impacted by contaminants, the inventory also includes the following findings:

- Roughly 37 million pounds of chemicals are discharged by point sources (factories and power plants and sewage treatment plants) each year;
- The most significant source of toxic pollutants to sediment are sewage treatment plants, which receive toxic wastes from industrial facilities;
- Following sewage treatment plants, other major sources are organic chemical manufacturers, pulp and paper industries, and metal products and machinery companies, in that order;
- Chemicals with characteristics that make them likely to contaminate sediments include the pesticides toxaphene and hexachlorobenzene, silver, dioxin, dichlorobenzidine and polychlorinated biphenyls (PCB's); and



• The areas most likely to have polluted sediments from point sources include the mid-Atlantic coast, southern piedmont, Great Lakes, OH Valley, CA coast and northwestern WA state.

"Toxics in America's sediments are both a legacy of the industrial age, and an ongoing problem" said Beth Milleman, an expert on sediment contamination and former Executive Director of the *Coast Alliance*. "This report shows that our waters won't be safe to fish and swim in until we address the problem from the bottom up, starting with the sediments which line all of our waterways."

"The site inventory shows that in many areas, sediments are beyond safe levels of contamination, making fish consumption dangerous" said Jacqueline Savitz, a toxicologist, and Executive Director of the *Coast Alliance*. "The need for pollution prevention and criteria for assessing sediment contamination has never been more clear."

A coalition of environmental organizations led by the *Coast Alliance* had been encouraging EPA to release the *Inventory* for nearly two years. In early December, the *Alliance* placed the *Inventory's* release as a top priority, and asked that it be released immediately. "This is a road map and a major milestone on the road to clean sediments and save fish," Savitz added. "The next steps will be to finalize criteria for assessing the toxicity of sediments, and for Congress to use this new report as a guide to start cleaning them up."

Scientist Robert Huggert, a former EPA official who reviewed the new report, called polluted sediment "one of the largest problems in this country." Rep. Sherwood Boehlert (R/NY), who heads the House Subcommittee on Water Resources and the Environment, said his panel would review the report "very, very carefully" as it works on revising and extending water-related public works programs.

Copies of the EPA report can be obtained by calling NCES (800) 490-9198. Copies of the *Coast Alliance's* 1996 *Citizen's Summary* can be ob-

tained by calling (202) 546-9554.

Source: John Cushman, *New York Times*, 1/8/98; EPA release, 1/7/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 1/8/98

Pollution Efforts Failing?

One-quarter of the industries that handle the highest amounts of toxic waste increased the amount of waste they managed by more than 30% in recent years, pointing to a widespread "lack of progress in pollution prevention," according to a new report by the U.S. Public Interest Research Group (PIRG) and the National Environmental Law Center (NELC). The PIRG/NELC report reviewed Toxic Release Inventory data from 1992 to 1995 for the 277 industry sectors that reported the greatest amounts of waste generated. Though they found "a high degree of variation" among industry sectors, the analysis showed that the total amount of waste handled in the U.S. remained stagnant, dropping only from 18.8 billion pounds to 18.7 billion pounds in 1995.

The data show that industries "are failing to prevent toxic pollution at the source" even while they have made progress in reducing the amount of toxic emissions, according to PIRG. The study concludes that companies are investing more in incineration, toxics reprocessing, and other waste-management technologies rather than in "fundamental" production changes to curb the generation of toxics. But the groups noted that one-fifth of the industry sectors studied reported that they reduced production-related waste by more than 30% from 1992 to 1995. Part of the reduction may be attributable to pollution prevention accomplishments, but PIRG said they may also be a result of production shut downs and differences in reporting and accounting methods from year to year.

The report ranked the states based on projected reductions in production-related waste among their industries in 1997. NE was first, followed by ME, NY, CO, CA, NJ and IL. At the bottom are Puerto Rico, ID, OK, AL and MD.

Source: GREENWIRE, *The Environmental News Daily*, 12/5/97

Conservation Farming

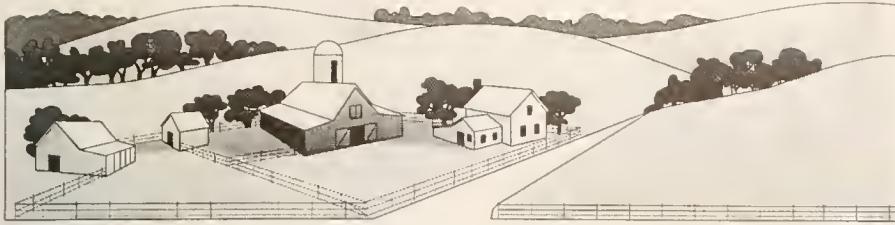
Farmers are using soil-conservation and pollution-fighting tilling methods more often than intensive plowing for the first time, according to a report by the Agriculture Dept. A county-by-county survey in 1997 showed that 110 million of the nation's 295 million acres of crops were planted this year using conservation tillage -- 6 million more than last year. Meanwhile, 108 million acres were planted with traditional soil-plowing methods.

The survey conducted by the *Conservation Technology Information Center* showed farmers in IA, IL, IN, KS and SD account for the most growth in conservation farming, contributing 5 million acres of the increase. Conservation tillage leaves crop residue such as stems, stalks and leaves over 30% or more of the soil surface between harvest and the next planting. The government says the practice reduces soil erosion by up to 90% while providing wildlife habitat.

Also "In their battle to control nutrient runoff from their fields," some farmers are using a satellite to monitor the amount of nitrogen and phosphorous in the ground. James Richardson, of MD-based *Ecosystem Management Inc.*, said farmers should be able to reduce their use of fertilizers by using the new practice. The satellite, which communicates with a receiver mounted on a tractor, tells farmers the exact point at which they've taken soil samples for nutrients in the past. The practice, known as precision farming, helps farmers accurately compare nutrient amounts and avoid over application of fertilizer

Meanwhile, the USEPA may begin requiring small farmers to obtain pollution discharge permits under the Clean Water Act. The requirement could expand to cover farmers who use animal waste as fertilizer on their farms with fewer than 1,000 animals. Currently farmers only need permits for animal waste lagoons.

The USEPA currently sets the minimum regulations for livestock facilities in all



50 states. Large livestock production units are included as a part of the National Pollutant Discharge Elimination System (NPDES). A NPDES permit is required by the USEPA in the following instances:

- livestock production units with over 1,000 animal units (700 dairy cows, 500 dairy cows and heifers, 1,000 steers, etc.) and a waste discharge other than a 25-yr, 24-hr storm;
 - livestock production units with between 300 and 1,000 animal units that directly discharge wastewater through a man-made device;
 - livestock production units that have a stream running through a feedlot;
- or
- any size livestock production unit that the USEPA feels has a waste discharge problem.

The USEPA also requires each state to develop its own set of regulations for animal waste control. State regulations for animal waste control can be more restrictive than the USEPA.

Sources: Charles Hoskinson, *AP/San Francisco Chronicle/Examiner* online, 10/23/97; *Investor's Business Daily*, 10/24/97; Ted Shelsby, *Baltimore Sun*, 1/10/98; and *GREENWIRE, The Environmental News Daily*, 10/27/97 and 1/12/98

Livestock Wastes

Western farm towns that now host large hog operations have become the "latest front in the battle between commerce and the environment," reports the *Wall Street Journal*. "Massive hog farms, under pressure from environmentalists in traditional pig-producing strongholds like NC and IA, are moving to ... rural CO, OK, TX, UT, and WY, where environmental regulation is often less stringent." The article focuses on

efforts by hog producers to build the world's biggest hog operation in Milford, UT.

Meanwhile, a panel of pork industry and government representatives has recommended national environmental standards for the construction and operation of feedlots. Following an eight-month study, the *National Environmental Dialogue on Pork Production* on 12/17 recommended certification of employees and operators, tough penalties for repeat offenders, and "disincentives" to prevent those offenders from moving from state to state. The panel, which included officials from the USEPA and the Agriculture Dept., also urged restrictions on applying manure as fertilizer. The panel's report will be presented to Congress and government agencies considering environmental regulation of the livestock industry.

In VT lawmakers plan to consider a measure early this year that would subject proposals for large-scale farms to stricter environmental review and give the state Agriculture Dept. greater oversight of such operations. Environmentalists said the bill, which would apply primarily to dairy farms, needs a provision for citizens' appeals.

In MN Governor Arne Carlson on 12/15 called for a "sweeping," \$3 million study on the environmental impacts of MN's livestock industry, which has raised concerns due to its recent growth. But Carlson will not call for a temporary moratorium on feedlot expansion, as Attorney General Hubert Humphrey III, a Democratic gubernatorial candidate, did last month.

In WI The *Black Earth Conservation Organization* has raised concerns that the Dept. of Natural Resources (DNR) has not done enough to prevent cattle waste from polluting the Black Earth

Creek, a trout stream in southern WI. DNR Secretary George Meyer has yet to respond to a 11/3 letter from the group, which requested emergency runoff and erosion-control measures.

In MS the Legislature will debate measures this session that would put a moratorium on hog farm construction and block state funding for any development of new farms. But House Agriculture Committee Chair Steve Holland (D), who opposes the measures, said hog farms do not pose a "real environmental concern".

In NC environmentalists opposing corporate hog farm expansion protested outside the annual convention of the *American Farm Bureau* in Charlotte. The *Blue Ridge Environmental Defense League* unfurled a 60-foot banner reading "Don't Hog Our Air and Water" from a window of the hotel where the convention was held.

OK legislators on 1/12 urged the state House and Senate to impose a one-year moratorium on new large-scale hog and poultry farms in that state. A joint resolution proposed by House Speaker Loyd Benson (D) and Senate Pres. Stratton Taylor (D) seeks to curb the expansion of high-density, corporate-owned farms until a state production-management policy is developed. The leaders say the measure, which has the force of law, would be considered soon after the legislative session begins on 2/2 and would take effect the day it is signed by the governor. Farms that have already filed applications with the OK Agriculture Dept. would be exempt from the moratorium. Members of *ProAg*, a hog industry group, argued that the moratorium would hurt the industry without improving water quality. The state *Animal Waste and Water Quality Protection Task Force* (AWWQPTF) recently recommended that counties be allowed to decide whether to ban large-scale animal operations.

Meanwhile, the OK Agriculture Dept. is investigating a large-scale hog operation after State inspectors discovered improperly buried, decomposing hogs at 35 farms in Texas County. Dan Parrish, the department's water quality director, "reported the alleged violations [by *Seaboard Farms Inc.*] are the worst he has seen". Paul Hitch, a member of

the state Agriculture Board who holds contracts with *Seaboard*, on 12/17 downplayed the alleged violations. Hitch said, "In my mind, dead pigs is not a huge environmental problem, but it certainly is a public relations problem".

That same day, the OK Agriculture Board passed its first-ever emergency rules for large-scale poultry producers to curb nitrate and phosphorus runoff. Environment Secretary Brian Griffin has called on the State legislature to take the "moral high ground" next year by passing restrictions on large-scale animal operations to protect the state's water quality. Gov. Frank Keating's (R) 15-member



AWWQPTF on 12/1 had submitted more than 50 recommendations, including the state's first regulations on the poultry industry, the location of large-scale farms, and fees on the industry to fund enforcement. Griffin, who chairs the task force, acknowledged that the expense of the recommendations would make them controversial, but he predicted they would be passed. Griffin said that if states do not address the issue, the USEPA could intervene to keep agricultural runoff from waterways.

Nationally, according to a Senate study released in December American farm animals produce 130 times more wastes than the nation's human population. The study, compiled by the Democratic staff of the Senate Agriculture Committee, noted that 60% of U.S. waterways are "impaired" and that agricultural runoff is the main source of that pollution. The spread of large-scale livestock operations has increased the risk of waste spills, the report said

Among the problems that have been blamed on huge farms of cattle, hogs or poultry are a spill of 35 million gallons of animal waste that killed 10 million fish in NC in 1995; the depletion of oxygen in the Gulf of Mexico's "dead zone" at the mouth of the Mississippi River; and the appearance of the toxic microbe *Pfiesteria piscicida*, which may have caused fish kills in Chesapeake Bay tributaries in 1997.

Sen. Tom Harkin (D-IA), the committee's ranking Democrat, called the study "the first comprehensive report to illustrate the magnitude of environmental problems caused by animal waste." Harkin seeks to hold hearings by 3/98 on legislation he intro-

duced in 11/97 that would force the Agriculture Dept. to monitor waste disposal and establish national standards for handling animal waste.

Meanwhile, the USEPA is expected to issue its first "action plan" for addressing animal wastes, and industry lobbyists have been developing their own set of guidelines. Al Tank of the *National Pork Producers Council (NPPC)* said, "This is a defining moment for us. We either have to find a solution or the pork industry will leave the [U.S.] for Canada or Argentina".

In a pilot project to reduce "obnoxious" odors from hog farms, the *NPPC* has deployed agricultural engineers to large-scale farms in IA, MN, MO, and NC on "odor-finding" missions. At the *University of Minnesota*, a "professional smeller" checks the intensity of air samples, and results and recommendations are passed on to the farmer, who ultimately decides whether to make changes.

Sources: Susan Stocum, *AP/Birmingham Herald* online, 12/17/97; *AP/Bost-*

on Globe online, 12/19/97; Conrad deFiebre, *Minneapolis Star-Tribune*, 12/16/97; Mike Ivey, *Madison [WI] Capital Times*, 11/25/97; Bobby Harrison, *Tupelo [MS] Daily Journal*, 1/14/98; Bruce Henderson, *Charlotte Observer*, 1/14/98; Lynn Franey, *Kansas City Star*, 1/10/98; Mick Hinton, *Oklahoma City Daily Oklahoman*, 12/17, 12/18 and 1/13/98; Mike Glover, *AP/mult.*, 12/9/97; Debbie Howlett, *USA Today*, 12/30/97; P.J. Lassek, *Tulsa World*, 11/30/97; and *GREENWIRE, The Environmental News Daily*, 12/1, 12/3, 12/18, 12/19/97 and 1/5, 1/14 and 1/16/98

***Pfiesteria* Update**

Scientists this spring plan to study "hundreds" of fishers, shellfish inspectors and residents of coastal areas in MD, NC and VA to determine whether the toxic microbe *Pfiesteria piscicida* can harm people in natural settings. MD medical experts last year announced that *Pfiesteria* caused memory loss and confusion in at least 13 people who had been in contact with affected waters. And a VA medical team said it found neurological problems in two of four people examined after exposure to *Pfiesteria*, but "said that the ailments were relatively minor" and may not have been caused by the fish-killing organism.

Both NC and VA officials questioned whether the microbe could harm people outside a laboratory setting, and MD researchers have conceded that their "hurried, small-scale studies" of suspected victims "could not deliver a certain diagnosis of *Pfiesteria* poisoning." Results of the upcoming study will be compared to a control study of people who avoided *Pfiesteria*-laden waters.

VA Health Commissioner Randolph Gordon said scientists will also learn more about *Pfiesteria*'s impact on human health from a multi-year study that VA will conduct with DE, FL, MD, NC and the federal *Centers for Disease Control*. Preliminary results of that study might be available late next year.

Meanwhile, lab tests on rats "have confirmed for the first time" that toxins produced by *Pfiesteria* can impair learning ability, according to a study by

Duke University researchers. The study, published in the 12/97 edition of the journal *Environmental Health Perspectives*, found that rats exposed to the microorganism "were significantly retarded in their learning" compared with rats that were not exposed. The study is the first to document *Pfiesteria's* neurological effects in a controlled experiment in a peer-reviewed scientific journal.

A *Coalition* of 10 environmental groups, including the *Sierra Club* and *Chesapeake Bay Foundation*, has urged MD Gov. Parris Glendening (D) to propose a tax on chicken to pay for protection of the Chesapeake Bay from pollution as part of a plan to address the *Pfiesteria* outbreaks. The tax of at least \$0.01/lb on each chicken raised in MD was described as a "manure disposal surcharge" aimed at making large-scale poultry producers pay their "fair share" of the costs of cleaning up pollution caused by agricultural runoff.

The *Coalition* estimates that such a tax could raise \$13 million a year for bay protection efforts, but MD poultry lobbyist Gerard Evans said such a tax would be "disastrous" for the industry. Glendening spokesperson Ray Feldmann said the governor would consider supporting the tax, and State Del. James Hubbard (D) said he may introduce a tax bill in the General Assembly. But state Sen. Barbara Hoffman (D), chair of the Budget and Taxation Committee, said such a proposal would have little chance of passing.

The *Coalition's* recommendations, which "closely parallel" those suggested by a MD task force on *Pfiesteria*, also included a moratorium on new chicken feedlot operations, state funding of cover crop programs, and requiring farmers to participate in nutrient-management plans.

Meanwhile, MD officials on 1/5/98 defended the State-appointed commission's recommendation that every farm in the state work to curb agricultural runoff. Although the cause of the *Pfiesteria* outbreaks remains uncertain, a commission appointed by Gov. Glendening found that runoff of fertilizers and animal wastes was a factor. During a public hearing in

early January, farmers contended the solutions being considered would force them to shoulder the costs of *Pfiesteria* control measures and put them at a competitive disadvantage. State Sen. Brian Frosh (D), chair of the environment subcommittee, has said that if Glendening does not propose a nutrient-management program, he will introduce a bill modeled on a PA law that since 10/97 has regulated the use of animal waste as crop fertilizer. MD's new agriculture secretary, Henry Virts said that the cost of enrolling all State farms in nutrient-management plans by 2000 could cost \$9 million over the next two years and that installing equipment to reduce phosphorus levels in chicken manure would cost another \$14 million.

Gov. Glendening in his State of the State address on 1/20 unveiled a \$41.5 million legislative proposal to reduce runoff of nutrients into Chesapeake Bay and combat *Pfiesteria*. Although the plan, which would be phased in over three years, includes measures that target landscaping companies, sewage plants and septic tanks, Glendening said the "most important" element is the state's first "mandatory, farm-by-farm limits" on the use of fertilizer.

The proposal includes a "menu of sweeteners" to help MD farmers comply with the regulations. Individual farmers would be given \$1 million a year in tax credits and a \$1.1 million aid program would help them develop plans for curbing runoff. Joseph Bryce, Glendening's chief legislative aide, said such measures would not cover all costs to farmers, but the governor hopes to pass on unmet costs to large poultry companies. Glendening insisted the state was not blaming farmers for *Pfiesteria* outbreaks. But state Sen. J. Lowell Stoltzfus (R) disagreed: "[Glenden-ing] sent a very clear message to the agricultural community that 'We don't care about you.' I think he swallowed the extremist environmental agenda hook, line and sinker".

Former MD Agriculture Secretary Lewis Riley said the state should determine how much phosphorus and nitrogen could be used and how excess poultry waste should be properly

disposed of before imposing deadlines on nutrient-management plans. The proposal to combat the microbe is expected to face the "stiffest" opposition from the state legislature. Dru Schmidt-Perkins of *Clean Water Action*: "[Environmentalists will] be outgunned here by the poultry industry 10 to 1".

Meanwhile in neighboring VA, Gov. George Allen (R) on 12/19 presented a two-year spending plan to state lawmakers that includes \$63 million for Chesapeake Bay restoration.

Sources: Eric Wee, *Washington Post*, 12/20/97; Rex Springston, *Richmond Times-Dispatch*, 12/20/97; Lee Bowman, *Scripps Howard/Washington Times*, 12/21/97; Joby Warrick, *Washington Post*, 12/22/97; Hsu/Nakashima, *Washington Post*, 12/20/97; Kristen Klick, *Fairfax (VA) Journal*, 12/10/97; Pamela Sebastian, *Wall Street Journal*, 12/11/97; Michael Dresser, *Baltimore Sun*, 12/18/97; Ted Shelsby, *Baltimore Sun*, 1/7/98; Timothy Wheeler, *Baltimore Sun*, 12/28/97; Todd Shields, *Washington Post*, 1/18/98; Dewar/Dresser, *Baltimore Sun*, 1/22/98; Todd Spangler, *Washington Times*, 1/22/98; Thomas Waldron, *Baltimore Sun*, 1/22/98; LeDuc/Goodman, *Washington Post*, 1/22/98; and *GREENWIRE, The Environmental News Daily*, 12/18, 12/22/97 and 1/7, 1/20, and 1/22/98

Contaminated Fertilizers

Two "major" suppliers of agricultural fertilizer were sued in WA State in late October by two farmers claiming their crops were ruined by high levels of arsenic, mercury, and other toxic waste. The farmers allege that WA-based *Quincy Farm Chemicals Inc.* and MN-based *Cenex Inc.* concealed the hazwaste content in their products. Plaintiff farmer Paul Giraud, who obtained independent tests of the products, claimed that the fertilizers are not what they were advertised to be. He said the fertilizer has poisoned his land, causing repeated crop failures. Asserting that "numerous" other farmers may have been affected by the fertilizer, lawyer Steve Berman has asked for the cases to be certified as class-action suits. *Cenex* spokesperson Lani Jordan said the company has "always distributed what we believe are safe products." *Quincy Farm Chemicals* has yet

to comment on the allegations.

"Concerned about the lack of regulation, tests and standards for potentially toxic material in fertilizer," officials of *IMC Global* -- the world's largest phosphate producer -- said they are surveying all raw materials the company sells as fertilizers in the U.S. to ensure the products do not contain harmful levels of heavy metals. William Tolley of *IMC AgriBusiness*, the retail arm of the company, said *IMC Global's* action will help the company eventually set its own standards for heavy metal content in its fertilizers.

Meanwhile, a group representing fertilizer regulators from most of the 50 states has named a committee of industry executives and regulators to develop a new label that would reveal the products' "toxic tag-alongs." Currently, fertilizers are not required to identify all their ingredients, and many list only the beneficial ones. But a *Seattle Times* series last summer revealed that toxic industrial wastes are routinely recycled into fertilizers. However, some members of the *Assn. of American Plant Food Control Officials* (AAPFCO), suggested such labels would be "alarmist" and confuse the public. But David Terry, KY's chief fertilizer regulator, said the move would help respond to outside "pressure". The AAPFCO is expected to propose a label within six weeks and take at least two years to review it. Official adoption would depend on further State action.

A USEPA expert assured the group that sewage sludge applied to farmland does not pose a health threat. Alan Rubin said such concerns stem from a lack of understanding, and the practice need not be banned. Supporters say recycling waste into fertilizer is preferable to incinerating it or dumping it in landfills. Michael Shapiro, an USEPA solid-waste management official, said the *Seattle Times* series had prompted the agency to launch an investigation of the practice

Sources: Aviva Brandt, *AP/mult.*, 10/21/97; *AP/Portland Oregonian* online, 10/14/97; Duff Wilson, *Seattle Times*, 8/7/97; Paul Tolme,

AP/San Francisco Chronicle/Examiner online, 8/6/97; Eric Nalder, *Seattle Times*, 8/5/97; and *GREENWIRE, The Environmental News Daily*, 8/13, 10/15 and 10/23/97

White House Hypoxia Study

The White House has launched an 18-month study to assess the causes of a 7,000 mi² dead zone in the Gulf of Mexico and propose management strategies. The White House *Council on the Environment and Natural Resources* has formed a multi-disciplinary "Hypoxia Assessment Work Group" to conduct the study.

Dissolved oxygen levels in Gulf waters have fallen to 2 ppm, far below the 5 ppm needed to support aquatic life. The extent to which agricultural fertilizers, manure and municipal sewage are creating these "hypoxic" conditions will be determined. About two-thirds of the nation's harvested cropland and the treated sewage of 27% of the U.S. population empties into the Mississippi River, which then transports this nutrient-rich mixture to the Gulf.

When temperatures climb in the summer, the nitrogen and phosphorus found in fertilizers and sewage stimulate huge blooms of microscopic marine algae. As the algae die, they sink to the bottom of the Gulf and begin to decay. Decomposition robs the water of the oxygen aquatic life need to survive. Until the fall winds arrive to mix the Gulf layers, the bottom waters remain hypoxic.

While anaerobic conditions have occurred along the Gulf coast for decades, the recent large-scale oxygen depletion is a troubling signal, according to scientists. Between 1985 and 1993, the area of the dead zone averaged between 3,000 and 3,500 mi². In 1993, however, major flooding along the Mississippi River delivered an exceptionally large load of nutrient-rich sediments to the Gulf. After the flood, the area of the dead zone doubled to 6,500 mi².

Despite average river flows since the flood, the dead zone has remained as large. In mid-July of this year, Dr. Nancy Rabalais, a marine ecologist

with the *Louisiana Universities Marine Consortium*, measured the dead zone at 6,120 mi². The area stretched from the Mississippi Delta to Calcasieu Pass, near the TX-LA border. It extended 30 mi. out to sea and reached depths of 120 ft.

Hypoxic waters threaten the region's lucrative fishing and shrimping industries. Amendments to the Magnuson-Simpson Fisheries Act last year may force federal and state officials to recognize the effects of fertilizers and sewage on the Gulf. The National Marine Fisheries Service is currently working on guidance for the Act.

The *Hypoxia Assessment Workgroup*, which includes members of academia, tribal leaders, and federal and state agencies with an interest in the Mississippi River and the Gulf of Mexico, will develop the following six interrelated reports:

- *Distribution, dynamics, and Characterization of hypoxia causes*: This report will describe seasonal, interannual, and long-term variation in hypoxia, and its relationship to nutrient loads from the Mississippi/Atchafalaya system. It will also document the relative roles of natural and human-induced factors in determining the size and duration of the hypoxic zone.
- *Ecological and economic consequences of hypoxia*: This report will evaluate the ecological and economic consequences of hypoxia, including impacts on Gulf of Mexico fisheries and the regional and national economy. It will articulate both ecological and economic consequences and, to the extent appropriate, their interaction.
- *Sources and loads of nutrients transported by the Mississippi River to the Gulf of Mexico*: This report will identify the sources of nutrients within the Mississippi/Atchafalaya system and has two distinct components. The first is to identify where, within the basin, the most significant nutrient additions to the surface water system occur. The second, more difficult component, is estimating the relative importance of specific human activities in contributing to these loads.
- *Effects of reducing nutrient loads to surface waters within the basin and Gulf of Mexico*: This report will estimate the effects of nutrient source reductions in the Mississippi/Atcha-



falaya Basin on water quality conditions in these waters and on hypoxia in the Gulf of Mexico. Modeling analyses will be conducted to aid in identifying magnitudes of load reductions needed to affect the extent and severity of hypoxia in the Gulf of Mexico.

- *Evaluation of methods to reduce nutrient loads to surface water, ground water, and the Gulf of Mexico:* The main focus of this report will be to identify and evaluate methods to reduce nutrient loads to surface water, ground water, and the Gulf of Mexico. The analysis will not be restricted to only reduction of sources. It will also include means to reduce loads by allowing the system to better accommodate those sources through, for example, modified hydraulic transport and internal cycling routes.

- *Evaluation of social and economic costs and benefits of methods for reducing nutrient loads:* In addition to evaluating the social and economic costs and benefits of the methods identified for reducing nutrient loads, this analysis will include an assessment of various incentive programs and will include any anticipated fiscal benefits generated for those attempting to reduce sources.

An "integration team," composed of team leaders and additional government and academic experts, will integrate information from the six reports into an assessment that will consider various policy actions for reducing nutrient loads. The ultimate target audience for the integrated assessment is the *Gulf of Mexico Hypoxia Task Force*, currently led by the USEPA. However, "lay versions" of each of the six reports will be prepared and made available to the public.

Source: Andy Seth, Staff Writer, *Mississippi Monitor*, Nov/Dec 1997

Miscellaneous River Issues

Everglades Filter Marshes - The first Everglades filter marsh on 12/9 began releasing cleansed water, marking a "modest milestone" in FL's \$700 million effort to rid the wetlands of phosphorus-tainted runoff from farms and cities. The 870-acre artificial marsh is one of six the Corps of Engineers is scheduled to build by 2003. The *South Florida Water Management District* said cattails and other plants are removing more than 40% of the phosphorus draining from 10,000 acres of land owned by *U.S. Sugar Corp.* Source: Robert King, *Palm Beach Post*, 12/10/97

IA Sewage Spill - A mechanical problem at a waste treatment plant in Akron, IA, caused an estimated 500,000 gallons of raw sewage to spill into the Big Sioux River between 1/2-1/5/98. Officials notified downstream residents of a potential threat to drinking water. Sources: *USA Today*, 1/7/98; and National Journal's *GREENWIRE*, *The Environmental News Daily*, 1/8/98

LA Voters Favor Green Tax - A state-wide poll of 901 registered voters in LA found that 62% favor linking a company's environmental record to some state tax breaks it may receive for building or expanding in the state. The greatest support for the tax breaks came from voters making \$45,000 or more and those with college degrees. Sixty-eight percent of Republicans and of political independents polled supported the linking. New Orleans pollster Ed Renwick found the poll's results surprising be-

cause they suggest environmental protection rates highly with Republicans, a finding he said that is inconsistent with the party's state and national leadership. Meanwhile, the poll also found that 17% of those polled rated air and water quality as an extremely serious problem, while 38% rated it serious. Twenty-seven percent said they had little confidence in the state Dept. of Environmental Quality and 57% of all respondents think Gov. Mike Foster (R) is doing a good or excellent job in protecting the environment. The poll conducted between 12/1-10/98 has a +/- 3% margin of error. Sources: Mike Dunne, *Baton Rouge Advocate*, 1/6/98; and National Journal's *GREENWIRE*, *The Environmental News Daily*, 1/8/98

MO Pollution Fines - The state collected a record \$4.1 million in penalties and other damages from polluters in 1997, according to Attorney General Jay Nixon. Meanwhile, the Dept. of Natural Resources said pork producer *Premium Standard Farms* late last month spilled 2,000 gallons of waste into Spring Creek in Sullivan County. Sources: *AP/St. Louis Post-Dispatch*, 1/5/98; and National Journal's *GREENWIRE*, *The Environmental News Daily*, 1/8/98

MN Environmental Program - "In an attempt to establish a lasting environmental legacy," Gov. Arne Carlson (R) announced an "unprecedented" initiative to protect natural resources. Sources said Carlson would allocate \$50 million to wildlife habitat protection, \$43 million to parks and trails, \$37 million to water-quality improvement in lakes, \$8 million to revamp licensing and permitting processes, and \$6 million to improve Itasca State Park. The package is comprised of ideas Carlson sought last summer from environmental and outdoor groups, and these groups gave "generally high marks" to the \$201 million environmental bond package. Carlson will present the initiative to the state legislature this year. Source: Bill Wareham, *AP/Minneapolis Star Tribune*, 12/19/97; Dennis Lien, *St. Paul Pioneer-Press*, 12/17/97 and *GREENWIRE*, *The Environmental News Daily*, 12/22/97

MN Refinery Pledges \$80 Million - "Troubled by lingering petroleum leaks and a state investigation," *Koch Refining Co.* on 1/13/98 pledged to spend nearly \$80 million over ten years on

environmental improvements at its Rosemont plant. The refinery plans to move most of its underground product lines above ground, expand groundwater monitoring networks, clean up past spills, study and improve underground sewers, improve a management program for storage tanks, and begin a water reuse/recycling study. Koch officials said they also support the formation of an advisory council made up of local residents, refinery employees and the MN Pollution Control Agency (MPCA). The new improvements should put the company "well above regulatory standards in many areas." MN officials in 9/97 discovered a "huge pool" of gasoline stretching from the refinery to near the Mississippi River, and the MPCA is investigating alleged violations of water quality and hazardous waste rules. Meanwhile, the MN House Environment and Natural Resources Committee is expected to question whether the MPCA has been "tough enough" on the refinery. Sources: Dennis Lien, *St. Paul Pioneer Press*, 1/14/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 1/14/98

MN Wetlands Drainage Plan - A "modest" plan to dig a culvert under a Minneapolis highway has highlighted a "clash" between two MN laws -- one that protects wetlands and one that allow crews to drain them to foster development. The *National Audubon Society* and hundreds of petition signers contend that the \$250,000 project amounts to a government subsidy to destroy wetlands protected under a state conservation law. But some landowners say the State should dig the culvert because when it built the highway in 1966, it cut off numerous drainage paths -- creating the wetlands in the first place. A regional watershed district, citing state law, ordered the MN Transportation Dept. (DOT) to dig the drainage culvert and ruled that the project would be exempt from the conservation law that requires mitigation for the loss of certain wetlands. The *MN Board of Water and Soil Resources* is expected to decide in 1/98 whether DOT would be responsible for mitigating any wetlands loss incurred by the project. Sources: Dean Rebuffoni,

Minneapolis Star Tribune 12/1/97 and GREENWIRE, *The Environmental News Daily*, 12/4/97

MT Concert - Musician Bonnie Raitt performed a concert in Helena in December to benefit MT conservation groups fighting the development of large gold mines in the State. Meanwhile, the industry-based *MT Resource Providers Coalition* has scheduled an alternative concert "to give the public a chance to raise money for food banks instead of environmental groups". Sources: Grant Sasek, *Helena Independent Record*, 12/10/97 and Erin Billings, *Billings Gazette*, 12/8/97.

NC Paper Wastes - State officials said *Champion International Corp.* can continue discharging tea-colored wastewater into the Pigeon River, but the Canton paper mill must develop a plan to make the water 50% clearer by 5/1/98. Sources: *USA Today*, 12/24/97; and National Journal's GREENWIRE, *The Environmental News Daily*, 1/6/98

NC Pesticide Clean-up - Nine companies on 12/9 agreed to pay more than \$60 million to clean up an Aberdeen, NC, Superfund site where pesticide-laden wastes were dumped for more than 50 years. Under the settlement reached in U.S. District Court in Greensboro, *Bayer Corp.*, *Dupont*, *Kaiser Aluminum & Chemical Corp.*, *Mobil Oil Corp.*, *Shell Oil Co.*, *Union Carbide*, *Grower Service Corp.*, *Olin Corp.* and *Novartis Crop Protection* will pay the USEPA about \$50 million to clean up the *Aberdeen Pesticides* dump. The companies will also pay the federal government \$8.5 million for past cleanup costs and will pay any future costs of USEPA oversight. The federal government will absorb \$6.5 million of the cost because some of the polluters have gone out of business. Meanwhile, the *NC Environment Management Commission* has adopted a "landmark" plan to clean the Neuse River by cutting the amount of nitrogen pollution by 30% within five years. Gov. Jim Hunt (D) pushed for "fast action" after algae blooms and the toxic microbe *Pfiesteria piscicida* triggered fish kills in the river. Under the plan, landowners will be barred from clearing woods within 30 ft. of the river. Hog and poultry farmers will

be required to improve the way fertilizer is applied to fields, and cities will be forced to filter more nitrogen from the wastewater pumped from their sewage treatment plants. Sources: James Eli Shiffer, *Raleigh News & Observer*, 12/11 and 12/12/97; and GREENWIRE, *The Environmental News Daily*, 12/12/97

NE Wetlands - State residents would be willing to pay almost \$13 million to double the area of wetlands in southern NE, according to a survey of nearly 1,200 households by *University of Nebraska-Lincoln* agricultural economist Richard Perrin. Wetlands in the Rainwater Basin have dropped from 100,000 acres in 1900 to 34,000 acres now. Source: Julie Anderson, *Omaha World-Herald*, 12/14/97; and GREENWIRE, *The Environmental News Daily*, 12/18/97

OH Wetlands Victory - In response to an appeal by a coalition of environmental groups, the OH EPA on 12/8 agreed to a settlement that will make it harder to drain or fill state wetlands without full environmental review. The *National Audubon Society* and ten other groups appealed the OHEPA's 3/97 plan to allow wetland development under Nationwide Permit 26. The settlement, which awaits formal approval, will prohibit "expedited review" of development on any wetland larger than one acre. Permits affecting streams on tributaries of the state's 10 scenic rivers, 3 national scenic rivers and the Vermillion R. will not be granted. Vince Squillace of the *OH Homebuilders Assn.* called the plan "expensive" and "time-consuming". But environmental groups contend that OH cannot afford to lose the remaining 10% of its original wetlands. A "broad-based" bill that advocates comprehensive land-use planning, inner-city redevelopment, creation of "agricultural security areas" and increasing the authority of county commissioners over wells, septic systems and lot splits was presented to the OH House of Representatives on 12/9. Sources: Randall Edwards, *Columbus Dispatch*, 12/9/97; Kevin O'Hanlon, *AP/Cleveland Plain Dealer* online, 12/10/97; Brian Williams, *Columbus Dispatch*, 12/7/97; and GREENWIRE, *The Environmental News Daily*, 12/12/97

Polluters Pay In FL - In a "blow" to environmentalists, the FL Supreme Court on 11/26 ruled that all polluters, not just the sugar industry, must share the cost of cleaning up the Everglades. The court ruled that a "polluter pays" amendment to the state constitution that was "overwhelmingly" approved by state voters in 11/96 holds all polluters inside and outside the region financially responsible for Everglades restoration. Environmentalists have long blamed the sugar industry for polluting the region with fertilizer-laden runoff, and argued that sugar firms should be held solely responsible for cleanup. But the court unanimously sided with the sugar industry, which contended that rapid development and population growth had also caused pollution. The state legislature now must develop a plan to implement the amendment and determine how Everglades restoration should be financed. Attorney Thomas Rumberger of the environmental group *Save Our Everglades* said the ruling will force lawmakers to reconsider the 1994 *Everglades Forever Act*, which requires area farmers to pay up to \$322 million of the restoration project over the next 20 years. Since the park was created, the numbers of wading birds have dropped 90% and 10 species of forest birds have vanished from the area. Sources: *Reuters/mult.*, 11/28/97; Lori Rozsa, *Miami Herald*, 11/27/97; Will Lester, *AP/San Francisco Chronicle/Examiner* online, 11/29/97; Cyril Zaneski, *Miami Herald*, 11/28/97; and *GREENWIRE, The Environmental News Daily*, 12/1/97

Recreation Damages - A recent jury verdict in CA that awarded damages for "lost recreation" opportunities following an oil spill could be a model for future litigation, according to legal experts. Several government and private environmental attorneys nationwide "applauded" the Orange County verdict that directs the shipping firm *Attransco* to pay the public \$18.1 million in damages, 66% of it for lost recreational use of beaches and harbors. The decision "could prove one of the biggest legacies" of the 1990 spill, the attorneys said. Robert Klotz, a senior attorney at the Justice Dept., said the case probably represents the first time that litigants

have debated the monetary value of beach closures. The verdict "could give government attorneys more clout in future settlement talks in other oil spill cases" by resolving an area of uncertainty, attorneys said. In turn, such cases could settle sooner, making funds for wildlife restoration available more quickly. Sources: Deborah Schoch, *Los Angeles Times*, 12/15/97 and *GREENWIRE, The Environmental News Daily*, 12/16/97

TVA Lands - The Tennessee Valley Authority (TVA) on 12/2 said that 12,800 acres once designated for the Columbia Dam should be given to TN. After months of debate with environmentalists and State officials, the TVA recommended that 6,800 acres be placed under restrictive protection, 2,200 acres be opened for public use, and 3,800 acres be used to supply water. Before the land is transferred, the *TN Building Commission* must approve a State land-use plan, which will stress the water supply needs of the area, according to an advisor for Gov. Don Sundquist (R). Sources: *AP/Birmingham Herald* online, 12/3/97; and *GREENWIRE, The Environmental News Daily*, 12/5/97

TX Water Pollution Plan - TX officials on 12/10 unveiled an initiative to reduce pollution in 140 rivers, lakes and streams in the state, in response to a USEPA mandate directing states to enforce portions of the Clean Water Act dealing with surface water quality. Under the plan, environmental officials will identify the amount of pollution each watershed can tolerate while State and local agencies will implement new controls, such as more strict wastewater permits and tighter fertilizer and pesticide regulation. Of the State's 368 watersheds, 140 are not in compliance with State standards for levels of bacteria, pesticides, and toxic chemicals, according to Barry McBee of the Natural Resource Conservation Commission. The first 40 studies are to be completed in five years, with all 140 to be finished within 10 years. "Although McBee could not put a price tag on the entire project, he said studying the Arroyo Colorado River, one of the first under the project, would cost \$500,000". Sources: Pauline Arrillaga, *AP/Houston Chronicle*, 12/11/97 and *GREENWIRE, The Environmental News Daily*,

12/12/97

WV Pulp Mill Plans Abandoned - "Environmentalists declared victory" in December as New York-based *Parsons & Whittemore Inc.* "abandoned" plans to build a \$1 billion pulp and paper mill on the Ohio River in Apple Grove. *Parsons & Whittemore Pres.* Arthur Schwartz withdrew an air-pollution permit application from the WV Division of Environmental Protection (DEP) on 12/17, "just moments" before the agency notified the company it was rejecting the application. The rejection was based on the company's failure to meet a State deadline for acquiring land for the project. Schwartz blamed the project's demise on the combination of delays in issuing permits -- the mill was first proposed in 1989 -- and on recent economic troubles in Southeast Asia. Schwartz said, "Had the State acted responsibly in a reasonable time frame to permit the project -- whatever the requirements -- it is possible ... that the project could have succeeded". But DEP Director John Caffrey said Schwartz's claims "aren't factual." Environmentalists had voiced concerns that the mill would have required deforestation of much of the surrounding area and would have polluted the river and air with dioxin. Jason Huber, an attorney with the *OH Valley Environmental Council*, said the mill's "defeat" should warn other developers that similar projects "will encounter opposition". Sources: Ken Ward, *Charles-ton [WV] Gazette*, 12/18/97; *AP/Charleston [WV] Daily Mail*, 12/18/97; and *GREENWIRE, The Environmental News Daily*, 12/22/97

WY Oil Refinery - U.S. District Judge Clarence Brimmer in early January found *Amoco Corp.* responsible for groundwater and soil pollution from an abandoned oil refinery near Casper. The ruling requires *Amoco* to build an impermeable wall under the site to comply with USEPA mandates, but company officials say that a 33-million gallon underground "kerosene-like plume," which contaminated the North Platte River and surrounding properties, does not pose an immediate threat. Source: *AP/Casper [WY] Star-Tribune*, 1/12/98; and National Journal's *GREENWIRE, The Environmental News Daily*, 1/13/98

American Heritage Rivers Update

The White House announced in mid-December that it has received 124 nominations for Pres. Clinton's *American Heritage Rivers Initiative*. Although the nomination deadline had passed, "more suggestions were coming in." Clinton is expected to name the first 10 rivers for the program in January, once members of Congress in the affected districts are notified. But some observers say the competition is only for about five slots in the program because some "nationally renowned" rivers such as the Mississippi and Rio Grande are "shoo-ins for recognition".



Upper Mississippi River headwaters (MN).

Sen. John Chafee (R/RI) has been lobbying for the selection of RI's Blackstone and Woonasquatucket rivers. Community activists and government officials in the Washington, DC, area have nominated the Anacostia and Potomac rivers. On the 12/10 nomination deadline, NY Gov. George Pataki (R) nominated the Hudson River. In VA, 18 local governments, two Indian tribes and more than 24 nonprofit groups formally nominated the James River.

Meanwhile, four members of Congress have filed a lawsuit in a Washington, DC, federal court to block the Initiative which will provide funding

for economic development and environmental projects. Reps. Helen Chenoweth (R/ID), Don Young (R/AK), Richard Pombo (R/CA) and Bob Schaffer (R/CO) maintain that Clinton's executive order establishing the program violates the 10th Amendment, which leaves zoning powers to local authorities. Critics say that although the program, which seeks to designate 10 U.S. waterways for environmental projects and economic development, is voluntary, it is a federal intrusion into private property rights.

Also on the down side, Sen. Conrad Burns (R/MT) has formally asked the Clinton administration to exclude MT from participation in the program. Burns said he has encountered opposition from county, farm, realty and stockgrowers associations, but has received "fewer than 10" letters of support for the program. Rep. Joe Skeen (R/NM) said the Rio Grande in southern NM would not be named to the list because of his objections over water rights issues. Also, a committee representing ME environmental, citizens, industry and Native American groups on 12/8 decided not to nominate the Penobscot River for the program. Lou Horvath of the *ME Council of the Atlantic Salmon Federation* said improvement of the river should be done "without infringing on property rights and personal liberties". Also, the *St. Johns County Commission* on 12/9 withdrew its support of Jacksonville FL's nomination of the St. Johns River, saying the program could impinge on property rights.

Katie McGinty, President Clinton's top environmental adviser, has described herself as "bewildered and perplexed" by Republican opposition to the program. "This program is exactly the embodiment of the things we have heard from this Congress," she said in an interview with *The Associated Press* earlier this year. "It is 100% locally driven. It is government acting purely in partnership with local communities. It is complete nonregulatory."

Sources: *USA Today*, 12/1, 12/12 and 12/18/97; *AP/Boston Globe* online, 12/16/97; *AP/Billings Gazette*, 12/9 and 12/10/97; Mary Anne Legasse, *Bangor [ME] Daily News*,

12/9/97; *Washington Post*, 12/11 and 12/12/97; *AP/Boston Globe* online, 12/12/97; Peter Hardin, *Richmond Times-Dispatch*, 12/13/97; Steve Pater-son, *Jacksonville Florida Times-Union* 12/10 and 12/12/97; Chenoweth press release; and *GREENWIRE, The Environmental News Daily*, 12/12, 12/15, and 12/18/97

Climate Change Treaty Approved

In what may be "the most ambitious and most controversial global environmental undertaking in history," delegates at the climate change conference in Kyoto, Japan, reached an "historic accord" to curb greenhouse gas emissions on 12/11. The treaty, if ratified, would require major industrialized nations to reduce emissions by 6-8% below 1990 levels by 2012. But delegates left "until next year the contentious issue of whether and how the world's poorer nations would participate" in emissions cutbacks.

The Kyoto Protocol would require the U.S. to cut its overall emissions of six gases by 7% below 1990 levels, while the European Union would have to reduce emissions by 8% and Japan would have to achieve a 6% cut. Twenty-one other industrialized nations would have similar binding targets. Australia would be allowed an 8% increase in emissions "because its economy is heavily dependent on its coal exports". A few other industrialized countries may be allowed increases, but globally, emissions would be reduced by 30% from the "levels currently projected for 2010" -- or by 5.2% from 1990 levels

Countries must sign the treaty by 3/99, "but there is no deadline for ratification". It would enter into force when 65 parties representing 55% of total carbon-dioxide (CO₂) emissions in 1990 have ratified it. Under the treaty, "expert review teams" would assess how nations are living up to commitments, but "no further sanctions are specified". "In a victory for the Clinton administration, the pact includes an endorsement of market-based mechanisms [to] encourage technological innovation and lower the cost of compliance." It includes a "clean development mechanism" under which industrialized na-

tions could invest in green technology in developing nations in exchange for emissions credits.

Reaction to the pact among environmentalists was generally positive, but mixed." The *Sierra Club* called it a "narrow victory," as did *Greenpeace*. But the *World Wildlife Fund* "blasted the agreement as flawed," and said it "plays into the hands" of the industries that fought against it." Meanwhile industry representatives had harsh words for the pact. William O'Keefe of the U.S.-industry-funded *Global Climate Coalition* said, "This agreement represents unilateral economic disarmament." He said that if Clinton signs the treaty, "business, labor and agriculture will campaign hard and will defeat it"

Hours before the final climate change accord was reached, Sen. Frank Murkowski (R/AK), chair of the *Energy and Natural Resources Committee*, said the accord would "be dead on arrival" in the Senate. Sen. Larry Craig (R/ID), head of the *Republican Policy Committee*, called on President Clinton to "promptly submit the treaty and allow the Senate to kill it". Faced with such opposition, Administration officials say Clinton will hold off submitting the treaty for Senate approval until changes can be made at a follow-up meeting [to Kyoto] in Buenos Aires where delegates will meet in 11/98 to address the issue of having developing nations participate in emissions reductions.

Senate Majority Leader Trent Lott (R/MS) on 12/11 "assailed" the administration's strategy, saying that the pact should not be withheld "for cynical, political reasons" and that "the president should have the strength of his convictions to submit this treaty as soon as possible". "By head counts from all quarters, the Senate is resoundingly opposed" to the treaty. According to a coal association executive, opponents can "count on almost all of the Senate's 55 Republicans [as well as] every Democrat from an energy-producing state" to vote against the pact, providing "a cushion well beyond the 34 votes" needed to block ratification.

Sen. John Kerry (D/MA), a "leading Democratic supporter" of a pact,

came out in favor of the delay approach. He "said a delay in formal approval of the treaty need not impede compliance with its goals, noting that the [U.S.] often has gone along with treaties before they were ratified". Senate Majority Leader Trent Lott (R/MS) said that the Senate would judge a climate treaty by five criteria: no erosion of U.S. sovereignty, no hidden taxes, no loss of American jobs, no disadvantage for American business and no special advantage for developing nations. Lott said, "The treaty under discussion appears to fail on all five counts".

The fight for ratification "will help define not only budget negotiations next year, but the 1998 Congressional elections and even the next presidential race". Additionally, the treaty "is likely to cast a pall of uncertainty over the U.S. and world economies for the next several months, and possibly even for years," according to economists both in favor and against the pact. Robert Repetto of the D C - b a s e d *World Resources Institute* said the decision to delay consideration of an international emissions- trading scheme until next year will keep businesses from "adjusting to the new order."

The coal industry "would be the biggest loser" as a result of the treaty, energy prices could rise "perhaps as much as 25-50% at retail," and energy-intensive industries such as steel, aluminum, chemicals and agriculture "would be especially hard hit." The pact "is expected to trigger a major shakeup" in the global automobile industry, where pollution controls "will likely expand the market for energy-efficient vehicles". *Yale University* economist William Nordhaus said the treaty could result in households paying an extra \$2,000 a year for energy and other products. "The total effect would be the same as a

tax increase of \$100-200 billion a year," according to Nordhaus.

Pres. Clinton on 12/11 repeated his belief that the treaty was "environmentally strong and economically sound." The president acknowledged that "a lot of challenges lie ahead" in persuading developing countries to participate in emissions-reductions efforts and in convincing the American public to buy into the treaty. He said further that "Every time we've tried to improve the American environment in the last 25 or 30 years, somebody has predicted that it would wreck the economy. And the air is cleaner. The water's cleaner. The food supply is safer. So don't believe the skeptics. Give us a chance to make the case"

Meanwhile, largely due to the weather phenomenon El Nino, 1997 was on average the hottest year on record, according to the *UN's World Meteorological Organization (WMO)*. In a statement to reporters, *WMO* spokesperson Eirah Gorre-Dale said reports from land- and sea-based monitoring stations worldwide indicated an average warming of 0.44 °C last year when compared to average temperatures between 1961 and 1990. The findings resemble conclusions released on 1/8 by the National Oceanic and Atmospheric Admin. researchers and other climate experts.

Also, "For the first time," biologists have found that excess ultraviolet (UV) rays from sunlight can kill amphibians, provoking renewed concern about the "thinning ozone layer." In a study published in *Proceedings of the National Academy of Sciences, Oregon State University (OSU)* researchers say that natural sunlight contains enough UVB radiation to kill most embryos of the long-toed salamander in lakes in the Cascade Mountains. The study is the "first to precisely measure the effects of UVB in a comparative study in nature." OSU biologist Andrew Blaustein said, "We were stunned by our findings. This is proof that excess UVB radiation in nature can cause death and deformity in this species." He said the study supports the theory that increased UVB rays have contributed to a worldwide decline in many amphibian species. But the USEPA's Gary Ankley noted that the OSU study focused on only one species and did not prove that



UVB rays are the cause of all amphibian declines.

In another climate-related study published on 11/28 in the journal *Science*, Wallace Broecker of *Columbia University* says that a change in water current circulation could stimulate severe winters in northern Europe, wiping out crops and fisheries in the region. Broecker called ocean currents that span across the globe, controlled by the temperature and salt content of the water, the "Achilles heel of the climate system." *Princeton University* climatologist J.D. Mahlman called Broecker's theory "interesting speculation," but said there was no immediate evidence indicating that a buildup of carbon dioxide emissions in the atmosphere could disrupt currents.

The recent discovery of an "unknown atmospheric source or reservoir" of nitrous oxide (N₂O) in the upper atmosphere could complicate efforts to understand global warming and ozone depletion, according to a study by two independent research groups in the 12/5 issue of *Science*. While N₂O "may be [known as] laughing gas at the dentist's office,...to atmospheric chemists there's nothing funny about it." The gas is "about 200 times as efficient as carbon dioxide at trapping heat radiation in the atmosphere." The largest known sources of N₂O -- emissions from soil and ocean bacteria, fertilizer decomposition, combustion and industrial processes -- contain "relatively little of the heavier isotopes of nitrogen and oxygen." However, scientists were surprised to discover an "abundance of heavy-isotope forms of N₂O" in the upper air while samples lower to the ground contained anticipated isotope ratios. Researcher Mark Thiemens of the *University of California* at San Diego said, "Something is going on in the atmosphere that no one has ever accounted for".

Meanwhile, a recent poll taken by the *New York Times* indicates strong support by the American public for a tough international treaty to combat global warming. Overall, the poll suggests that the public "rejects the main arguments" of industry groups against a treaty::

- Asked what the U.S. should do:

65% said the U.S. should take action to limit greenhouse gas emissions "regardless of what other countries do"; while 15% said the U.S. should wait until many countries agree how to address the problem together.

- Asked what the economic effects would be: 57% said the U.S. economy would become more competitive if the U.S. capped greenhouse gas emissions because efforts to use energy more efficiently would save money in the long run, while 17% said cutting emissions "will cost too much money and hurt the U.S. economy".

- Asked what about the causes of global warming: 49% said global warming is the result of emissions, while 16% said it results from normal climate fluctuations.

- Asked when serious effects from global warming might be expected: 13% said the warming would have no series effect, 23% said they believed the impact was already serious, while 43% said the effects of warming would not be felt until the future.

- Asked what personal costs they would be willing to incur: 47% said they would be willing to invest in new energy-efficient appliances and insulation to cut emissions and save on utility bills, while 21% said they would not be willing.

- Asked how much they knew about global warming: 27% said they had heard or read a lot about global warming, 38% said they had heard or read "some" about it, while 33% said they knew "not much" or "nothing."

The poll, which was conducted from 11/23-24/97, surveyed 953 adults; the margin of error was +/- 3%.

Sixty-three percent of those surveyed by a *Newsweek* poll said they believe steps can be taken to "reduce the greenhouse effect" without hurting the U.S. economy. Twenty-four percent said such actions would necessarily hurt the economy. When asked what they would be willing to do to reduce greenhouse gas emissions, 82% said they would buy a more energy-efficient kitchen appliance even if it cost \$50 more, 74% said they would buy a more fuel-efficient vehicle even if it cost \$200 extra or made large sport utility vehicles prohibitively expensive, 74% also said they would pay one-half cent more per kilowatt-hour of electricity, and 51% said they would pay 12 cents more for

a gallon of gas. Fifty percent said they worry a great deal or a fair amount about global warming, down from 62% in a 1991 survey. This poll, which was conducted by *Princeton Survey Associates*, surveyed 752 adults from 11/13-14/97. The margin of error was +/- 4%.

In a *Harris Poll* 74% of those surveyed on their opinions about the climate change treaty said they approve of the pact, while 21% said they opposed it. Just 55% said they were aware of the Kyoto negotiations. Eighteen percent said the treaty was "too strict," 41% said it was "about right" and 31% said it was "not strict enough." Among partisans, 28% of Republicans said it was too strict, compared to only 8% of Democrats. The poll, conducted by *Louis Harris and Associates* from 12/11-15/97, surveyed 1,009 adults. The margin of error is +/- 3%.

Sources: Paul Recer, *AP/mult.* 11/28 and 12/9/97; *Reuters/Washington Times* 11/28/97; Leyla Boulton, *Financial Times* 11/28/97; Curt Suplee, *Washington Post*, 12/1 and 12/8/97; Warrick/Sullivan, *Washington Post*, 12/11/97; John Fialka, *Wall Street Journal*, 12/11/97; Maggie Farley, *Los Angeles Times*; William Stevens, *New York Times*, 12/11/97; Dewar/Sullivan, *Washington Post* 12/11/97; James Bennett, *New York Times*, 12/11/97; Pine/Fiore, *Los Angeles Times* 12/11/97; Christina Duff, *Wall Street Journal* 12/11/97; John Cushman, *New York Times*, 11/28/97; *Newsweek*, 12/8/97 issue; John Broder, *New York Times* 12/12/97; Laurie Kellman, *AP/San Francisco Chronicle/Examiner* online 12/12/97; Baker/Dewar, *Washington Post*; James Gerstenzang, *Los Angeles Times* 12/12/97; *Harris* release, 12/17/97; *Reuters/Baltimore Sun*, 1/21/97. and *GREENWIRE, The Environmental News Daily*, 12/1, 12/8, 12/9, 12/10, 12/11, 12/12 and 12/18/97; and 1/21/98

Strong Economy Lures Fishermen

A little jingle in the pocket puts anglers on the water. That is the gist of a study by the *American Sportfishing Association* (ASA), but what that means to fish hasn't been documented. In its study of the economic impact of

sport fishing in 1996, the ASA found a tremendous increase in the amount of money spent by fishermen in the past five years, by about the same number of anglers.

In 1991, ASA found 35,578,000 anglers 16 and older compared to 35,245,809 in 1996. "There is more disposable income now," research assistant Dan Strobel said. In 1991, those 35.6 million anglers spent \$27,608,829,700 in 511,329,000 days. By 1996, those numbers increased to \$37,797,062,032 spent in 625,892,832 days. "In 1991, nobody was spending any money, we were in the middle of a recession," Strobel said. "Now the economy is as strong as it has been in 70 or 80 years." And anglers are using the extra cash to spend more time fishing. That's a thought we like.

Source: Dale Bowman, 12/21/97,

Chicago Sun-Times

Riverkeepers - A Book

A review in *USA Today* hails a new book by leaders of the enviro group *Riverkeepers* as a "manual for activism." Entitled: *The Riverkeepers: Two Activists Fight to Reclaim Our Environment as a Basic Human Right*, the book is "a primer on how to reclaim a river."

Authors Robert Kennedy, Jr., chief prosecuting attorney for *Riverkeepers*, and John Cronin, a former commercial fisher and founding member of the group, have been a "thorn in many a corporate and government side" because of their efforts to combat water pollution. Begun in 1983 by Hudson River fishers as a "grass-roots effort to reclaim from polluters the waters that

gave them their livelihood," *Riverkeepers* has had so much success that 23 similar programs have been launched in waterways across the U.S.

Although Kennedy and Cronin say the nation's rivers are threatened by municipal sewage treatment facilities and power plants, the greatest threat is "greenwashing" -- a sophisticated effort by companies to formulate strategies for avoiding environmental responsibilities. Kennedy said, "It's very simple. It's the good guys against the bad guys." He adds, "One of the messages of the book is that if you're willing to put in the time and the effort and the money at home to defend your local environments, you can win".

Sources: Craig Wilson, *USA Today*, 1/8/98; and National Journal's GREENWIRE, *The Environmental News Daily*, 1/8/98

Meetings of Interest

March 6-8: Freshwater Mussels Conservation, Captive Care, & Propagation, Columbus, OH. Contact: Doug Warmolt, Columbus Zoo, 9990 River side Drive, P.O. Box 400, Columbus, OH 43065, (614 645-3400, email: dwarmolt@colszoo.org

March 9-10: Restoration Evaluation Criteria Workshop, San Diego, CA. Contact: Edith Read, SERCAL President, c/o Psomas and Associates, 3187 Redhill Avenue, Suite 250, Costa Mesa, CA, 92626, (714) 751-7373 ext. 2133, Fax: (714) 545-8883. Email: erezad@psomas.com.

March 16-19: 8th International Zebra Mussel and other Aquatic Nuisance Species Conference, Sacramento, CA. Contact: Elizabeth Muckle-Jeffs, (800) 868-8776 email: profedge@renc.igs.net

March 17-21: 13th Annual U.S. Regional Association of the International Association for Landscape Ecology, Michigan State University, East Lansing, MI. Contact: <http://www.fw.msu.edu/iale98>, or William W. Taylor, Department of Fisheries and Wildlife, 13 Natural Resources Bldg., Michigan State University, East Lansing, MI

48824, (517) 355-1810, Fax: (517)432-1699, email: iale98@perm3.fw.msu.edu.

March 20-24: 63rd North American Wildlife and Natural Resources Conference, Orlando, FL, Session: Nonindigenous Species: Methods of Introduction and Impacts. Contact: Richard E. McCabe, Wildlife Management Institute, (202) 371-1808.

March 22-25: The Floodplain of the Future, 2nd Annual Conference on Natural Resources of the Missouri River Basin, Nebraska City, NE. Contact: Pam Haverland, USGS/BRD, Environmental & Contaminants Research Center, 4200 New Haven Road, Columbia, MO 65201, (573) 876-1841, FAX (573) 876-1896, E-mail: pamela_haverland@nbs.gov.

April 14-15: Lower Mississippi River Conservation Committee 5th Annual Meeting, Memphis, TN. Contact: Ron Nassar, LMRCC Coordinator (601) 629-6602.

April 15-17: Team Wetlands: 101 Ways to Win for Wetlands, Arlington VA. The American Wetlands Month Communities Celebration emphasizes interactive sessions on how to build

community wetlands programs and projects. Contact the Terrene Institute at (703) 548-5473; email: terrinst@aol.com.

April 20-22: 11th International Trout Stream Habitat Improvement Workshop - Beyond traditional boundaries: Adding more environment to the equation, Fayetteville, AR. Contact: John Stark (870) 424-5924, arktrout@centuryinter.net or Don Duff (801) 524-6491, tudtrout@aol.com

April 23-24: Mississippi River Research Consortium, 30th Annual Meeting, Yacht Club Resorts, La Crosse, WI. Contact: Melinda Knutson, USGS, BRD, Upper Mississippi Science Center, 2630 Fanta Reed Road, La Crosse, WI 54602-0818, (608) 783-6451.

April 29-May 3: Rivers - The Future Frontier, Anchorage, AK. Contact the River Management Society at (406) 549-0514; email: rms@igc.apc.org

May 3-6: Watershed Management: Moving from Theory to Implementation, Denver, CO. Water Environment Federation. (703) 684-2400.

June 8-12: 19th Annual Meeting of the Society of Wetland Scientists, Anchor-

age, AK. Contact: Terry Brock, Box 22014, Juneau, AK 99802, (907) 586-7863, FAX (907) 586-7922, e-mail: tbrock@ptialaska.net or visit the SWS web page at <http://www.sws.org>

June 8-12: GCIP Mississippi River Hydrometeorology Conference "Predicting Climate Variability and its Implications for Water Resource Management." Regal Riverfront Hotel, St. Louis, MO.

June 23-28: 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.

August 23-27: 128th Annual Meeting of the American Fisheries Society, "Challenges for the New Millennium: Shaping the Future of Fisheries Science and the Fisheries Profession," Harford Civic Center, Hartford, CT.

Contact: Paul Brouha, (302) 897-8617, Ext. 209.

September 7: 88th Annual Meeting of the International Association of Fish and Wildlife Agencies. Contact: Georgia Department of Natural Resources.



Congressional Action Pertinent to the Mississippi River Basin

Agriculture

H.R. 2692, Bob Smith (R/OR.) to combine the Consolidated Farm Service Agency and the Natural Resources Conservation Service of the Agriculture Department as one agency and to ensure equitable treatment of socially disadvantaged farmers, ranchers and department employees.

Environment

H.R. 2818, Peter DeFazio (D/OR.) to repeal the pilot recreation fee program and establish a royalty on hardrock minerals and direct revenues to public recreational sites managed by the Interior Department and Forest Service.

Fish and Wildlife

S. 361 (Jeffords, R/VT) amends the Endangered Species Act to prohibit the sale, import, and export of products labeled as containing endangered species.

S. 491 (Ford, R/KY) to amend the National Wildlife Refuge System Administration Act of 1966 to prohibit the Fish and Wildlife Service from acquiring land to establish a refuge of the National Wildlife Refuge System unless at least 50% of the land owners in the proposed refuge favor the acquisition.

S. 751 (Shelby, R/AL) to protect and enhance sportsmen's opportunities and conservation of wildlife.

H.R. 374 (Young, R/AK) amends the Sikes Act to enhance fish and wildlife

conservation and natural resources management programs.

H.R. 1718 (Cunningham, R/CA) to protect and enhance sportsmen's opportunities and enhance wildlife conservation.

H.R. 2894, Wally Herger (R/CA) and Richard Pombo (R/CA) to amend the Endangered Species Act of 1973 enabling federal agencies responsible for the preservation of threatened and endangered species to rescue and relocate members of any of those species that would be taken in the course of certain reconstruction, maintenance or repair of federal or non-federal man-made flood control levees.

H.R. 2911, Wally Herger (R/CA) and Richard Pombo (R/CA) to amend the Endangered Species Act improving the ability of individuals and local, state and federal agencies to prevent natural flood disasters.

Flood Insurance

H.R. 230 (McCollum, R/FL) to ensure that insurance against the risk of catastrophic natural disasters, such as hurricanes, earthquakes, floods, and volcanic eruptions, is available and affordable, and to provide for expanded hazard mitigation and relief.

Forests

S. 977 (Robert Torricelli, D/NJ) and John Kerry, D/MA) to amend the Forest and Rangeland Renewable Resources Planning Act of 1974 to ban clear-cutting and strengthen preserva-

tion on federal lands, and designate ancient forests, roadless and other areas where no logging may occur.

S. 1058 (Richard Durbin, D/IL) to amend the National Forest Management Act of 1976 to ban timber sales where the cost of making timber available for the sale is greater than the expected revenues from the sale in the Shawnee National Forest in IL.

S. 1253, Larry Craig (A/ID) to streamline the forestry decision-making process in the Bureau of Land Management and Forest Service with a multi-use outlook.

S. 1254, Larry Craig (A/ID) to outline a process by which states could take over the management of federal lands for 10-year periods with Congress' approval.

H.R. 101 (Baher, R/LA) amends the National Forest Foundation Act to extend and increase the matching funds authorization for the foundation, to provide additional administrative support to the foundation, to authorize the use of investment income, and to permit the foundation to license the use of trademarks, trade names, and other such devices to advertise that a person is an official sponsor or supporter of the Forest Service or the National Forest System

H.R. 1376 (Eshoo, D/CA) to amend the Forest and Rangeland Renewable Resources Planning Act of 1974 and related laws to strengthen the protection of biodiversity and ban clearcutting on federal lands and to designate certain federal lands as Northwest Ancient

Forests, roadless areas, and special areas, where logging and other intrusive activities are prohibited.

H.R. 1861 (Hinchey, D/NY) amends the **Forest and Rangeland Renewable Resources Planning Act of 1974**, the **Federal Land Policy and Management Act of 1976**, the **National Wildlife Refuge System Administration Act of 1966**, the **National Indian Forest Resources Management Act**, and title 10 of the U.S. Code to strengthen the protection of native biodiversity and to place restraints upon clearcutting and certain other cutting practices on U.S. forests.

H.R. 2458 (Helen Chenoweth, R/ID) to authorize the Agriculture and Interior secretaries to remove forest floor overgrowth and conduct other management practices where federal lands abut urban areas.

H.R. 2789, Cynthia McKinney (D/GA) to eliminate commercial logging on federal lands and facilitate economic recovery and diversification of communities dependent on logging.

Grazing

H.R. 547 (Nader, D/NY) requires the Interior and Agriculture secretaries to establish grazing fees at fair market value for use of public grazing lands.

H.R. 2493 (Bob Smith, R/OR) the **Forage Improvement Act of 1997**, to make "moderate" changes to grazing regulations, such as setting a formula for fees at \$1.84 per adult head of cattle per month, up from the current amount of \$1.35. The bill also would guarantee lease renewal after 10 years if ranchers have followed all lease terms, and it would codify the structure and duties of **Resource Advisory Councils**, which give the federal government advice on managing federal lands. Approved by the House on October 30.

Land Acquisition

H.R. 1487 (Campbell, R/CA) to provide off-budget treatment for one-half of the receipts and disbursements of the **Land and Water Conservation Fund**, and to provide that the amount appropriated from the fund for a fiscal year for federal purposes may not

exceed the amount appropriated for that fiscal year for financial assistance to the states for state purposes.

H.R. 1732 (Kildee, D/MI) to amend the **Land and Water Conservation Fund Act of 1965** to provide for off budget treatment of the receipts and disbursements of the land and water conservation fund and the accounts established under that act.

Mining

S. 325, S. 326, and S. 327 (Bumpers, D/AR) to repeal the percentage depletion allowance for certain hardrock mines, provide for the reclamation of abandoned hard-rock mines, and ensure federal taxpayers receive a fair return for the extraction of locatable minerals on public domain lands, respectively.

H.R. 2945, John Duncan (R/TN) and Jim Hansen (A/UT) to amend the **Land and Water Conservation Fund** to establish a **Community Recreation and Conservation Endowment** with certain escrowed oil and gas revenues.

Parks

S. 991 (Frank Murkowski A/AK) to make technical-changes to **Omnibus Parks and Public Lands Management Act of 1996**.

H.R. 104 (Bartlett, R/MD) authorizes the private ownership and use of **National Park System** lands.

H.R. 901 (Young, R/AK) to preserve the sovereignty of the U.S. over public lands by requiring that **United Nations heritage designations** be subject to congressional approval. Approved by the House on October 8.

H.R. 2143 (Miller D/CA) to provide certain escrowed oil and gas revenues be available to improve national parks' visitors facilities.

Public Lands

S. 477 (Hatch, R-UT) amends the **Antiquities Act** to require an Act of Congress and the consultation with the governor and state legislature prior to establishment by the president of national monuments in excess of 5,000 acres.

S. 691 (Murkowski, R/AK), to require public review and the authorization of Congress for any presidential designations of **national monuments**, **biosphere reserves**, and **world heritage sites** on public lands.

S. 1118 (Frank Murkowski, A/AK) to set up a **Community Recreation and Conservation Endowment** of \$800 million for the state side portion of the **Land and Water Conservation Fund** from oil and gas revenues.

S. 1176 (Craig Thomas, R/WY) to elevate the role of local and state governments under the **National Environmental Policy Act**. NEPA outlines the review process the federal government must follow before taking major actions on federal lands. Environmentalists in general oppose the measure for placing local governments above other residents and groups.

H.R. 919 (Miller, D/CA) establishes fair market value pricing of federal natural assets, and for other purposes.

H.R. 2223 (J.D. Hayworth (R/AZ) To amend the **Recreation and Public Purposes Act** to allow the conveyance of public land and forests to local education agencies for elementary, secondary and charter school use.

H.R. 2502 (John Duncan, R/TN and Bill Jenkins, R/TN) to amend the **Land and Water Conservation Fund Act of 1965** to allow national park units that cannot charge entrance fees to retain other fees.

H.R. 2223, J.D. Hayworth (R/AZ) to amend the **Recreation and Public Purposes Act** to allow the conveyance of public land and forests to local education agencies for elementary, secondary and charter school use.

Refuges

H.R. 511 (Young, R/AK) to amend the **National Wildlife Refuge System Administration Act of 1966** to improve the management of the refuge system.

H.R. 512 (Young, R/AK) to prohibit the expenditure of funds from the **Land and Water Conservation Fund** to create new **National Wildlife Refuges** without specific authorization from Congress. Passed by the House Resources Com-

mittee. Opposed by the President.

Takings

S. 709 (Hager, R/NE) to protect private property rights guaranteed by the fifth amendment to the Constitution by requiring federal agencies to prepare **private property taking impact analyses** and by allowing expanded access to federal courts.

S. 781 (Hatch, R/UT) to establish a uniform and efficient federal process for **protecting property owners' rights** under the fifth amendment.

Water and Wetlands

H.R. 128 (Crapo, R/ID) to preserve the authority of the states over waters within their boundaries, and to delegate the authority of the Con

gress to the states to regulate water.

H.R. 227 (McCollum, R/FL) directs the Secretary of the Army to conduct a study of mitigation banks.

H.R. 238 (Robert Menendez D/NJ) to amend the **Oil Pollution Act of 1990** to make the act more effective in preventing oil pollution in the nation's waters through enhanced prevention of, and improved response to oil spills, and to ensure that citizens and communities injured by oil spills are promptly and fully compensated, and for other purposes.

H.R. 550 (Oberstar, D/MN), NonPoint Source Water Pollution Prevention Act of 1997 amends the **Clean Water Act** to establish requirements and provide assistance to prevent nonpoint sources of water pollution, and for other

purposes.

H.R. 640 (Hostettler, R/IN) amends the wetland conservation provisions of the **Food Security Act of 1985** and the **Clean Water Act** to permit the unimpeded use of privately owned crop range and pasture land that have been used for the planting of crops or the grazing of corn in a least 5 of the preceding 10 years.

H.R. 2556, Jim Saxton (R/NJ) to reauthorize the **North American Wetlands Conservation Act** and the **Partnerships for Wildlife Act**.

Sources: Land Letter, STATUS REPORT, Vol.16, No. 2,5,8,11,13 17, 20, 25, and 26; and NOAA Legislative Informer, 3/97, Issue



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