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*the monthly newsletter for people who live, work or play on the Mississippi River*

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## Upper Mississippi Not Named in Suit

By Pamela Eyden

In late October 1992, the Audubon Society, The Wilderness Society and Defenders of Wildlife filed a lawsuit against the federal government, charging that the Department of the Interior and the U.S. Fish and Wildlife Service had failed to protect wildlife, especially endangered species, in ten National Wildlife Refuges.

The Upper Mississippi Refuge was not one of the ten. They were: McNary, Umatilla, Turnbull and Copalis, in Washington; Cabeza Prieta and Havasu, in Arizona; Camas in Idaho; Crystal River in Florida; Great Meadows in Massachusetts; and Monte Vista in Colorado.

According to the Audubon Society, many activities in

**The lawsuit claims that the failure of the Fish and Wildlife Service to "immediately eliminate incompatible uses from its lands is a fundamental breach of the agency's management responsibilities."**

these refuges put wildlife at risk. Overgrazing, jet-skiing and motorboating were cited among the harmful activities at some. At Copalis, Navy fighter jets drop 25-pound dummy bombs on Sea Lion Rock, harassing sea birds and marine mammals.

The lawsuit claims that the failure of the Fish and Wildlife Service (FWS) to "ensure that uses of the national wildlife refuges are compatible with their primary, wildlife conservation purposes, and to immediately eliminate incompatible uses from its lands, is a fundamental breach of the agency's management responsibilities."

*Suit, continued on page 5*

## Launching BIG RIVER

By Reggie McLeod, editor/publisher

This premiere issue of *Big River* was born of much wishing, brainstorming and watching the big river heave through many seasons. As a freelance journalist, river stories always seem to float to the top of my idea list. In writing them I realized the need for an independent river forum.

*Big River*, however, is not a one-person show. Many skilled journalists have agreed to write for it, and many people have voiced support, shared advice and offered help. Jim Harrison and Eric Macbeth, both on the staff of the Minnesota-Wisconsin Boundary Area Commission, have been especially helpful.

*Big River* will focus primarily on the stretch of river from St. Cloud to Dubuque. It will explore all aspects of the river — wildlife, development, history, recreation, transportation, government, water quality. I could use help rounding up information. If your group or office sends out press releases, meeting notices or newsletters about the river, please put us on your mailing list. We will help get the word out. If you have information, questions or opinions about the river, write us a letter. We hope to have a lively Letters section.

Thanks to Julie Crozier for designing the *Big River* masthead. Julie is a talented artist who often draws and paints river subjects. She, her husband Bill and their three girls live in the beautiful river town of Bellevue, Iowa.

Pamela Eyden has contributed her skills by writing two stories for this issue, designing the newsletter and agreeing to work as assistant editor. She is also returning to school this winter to study environmental science at the University of Wisconsin.

I also want to thank our charter subscribers. In return for their faith and support we'll strive to make each issue better than the last. Please tell us what we are doing right and wrong, so we can strengthen the former and fix the latter. ♦

### What's inside . . .

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*Coming in February:*

- How will the Mississippi National River and Recreation Area affect the Twin Cities?
- River county populations

## Current Events

### COE Navigation Study Draws Fire

A proposed \$23 million study of the future navigation needs of the upper Mississippi and Illinois rivers has drawn fire from environmental groups and state officials. Some called it a last minute attempt by the Bush Administration to begin a massive expansion of the water transport system.

The Army Corps of Engineers gave agencies in Minnesota, Wisconsin, Iowa, Illinois and Missouri less than a month's notice of meetings held December 9 and 10 in Chicago, at which they proposed initiating a study of navigation needs on the rivers to the year 2050. The meetings were not among the Corps' brighter moments, as many attendees accused it of not cooperating with other agencies.

The Izaak Walton League of America, Quad City Conservation Alliance, Sierra Club and American Rivers, Inc., reacted even more strongly, announcing their opposition to the plan in written comments.

"While the Corps claims that this is a feasibility study process, we know from experience that it is a project justification process," they asserted.

The comments point to dramatic declines of crucial plant and animal species in the river system and claim that expansion of navigation may cause "massive and irreparable loss of wildlife habitat and recreational opportunity on the rivers..."

The comments also accuse the Corps of not following low-cost recommendations made in the past for minimizing the environmental impacts of river shipping.

The environmental groups suggest an independent study, possibly by the National Research Council of the National Academy of Sciences, to assess broad transportation needs and the best way to satisfy those needs. They even suggest the possibility of rebuilding the river fleet to operate with a six-foot draft, eventually allowing the dismantling of locks and dams, rather than rebuilding the infrastructure to accommodate what may be an outdated system.

### Bass Study

It will come as no surprise to those of us who fished on the river this summer that the bass are not doing well. A seven-year study scheduled to be published this month should shed some light on the problem.

The Iowa Department of Natural Resources Fisheries Station at Bellevue, Iowa, tagged, traced, counted and measured largemouth bass from January 1985 until last June, in what may be the most comprehensive study of bass on the Mississippi River so far. One major problem revealed by the study was the loss of over wintering habitat because of sedimentation in the backwaters, according to a story in the (Bellevue) *Herald-Leader* (12/10/92).

John Pitlo, study coordinator, explained that bass need quiet water at least four to six feet deep.

"We found only three over wintering spots for large-

mouth bass in one 18-mile stretch of the river," he said.

Some bass populations dropped dramatically during the study. At Brown's Lake, a backwater rehabilitation project, and some other sites populations dropped by 60 percent.

"These are extreme fluctuations, declines, and we don't know why. It could be disease swept through the population. It could be factors we still are yet to identify," Pitlo said.

### Metadata Catalog to be Published

The Fish and Wildlife Service's Long Term Resource Monitoring Program (LTRMP) collects and compiles a broad variety of river information, from infra-red satellite images to fish surveys. In March it will publish an LTRMP Spatial Data Catalog, listing and explaining the data (called "metadata") it has collected, and making it more useful and accessible.

The LTRMP is based at the Environmental Management Technical Center, in Onalaska, and monitors the upper Mississippi and the Illinois rivers in five states.

A recent memorandum from the Technical Center also announced that an international conference/workshop for river scientists and managers is scheduled for July 12-15, 1994, in La Crosse. For more information contact Dr. Ken Lubinski, (608) 783-7550, ext. 61.

### Removing Phosphorus at Pig's Eye Plant Would Be Costly

During the summer droughts of 1988 and 1989 Lake Pepin sometimes stank, and masses of dead fish washed ashore. Residents looked upstream for the cause, and they saw the Metropolitan Waste Control Commission's (MWCC) treatment plant at Pig's Eye Lake, 50 miles away.

Many people speculated that because of the Mississippi River's sluggish flow during the drought, phosphorus discharged by the plant reached higher than normal concentrations in the lake, fueling explosive algae growth. When the algae died and rotted it stank, but it also used up oxygen in the water, which caused fish to suffocate.

The MWCC is working with other agencies to evaluate how phosphorus from the plant affects the river and Lake Pepin, and methods for removing it from the plant's effluent.

At a public meeting in Red Wing, December 2, scientists and officials from the MWCC and the Minnesota Pollution Control Agency previewed the results of the study.

Kent Johnson, aquatic biologist at the MWCC, explained that when the Metro plant was built in 1938, it was one of the first treatment plants in the nation. Before it began operating the Twin Cities dumped its raw sewage into the river. A 1926 survey found only three fish in a 40 mile stretch below the cities and measured fecal coliform counts as high as 298,400 per 100 milliliters. Modern standards advise against swimming in water with a count higher than 20.

Rebecca Flood, manager of the MWCC Compliance Division, said equipment for removing phosphorus could cost more than \$300 million to build and \$18 million a year to

operate. She pointed out that large quantities of phosphorus flow into the Mississippi from the Minnesota River, especially after heavy rains wash it from cultivated fields.

## Stocking the Biggest Muskies

Muskie anglers may need heavier line on their reels, thanks to actions taken after a recent study.

Since 1984, researchers compared the growth rates of two strains of Minnesota muskellunge (Mississippi and Shoepack) and two Wisconsin strains (Court Oreilles and Minocqua) under similar conditions. After six years the Mississippi muskies averaged eight to ten pounds heavier and nine inches longer than the Shoepack strain. They also outgrew the Wisconsin strains, according to a press release from the Minnesota Department of Natural Resources.

For more than 30 years the Minnesota DNR has stocked state waters with the Shoepack strain, but it is switching to the Mississippi strain.

## BAC Sets 1993 Goals

The Minnesota-Wisconsin Boundary Area Commission chose four areas to focus on this year, during its meeting in La Crosse, December 4.

- to promote and provide information on using private land trusts to protect critical land in river corridors and watersheds.
- to study recreational boating on nearly 300 miles of the lower St. Croix and the Mississippi rivers. Aerial photographs will be taken and analyzed to help create a new comprehensive recreation plan. State agencies will assist in the project.

The commission undertook a similar study in 1991.

- to help the National Park Service and agencies in both states create a water quality management plan for the St. Croix River watershed.
- to encourage voluntary, grass roots action by several means, including programs for school children to examine river issues and to build a sense of stewardship.

## COE Reorganization

The reorganization of the Army Corps of Engineers faces formidable opposition, especially in areas where many jobs would be cut. It would eliminate 2,600 jobs, and relocate thousands more to 15 technical centers.

*The Waterways Journal* (12/7/92) reports that Missouri senators and representatives are calling for a thorough review of the plan, which would eliminate 341 jobs in the Kansas City area and 295 in the St. Louis area.

The reorganization will also close Corps division offices in Chicago and Omaha, moving most of the functions of those offices to the Cincinnati-based Ohio River Division. The St. Paul District will gain jobs under the plan.

Congress appropriated \$12 million for the first phase, but further action will be needed to implement the entire \$125-million, four-year reorganization. ♦

## River Calendar

**Dec. 1, 1992 to May 15, 1993:** *History Beneath the Waves: The Archaeology of Pike's Fort*, is a new display that tells the story of the U.S. Army expedition led by Lieutenant Pike from St. Louis to the headwaters of the Mississippi River in 1805-1806. The video "Archaeology Beyond the Walls: Tracing Zebulon Pike's Travels in the Mississippi Headwaters" is shown with the exhibit. Fort Snelling State Park, Pike Island Interpretive Center, St. Paul, (612) 725-2389.

**Jan. 9:** *This Recycling is for the Birds*, shows participants how to make bird feeders by recycling items found around your home. Whitewater State Park, Altura, Minn, 1 p.m. to 3 p.m., registration required, (507) 932-3007.

**Jan. 11:** *St. Croix Valley Sierra Club*, Executive Committee Meeting, Stillwater Library, 223 N. Fourth St., Stillwater, Minn. All members and interested persons are welcome.

**Jan. 19-24:** *Minnesota Sport and Vacation Show*, St. Paul Civic Center.

**Jan 20:** *Lower St. Croix Management Commission*, Technical Committee, Bayport, Minn. For information call the commission, (612) 436-7131 or (715) 386-9444.

**Jan. 27-31:** *Boat Show*, Minneapolis Convention Center.

**Jan 28:** *Minnesota-Wisconsin Boundary Area Commission meeting*, Red Wing Public Library, 225 Broadway St., Red Wing. For information call the commission, (612) 436-7131 or (715) 386-9444.

*Stewardship of the Lower St. Croix*, public workshops include presentations on zebra mussels and the perception of land use. Drafts of *The Riverkeepers Guides* will be reviewed and discussed. The workshops are sponsored by the Minnesota-Wisconsin Boundary Area Commission, which asks participants to pre-register. For information call, (612) 436-7131 or (715) 386-9444.

**Feb. 11:** Prescott City Hall, 6:30 p.m. to 9:30 p.m.

**Feb. 13:** Phipps Center, Hudson, Wis., 9 p.m. to noon.

**Feb. 18:** Stillwater City Hall, 6:30 p.m. to 9:30 p.m.

**Feb. 20:** Afton City Hall, 9 p.m. to noon.

**Feb 25:** Marine-on-St. Croix Town Hall, 6:30 p.m. to 9:30 p.m.

**Feb 27:** Community Education Center, St. Croix Falls, 9 p.m. to noon.

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Reggie McLeod editor/publisher  
Pamela Eyden assistant editor

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## Tracking Birds in Floodplain Forests and River Wetlands

By Pamela Eyden

American bitterns live in the marshes of the Mississippi River. Their morning calls sound like stones falling into deep water, but they are rarely seen.

Prothonotary warblers winter in the mangrove forests of Central and South America; in summer many of these tiny, yellow birds nest in the floodplain forests of the Mississippi.

Neither of these birds are of interest to hunters, nor do they appear at backyard bird feeders. Yet scientists have been paying a lot of attention to them and other migratory birds lately. Their numbers seem to be declining and no one is sure why, or what to do about it.

Last summer, two scientists launched research projects to find out more about birds in wetlands and floodplain forests — two of the Mississippi River's least understood ecosystems.

### Bitterns and Rails

No one has ever determined exactly where American bitterns, least bitterns, Virginia rails and sora rails live and nest on the Mississippi River, let alone how they might be affected by changes in their habitat. That's why during much of last summer Eileen Kirsch, a wildlife biologist with the U.S. Fish and Wildlife Service's Northern Prairie Wildlife Research Center in La Crosse, and fellow researchers rose in the wee hours every morning to get to assigned wetland sites before sunrise. There they played tape-recorded bird calls from survey points 100 meters apart, identified the birds that responded, made careful notes about everything and kept this up until 10:00 a.m.

What do bitterns and rails have to say to a tape recorder? "Gulp-de-gulp," or "oonk-a-loonk," (American bittern). "Pawk-pawk-pawk-pawk," (least bittern). "Te-tick, te-tick, te-tick," (Virginia rail). And other grunts (Virginia rail), whinnies (sora rail) and weird laughs (sora rail).

Kirsch's research will answer questions about how many birds are present during the breeding season and where; and what kinds of wetlands they prefer — large, small, surrounded by land or in the middle of lakes. She may get a better idea about why they prefer specific places and, thus, what kinds of changes would affect them most.

Kirsch is now analyzing data from 10 wetland survey sites — three at the Trempealeau Wildlife Refuge; three on Lake Onalaska — Sumner Chutes, Halfway Creek and just north of Brice Prairie; and four in Pool 8 — Blue Lake, Shepherd's Marsh, Lawrence Lake, and Coon Creek just south of Stoddard.

"These sites were incredibly diverse, in terms of vegetation, types of species, when plants start growing there, how deep the water is and other factors," Kirsch said.

The birds were not where she expected them to be. Some good wetlands, such as Sumner Chutes, which was most

diverse in terms of plant species, had surprisingly few birds. Some sites, such as Halfway Creek, had a lot of birds, but not many of the four species she was seeking. Other wetlands, such as Blue Lake, near La Crescent, had many rails and bitterns.

Kirsch was surprised at how well the birds responded and how close they came.

"I had soras and Virginia rails practically standing on my feet, grunting and fluffing their tail feathers," she said.

The first year of her two- to four-year study was funded by the U.S. Fish and Wildlife Service (FWS) and Minnesota and Wisconsin DNRs. It is part of a larger effort on the part of the FWS to establish a "migratory bird management strategy," to find out how many birds there are and determine the carrying capacity of areas along the river. Any changes that affect wetlands could affect these birds, Kirsch said.

"Sedimentation will definitely have an impact on the wetlands these birds depend on," Kirsch said. "But other changes could, too, like development along the river or environmental management program projects, such as the creation of islands at Weaver's Bottoms."

When Kirsch began her research, she knew the work would be somewhat arduous and painstaking. What she did not know was that it would be so much fun.

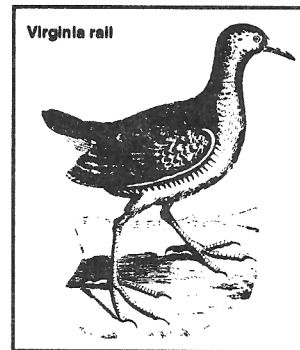
"Being out there and seeing the sun come up and hearing all the birds — it was incredibly fun," Kirsch said. "It was great to hear the red-winged blackbirds and green backed herons, and see the frogs and snakes, and all the neat little plants out there. I thought there would be lots of bugs, but there weren't. To avoid bugs, you'd be better off setting your lounge chair in the middle of a marsh than on the shore."

### Neotropical Migratory Birds

In summer, floodplain forests along the Mississippi River are full of mud, nettles, mosquitoes and poison ivy. People tend to find them inhospitable and leave them alone. And that may be a good thing for certain species of birds, according to Melinda Knutson, Ph.D. candidate in animal ecology at Iowa State University, who is investigating birds that nest in floodplain forests from Lake Onalaska to McGregor.

"In my opinion, it's the nettles and poison ivy that really protect these forests from people," said Knutson. "Everywhere else on the river, people camp on every sandbar and piece of land they can find. But the only people who go into floodplain forests, besides us, are hunters, and they come in the fall and don't do any damage."

Last summer Knutson and six assistants took a census of birds at 53 forested sites in Pools 6, 7, 8, and 9. She is particu-



Virginia rail



larly interested in neotropical migratory birds, which nest in the north and winter in the south, some as far away as Central and South America. She also wants to find out which birds nest in closed-canopy forests and how successful they are.

Closed canopy forests exist in large, older and relatively undisturbed tracts. Knutson found no closed canopy sites in Pools 6 and 7 above Lake Onalaska, so she concentrated on sites in Pools 8, 9 and 10, from Onalaska to McGregor.

The size and shape of the forest makes a big difference for many birds. Research on upland forests has shown that small, isolated tracts do not support a great diversity of birds,

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nor do birds have as much success reproducing as in larger tracts. Knutson wants to know if this holds true in the floodplain forests of the Mississippi.

"We were happy with the number of nests we found," Knutson said of the summer's work. "The density of birds seemed quite high."

Knutson's team found about 250 nests: yellow bellied sapsuckers, 31; house wrens, 38; redstarts, 25; prothonotary warblers, 23; brown creepers, 20; robins, 15; northern orioles, 11; red-bellied woodpeckers, 8; rosebreasted grosbeaks, 8; hairy woodpeckers, 7; great crested flycatchers, 7; cardinals, 5.

In closed canopy forests, the cottonwood, elm and silver maple tree trunks ascend like columns to support a green, leafy canopy 50 or 60 feet above the ground. The light is diffuse and there are few shorter trees. It's a disorienting and exotic world. Knutson's team wore hip-waders to protect against water, mud and thigh-high nettles. They carried plenty of mosquito repellent and compasses.

One of the peculiarities of floodplain forests is that water levels can rise quickly. One day, after beaching her canoe in the mud on a floodplain island near New Albin, in Pool 9, Knutson was searching for birds' nests when a storm arose.

"The sky turned black as night, and I couldn't see the flags [that divide the survey plot and mark the way out of it]," Knutson said. "I couldn't decide whether to stand under a tree to get out of the hail, or lie down flat in the mud to avoid the lightning. The water came up so fast my canoe nearly floated away."

Her assistants came out to get her.

"It was magical out there. It's a wilderness, except for the sounds of the trains and highways," she said.

Most Mississippi River floodplain forests are federally owned, and managed by state and federal agencies. They have rarely been harvested or cultivated, although, Knutson said, the Army Corps of Engineers is currently harvesting trees on floodplain forest near Rock Island.

"Floodplain forests tend to be fragmented when water

levels rise and turn whole tracts of forest into islands. They aren't like upland forests that are cut for agriculture, development and logging," she said. "But there really is nothing to stop the government from doing it." ♦

### *Suit ,continued from page 1*

Incompatibility issues are complicated on the Mississippi River, according to Jim Lenartson, Upper Mississippi Refuge Manager, because the FWS does not have complete jurisdiction over the river, which is a navigable waterway and must be kept open to the public. The refuge stretches from Lake Pepin to Rock Island.

"We were not included in the suit because we are resolving these issues," Lenartson said. "Audubon has talked about Upper Miss being threatened, because of the high use here and the lack of jurisdiction, and we have sent them tons of information about what we are doing. Our Master Plan of 1987 and our land use allocation plan put us way ahead. If the plan is implemented fully, it should handle the problems."

To write a plan is one thing; to implement it is another, usually requiring money. The whole refuge system is chronically underfunded, receiving less money per acre — it covers 91 million acres — than the Forest Service, Park Service or Bureau of Land Management.

"If you look at the Master Plan, the goals and objectives are well thought out, but we need money and people, and we just don't have them," Lenartson said. "If I had money, the first thing I'd do is hire more law enforcement people, biologists and biotechs. I'd get staff on board to oversee what's happening on the river."

In the old days, refuges did not need so many overseers because they had more "NO TRESPASSING, KEEP OUT" signs. Over the years, the public gained more say in how refuges are run. The signs came down. Now refuges have a hard time prohibiting activities without scientific studies in hand proving they are harmful. This takes time and money.

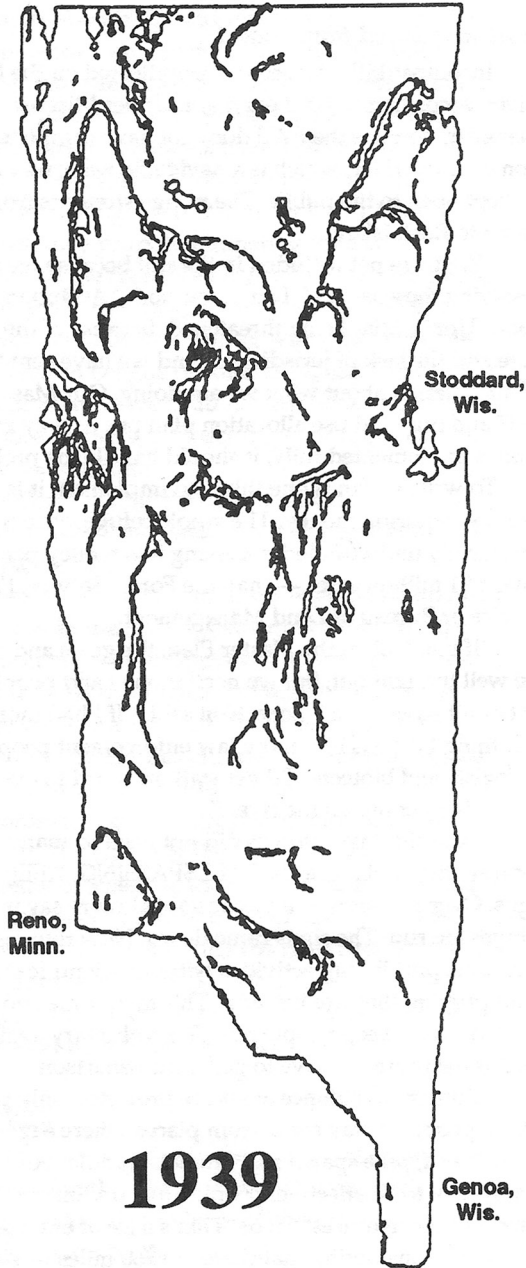
"We can't keep people out. The 'voluntary avoidance area' is the route we have to go," said Lenartson.

Voluntary avoidance areas are protected only by signs asking people to stay away from places where eagles nest, ducks breed, pike spawn and mussels huddle. For a voluntary system to be effective, people must understand and respect other creatures' needs. That's a lot of environmental education, considering that there are 260 miles of waterway and dozens of communities bordering the refuge.

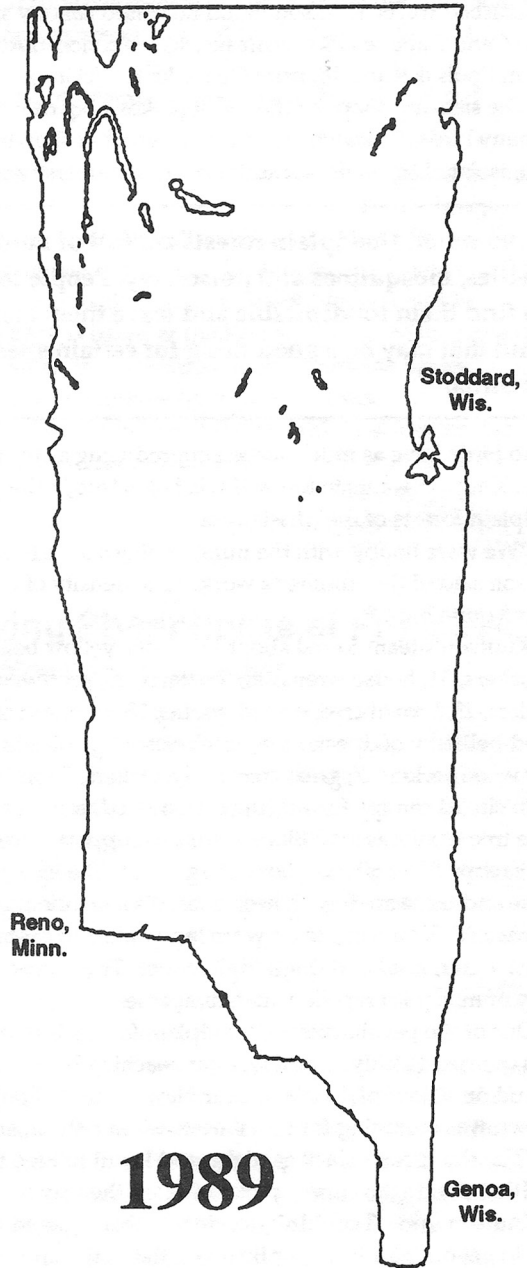
"We need more environmental education and more public involvement. People are going to be using the river more, not less, in the future. These problems are not going to go away," Lenartson said.

Meanwhile, Congress is likely to continue hearings on refuge reform legislation like that introduced last session by Senator Bob Graham. That bill would make it tougher to permit activities not related to preserving wildlife habitat. The lawsuit may increase pressure on Congress and the new administration to take action. ♦

# Island Erosion in Lower Pool 8



**1939**



**1989**

scale  
1 mile

<u>Year</u>	<u>Acres</u>	<u>Acres Lost</u>	<u>Change</u>
1939	624		
1947	400	224	-36%
1954	345	279	-45%
1961	317	307	-49%
1967	274	350	-56%
1983	112	512	-82%
1989	129	495	-79%

Maps and chart courtesy of the Environmental Management Technical Center, U.S. Fish and Wildlife Service.