

UMRCC
1989



the
UMRCC
news letter *

September/October 1989

CHAIRMAN'S LETTER

These are serious times on the river. Two important links in our ecosystem could be threatened. Many biologists have noted the decline in aquatic vegetation as described in an article below. In addition biologists are concerned that significant populations of fingernail clams can no longer be found in Pool 19. Benthic declines in other pools are being noted, also. Both issues point to the need for consistent long term data. This is the only way for us to determine if these declines are seasonal abnormalities or disastrous trends. Trends if identified early could possibly be rectified.

Related to the need for resource trends data is the action the Executive Board has taken on two long standing issues. First we endorsed the position paper found on page 10 and asked the Corps to seek adequate funding for LTRMP. Both the Corps in its annual budget requests and the Congress need to understand the potential shortfall in achieving LTRMP objectives. We also will be sending a letter to the Federal Energy Regulatory Commission urging them again to complete a cumulative impact analysis on hydropower on the river before the agency grants any more licenses. There is an immense amount of political pressure to proceed with the Locks and Dam 14 licensing before an adequate database exists to make an informed decision.

Last, but perhaps most important, you should note that the description of the UMRCC Conservation Award Program is contained at the end of this Newsletter. We are soliciting nominations for the 1990 Annual Meeting. Nominations are due by January 30, 1990. Please take the time to consider nominating one of your peers.

Lee T. Kernon

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* This Newsletter is a publication of the Upper Mississippi River Conservation Committee. Suggestions or comments regarding its content should be directed to the Chairman, 1830 Second Avenue, Rock Island, Illinois 61201.

EXEC BOARD ACTIVATES SECTION

The UMRCC Executive Board met October 25 in Rock Island and were updated on Section activities. All sections met except the Law Enforcement Section who decided not to meet during the busy fall season.

The Exec Board agreed to reactivate the Water Quality Section on the basis of the high interest in the ad hoc water quality committee. This committee has been functioning as a sub-group of the Fisheries Section for the past few years. Re-establishment of this Section is an important link in our goal to protect the resources of the River. Anyone interested in being added to the Water Quality Section mailing list should notify the Coordinator (309/793-5800).

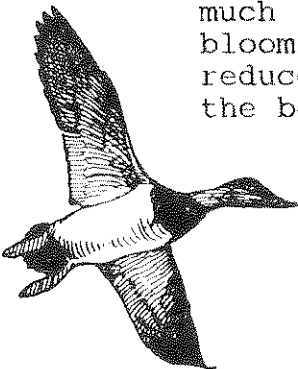
WHERE'S THE WILD CELERY?

A few weeks ago an emergency meeting was called to discuss the observed declines in aquatic macrophytes in the River. After what seemed to be a bumper crop year in 1988, biologists had expected similar productivity in 1989. However as August progressed, a general overall decline to less than pre-1988 densities were being noted. At the meeting, noticeable declines were reported for Pools 5, 7, 8, 9, 11, and 19.

The most plausible explanations of the situation were discussed at length. Some of the possibilities were nutrient enrichment, anoxia, water temperature, solar radiation, phytoplankton/periphyton, suspended solids, water level, flow discharge, runoff, ice, fish, ducks, and agricultural chemicals. It seems most of these factors were influenced by the 1988-89 drought. At the meeting John Sullivan presented some of his water quality data which are consistent with a macrophyte decline model developed by Phillips et al. (Botany 4:103-126, 1978).

One hypothesis to explain the decline received reasonable agreement by the attendees of the meeting. The scenario is as follows for submersed macrophytes such as wild celery:

"Lack of flow in the river to record low discharges in 1988 increased water retention times and increased concentrations of nutrients (nitrogen and phosphorous compounds). Combined with higher than normal solar radiation and water temperatures, blooms of phytoplankton, periphyton, and filamentous algae were much increased and persisted longer than normal. These blooms competed with macrophytes for nutrients and reduced their photosynthetic capability by blanketing the beds and individual plants.



RECOVERY 2000

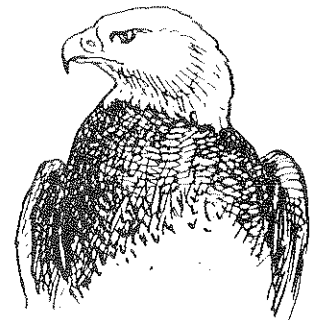
It's been said we're holding the line on extinction of federal threatened and endangered species. But holding the line is not the goal, recovery of those species is. To address this issue, the U.S. Fish and Wildlife Service recently launched an ambitious program in the North Central Region (Region 3). The plan, Recovery 2000, is to speed up recovery efforts for 28 of the 41 species listed in the Region.

With adequate funding (the big Federal caveat!), the plan hopes to delist the 28 species by the year 2000. Recovery 2000 is a partnership with the States and the U.S. Forest Service. If successful, the FWS says that Recovery 2000 will save money by eliminating the need for continued consultation, law enforcement, and recovery efforts.

Strategies to reach recovery objectives include habitat protection, the establishment of new populations where appropriate, augmentation of existing populations, biological research, and surveys to locate undiscovered populations. It is expected that the cooperating States will enter into management agreements for any habitat that may be acquired under the program.

Of particular interest to the folks on the Upper Mississippi River is that the plan proposes to accelerate recovery efforts for the bald eagle and two mussels. The recovery strategy for the bald eagle includes continuing monitoring, development of nest site management plans, restoration, and law enforcement on the breeding grounds. The possibility of the need for additional wintering habitat will be investigated so that critical sites can be protected and managed. In addition, habitat used by juvenile eagles will be studied to determine protection and management needs.

Recovery for the Higgin's eye pearly mussel will capitalize on the work now being conducted by the St. Louis Corps of Engineers District. Additional work that may be needed includes identifying unknown sites that may contain the mussel, determining long term viability of existing populations, and evaluating the effects of commercial harvest and imposing more stringent regulations. Another endangered mussel, the fat pocketbook is also a candidate for delisting. Current work by Missouri Department of Conservation to establish viable populations in Pools 24 and 20 may contribute significantly to the recovery of that species.



Macrophytes were stressed at a critical period during the growing season (August-September) when tubers would be produced. Few plants were able to allocate energy for production of over-wintering tubers. Those plants that did produce tubers grew small tubers with poor viability.

During the spring 1989, phytoplankton abundance remained high, again resulting in poor growing conditions for macrophytes. In most pools the submersed macrophytes are now in very poor condition and will probably produce few tubers. The prognosis for the next growing season is not good."

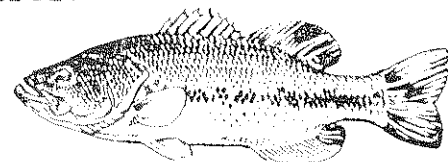
The group stressed that it is important to understand the causes of this event so that management options can be formulated. They proposed that a small multi-disciplinary group be convened to further evaluate the situation. The goals of the group would be to 1) compile information to examine hypotheses about causal factors, 2) recommend a monitoring program by which to evaluate future changes, 3) identify required research projects regarding UMR plant ecology and water/sediment quality, and 4) suggest management options. If you would like additional information, call Jim Lennartson, Upper Mississippi River National Wildlife and Fish Refuge (507/452-4232).

An important sidelight to this meeting suggests that Eurasian milfoil (Myriophyllum spicatum) is now very apparent in most pools. This plant has demonstrated its ability to out-compete and eradicate native flora in many river and lake systems. Only time will tell if recent events mark a long-term successional trend in plant communities in the river.

IMPROVING RIVER

The Minnesota-Wisconsin Boundary Commission has completed a 25 year review on the water quality of the Upper Mississippi River. They found that the river is now on the rebound as tougher state standards are being met in the Twin Cities area. Heavy metal discharges have dropped. Fish diversity below the Twin Cities water treatment plant has increased. Mayflies have reappeared. The potential for raw sewage overflows has been reduced. PCB's in river carp is decreasing. Channel maintenance procedures have improved. And the Environmental Management Program has been implemented.

While much improved in the last 25 years, the river's water quality is still not what it could be. The Commission report identified issues that still need to be addressed: 1) eliminate sewer overflows by completing the Twin Cities combined sewer overflow program, 2) updating the Twin Cities metro treatment plant permit, 3) identify and eliminate PCB and other toxic discharges, 4) resolve fish consumption advisory discrepancies, and 5) reduce sedimentation through erosion control.




DID YOU KNOW THAT? . . .


...the St. Louis District has constructed a "bendway weir" at Dogtooth Bend in the middle river. The weir is a submerged dike installed at a 30 degree up river angle. The weir is designed to divert flow away from the Missouri shore, and, at the same time eat away at Brown's Bar. Thus erosion is reduced and the navigation channel is straightened. More bendway weirs are planned in the district, and as one hydraulic engineer said "eventually, in every bend in the river" (East Prairie Eagle 7/20/89). Every bend? Maybe we should think about that one...

...the U.S. Fish and Wildlife Service has found that aerially applied insecticides are acutely toxic to waterfowl, to the aquatic invertebrates on which adult and juvenile waterfowl depend for food, or both...

...the Division Engineer has signed the record of decision for the Lock and Dam Major Rehabilitation. The decision indicates that the Corps will continue to pursue feasible measures to avoid and minimize the effects of navigation and will monitor early season and end of season navigation to determine if air bubblers to be installed lengthen the navigation season...

...the Izaak Walton League has "called upon the Secretary of the Army to undertake no new navigation improvements until the completion of the EMP yields a sufficient data base to provide for full assessment of the impacts of future navigation projects"...

...USEPA has been using a remote controlled mini-submarine to locate hazardous waste drums in Pool 21. The drums were first reported by commercial clambers who suffered first degree chemical burns while diving for mussels... 

...Iowa, Wisconsin, and Illinois are proposing to increase the size limit on harvestable washboard mussels to reduce harvest and help sustain the species. It is expected that the new regulations will shift the pressure to the three-ridge mussel which is more plentiful... 

...the Hastings Gazette stated on August 22, 1914 that "if navigation on the Mississippi is ever resumed, it must be by light draft boats. There's not enough money in the United States treasury to open and maintain a six foot channel from St. Paul to St. Louis for a period of years"...

...the EMP habitat project proposed at Bullet Chute in Pool 7 has been completed in conjunction with a channel maintenance project. No EMP dollars will be required...

...the pallid sturgeon has been proposed to be an endangered species. The U.S. Fish and Wildlife Service is now taking comments on the merits of this proposal...



...Iowa has enacted the Resource Enhancement and Protection Act (REAP). The program targets about \$200 million over the next 10 years to be a long term integrated effort to wisely use and protect Iowa's natural resources. It includes projects for conservation education, acquisition and development of lands, soil and water conservation, city parks, historical resource development, and vegetation management...

...a recent status report on the Great River Road states that over \$1 billion have been spent on the highway and amenity projects in the last 15 years. The project now stands at 53% of the road completed and 28% of the amenities completed when compared to the original proposals (Great River Road Newsletter, 10/2/89)...

...Congressman Steve Gunderson has asked that the Governors of Minnesota and Wisconsin 1) reaffirm their commitment to coordinate efforts on the EMP, 2) appoint full time staff to carry out the EMP, 3) aggressively pursue EMP funding and possible matching funds, and 4) develop a joint strategy to achieve full funding of EMP...

...the Shell Oil Co. has settled a law suit with the Natural Resources Defense Council by agreeing to build a \$50 million improvement to its wastewater treatment facility along the river near St. Louis. Shell also agreed to pay a penalty of \$380,000. The penalty will be given to the Trust for Public Land to fund land conservation programs along the Mississippi (NRDC Newsline Oct/Nov 1989)...

..."just when you think you've seen it all, something new comes along to turn heads on rivers. This time it's 87 recreational vehicles and 177 occupants all camped out nice 'n cozy on seven deck barges, headed up the Mississippi River from New Orleans to St. Charles, Missouri" (The Waterways Journal 9/18/89)...

NEW ON THE LIBRARY SHELF

- Ahearn, S.C., R.D. Martin, and J.H. Wlosinski. 1989. Recommendations for estimating suspended solids in the Upper Mississippi River System using remote sensing. U.S. Fish Wildl. Serv., Onalaska, WI. 23pp.
- Anfang, Robert and Wege, Gary. 1989. Summary of revegetation work on dredged material sites in the St. Paul District, Corps of Engineers. U.S. Army Corps of Engineers, St. Paul District, St. Paul, MN. 21+ pp.
- Bartsch, Lynn A. and John F. Sullivan. 1989. Monitoring of dissolved oxygen levels in selected backwater areas of the Upper Mississippi River during the winter of 1988-1989. Unpublished summary. WI Dept. of Nat. Res., La Crosse, WI. 8+ pp.