

**1997-98 SESSION
COMMITTEE HEARING
RECORDS**

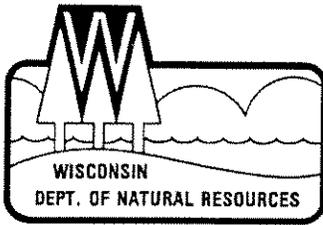
Committee Name:

*Senate Committee on
Agriculture and
Environmental
Resources
(SC-AER)*

Sample:

- Record of Comm. Proceedings
- 97hrAC-EdR_RCP_pt01a
- 97hrAC-EdR_RCP_pt01b
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- Appointments ... Appt
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State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary

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Testimony before the Senate Committee on Agriculture and Environmental Resources
Bureau of Fisheries Management and Habitat Protection
Michael Staggs, Kurt Welke, and Peter Flaherty
January 28, 1998

I am appearing before the committee today to convey the Department of Natural Resources' strong support for Clearinghouse Rule 97-121. As you know, the Natural Resources Board adopted order FH-26-97 at its December meeting - that administrative code would close Wisconsin-Iowa boundary waters of the Mississippi River to harvest of washboard mussels.

Washboard mussels have been harvested from the Wisconsin-Iowa boundary waters of the Mississippi River since the late 1800's, initially for the pearl button industry and more recently for the cultured pearl industry. In the mid 1980's, river biologists became concerned over the apparent decline in washboard stocks. Although a harvest closure was suggested at that time, less drastic management actions were implemented, namely a season length reduction and several size limit increases, to preserve broodstock while trying to maintain a commercial harvest. Despite the more restrictive regulations, washboard populations have continued to decline. Consequently, the Department supports a closure of washboard harvest in the Wisconsin-Iowa boundary waters of the Mississippi River for the following reasons:

1. There has been little or no measurable reproduction of washboard mussels since the late 1980's (Exhibit #1). Much like the yellow perch situation in Lake Michigan, we do not know the cause of this reproduction failure. But without adequate young mussels coming into the population, it will be impossible for the population to sustain any harvest in the future.
2. Legal washboard populations have been in decline since at least 1980. Harvestable mussel densities in Pool 10 have declined from 0.36/m² to 0.10/m² (72%) as measured in surveys done from 1980-1996. During that same time period, juvenile mussel densities have declined from 0.69m² to 0.12m² (83%).
3. Washboard mussels are extremely vulnerable to overharvest. Most washboards do not reproduce until they are 10 years old, and then produce large numbers of young on average only once every seven years. They take 21 years to reach the current legal size limit of 4". This is a slow growing, long lived, low reproductive potential species that if overharvested could take literally decades to repopulate itself.
4. The current commercial industry is fully capable of harvesting large proportions of the available legal mussels. The comparative lack of mussels above the legal size limit of 4" is clearly the result of commercial harvest. With conservative estimates, exploitation has averaged slightly over 13% over the past decade. Past modeling efforts have indicated that exploitation levels of 5% result in a consistent decline in any washboard population. If we allow harvest to continue, the sublegal washboards that currently make up essentially the entire population will grow into legal size and be harvested - leaving none to reproduce in the future.

5. The economic effects of a closure on Wisconsin harvesters would be manageable. The average annual income loss to each licensed sheller would be less than \$1,000 (Exhibit 2). Also, there continue to be healthy populations of threeridge mussels which remain open to harvest.
6. These problems are not confined to Wisconsin waters. Similar trends in the washboard fisheries have been seen in Minnesota, Iowa, Illinois, and Missouri.

I want to emphasize also that this is not a unilateral action by Wisconsin. All of the states and agencies making up the Upper Mississippi River Conservation Committee have reviewed this information and have come to the same conclusion that a closure is warranted. And all states have proceeded with similar rulemaking to protect their washboard mussel stocks.

We, along with the other states, and the shelling industry have considered alternatives to a closure. These have included identifying possible sanctuaries, implementing higher size limits, reducing season lengths, or instituting a limited quota. However, sanctuaries in the lower pools of the Mississippi River have proven to be ineffective because of illegal harvest. Size distributions in the sanctuaries are similar to harvested reaches. An increased size limit would provide additional protection for the remaining population, but the value of the sublegal stock would provide a considerable incentive for illegal harvest. A shortened season would have negligible impacts on harvest and probably would redirect harvest to the open months. The institution of a harvest quota would be costly and would require a substantial labor intensive effort. There are no sufficient revenues to fund the quota alternative.

In summary, we regret the short-term hardship this closure may create with some commercial harvesters, but believe this closure is our only alternative for allowing this population to rebuild and reestablishing a healthy fishery for the long-term.

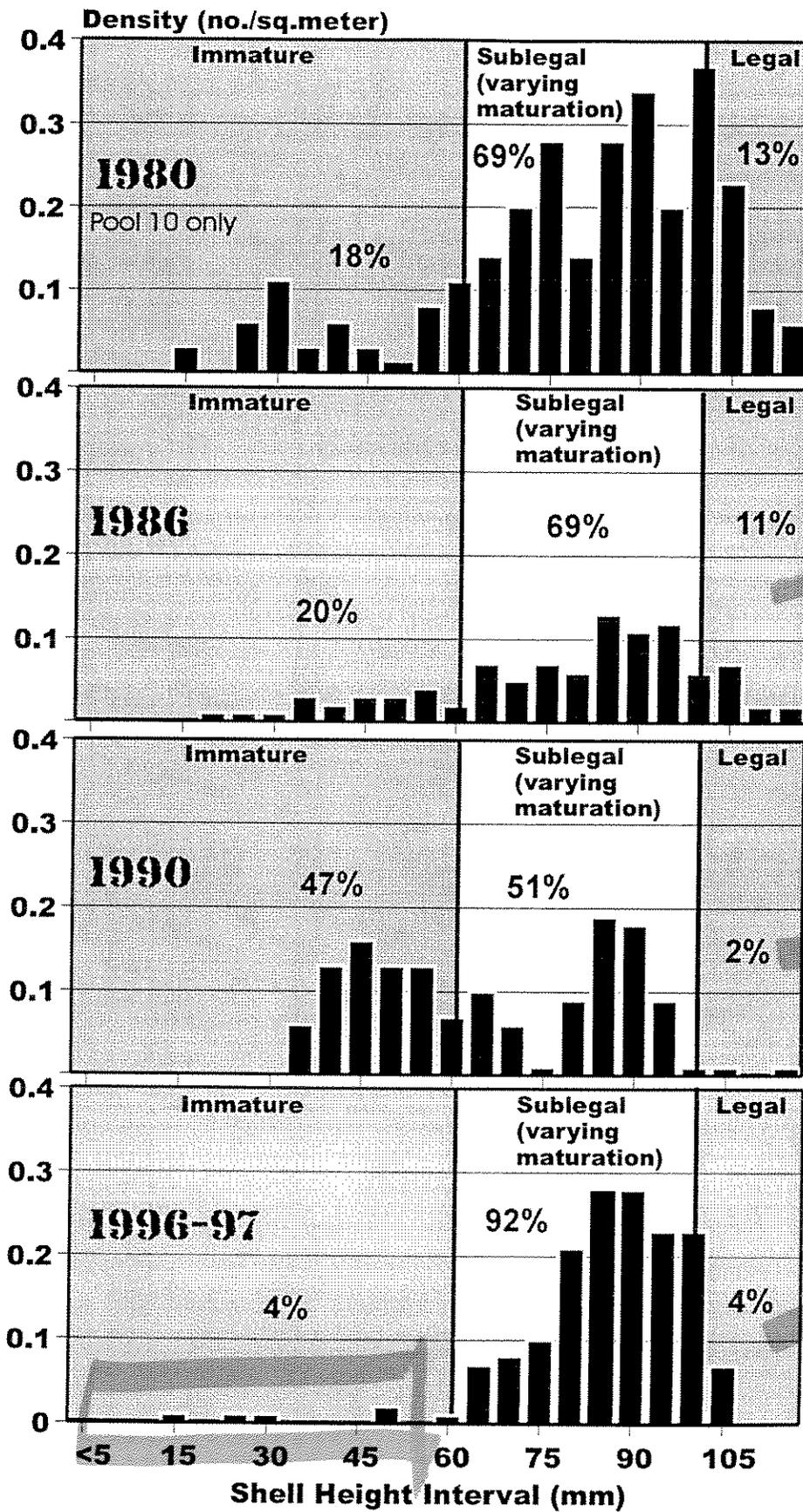


Exhibit 1. Densities of washboard mussels by shell height collected from Pools 9 and 10, Mississippi River, from 1980-1997.

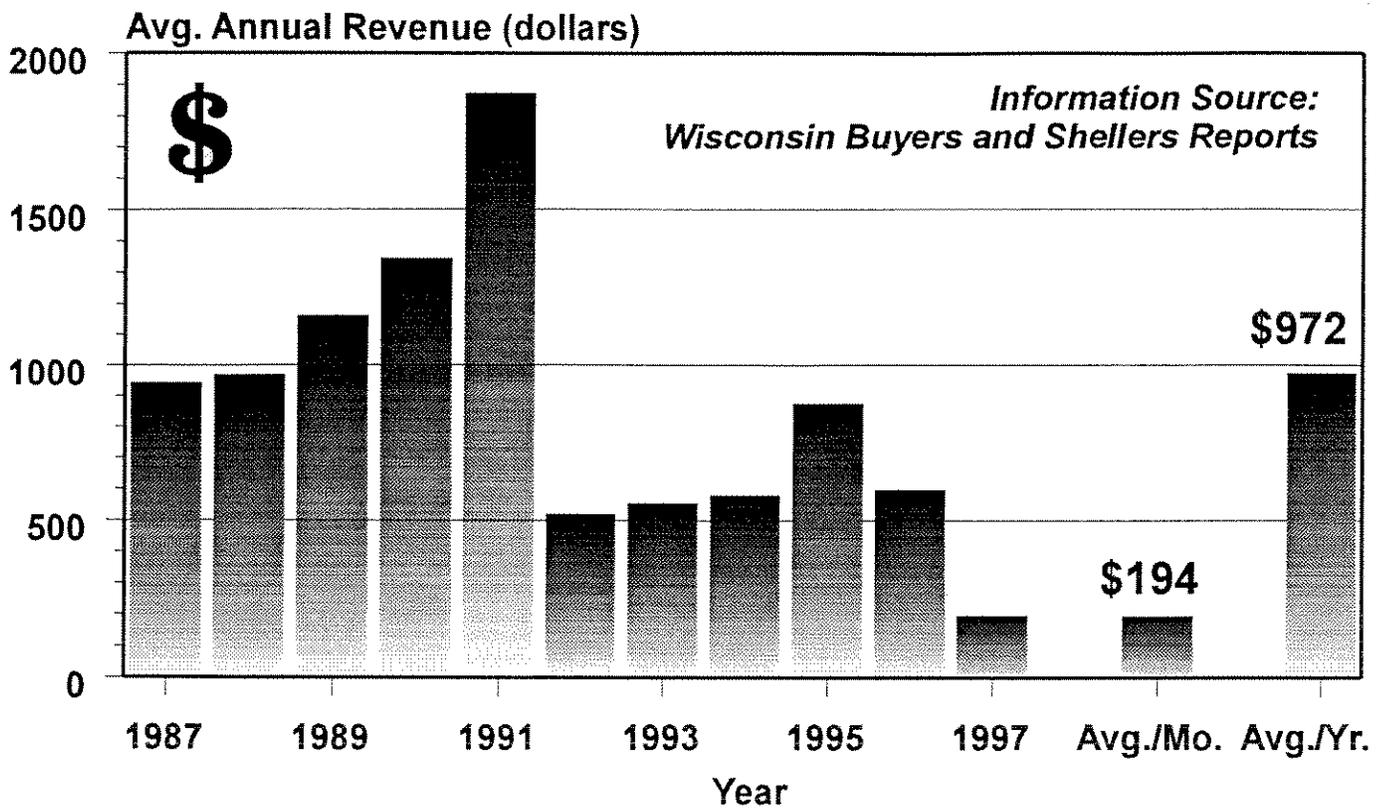


Exhibit 2. Average annual revenue attributed to washboard harvest for individual Wisconsin-licensed shellers, Mississippi River, 1987-1997.



Madison Audubon Society Inc.

222 S. Hamilton Street, Suite #1 ■ Madison, WI 53703-3201 ■ 608-255-BIRD (2473) ■ Fax 608-255-2489

Washboard Mussel Harvest Closure Clearinghouse Rule 97-121

Hearing before Senate Committee on Agriculture and Environmental Resources
Wednesday, January 28, 1998

Testimony of Karen Etter Hale, Executive Secretary

Good afternoon and thank you for this opportunity to speak. I am representing the Madison Audubon Society and its 3500 members in southern Wisconsin. We are a chapter of the National Audubon Society, which has just launched a new Upper Mississippi River Campaign. The Upper Miss is a nationally important ecosystem with a rich diversity of plants, fish, wildlife and birds; but farm and urban runoff carry huge quantities of nutrients and sediments into a system that has lost much of its biological recovery potential. We believe that the ecosystem is badly damaged but can be repaired.

Madison Audubon is here today to urge you to take a step in that repair process by supporting the closure of the harvest of washboard mussels, a public resource that is seriously threatened and that is of special concern in Wisconsin. All stocks along the Upper Mississippi show stress and all states are supporting and pursuing a closure: Minnesota, which already has a closure, Iowa, Missouri, and Illinois.

All of the biology points to the need to close the season now. More restrictive regulations instituted in the mid 80's to preserve the resource while continuing to allow a harvest have been ineffective. Over the past decade, harvests have continued to decline, the catch per effort has continued to decline, and the average size of mussels harvested has declined. The supply has *not* kept up with demand, and there is *virtually no immature stock* available to replenish the population of washboards. The recruitment of young stock over the past several years has been negligible to absent.

The washboard mussel is a species that is long-lived (45+ years) and slow-growing, not reaching the currently legal harvest size of 4" until 21 years old. The species is not prolific, only reproducing well every 7 years or so, and it is one of the least adaptable of mussels. With the increased stress that record numbers of introduced zebra mussels have placed on them, the washboard mussel is a species that needs help now.

Other impacts besides harvest, including water quality, sedimentation, and impoundment (washboards are riverine animals that require moving water), are undoubtedly important in the decline of the washboard. These impacts need to be, and are being, addressed, but will only be effective in the long run, while closure is a tool we can use *now* to protect the resource. We *cannot* allow these mussels to be depleted to the extent that the species risks extinction. Madison Audubon urges you to support closure now. When the species recovers sufficiently--and we certainly hope and believe it will--allowing a limited harvest will again be a possibility. But by allowing the decline of washboards to continue, we may not have that option.

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Lampsilis higginsii
(Lea, 1857)

MALACOLOGICAL CONSULTANTS

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1603 Mississippi Street La Crosse, Wisconsin 54601 U.S.A.

Phone: 608-782-7958 Cellular: 608-780-0700 FAX: 608-788-5888

28 January 1998

Senator Alice Clausing and Members of
Committee on Agriculture/Environmental Resources
P. O. Box 7882
Madison, WI 53707-7882

Phone: 800-267-7420

RE: Proposed closure of the Wisconsin/Iowa waters of the Mississippi
River to washboard mussel harvest, Clearinghouse Rule 97-12.

My name is Marian E. Havlik, La Crosse, WI. Thank you for the opportunity to speak before this Committee. I have studied unionid mussels since 1969, have 10 peer-reviewed publications, and have given over 60 presentations at professional meetings. From 1 July-14 Sept. 1997 I spent 11 weeks studying commercial mussels (over 4800 washboards) for the Shell Exporters of America (SEA), from Lansing, IA - Fort Madison, IA, 277 miles of the Mississippi River. I wish to make it very clear that SEA has not in any way tried to influence these remarks. My credibility is of the utmost importance to me.

In 1997 I found the opposite from what I had expected in the Upper Mississippi River. I found that in Wisconsin, there were large numbers of 10-13 year age classes of washboards, apparently in response to the mid-1980's mussel die-off. This reproductive response has been glossed over, or ignored, by resource agencies. My work confirmed what earlier WI researchers had found, that the washboard is a cyclic breeder with large cohorts every 7-10 years, but I found that the schedule varies in time and location. Studies in Wisconsin, and elsewhere in the U.S., seldom find young, yet these supposedly small year classes show up later as the strong year classes we found. Height/age class varied widely. The minimum/maximum age of legal sized mussels is 9-38 yrs. Age is more important than height in determining overall population health, something I have been saying for years.

SEA gave their data to resource agencies 29 October 1997. At Christmas time the WDNR finally provided me with raw data of their 1997 work. While the WDNR responsibilities are to study all mussel species, I was very disappointed to find out they had only measured less than 1000 washboards, and of these, less than 400 had been aged. I measured and aged over 2700 washboards in the WI/IA boundary waters. Apparently the WDNR relies on formulas developed for washboards living 100 to 200 miles south of Wisconsin to determine ages from the height/length of specimens. While such formulas may give an average (mean) age for a height, the range of ages for a size class cannot be determined. In the Upper Mississippi River overall, I found that the 6 year old age class varied the most in height (39-97 mm in height), but the age of washboards 80 mm high ranged from 6 to 23 years.

Resource agencies have not defined the number (%) of legal sized

washboards they feel are necessary to sustain yearly harvest, although in 1990 the WDNR suggested 10% of a mussel population could be harvested. Since the percent of harvestable sized washboards from one area that was unharvested for 10 years, was 18% in 1997, then about 10% of a species which is of harvestable size would seem to be a reasonable number, and it could not be expected to be any higher. By sampling in commercial mussel beds in 1997 I found washboard densities at Lynxville at 7.6/m², or 23,225,452 washboards (does not include other Pool 9 areas). My quantitative data shows that the minimum number of 4" Wisconsin washboards that could be harvested is:

	Total/m ²	% Legal	4"/m ²	m ²	#Legal 4" Age/Pool
P.9(1986)	0.88	3.5" ht>	0.320	3054389 (Heath)	977,404
Pool 9	7.60	3.60%	0.104	3054389 (Heath)	317,656 13-37 yrs
Pool 10	3.77	8.94%	0.431	1103123 (Heath)	475,446 16-30 yrs
Pool 11	2.71	7.17%	0.455	(no area available)	11-34 yrs
Pool 12		8.06%		(no quadrats done)	21-25 yrs

The numbers speak for themselves. From 1986-1997 the number of legal washboards/m² remains about the same in spite of continued harvest. Harvest of a renewable resource cannot be more than a species can tolerate, but closure was proposed before SEA's data was in. The 100 year old clamming industry deserves a fair shake. I've supported a 4 inch commercial washboard size for years. I have never seen data showing that harvesting less than 10% of a mussel population would be harmful, particularly when there is a wide range of age classes. Why is Wisconsin closure proposed if less than 10% of the washboard population can be harvested legally? If clambers choose to work hard shouldn't that be their choice? If there are enforcement problems, enact stronger enforcement measures.

Apparently Wisconsin has given no thought to actively improving the status of the washboard mussel. Why not? There are other impacts on mussels: pollution and commercial navigation. What good is it to close the washboard harvest if those impacts are allowed to continue? I've fought long and hard to protect the East Channel of the Mississippi River at Prairie du Chien, yet the WDNR has allowed impact after impact to affect this very important area for both commercial and endangered mussels. Over 20 years ago I was threatened with a tooth and nail fight if I attempted "to box Prairie du Chien in" from commercial barge traffic. In 1997 the only place I found fresh-dead mussels with a fine black residue on the nacre, was at Prairie du Chien, apparently coal fines from nearby barge facilities. East Channel mussel densities were down even before a 1990 study of mine at Prairie du Chien. At that time I found washboards were 25-33 years of age, yet none were over 4".

I respectfully request that this Senate Subcommittee act responsibly to have reasonable Administrative Code regulations, but I do not honestly feel the washboard season needs to be closed at this time. The 4" size, season, and other limits/factors should protect this harvestable resource for future generations. Thank you.



Marian E. Havlik, Malacological Consultants

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FEB 05 1998

February 4, 1998

Senator Alice Clausing
100 N. Hamilton St. #308
PO Box 7882
Madison, WI 53707

Dear Alice:

I understand that the Committee of Agriculture and Environmental Resources has before it Clearinghouse Rule 97-121, relating to the harvesting of the washboard mussel in the Mississippi River. The Sierra Club and its chapters in Wisconsin, Iowa, Illinois and Minnesota have an interest in this question, and accordingly we have sent the enclosed letter to Secretary Meyer.

We hope that you will agree that the preservation of this species is a matter of importance, and that the DNR is acting appropriately in this case.

Best regards,

Jonathan P. Ela
Mississippi River Specialist

"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." --Aldo Leopold

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February 4, 1998

Mr. George E. Meyer, Secretary
Wisconsin Department of Natural Resources
Box 7921
Madison, WI 53707

Dear Mr. Meyer:

The Sierra Club is pleased to comment on the proposal of the Wisconsin Department of Natural Resources to prohibit further harvesting of the washboard mussel. We have reviewed a considerable amount of the data in this case, mainly as provided by you and your colleagues in Iowa, and concur that closure is the prudent course to take at this time. Both the drastic declines in harvesting and the apparent scarcity of subadult populations warrant this action.

We are reinforced in this opinion by the fact that these findings seem to be consistent throughout the system, and that the action has been recommended by the experts of the Upper Mississippi River Conservation Committee.

We understand that opposition to the closure has been made on the basis of hardship, and on the grounds that there is more ambiguity in the scientific evidence than the DNR studies would indicate. On the first issue, we are certainly sympathetic with the predicament of the harvesters: it is an arduous and demanding way to make a living, and while the proportion of income represented by the washboard mussel has been dropping over the years there is surely no doubt that prohibition will have an unfortunate impact. On the second issue, we are frankly not in a position to judge.

However we feel that neither argument can outweigh the wisdom of taking this action at the present time. The analogy with fishery stocks in the northwestern Atlantic Ocean is inescapable. For years there was acrimonious opposition to imposing restrictions on fishing, until ultimately the populations collapsed and harvesters who might have been inconvenienced if action had been taken in a timely fashion are now permanently out of business. The ultimate recovery of the resource is problematical.

In this case, should the resource agencies be shown to be wrong, the prohibition can be lifted with the stroke of a pen. But if harvesting continues and the agencies are

"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." —Aldo Leopold

correct, in a short time the resource will be completely depleted, perhaps to the point of extinction, and the economic and environmental consequences will be permanent and irreparable.

We applaud the Wisconsin Department of Natural Resources, and stand ready to assist in any way that we can. Thank you for giving this matter your consideration.

Sincerely yours,

Jonathan P. Ela
Mississippi River Specialist

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
AMENDING RULES

.....
 The Wisconsin Natural Resources Board .
 adopts an order to amend NR 24.09 (1) (a) . FH-26-97
 and (2), as affected by Clearinghouse Rule .
 96-189, relating to commercial clamming .
 on the Wisconsin-Iowa boundary waters .

Analysis Prepared by Department of Natural Resources

Statutory authority: ss. 29.085, 29.38 (8) (a) and (e) and 227.11 (2) (a), Stats.

Statutes interpreted: ss. 29.085 and 29.38 (1) and (8), Stats.

SECTION 1. removes washboard clams, *Megalonaias gigantea*, from the list of open species available for harvest on the Wisconsin-Iowa boundary waters beginning with the 1998 harvest season.

In light of SECTION 1., SECTION 2. deletes washboard clams from the size limits for cooked shell beginning with the 1998 harvest season.

SECTION 1. NR 24.09 (1) (a), as affected by Clearinghouse Rule 96-189, is amended to read:

WATERS OPEN TO COMMERCIAL CLAM SHELLING	OPEN SEASON	OPEN SPECIES	MINIMUM SIZE
(a) Wisconsin-Iowa boundary waters	April 1- Aug. 31	mapleleaf (<i>Quadrula quadrula</i>)	2-3/4"
		pigtoe (<i>Fusconaia flava</i>)	2-3/4"
		pimpleback (<i>Quadrula pustulosa</i>)	2-3/4"
		threeridge (<i>Amblema plicata</i>)	3"
		washboard (<i>Megalonaias gigantea</i>)	4"

97-121 - Commercial Clamming

Michael Staggs
Pete Flaherty
Kurt Welke

DNR

speaking in favor

Years of study before closure

Little or no reproduction of mussels

Alternatives to westboard harvest

Pearl industry - \$3 billion industry

Marian Hurlik - Malacological Consultants

opposed

Reproduction is there

Height is not a very good dete

Supports 4 inch size limit

Should be more thought on improving habitat

William Howe -

Info

Delay this action for one year to study this

Need more study

Butch Ballenger - Miss. Valley Shell

Opposed

No need to close

Nobody looked at their study

Scott Yess - U.S. Fish & Wildlife Service

Support

Population in decline

All five states support closure

Cheryl Ballenger - Shell Exporters of America

opposed

Juveniles are hard to find

Harvesters are extra hands & eyes on the River

Charles Lawson - Gainsville Shell Products

opposed

Manufactures nuclei of clam shells.

Iowa will not favor closure

Mussels are renewable resource

River hammered by highways & farms

Mark Noll WCC

Support

Representing people of WI

Unanimous approval of closing washboards.

Paul Hagensick - Clammer

oppose

Disagrees with DNR surveys

Clammers are picked on

3 ridge mussels are junk

Doug Blodgett - IL Natural History Survey

Support

Aquatic Ecologist

Since 1980's, severe decline in numbers (low densities)

IL likely to close in 1998

Robert Hagensick - Commercial clammers & WCC

oppose

DNR has called them scam of the earth

Clams are mobile

Karen Etter Hale - Madison Audubon Society

Support

3,500 members

Interpreting data differently

Species need help now

Tony Toye

oppose

Tremendous breeding this year (cyclical)

Bob Ellingson - WCC

Support

Congress not after clammers.

Robert Leasure -

oppose

EMPIRE SHELL PRODUCTS, INC.
26654 LACE AVE.
GARNAVILLO, IA. 52049
PHONE/FAX (319)252-1586

MY NAME IS CHUCK LAWSON, I AM PRESIDENT OF EMPIRE SHELL PRODUCTS INC. MY COMPANY IS LOCATED IN GUTTENBERG , IA. WE SPECIALIZES IN THE MANUFACTURING OF MOTHER OF PEARL NUCLEI. A NUCLEI IS THE BEAD WHICH WHEN IMPLANTED IN A PEARL PRODUCING OYSTER WILL GENERATE A CULTURED OR MAN MADE PEARL. I HAVE BEEN MANUFACTURING NUCLEI FOR ALMOST 6 YEARS , PRIOR TO THAT TIME I OPERATED MANY BUSINESSES WHICH WERE CLOSELY RELATED TO THE RIVER. OVER THE PAST 14 YEARS THE RIVER HAS PLAYED AN IMPORTANT PART OF MY LIFE AND THE LIVELYHOOD OF MY FAMILY.. ALTHOUGH I AM NOT A BIOLOGIST , MALACOLOGIST OR PHD, I HAVE BEEN FORCED TO UNDERSTAND THE RIVER AND IT 'S WORKINGS IN ORDER TO SURVIVE ON IT. I ALSO, HAD TO LEARN TO WORK WITH THE DEPARTMENT OF NATURAL RESOUCES , THE CORPS OF ENGINEERS, AND THE U.S. FISH AND WILDLIFE. IT WAS CLEAR TO ME AFTER MANY YEARS ON THE RIVER THAT THERE WAS A GREAT DEAL OF POLITICS THAT TOOK PLACE AMONG THE VARIOUS AGENCIES AND THE PEOPLE THEY ATTEMPTED TO CONTROL. YES I SAID CONTROL . IT WAS ALWAYS QUITE EVIDENT TO ME AND CONVEYED TO ME BY THESE AGENCIES THAT REGARDLESS IF THEY WERE RIGHT OR WRONG , THEY WOULD HAVE THE FINAL SAY AS TO THE OUTCOME OF ANYTHING RELATING TO THE RIVER . IT WAS ALSO VERY EVIDENT TO ME THAT IF YOU DIDNOT BELONG TO A POWERFUL ORGANIZATION OR BUSINESS ENITY WITH MANY LOBBISISTS IN THE STATE CAPITAL THAT AT TIMES YOUR OPINION ON A PARTICULAR MATTER REGARDING THE RIVER WAS NOT HEARD.

THIS IS NOT THE FIRST TIME I have addressed A LEGISLATIVE COMMITTEE REGARDING THE CLOSURE OF THE WASHBOARD SEASON, NOR IS THIS THE FIRST TIME I have ATTENDEd A MEETING IN WISCONSIN ON THE SAME SUBJECT. ON DECEMBER 3RD 1997 WE ATTENDEd A MEETING HERE WITH THE COMMISSIONERS OF WDNR. THE INDUSTRY REPRESENTATIVES PRESENTED TO THEM, IN THE LIMITED TIME AFFORDED, THE SAME INFORMATION THAT IS BEING PRESENTED TO YOU TODAY , BUT NO ONE LISTENED. LAST WEEK WE TOOK OUR CASE TO ILLINOIS AND PRESENTATED OUR FACTS AT AN INFORMATIONAL MEETING , CHAIRED BY AN ATTORNEY FOR THE ILL. DNR. . AFTER THE MEETING WHILE SPEAKING WITH THE ATTORNEY AND BIOLOGISTS FROM ILLINIOIS, it was

easy to tell THEIR MINDS WERE ALREADY MADE UP. NO ONE WOULD LISTEN. NO ONE IN MISSOURI WOULD LISTEN. THEIR DEPARTMENT HAS CLOSED THEIR HARVEST SEASON ON THE SAME SHAKEY INFORMATION AND POPULATION DATA BEING USED BY WISCONSIN, IOWA, AND ILLINOIS.

BUT ON JANUARY 6TH WE MADE A PRESENTATION TO THE HOUSE RULES COMMITTEE IN THE STATE OF IOWA. WE PRESENTED THE VERY SAME INFORMATION WHICH HAD BEEN PRESENTED PREVIOUSLY TO THE UMRCC, THE WDNR, AND THE MISSOURI FISHERIES DEPARTMENT. THIS TIME THEY LISTENED, WITH A DRAMATICALLY DIFFERENT OUTCOME. THEY LISTENED ABOUT HOW THE HARVEST NUMBERS IN IOWA HAD BEEN ALTERED TO SHOW AN UNTRUE PICTURE OF LIVE WASHBOARD HARVEST OVER THE PAST 5 YEARS. THEY LISTENED ABOUT HOW THE SEA STUDY HAD SHED A NEW LIGHT ON MUCH OF THE DATA PREVIOUSLY SUBMITTED BY THE DEPARTMENT OF NATURAL RESOURCES SHOWING MUCH OF THIS DATA IS INCOMPLETE AND INCONSISTENT. THEY LISTENED AS THEY HEARD AND SAW OF EXAMPLES OF THE IOWA DNR ATTEMPTS TO PUBLICALLY DISGACE THE SHELL INDUSTRY WITH HALF TRUE NEWSPAPER ARTICLES. THEY LISTENED TO IT ALL. AND AFTER THEY LISTENED AND UNDERSTOOD THEY TOOK A RARE AND UNUSUAL STEP. INSTEAD OF MEARLY RUBBER STAMPING THE RULE CHANGE AND PASSING IT ON TO THE LEGISLATURE, AS IS USUALLY DONE, THEY PASSED THE RULE CHANGE ON TO A MORE POWERFUL HOUSE SUB-COMMITTEE ON ENVIRONMENTAL PROTECTION FOR ADDITIONAL REVIEW. THEY DID SO BECAUSE IT WAS SAID BY THE CHAIRMAN: "WE FEEL THERE IS MORE THAN ADEQUATE DATA PRESENTED BY THE INDUSTRY TO WARRANT FURTHER INVESTIGATION".

TO GET A REAL UNDERSTANDING OF WHERE ALL THE HOOP LA IS COMING FROM REGARDING THE WASHBOARD MUSSEL, ONE MUST LOOK BACK THROUGH THE RECORDS OF BOTH THE DNR, AND THE SHELL INDUSTRY OVER THE PAST 10 TO 12 YEARS. PRIOR TO 1986 THERE WAS VERY LITTLE LAWS ON THE BOOK RELATING TO MUSSEL HARVESTS. THE HARVESTS SEEM TO PROGRESS WELL WITH LITTLE CONFLICTS BETWEEN DNR AND INDUSTRY. IN ABOUT 1982 THERE BECAME AN INCREASING INVOLVEMENT FROM A SELECT FEW BIOLOGISTS ON THE UPPER MISSISSIPPI RIVER. IN 1986 THE ACTIVITY OF THESE BIOLOGISTS BEGAN TO DRAMATICALLY INCREASE. MANY OF THESE BIOLOGISTS BELONGED TO A GROUP CALLED THE UPPER MISSISSIPPI RIVER CONSERVATION COMMITTEE OR UMRCC.

ALTHOUGH THE GROUP TECHNICALLY DOES NOT HAVE THE POWER TO CHANGE LEGISLATION ONLY RECOMMEND CHANGES, IT IS IRONIC THAT THE MEMBERS OF THE COMMITTEE HOLD INFLUENTIAL POSITIONS IN THE RESPECTIVE STATE DEPARTMENT OF NATURAL RESOURCE DEPARTMENTS OF THE STATES

DEMANDING CLOSURE. ONE MERELY HAS TO LOOK BACK ON MINUTES OF UMRCC MEETINGS OVER THE PAST 10 YEARS TO GET A TRUE PICTURE OF THE PURPOSE OF THIS COMMITTEE. SINCE 1986 THIS GROUP ALMOST EVERY YEAR HAS RECOMMENDED RESTRICTIONS TO HARVEST IN THE FORM OF SIZE INCREASES, SHORTENING OF SEASONS, INCREASED FEES AND MANDATORY REPORTING. THESE RESTRICTIONS HAD ONLY ONE PURPOSE, THAT BEING TO DRIVE DOWN THE HARVEST NUMBERS TO THE POINT, TO WHERE IN 1997 THEY CAME OUT TO THE VARIOUS DNR'S OR WISCONSIN, IOWA, ILLINOIS AND MISSOURI WITH A PROPOSAL TO CLOSE THE SEASON.

THIS IS WHAT THE UMRCC AND THE SELECT GROUP OF BIOLOGISTS ARE SAYING.

BASED ON THREE STUDIES, ONE DONE BY THE WDNR IN 1986, ONE DONE BY THE MISSOURI DEPARTMENT OF CONSERVATION WHICH CONSISTED OF A 2 DAY STUDY INVOLVING A QUALITATIVE SAMPLE OF THREE DIVES OF 20 MINUTE DURATION, A STUDY BY THE ILLINOIS NATURAL HISTORY SURVEY WHICH MUCH OF THE STUDY CONCENTRATED ON SPECIES OTHER THAN WASHBOARD, AND A STUDY BY THE CORP OF ENGINEERS THE UMRCC SAY'S THE DATA ILLUSTRATES THE FOLLOWING:

1. WASHBOARD HARVEST HAS DECLINED DESPITE INCREASING PRICE AND EFFORT.
2. POPULATION SIZES AND AGES ARE ABNORMALLY DISTRIBUTED. INDICATIVE OF AN OVER-EXPLOITED STATE.
3. RECRUITMENT OF YOUNG STOCK IS NEGLIGIBLE OR ABSENT.
4. POPULATION DENSITIES OF WASHBOARD HAVE DECLINED THROUGH TIME.
5. THE INCIDENCE OF ILLEGAL (SUB-LEGAL) HARVEST CONTINUES TO INCREASE
6. ZEBRA MUSSEL DENSITIES AND INFESTATION RATES UPON UNIONIDS IN THE UMR ARE AT THE HIGHEST LEVELS RECORDED

EVERY STATE HAS USED THESE SAME BASIC ILLUSTRATIONS TO JUSTIFY THE CLOSURE OF THE WASHBOARD MUSSEL HARVEST. EVERY STATE USES THE SAME LOGIC FOR CLOSURE BECAUSE EACH STATE USES THE SAME DATA BASE FOR THEIR INFORMATION, THAT BEING THE PREVIOUSLY MENTION STUDIES.

THE INDUSTRY IN ORDER TO SAVE THE SHELL HARVEST FELT IT WAS NECESSARY TO DO A CURRENT SURVEY TO ACTUALLY SEE IF THE DATA PREVIOUSLY DONE WAS STILL CURRENT. MUCH OF THESE PREVIOUS STUDIES WERE DONE BETTER THAN TEN YEARS AGO.

IN THE SUMMER OF 1997 ONE OF THE MOST COMPREHENSIVE ATTEMPTS TO DETERMINE THE DENSITY AND DEMOGRAPHICS OF A COMMERCIAL MUSSEL SPECIES OVER AN EXTENSIVE AREA OF WATER TOOK PLACE. THE STUDY WAS PERFORMED BY A WELL KNOWN AND WELL RESPECTED MALACOLOGIST FROM LACROSSE. THE METHODS OF SAMPLING USING TIMED QUALITATIVE SEARCHES AND QUARTER METER QUADRANTS, REFLECTED THE CURRENT STATE OF THE ART IN SUCH STUDIES.

IT WAS CLEAR THAT WHEN THE STUDY WAS COMPLETED AND THE DATA WAS COMPILED AND SUBMITTED TO THE UMRCC IN OCTOBER OF 1997 THAT IT WAS NOT RECEIVED WELL BY THE RANKS AND FILE OF THE UMRCC COMMITTEE.

ONE WOULD ASK WHY? WHY WOULDN'T A GROUP OF BIOLOGISTS WHO PROFESS TO BE INTERESTED IN THE CONSERVATION AND PRESERVATION OF THE WASHBOARD MUSSEL SPECIE, WELCOME ONE OF THE MOST COMPREHENSIVE STUDIES EVER DONE ON THE MISSISSIPPI RIVER. IT DIDNOT COST THEM ANYTHING, THEY DIDNOT HAVE TO DO ANY OF THE WORK, NOR DID THEY HAVE TO COMPILE ANY DATA OR JUSTIFY THE DATA TO ANY OF THEIR PEERS. SO WHY WOULD THEY IN SOME CASES NOT EVEN SPEND THE TIME TO REVIEW THE STUDY, WHICH BY THE WAY, ONE SPECIFIC CASE I KNOW OF IN IOWA WHERE A BIOLOGISTS TOLD ME THAT THE STUDY WAS INCOMPLETE AND THE FINDINGS WERE INCONSISTENT. WHEN I ASKED WHAT PARTS HE WAS REFERING TO, HE SAID " HE HADN'T READ THE WHOLE STUDY BUT HE DIDN'T AGREE WITH SOME PARTS".

LET S LOOK AT IT BREIFLY TO SEE IF ANY THE SEA STUDY ANSWERED ANY OF THE STATEMENTS OF CONCERN THE UMRCC HAD PREVIOUSLY STATED..

1. UMRCC STATED -WASHBOARD HARVEST HAS DECLINED DESPITE INCREASING PRICE AND EFFORT. HAVLIK COMMENTS IN HER SUMMARY - THE BIGGEST REASON FOR THE REDUCED HARVEST SINCE THE EARLY 1990'S IS THAT THE SIZE LIMITS WERE CHANGED BY SEVERAL STATES FROM 3 3/4 TO 4" . THE STATES WANTED TO REDUCE HARVEST NUMBERS AND THEY DID SO.

2. POPULATION SIZES AND AGES ARE ABNORMALLY DISTRIBUTED, INDICATIVE OF AN OVER-EXPLOITED STATE. HAVLIK COMMENTS IN HER SUMMARY THERE ARE GOOD NUMBERS OF 5 TO 7 YEAR OLDS IN SEVERAL AREAS. THE RESOUC E AGENCIES HAVE GLOSSED OVER THIS IN THEIR STUDIES. OBVIOUSLY A WIDE RANGE OF AGE CLASSES IS MORE IMPORTANT THAN HEIGHT, IN DETERMINING OVERAL POPULATION HEALTH. ONE OF THE MOST RENOWNED BIOLOGISTS IN THE UNITED STATES WHO HAS HAD AN OPPORTUNITY TO COMMENT ON THE SEA STUDY INDICATES THAT " THAT MOST OF THE SIZE

FREQUENCY HISTOGRAMS APPEAR SOMEWHAT BELL -SHAPED, WITH THE MID-SIZE (AGE) MUSSELS DOMINATING THE SUBPOPULATIONS. THIS COHORT STRUCTURE IS NORMAL FOR MOST MUSSEL POPULATIONS. WHETHER EXPLOITED OR NOT.

3. RECRUITMENT OF YOUNG STOCK IS NEGLIGIBLE OR ABSENT. HAVLIK RESPONDS--SIMILAR TO OTHER STUDIES WE DIDNOT FIND LARGE NUMBERS OF SMALL WASHBOARD MUSSELS. HOWEVER IN 1986 HEATH FOUND VERY FEW JUVENILES IN REACH 9 NEAR LYNXVILLE, YET THE LARGEST AGE CLASSES FOUND IN THAT AREA IN 1997 WERE THE 11 - 13 YEAR OLD AGE CLASS. THIS SEEMS TO INDICATE THAT JUVENILES MAY SEEM TO LIVE IN A DIFFERENT ECO-NICH THAN ADULTS . AND THEY HAVE NOT YET BEEN IDENTIFIED BY RESEARCHERS. AGAIN THROUGH PEER REVIEW OF HER REPORT BY NATIONALLY RENOWNED BIOLOGISTS THEY SUGGEST THAT " OUR KNOWLEDGE OF THE DISTRIBUTION AND ECOLOGY OF JUVENILE MUSSELS IS VERY INADEQUATE, SUCH THAT WE DONOT KNOW HOW TO EFFECTIVELY SAMPLE FOR THEM." THUS , THE LOW ABUNDANCE OF YOUNG COHARTS IS OFTEN AN ARTIFACT OF THE SAMPLING METHOD AND MAY NOT REFLECT THE LACK OF REPRODUCTION BY THE SPECIES .

4. POPULATION DENSITIES OF WASHBOARDS HAVE DECLINED THROUGH TIME.

HAVLIK COMMENTS MORE SAMPLING NEEDS TO BE DONE WITH REGARDS TO DENSITIES . A NATIONALLY RENOWNED BIOLOGIST WHO CRITICED THE SEA REPORT STATED" I AM UNAWARE OF ANY STUDIES IDENTIFYING MINIMUM VIABLE POPULATION LEVELS FOR MEGALANIAS NERVOSA. WHAT ARE THE CORRECT POPULATIONS DENSITIES FOR THE MISSISSIPPI RIVER. IF ONE DOESNOT HAVE A BENCHMARK OR NORMAL DENSITY THEN WHO IS TO SAY WHAT IS UP OR DOWN

5. THE INDIDENCE OF ILLEGAL (SUB-LEGAL) HARVEST CONTINUES TO INCREASE. HAVLIK DIDNOT COMMENT. I WILL HOWEVER . I CONTACTED THE IOWA DNR A FEW WEEKS AGO AND ASKED THEM HOW MANY TICKETS WERE ISSUED BY ENFORCEMENT OFFICERS OVER THE LAST 10 YEARS FOR VIOLATORES ARRESTED FOR POSESSION OF UNDERSIZE SHELLS. THEY COULDNOT TELL ME . I ASKED IF ANY OF THE STATES FREQUENT VIOLATORS WERE CLAMMERS WHO WERE ARRESTED FOR UNDER SIZE SHELLS , THEY SAID NO THEY DIDNT BELIEVE SO. IF THIS IS SUCH A LARGE PROBLEM, I WOULD ASSUME THAT MANY TICKETS WOULD BE WRITTEN FOR THIS OFFENSE, THEIR ARE NONE.

6. ZEBRA MUSSEL DENSITITES AND INFESTATION RATES UPON UNIONIDS IN THE UMR ARE AT THE HIGHEST LEVELS RECORDED. HAVLIK COMMENT - THE FULL IMPACT OF THE EXOTIC ZEBRA MUSSEL APPARENTLY WILL NOT BE KNOW FOR ANOTHER 5 TO 10 YEARS. BUT IN 1997 I CERTAINLY DID NOT SEE LARGE

NUMBERS OF COMMERCIAL SHELLS DEAD DUE TO THE EFFECTS OF THE ZEBRA MUSSEL, NOR DID I SEE DECREASED SHELL GROWTH.

I THINK WE CAN SEE WHY THE UMRCC AND A HAND FULL OF BIOLOGISTS ARE RELUCTANT TO ACCEPT THE 1997 SEA STUDY . IT AND THE ULTIMATE REVIEWS AND CRITIQUES PERFORMED BY SOME OF THE NATIONS LEADING MALACOLOGIST AND BIOLOGISTS ARE CLEAR. THEIR ARE GOOD POPULATIONS OF MUSSELS IN THE MISSISSIPPI, NONE OF WHICH ARE IN JEPORDY OF BEING DRIVEN INTO EXTINCTION.

THE CONCLUSION IS CLEAR, THEIR IS NO NEED TO CLOSE THE WASHBOARD SEASON IN THE FIVE STATE REGION. WHAT IS NEEDED IS MORE EFFORT IN CONSERVATION METHODS BETWEEN THE DNR AND THE SHELL INDUSTRY . MORE IMPORTANTLY THE MUSSEL FAUNA IN THE MISSISSIPPI RIVER MUST BE LOOKED AT AS A RENEWABLE RESOURCE WHICH WILL CONTINUE TO GENERATE ECONOMIC WELL BEING IN THE STATE OF WISCONSIN FOR YEARS TO COME. IF THE UMRCC CAN REFOCUS THEIR ENERGIES TO THIS DIRECTION RATHER THAN EFFORTS TO CLOSE THE HARVEST ALL WILL BENEFIT INCLUDING THE MUSSEL.

My name is Doug Blodgett. I am an aquatic ecologist with the Illinois Natural History Survey and director of the Survey's Long Term Resource Monitoring Program Field Station on the Illinois River at Havana, IL. My formal training is in science: I have BS and MS degrees in biology from Western Illinois University at Macomb. I have been involved in mussel research and mussel issues on the Upper Mississippi River System since I started with the Survey in 1982.

Part of the Survey's mission and my job is to "... formulate and provide recommendations about the status, protection, development, and informed use of biotic resources of Illinois. ... to provide scientifically based information (for) the wise preservation, management, and utilization of our natural resources." In part because we also have washboard mussels that are commercially harvested in Illinois, the pending modification of your administrative code is of professional interest to me.

Please note that the following comments reflect my professional opinions and should not be construed as necessarily those of the Illinois Department of Natural Resources.

Over the past several months I have reviewed information on washboard mussels and their harvest, primarily data collected both recently and in the past by or for state resource agencies on the Upper Mississippi River or the Army Corps of Engineers, and the recently completed work by Ms. Marian Havlik of Malacological Consultants for the Shell Exporters of America (SEA). You have or will see summaries of results from most of those studies, so I won't go into detail about analysis of those data--but they all paint a similar picture for me, and I will provide my interpretation as to what they tell me as a biologist.

From my review of the relevant data, from lengthy discussions with other scientists, and from my personal experience studying riverine mussels over the past 15 years, I have arrived at two major conclusions about washboards in the Upper Mississippi River:

First, washboard numbers have declined significantly since the 1980s. While we do not have long-term data sets system-wide, the site-specific long-term data that I am aware of generally show a similar trend of decreasing abundance (sometimes drastically) and/or precariously low densities.

And secondly, while recruitment has been sporadic historically, it has been alarmingly deficient, almost absent in many cases, in the most recent past (the last several years).

While there do seem to be **some** spatial differences in densities of both adult and young washboards, I question their biological significance; critically low densities of washboards are apparent system wide.

Undoubtedly, there are numerous factors in addition to harvest that have contributed to these declines in washboard numbers, for example pollution, habitat alteration, effects from commercial and recreational boat traffic, host availability, etc. And now native mussels must deal with the negative impacts of the recently introduced and rapidly proliferating zebra mussel.

Coupled with non-harvest mortality, continued harvest of reproductive-sized washboards can only further reduce reproductive potential, thereby decreasing the probability and extent of future reproduction and recruitment. While successful reproduction and recruitment are not **guaranteed** by higher densities of adults, they will be **precluded** by the absence of adults. And continued harvest can only contribute to reducing the numbers of adults; biologically speaking, continued harvest of washboards will not make things better for washboards in the Upper Mississippi River System.

In conclusion, while I support the regulated harvest of mussels **if and when** a surplus exists, given the current status of washboards in the Upper Mississippi, I believe continued harvest will contribute to their virtual elimination. I recommend closure. Even without harvest, washboards will face an uphill battle. If we are able to protect them to the extent their populations rebound to levels that would support a sustained harvest in the future, I would support it. I hope that in the future I have the opportunity to recommend that you reopen the washboard harvest.

Again, these are my professional opinions and should not be interpreted as necessarily being representative of the official position of the Illinois Department of Natural Resources. However, I recently made a similar recommendation for washboard closure to our Illinois DNR, and I understand the process is currently underway in our state capital; it is **likely** Illinois' waters of the Mississippi River will be closed to washboard harvest effective April 1998.

Thank you for this opportunity to provide some of my perspectives on the pending revision to your administrative code.

Pam Thiel, Project Leader of the La Crosse Fishery Resource Office for the U.S. Fish and Wildlife Service, regrets that she could not be here today and asked that I read the following statement.

I support the closure of commercial harvest on washboard mussels in Wisconsin waters for the following reasons:

1. The biology supports this recommendation. Washboards are characterized by slow growth, late maturity, and low reproductive success, which makes it difficult to maintain or increase population densities at current harvest levels.
2. Population levels have been in decline during recent years. Washboard populations are widely distributed and have weak or absent year classes. The population decline has occurred despite past attempts at reducing harvest by increasing the harvestable size limit and setting a harvest season.
3. The illegal harvest of under-sized washboards has negatively impacted their populations.
4. Zebra mussels, which caused mortality in mussel beds in the Great Lakes and the Illinois River, continue to increase in number as do their infestation rates on native mussels in the Mississippi River.
5. Native mussels are very important to the aquatic ecosystem and by protecting them we help maintain the river's biodiversity.
6. The washboard mussel is an important resource to the state of Wisconsin and the Upper Mississippi National Wildlife and Fish Refuge.
7. Expert mussel biologists from the five Upper Mississippi River states agree to the closure and see it as the best option to protect this species from further decline. This management alternative provides an opportunity for washboard populations to once again reach self-sustaining numbers which could allow for renewed harvest in the future.

I thank you for your time and consideration of this important resource issue.

1987- MN-WI closed washboard harvest

Washboard - severe population stress

- Declining numbers

- No measurable reproduction in last decade

All states have instituted rationing

IL, IOWA, MO are all in the process
of closing this down.

Clammers have had input

3 ridge muskies are doing OK, though
shutting it down is only alternative

All people are familiar with all the data

DNR thinks they ^{clammers} are misrepresenting the data

Minimum of 20 years to shut down clamming +

see some recruitment.

TO WHOM IT MAY CONCERN

My name is Robert J. Hagensick, a member of the Wisconsin Conservation Committee for over 36 years. Former member of Mississippi River Committee for about 20 years and member of Warm Water committee for over 25 years. I've been a Commercial Fisherman for over 50 years with some Clamming experience.

If I thought closing Washboards was necessary to protect the resource, I would be one of the first to support it. However considering the impact on clammers, the economy of our area, and my other constituents, I respectfully oppose the closure. I do not believe closing the Washboard clam season is reasonable or necessary.

Washboard clams on the Mississippi River are not endangered in my opinion!!! Commercial clammers are the only things endangered in this case. The DNR states only a few clammers will be affected by this closure! Not so!!! Many businesses will also be affected such as restaurants, motels, and the entire economy of the river counties.

This bill will take away the livelihood of many people and families in our small towns along the river. We do not have factories or much other employments that pays wages high enough to support our families, perhaps many will be forced on welfare rolls.

The DNR states that other clams will be available to the clammers. This is true, but this is practically useless to the clammers. Without the Washboards the industry buyers will not be buying licenses or sending buyers to our area. The Washboard is the bread and butter of the industry. Without the Washboards the industry will fold up.

It certainly grieves me to say what I'm about to say!!! I have been told by several reputable people, that our fish manager (Kurt Welke); prior to his clam studies and surveys, had been going to the other UMRCC states, ~~Mississippi~~^{Missouri}, Illinois, Iowa and Minnesota trying to get them to also close the Washboards too, on his say so. He apparently has stated that all commercial clammers ~~are~~ the scum of the earth! ~~AND~~ He will not be happy until he has them off the river!!!! I do take exception to this on my

SENATOR ALICE
CLAUSING
ATTN: RANDY
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100 N. HAMILTON

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behalf, and my family, sons and daughter, grandsons and granddaughters, and great grandchildren if they wish to continue our families way of life!!

I wish to point out that this is the some fish manager that has complete control of clamming regulations in Wisconsin, and did the study on clams for Wisconsin and much of Iowa. It is the opinion of most clammers that this study is very biased! I feel that this study is a classic example of a study conducted to reach a predetermined conclusion, namely to close Washboards. This manager was offered help with his study in the form of equipment, prodivers and local commercial divers expertize, In effort to get a true picture of available mussels. He declined this offer and proceeded with his own amature divers with limited expertize! The DNR does not have the expertize to completely understand clams and come up with an accurate count of clams. It would be impossible for any one to do this!

Clams are not evenly dispersed on the river bottom, they can live and bury in veins that are from 6feet to hundreds of feet wide, and buried from just inches to 50 or 60 feet deep. They can be found on sandbars, sloughs, lakes, slough banks, stump ridges, lily beds, mudflats etc... Plus the fact that they can and do move from one area to another. They are mobil. Other commercial clammers tell me that some times they check a certain area and find no clams, then go back to the same area a few days later and find lots of clams. This all boils down to the fact that it would

be impossible for anyone to predict, (including the DNR) the number of clams on the river. The DNR (Welke) is more concerned with managing clammers, then he is with managing the resources.

For eight to ten years now, we have had major die-offs of clams and these dead shells are quite valuable, up to a certain point. They are a perishable ~~Commodity~~ ^{Commodity}. Only sellable a couple of years, until they turn chalky and brittle. In places these dead shells make the bottom of the river almost like a concrete road. This is not the kind of environment live shells like to inhabit, they prefer ~~prefer~~ mud, sand and rocks. It would improve the clam habitat, if the clammers were allowed to take there dead shells, and also would remove a considerable amount of zebra mussils in the process, I realize this would be a very small step in controlling the zebra mussels, but it would be something, otherwise nothing is being done. Clammers once could take these dead shells, but that was taken away from them, primarily because DNR (Welke) couldn't stand to see the clammers make good money.

Taking these good dead shells would help the live clammers, clammers, the economy of the area and the State, because clammers pay income taxes, just like everyone else.

Some divers did make good money, but this too can be misleading, some have their boats equiped so two divers could work at the same time, also they hire boat tenders, pay for motel rooms, meals, and ther expenses, equipment, gas, other refreshments, etc... These expenses possibly total up to three hundred dollars or better per day. It is not always as lucrative as it seems!

I believe the 4" Washboard size is O.K.- except it should be 3 3/4 size for cooked or cut-out shells, as when a 4" shell is proccessed it will shrink to that size. In time, this historically was the law, but ^{was} changed in 1997, a legal 4" or slightly larger shell after proccessing (cooking or cutting), will likely be illegal. After processing if this legal shell gets broke in handling or packaging-half will be legal and half will be illegal. There by making the owner subject to arrest. I feel like this is dirty pool! To make the clammer and buyers look like the scum of the earth!!!!!!!