Form 1100-001
(R 2/07)

NATURAL RESOURCES BOARD AGENDA ITEM

Item No. 3.B.1

SUBJECT: Request adoption of proposed changes to rules regulating commercial harvest of shovelnose sturgeon in Wisconsin-Iowa boundary waters

FOR: APRIL, 2007 **BOARD MEETING**

TO BE PRESENTED BY: Ron Benjamin

SUMMARY:

Commercial fishing for shovelnose sturgeon has increased in popularity throughout the Mississippi River basin in response to a burgeoning market for sturgeon roe. In response to increased harvest pressure, the Iowa and Illinois Departments of Natural Resources began reviewing commercial fishing regulations in their shared portion of the Mississippi River. The Wisconsin Department of Natural Resources was subsequently invited to review commercial fishing regulations for Wisconsin-Iowa boundary waters. Population modeling suggests that more stringent regulations are necessary to preserve the long-term viability of shovelnose sturgeon stocks in the Mississippi River and to continue to provide commercial fishing opportunities. There are currently fewer than five commercial fishermen licensed in Wisconsin who primarily target shovelnose sturgeon.

The proposed rule would increase the minimum allowable size at harvest from 25 inches total length to 27 inches fork length and impose a 34 inch maximum fork length limit, creating a 27-34 inch (fork length) harvest slot for commercially caught shovelnose (hackleback) sturgeon in Wisconsin-Iowa boundary waters. Fork length is defined as that distance as measured from the tip of the snout of a fish to the posterior tips of the median caudal fin rays, as opposed to total length, which is that distance between the tip of the snout of a fish to the outermost end of the caudal fin, fully extended.

The rule also proposes to prohibit the removal of roe from commercial fish while on the water, bank or shore and prohibits cleaning or processing of fish until the fish reach the final processing facility or place of business of the commercial fisher.

RECOMMENDATION: Adopt proposed changes to rules regulating commercial harvest of shovelnose sturgeon in Wisconsin-Iowa boundary waters

LIST OF ATTACHED MATERIALS:

No	☐	Fiscal Estimate Required	Yes	☑	Attached
No	☑	Environmental Assessment or Impact Statement Required	Yes	☐	Attached
No	☐	Background Memo	Yes	☑	Attached

APPROVED:

Mike Staggs — Bureau Director — Date 4/12/07

Administrator — Date 4/12/07

Secretary, Scott Hassett — Date 4/13/07

cc: Laurie J. Ross - AD/5
Mike Staggs, FH/4
Steve Hewett, FH/ 4
Joseph Hennessy, FH/4
Karl Scheidegger, FH/4
Ron Benjamin, LaCrosse
Patrick Short, Prairie du Chien
Fisheries Management Board (8)
Tom Van Haren, LE/5
Peter Flaherty, LS/5

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: April 12, 2007

TO: Natural Resources Board

FROM: Scott Hassett

SUBJECT: Request adoption of proposed changes to rules regulating commercial harvest of shovelnose sturgeon in Wisconsin-Iowa boundary waters, as modified by comments received at public hearing

BACKGROUND

The Department is requesting adoption of a proposal to modify rules regulating commercial harvest of shovelnose sturgeon in the Wisconsin-Iowa boundary waters of the Mississippi River. The current 25-inch minimum length restriction for commercial fishermen does not effectively protect shovelnose sturgeon stocks from over-exploitation. Implementing a 27-inch minimum "fork length" limit will protect immature and mature first-time spawning female shovelnose sturgeon, and modeling exercises indicate that the proposed rule will be robust enough to protect shovelnose stocks even with expected increases in participation in the commercial fishery. Promulgating a 34-inch maximum fork length limit will protect larger sturgeon species for which there is no commercial season – lake sturgeon and federally endangered pallid sturgeon – from inadvertent harvest. The upper end of this harvest slot (34 inches) has been increased from 32 inches as originally proposed, in response to public comment and action taken by the State of Iowa. Finally, the rule prohibits the removal of roe from commercial fish while on the water, bank or shore and prohibits cleaning or processing of fish until the fish reach the final processing facility or place of business of the commercial fisher. This restriction will help ensure that roe is not illegally taken from lake or pallid sturgeon or paddlefish. The Iowa Department of Natural Resources has implemented these rules for Wisconsin-Iowa boundary waters. Adoption of this proposal would maintain consistency in rules governing shovelnose sturgeon fishing between Wisconsin and Iowa.

Statement of Problem

The shovelnose sturgeon (*Scaphirhynchus platorynchus*) is the smallest of the North American sturgeons and is indigenous to large rivers of the Mississippi, Missouri and Ohio River systems (Lee et al. 1980; Becker 1983). Although the shovelnose sturgeon is not federally protected, its distribution and abundance have been reduced during the last 100 years due to habitat alterations, water pollution, and overexploitation (Williams et al. 1989; Keenlyne 1997). The species is classified as extirpated or at risk of extirpation in 50% of the states within its native distribution, and in the remaining states, shovelnose sturgeon populations have either declined during the past 65 years or the population status is unknown (Keenlyne 1997). Despite these concerns, shovelnose sturgeon is still one of the few sturgeons that can be commercially harvested in North America (Carlson et al. 1985; Keenlyne 1997).

In the late 1800s, shovelnose sturgeon were generally considered undesirable for commercial harvest and were often considered a nuisance (Moos 1978; Becker 1983). Shovelnose sturgeon became an important commercial species at the turn of the century when markets developed for their meat and

eggs (Coker 1930; Moos 1978). Currently, a significant commercial shovelnose sturgeon fishery exists in the Mississippi River upstream from the mouth of the Ohio River. While this harvest includes fish harvested for both flesh and roe, the collapse of sturgeon populations from the Caspian, Black, and Adriatic seas has led many to believe that commercial harvest of shovelnose sturgeon will increase due to the high demand and value of caviar (Birstein 1993; Boreman 1997).

In the upper Mississippi River, an increase in shovelnose sturgeon harvest has been partially realized. In Wisconsin, commercial harvest of shovelnose sturgeon roe has increased significantly since 2001 (Figure 1) as catch-per-unit of effort has decreased over time (Table 1). Sale of shovelnose roe in Wisconsin was nonexistent in 2000. Long-term tracking in Illinois shows that sale of shovelnose sturgeon roe has far outpaced the sale of shovelnose sturgeon flesh in recent years. The Illinois roe market alone now represents more than 10% of the total value of the entire Upper Mississippi River commercial fishery (all states, all species) (Figure 2). Consequently, concerns by state and federal agencies regarding overexploitation have increased in the upper Mississippi River basin, particularly given the sensitivity of shovelnose sturgeon and other sturgeon species to fishing mortality. Sturgeon roe for caviar cannot be collected non-lethally, and the quality of roe is undetermined until after the ovaries have been fully removed from the fish. This can result in many more fish being killed than are actually used for roe collection.

Past studies indicate that North American sturgeons are highly sensitive to fishing mortality due to their unique reproductive ecology and other life history characteristics. For instance, Rieman and Beamesderfer (1990) estimated that exploitation rates higher than 15% could lead to a collapse of the Columbia River white sturgeon (*Acipenser transmontanus*) fishery. Similarly, Boreman (1997) found that increasing total annual mortality of shortnose sturgeon (*Acipenser brevirostrum*) from 12% to 16% resulted in an estimated 50% reduction in potential lifetime egg production. Shovelnose sturgeon are generally thought to be less sensitive to harvest because they often have higher population densities and mature at an earlier age in comparison to other North American sturgeon species (Keenlyne 1997; Morrow et al. 1998).

In the upper Mississippi River, limited information suggests that male shovelnose sturgeon mature at age 5 and females mature at age 7 (Helms 1974; Patrick Short-WDNR personal communication). Though the frequency of spawning has not been determined for fish in the Mississippi River, research in the Missouri River suggests that about 70% of the males in a population spawn in a given year, while females spawn every 2 or 3 years (Moos 1978). Given these unique life history characteristics, unregulated harvest of shovelnose sturgeon may have a negative effect on their populations in the system.

Growth overfishing and recruitment overfishing are the primary concerns regarding harvest of shovelnose sturgeon. Growth overfishing occurs when exploitation is such that fish are harvested before they are able to reach their full growth potential and is a point where increased commercial fishing effort results in lowered yields (Slipke and Maceina 2001). Recruitment overfishing is a much greater concern. Recruitment overfishing occurs when a population cannot adequately reproduce on a sustainable basis (Ricker 1975; Slipke and Maceina 2001). Thus, recruitment

overfishing prohibits population replacement, leading to population declines and potential extirpation.

Recommended Solution

Implement a harvest slot size limit (27 inch minimum, fork length, 34 inch maximum, fork length) to ensure viability of Mississippi River sturgeon stocks.

As alternate sources of caviar are depleted worldwide, more fishing pressure will be placed on shovelnose sturgeon stocks in the Upper Mississippi River system. The Department's concern is that the current commercial 25-inch minimum length restriction (approximately 22 inches, fork length) does not effectively protect the shovelnose sturgeon fishery from over-exploitation and growth overfishing. The Department proposes a 27-inch minimum fork length limit to protect immature and mature first-time spawning female shovelnose sturgeon, and a 34-inch maximum fork length limit to protect the larger lake sturgeon and federally endangered pallid sturgeon from inadvertent harvest.

To model the effects these length limits would have on estimated yield and spawning potential ratio (SPR) of shovelnose sturgeon, Fishery Analysis and Simulation Tools (FAST) was used (Slipke and Maceina 2000). Ages were assigned to shovelnose sturgeon in our sample using an age-length key constructed from fish aged from Pool 9 and do not include fish under 16-inches (Figure 3).

Annual mortality between ages 6 and 16, as estimated from a linearized catch curve, was 50% (Figure 3). Length-weight, von Bertalanffy growth, and fecundity-length information was obtained from Helms (1974) and information collected from Mississippi River Pools 9-13. Three length limits, 22, 24 and 27 inches, were chosen for comparison. The 22 inch fork length limit was modeled to represent the current 25-inch minimum length regulation. Fork length is defined as the measurement from the tip of the snout to the base of the fork in a fish tail, while "length" is defined as the "length of a fish as measured in a straight line from the tip of the snout to the outermost end of the tail or caudal fin fully extended." The notochord or "whip" on the end of the tail of a shovelnose sturgeon allows it to be harvested at approximately 22 inches fork length. The 24 inch fork length limit was modeled because it had been previously discussed as a size limit. The 27 inch fork length limit was modeled because this size limit would protect female shovelnose sturgeon until one reproductive episode has occurred. Fork length is considered the standard acceptable practice for measuring sturgeon length by fisheries biologists. On average, female shovelnose sturgeon in Wisconsin waters of the Mississippi River reach sexual maturity at age 7 or approximately 26.5 inches, fork length, and reproduces every 2-3 years (Figure 4).

Conditional natural mortality was set at 10%, which is similar to natural mortality of other sturgeon species and the natural mortality for shovelnose sturgeon in the Wabash River system. If natural mortality is approximately 10%, then we can assume that exploitation is around 40% for age 6 and greater fish, based on the catch curve constructed for Mississippi River shovelnose sturgeon stocks (Figure 3).

Conservative estimates were set for our Spawning Potential Ratio (SPR) modeling; female sturgeon reach sexual maturity at age 7, the sex ratio was 50:50, and that 50% of females spawn annually. Since harvest is sex-selective, there should be less than 50% females in the population. Also, some females may only spawn once every three years, so the percentage of females spawning annually is probably less than 50. As a general rule SPR values should be kept above 20-30% (Goodyear 1993) to prevent recruitment overfishing. Yield-per-recruit models show that the 24-inch minimum length limit produced the highest yields over most levels of exploitation (u=15-60%; Figure 5). In terms of yield, the 22-inch length limit ("no length limit") was the worst when u > 35%. The 27-inch was best when u > 60%, and had lowest yields when u <35%. However, when exploitation was 40% predicted yield was only 4.4% less than the 24-inch limit. It was only 7.5% less when u = 29%, and 11.6% less when u = 19%.

The yield per recruit models show that a 27-inch length limit does not appreciably reduce yield over the range of exploitation and that the 22-inch length limit is probably reducing the pounds of fish harvested. The SPR modeling showed that with a 22-inch size limit SPR falls below the 20% critical level once exploitation exceeds 25% (Figure 6). If exploitation is truly 40%, which is our best estimate to date, we have an SPR value below 10%. This is alarming and indicates that we are currently in a state of recruitment overfishing and are removing fish faster than they are able to replace themselves. A 24-inch length limit would allow for 32% exploitation before falling below the critical level. As with no length limit, a 24-inch limit would have SPR values below 20% if exploitation is truly 40%. Implementing the proposed 27-inch fork length limit would not let the SPR fall below 30% at any level of exploitation. This is directly a function of the fact that the regulation would protect some mature females.

SUMMARY OF THE RULE

Replace current 25-inch minimum length restriction for commercial fishermen with a 27-inch minimum fork length restriction and a 34-inch maximum fork length restriction. The rule would result in a harvest slot of 27 to 34-inches, fork length. The rule also prohibits the removal of roe from commercial fish while on the water, bank or shore and prohibits cleaning or processing of fish until the fish reach the final processing facility or place of business of the commercial fisher. This restriction will help ensure that roe is not illegally taken from lake or pallid sturgeon or paddlefish.

POLICY IMPACTS

The proposed rule will not result in major changes to existing policy.

HEARING SYNOPSIS

A public hearing was held in prairie du Chien, Wisconsin November 15, 2006. Nine individuals were present, including three Department representatives. Two commercial fishermen and one fish wholesaler spoke in opposition to the rule. All three individuals contended that the proposed 27 inch minimum fork length is too severe and will seriously hurt their businesses. The consensus amongst the three individuals speaking was that

current gear restrictions limit the number of sturgeon that may be harvested from Wisconsin waters. The fishermen who spoke did not feel that there was evidence of overexploitation in Wisconsin

Written comments in support of the proposed changes were provided by the United States Fish and Wildlife Service and the Friends of the Upper Mississippi River. USFWS cited the particular importance of that portion of the rule which requires that fish remain intact until reaching a processing facility.

All parties agreed upon the importance of maintaining consistent regulations in boundary waters. In the time between the request for hearings and the hearing, the Iowa Department of Natural Resources adopted a 27-34 inch fork length harvest slot, and so in its request for adoption, the Wisconsin Department of Natural Resources recommends the more liberal 34-inch upper boundary rather than the 32-inch maximum fork length initially proposed.

In its proposal forwarded for adoption, the Department has retained the 27-inch minimum fork length limit because analyses of the population structure of shovelnose sturgeon suggest that this is the minimum length that will ensure at least one spawning event for female fish in the population. While its immediate impact on harvest will be substantial, the Department believes that commercial sturgeon harvest will rebound once fish grow past the 27-inch fork lengthminimum.

RESPONSE TO LEGISLATIVE CLEARINGHOUSE COMMENTS

Three editorial comments were received from the Legislative Clearinghouse, and all have been incorporated in the rule proposed for adoption.

CHANGES TO PLAIN LANGUAGE ANALYSIS

In the rule proposed for adoption, the Department recommends a 27-34 inch fork length harvest slot, meaning that commercial fishermen may only harvest shovelnose sturgeon at least 27 inches but less than 34 inches long. In its initial rule proposal, the Department recommended a 27-32 inch harvest slot. The change was made to maintain consistency with regulations that Iowa adopted in autumn, 2006.

ENVIRONMENTAL ASSESSMENT

This is a Type III action under Chapter NR 150, Wis. Adm. Code, therefore no EA is required.

SMALL BUSINESS ANALYSIS

This rule will affect 3 Wisconsin-licensed commercial fishers who currently actively pursue shovelnose sturgeon in Wisconsin-Iowa boundary waters. These fishers will likely see an initial decrease in pounds of fish harvested until the number of fish in the stock in the size- range allowed by the proposed harvest slot increases.

FINAL REGULATORY FLEXIBILITY ANALYSIS

A. Identify and discuss why the rule includes or fails to include any of the following methods for reducing the impact on small business.

1. Less stringent compliance or reporting requirements

Adoption of inconsistent rules regulating harvest of shovelnose sturgeon for large and small businesses would fail to meet the purposes of fisheries management in the Mississippi River. Furthermore, in this case, all businesses affected are small.

Not applicable.

2. Less stringent schedules or deadlines for compliance or reporting requirements

Not applicable. No reporting requirements are stipulated.

3. Consolidation or simplification of compliance or reporting requirements

Not applicable. No reporting requirements are stipulated.

4. The establishment of performance standards in lieu of design or operational standards

The proposed change in operational measures- that fish harvested must remain intact until reaching the point of final processing- is necessary to law enforcement officials' ability to monitor a burgeoning roe-harvest industry in Wisconsin. This portion of the rule is a safeguard against illegal harvest of undersized shovelnose sturgeon and against harvest of roe from paddlefish or lake sturgeon.

5. The exemption from any or all requirements of the rule

Exempting any commercial fishing enterprises from rules regulating harvest of shovelnose sturgeon for large and small businesses would fail to meet the purposes of fisheries management in the Mississippi River. Furthermore, in this case, all businesses affected are small.

B. Summarize the issues raised by small business during the rule hearings, any changes made in the proposed rule as a result of alternatives suggested by small business and the reasons for rejecting any alternatives suggested by small business.

Small business owners (commercial fishermen) contended that the proposed 27 inch minimum fork length is too severe and will seriously hurt their businesses. The consensus amongst the three individuals speaking was that current gear restrictions limit the number of sturgeon that may be harvested from Wisconsin waters. A less stringent minimum size limit was suggested.

Department data suggests that a 27 inch minimum fork length limit is necessary to ensure continued viability of shovelnose sturgeon in the upper Mississippi River, especially in the face of rising pressure on the fishery. Anything less than a 27-inch minimum fork length limit would be insufficient to ensure that female sturgeon will have the opportunity to spawn at least once before being harvested. The Department also strives for consistency in rules regulating fisheries in multi-jurisdictional waters. In the portion of the Mississippi River affected by this rule, Iowa shares management authority and recent adopted a 27-34 fork length inch harvest slot. Department biologists believe that the rule's effect on commercial harvest will be temporary, and that harvest will rebound once fish in the sturgeon population have a chance to grow to 27 inches fork length.

C. Identify and describe any reports required by the rule that must be submitted by small business and estimate the cost of their preparation.

None.

D. Identify and describe any measures or investments that small business must take to comply with the rule and provide an estimate of the associated cost.

None.

E. Identify the additional cost, if any, to the state in administering or enforcing a rule which includes any of the methods listed in A.

None.

F. Describe the impact on public health, safety and welfare, if any, caused by including in the rule any of the methods listed in A.

None.

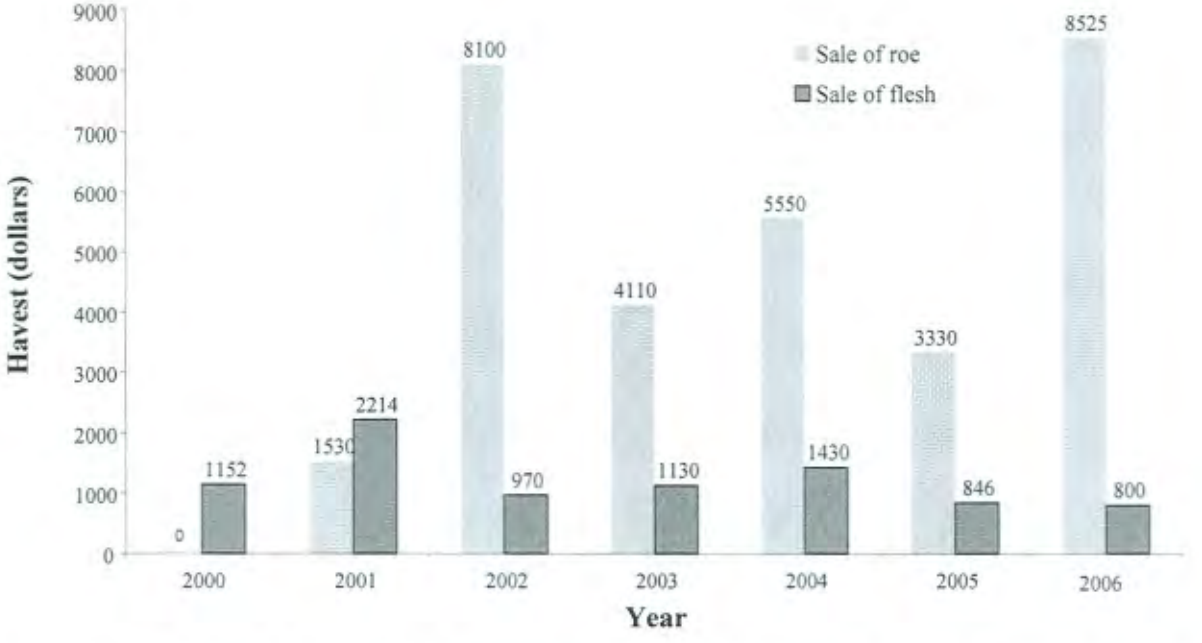

Figure 1. Value of Wisconsin's commercial shovelnose sturgeon fishery. Overall fishery and shovelnose meat data tabulated from monthly commercial reports. 2006 harvest data was estimated from WDNR monitoring efforts.

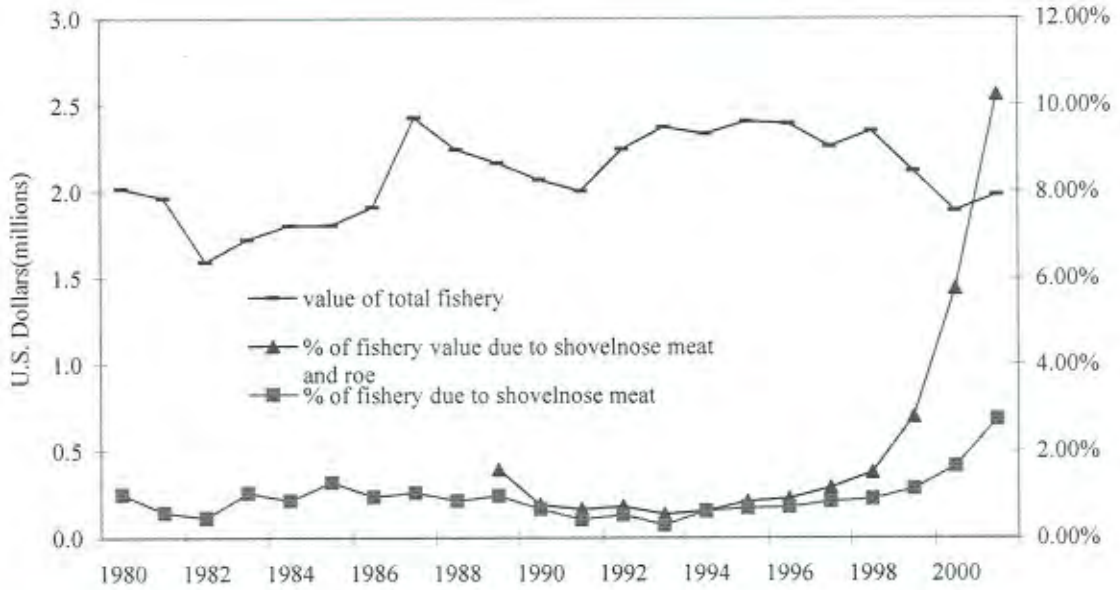

Figure 2. U.S. dollar value of entire Upper Mississippi River commercial fishery and percent of the value do the shovelnose flesh alone and shovelnose flesh combined with roe from Illinois only. Other states did not record roe values until recently. Information provided by UMRCC, Rob Maher-ILDNR, and Ann Rumstrom-USFWS.

Table 1. Catch of shovelnose sturgeon from commercial nets in Mississippi River Pool 9 near Victory, WI, 2002 to 2006.

Year	Catch-per-unit-effort
*2002	9
2003	8
2004	4
2005	2
2006	2

**2002 data were estimated from number of days fished, nets fished, and total number of fish harvested from commercial fishermen in Pool 9 during the 2002 season. Catch-per-unit-effort was not available prior to 2002.*

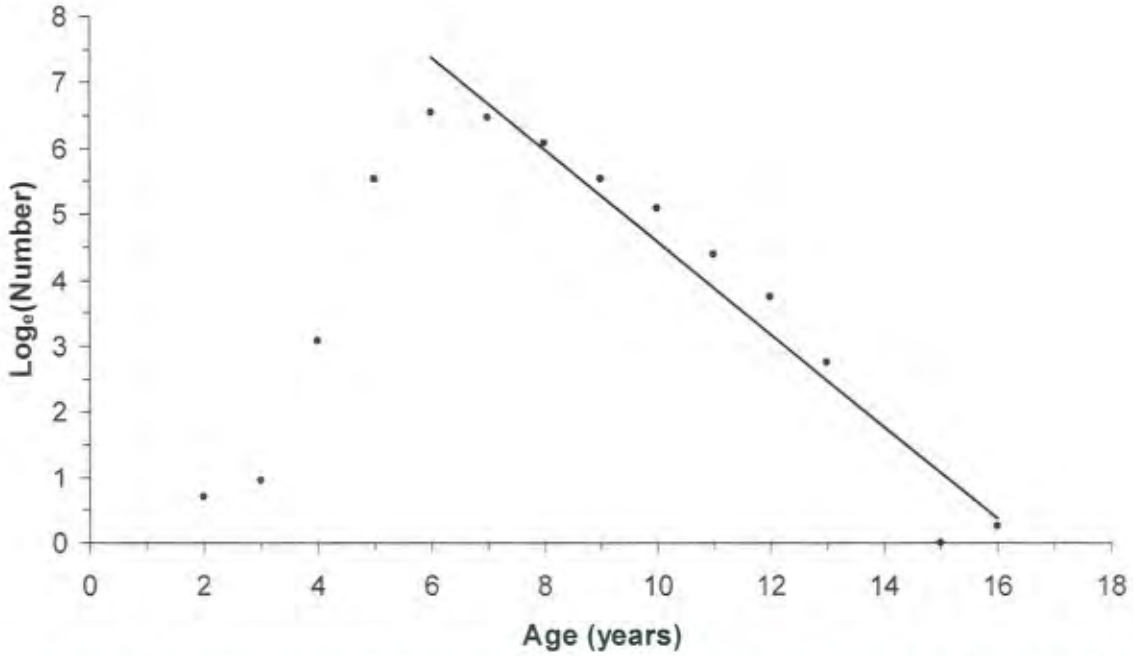

Figure 3. Linearized catch curve of age 6-16 shovelnose sturgeon from Pool 9, UMR. Annual mortality (A) equals 50%.

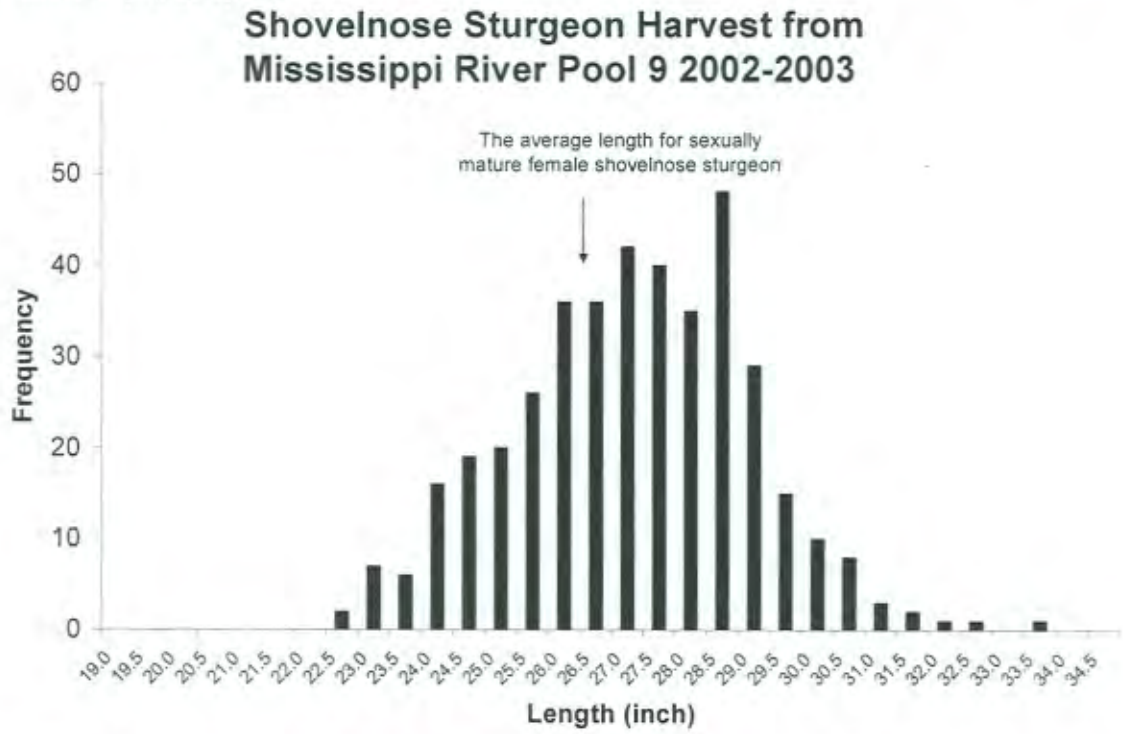

Figure 4. Length frequency distribution for female shovelnose sturgeon commercially harvested from Pool 9, 2002-03.

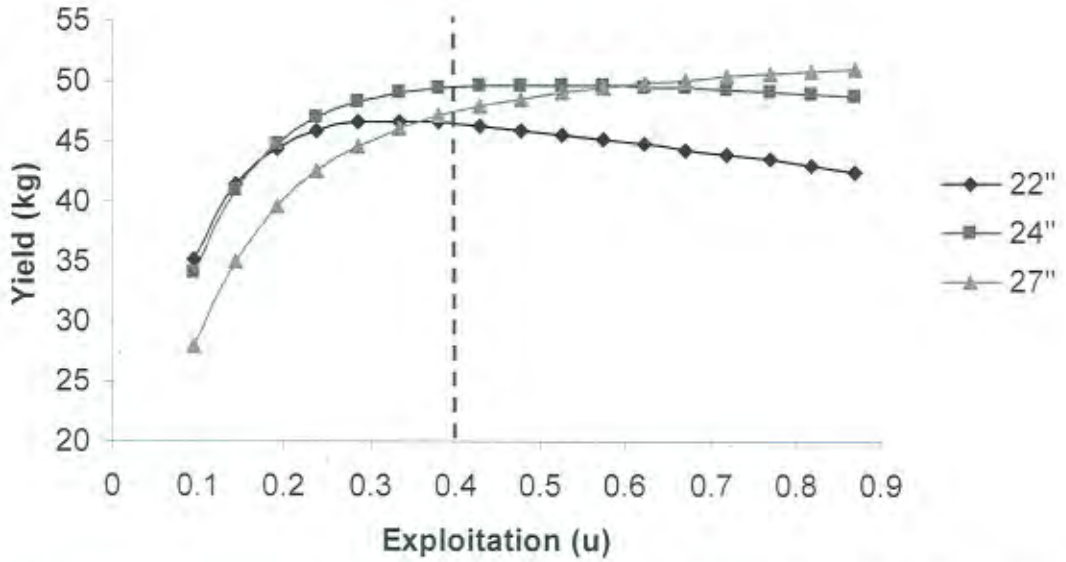

Figure 5. Simulated yields from yield-per-recruit models of 22, 24 and 27" minimum length limits for shovelnose sturgeon Pool 13, UMR. Dashed line indicates our best current estimate of exploitation (40%).

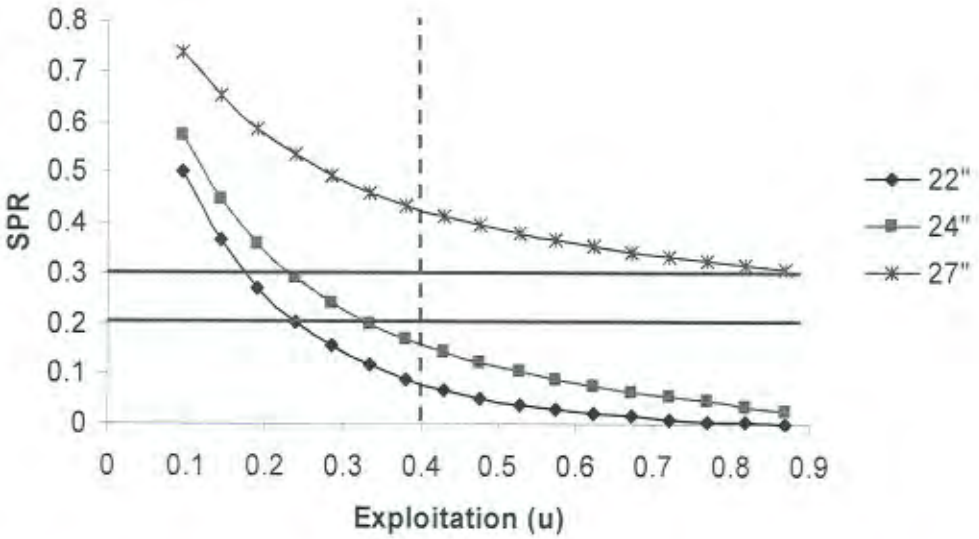

Figure 6. Simulated spawning potential ratios for Pool 13, UMR shovelnose sturgeon under 22, 24 and 27" minimum length limits. Vertical dashed line indicates our best current estimate of exploitation (40%). Horizontal solid line represents 20% potential lifetime egg production threshold.

References:

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Wisconsin Department of Administration
Division of Executive Budget and Finance
DOA-2048 (R10/2000)

Fiscal Estimate — 2005 Session

		LRB Number	Amendment Number if Applicable
☒ Original	☐ Updated		
☐ Corrected	☐ Supplemental	Bill Number	Administrative Rule Number FH-32-06

Subject

Proposed changes to rules regulating commercial harvest of shovelnose sturgeon in Wisconsin-Iowa boundary waters.

Fiscal Effect

State: ☒ No State Fiscal Effect
☐ Indeterminate

Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation.

☐ Increase Existing Appropriation ☐ Increase Existing Revenues
☐ Decrease Existing Appropriation ☐ Decrease Existing Revenues
☐ Create New Appropriation

☐ Increase Costs — May be possible to absorb within agency's budget.
☒ Yes ☐ No

☐ Decrease Costs

Local: ☒ No Local Government Costs
☐ Indeterminate

1. ☐ Increase Costs
☐ Permissive ☐ Mandatory
2. ☐ Decrease Costs
☐ Permissive ☐ Mandatory
3. ☐ Increase Revenues
☐ Permissive ☐ Mandatory
4. ☐ Decrease Revenues
☐ Permissive ☐ Mandatory
5. Types of Local Governmental Units Affected:
☐ Towns ☐ Villages ☐ Cities
☐ Counties ☐ Others
☐ School Districts ☐ WTCS Districts

Fund Sources Affected

☐ GPR ☐ FED ☐ PRO ☐ PRS ☐ SEG ☐ SEG-S

Affected Chapter 20 Appropriations

Assumptions Used in Arriving at Fiscal Estimate

The proposed rule changes the minimum allowable harvest length for shovelnose sturgeon and imposes a maximum allowable harvest length. Commercial fishing for shovelnose sturgeon has increased in popularity throughout the Mississippi River basin in response to a burgeoning market for sturgeon roe. In response to increased harvest pressure, the Iowa and Illinois Departments of Natural Resources began reviewing commercial fishing regulations in their shared portion of the Mississippi River. The Wisconsin Department of Natural Resources was subsequently invited to review commercial fishing regulations for Wisconsin-Iowa boundary waters. Population modeling suggests that more stringent regulations are necessary to preserve the long-term viability of shovelnose sturgeon stocks in the Mississippi River and to continue to provide commercial fishing opportunities. There are fewer than five commercial fishermen in Wisconsin who primarily target shovelnose sturgeon. The proposed rule will not result in any addition fisheries staff nor law enforcement costs. Therefore, the changes have no fiscal effect.

Long-Range Fiscal Implications

None.

Prepared By:	Telephone No.	Agency
Joe Polasek	266-2794	Department of Natural Resources
Authorized Signature	Telephone No.	Date (mm/dd/ccyy)
Joe Polasek	266-2794	04-12-07

Wisconsin Department of Administration
Division of Executive Budget and Finance
DOA-2047 (R10/2000)

Fiscal Estimate Worksheet — 2005 Session

Detailed Estimate of Annual Fiscal Effect

		LRB Number	Amendment Number if Applicable
☒ Original	☐ Updated		
☐ Corrected	☐ Supplemental	Bill Number	Administrative Rule Number FH-32-06

Subject

Proposed changes to rules regulating commercial harvest of shovelnose sturgeon in Wisconsin-Iowa boundary waters.

One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):

Annualized Costs:	Annualized Fiscal Impact on State Funds from:	
A. State Costs by Category	Increased Costs	Decreased Costs
State Operations — Salaries and Fringes	$ 0	$ -
(FTE Position Changes)	(FTE)	(- FTE)
State Operations — Other Costs		-
Local Assistance		-
Aids to Individuals or Organizations		-
Total State Costs by Category	$ 0	$ -
B. State Costs by Source of Funds	Increased Costs	Decreased Costs
GPR	$	$ -
FED		-
PRO/PRS		-
SEG/SEG-S		-
State Revenues — Complete this only when proposal will increase or decrease state revenues (e.g., tax increase, decrease in license fee, etc.)	Increased Revenue	Decreased Revenue
GPR Taxes	$	$ -
GPR Earned		-
FED		-
PRO/PRS		-
SEG/SEG-S		-
Total State Revenues	$ 0	$ -

Net Annualized Fiscal Impact

	State	Local
Net Change in Costs	$ 0	$ 0
Net Change in Revenues	$ 0	$ 0

Prepared By:	Telephone No.	Agency
Joe Polasek	266-2794	Department of Natural Resources
Authorized Signature J Polasek	Telephone No. 266-2794	Date (mm/dd/ccyy) 04-12-07

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
AMENDING AND CREATING RULES

The Wisconsin Natural Resources Board proposes an order to amend NR 22.02 (2) and to create NR 22.02 (6g) and 22.11 (2m), relating to fishing on the boundary waters of Wisconsin and Iowa.

FH-32-06

Analysis Prepared by the Department of Natural Resources

1. Statutes Interpreted: Sections 29.014 (1), 29.041 and 29.516, Stats.,

2. Statutory Authority: Sections 29.014 (1), 29.041 and 227.11 (2) (a),Stats.

3. Explanation of Agency Authority to Promulgate the Proposed Rules Under the Statutory Authority: Sections 29.014 (1) and 29.041, Stats., grant rulemaking authority to the department to establish and maintain open and closed seasons for fish and any bag limits, size limits, rest days and conditions governing the taking of fish that will conserve the fish and game supply and ensure the citizens of this state continued opportunities for good fishing, and provide that the department may regulate fishing on and in all interstate boundary waters and outlying waters. Section 227.11 (2) (a), Stats., expressly confers rulemaking authority on the department to promulgate rules interpreting any statute enforced or administered by it, if the agency considers it necessary to effectuate the purpose of the statute.

4. Related Rule or Statute: None.

5. Plain Language Rule Analysis: The proposed rule changes the legal size of commercially harvestable shovelnose sturgeon in Wisconsin-Iowa boundary waters from fish 25 inches or more in length, to fish 27 inches or more but less than 34 inches in "fork length". This rule also defines "fork length" as the distance measured in a straight line from the tip of the snout to the innermost portion of the fork in the tail of a fish. Finally, the rule prohibits the removal of roe from commercial fish while on the water, bank or shore and prohibits cleaning or processing of fish until the fish reach the final processing facility or place of business of the commercial fisher.

6. Summary of and Comparison with Existing or Proposed Federal Regulations: None known.

7. Comparison of Similar Rules in Adjacent States: Iowa is in the process of promulgating similar rules for commercially harvested shovelnose sturgeon in Wisconsin-Iowa boundary waters. There is a 25 inch minimum length limit for shovelnose sturgeon on Wisconsin-Minnesota boundary waters, but shovelnose sturgeon may only be taken by setline in these waters. Illinois and Iowa are developing revised rules for their Mississippi River boundary waters. Illinois currently has no minimum length restriction; proposals for a 24 inch or 27 inch fork length minimum are being discussed for Illinois-Iowa boundary waters. Shovelnose sturgeon are not present in Michigan.

8. Summary of Factual Data and Analytical Methodologies Used in Support of the Rule: This proposal was developed by fisheries and law enforcement staff in Wisconsin and Iowa to address management and enforcement concerns, and is supported by the Directors of Fisheries in both Wisconsin and Iowa. Fishery Analysis Simulation Tools (FAST) modeling programs were used to evaluate the potential impact of the proposed rules on commercial harvest of shovelnose sturgeon in Wisconsin-Iowa boundary waters of the Mississippi River system. Yield per recruit models show that a 27-inch length limit does not appreciably reduce yield over the range of exploitation and the 22-inch fork-length limit is probably reducing the pounds of fish harvested. Spawning potential ratio (SPR) modeling showed that with a 22-inch minimum fork length

size limit SPR falls below the 20% critical level once exploitation exceeds 25%. If exploitation is truly 40%, which is our best estimate to date, we have an SPR value below 10%. This is alarming and indicates that we are currently in a state of recruitment overfishing and are removing fish faster than they are able to replace themselves. A 24-inch minimum fork length limit would allow for 32% exploitation before falling below the critical level. As with no length limit, a 24-inch limit would have SPR values below 20% if exploitation is truly 40%. Implementing the proposed 27-inch fork length limit would not let the SPR fall below 30% at any level of exploitation. This is directly a function of the fact that the regulation would protect some mature females.

9. Analysis and Documentation Used in Support of the Agency's Determination Under s. 227.114, Stats., (Small Business Impact): In 2005, shovelnose sturgeon comprised less than 0.1% of the commercial fish market in the Mississippi River in Wisconsin, both in terms of total pounds caught and total dollar value. In 2005, shovelnose sturgeon accounted for more than 20% of the total catch of 3 commercial fishermen, but did not exceed more than 15% of the total dollar value of commercial catch for any individual Wisconsin commercial fisher.

10. Effect on Small Business, Including How the Rule Will Be Enforced: This rule is anticipated to cause an initial decline in commercial harvest of shovelnose sturgeon from Wisconsin-Iowa boundary waters, but is not anticipated to nor intended to cause a permanent reduction in total pounds of shovelnose sturgeon harvested from the system. The initial reduction in harvest will impact approximately 3 commercial fishermen whose sale of shovelnose sturgeon accounted for 10-15% of their income, and a fish wholesaler who sells smoked shovelnose sturgeon, accounting for less than 5% of his total business. Sport fishing bag limits and commercial harvest limits on the Wisconsin – Iowa boundary waters are enforced by the Department's conservation wardens, county district attorneys and county circuit courts, through the use of citations and civil or criminal complaints under the provisions of ch. 29, Stats.

11. Agency contact person: Joseph Hennessy – FH/4, Department of Natural Resources, PO Box 7921, Madison, WI 53707-7921; email: Joseph.Hennessy@dnr.state.wi.us; phone: (608) 267-9427.

SECTION 1. NR 22.02 (2) is amended to read:

NR 22.02 (2) "Commercial fish" means species of rough and detrimental fish as defined in this chapter, shovelnose (hackleback) sturgeon ~~25~~ 27 inches and over but less than 34 inches in fork length, catfish 15 inches or over in length or 12 inches or over dressed and bullheads of any length when taken with commercial fishing gear under a commercial fishing license.

SECTION 2. NR 22.02 (6g) is created to read:

NR 22.02 (6g) "Fork length" means that distance measured in a straight line from the tip of the snout to the tip of the median caudal fin rays of a fish.

SECTION 3. NR 22.11 (2m) is created to read:

NR 22.11 (2m) No person may remove roe from a commercial fish while on the water, bank or shore. Commercial fish shall remain intact until the fish reaches the final processing facility or place of business of the commercial fisher.

SECTION 4. EFFECTIVE DATE. This rule shall take effect on the first day of the month following publication in the Administrative Register, as provided in s. 227.22(2)(intro.), Stats.

SECTION 5. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on _____.

Dated at Madison, Wisconsin,_____

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Scott Hassett, Secretary

(SEAL)