

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

The statement of scope for this rule, SS 029-12, was approved by the Governor on May 2, 2012, published in Register No. 677 on June 1, 2012, and approved by the Natural Resources Board on June 27, 2012.

Wisconsin Natural Resources Board proposes an order to amend NR 25.06 (2) (a); to repeal and recreate NR 25.07 (2) (a) and (am); and to create NR 25.02 (38m) and (69m), relating to commercial harvest of chubs from Lake Michigan and affecting small business.

**FH-10-12**

**Analysis Prepared by Department of Natural Resources**

**1. Statutes interpreted.** Sections 29.014(1), 29.041, and 29.519 (1m) (b), Wis. Stats.

**2. Statutory authority.** Sections 29.014 (1), 29.041, and 29.519 (1m) (b), Wis. Stats.

**3. Explanation of agency authority.**

Section 29.014 (1), Stats., directs the department to establish and maintain conditions governing the taking of fish that will conserve the fish supply and ensure the citizens of this state continued opportunities for good fishing.

Section 29.041, Stats., provides that the department may regulate fishing on and in all interstate boundary waters and outlying waters.

Section 29.519 (1m)(b), Stats., provides that the department, after giving due consideration to the recommendations made by the commercial fishing boards, may establish species harvest limits and promulgate rules to establish formulas for the allocation of the species harvest limits among commercial fishing licensees or for the allotment of individual licensee catch quotas.

**4. Related statutes or rules.** Section 29.519, Stats., Commercial fishing in outlying waters

**5. Plain language analysis of the proposed rule.**

The proposed rule establishes a system for the automatic adjustment of the total allowable commercial harvest of bloater chubs (*Coregonus hoyi*) from Lake Michigan. The harvest limit would become a simple function of population estimates provided by the Great Lakes Science Center of the US Geological Survey (USGS), and may change annually. The proposed rule also removes outdated and ambiguous procedures for allocating the harvest among commercial fishers and replaces them with a percentage allocation. The proposed rule also eliminates outdated restrictions on the timing of chub harvest in the northern chub harvest zone.

SECTION 1 defines “Lake Michigan adult bloater chub index” as the average of the three most recent bottom trawl and the three most recent acoustic estimates of adult (greater than or equal to 190 mm) bloater chub biomass density (in kilograms per hectare) determined annually by the Great Lakes Science Center of the USGS.

SECTION 2 defines “Wisconsin Lake Michigan spawning bloater chub biomass” as 1,900,000 hectares multiplied by the Lake Michigan adult bloater chub index, multiplied by 2.2. Where the multiplier “1,900,000” is the approximate surface area of the Wisconsin waters of Lake Michigan and “2.2” is the multiplier needed to convert the bloater chub biomass estimate in kilograms to an estimate in pounds.

SECTION 3 allows the department to annually determine the total allowable commercial harvest of bloater chubs using a set formula. It sets the total allowable commercial harvest of bloater chubs at 25 percent of the Wisconsin Lake Michigan spawning bloater chub biomass or 350,000 pounds, whichever is greater. If the Wisconsin Lake Michigan spawning bloater chub biomass decreases, the total allowable commercial harvest would also decrease with the lowest potential total allowable commercial harvest limit being 350,000 pounds (supported by the department and the Lake Michigan Commercial Fishing Board). SECTION 3 also divides the total allowable commercial harvest of bloater chubs between chub fishing zones (Figure 1) as a ratio rather than a static number. One-sixth of the total allowable harvest is allocated to the northern chub fishing zone and five-sixths to the southern chub fishing zone which is the same ratio as the prior static number allocation between zones. This allows the southern and northern chub fishing zone harvest limits to vary automatically as the total allowable annual commercial harvest is adjusted. This section also removes an allotment of the harvest limit for special population assessments conducted by the department.

[See pdf for Figure 1]

SECTION 4 deletes an outdated section from NR 25.07 (2) (a) and, within the year-round open season, removes the “quota periods” harvest limits of chubs from the northern chub fishing zone that are based on harvest at certain times of the year. SECTION 4 also simplifies the rules for allocation of the total allowable commercial harvest of chubs from the southern chub fishing zone and describes the process for permanent transfer of individual licensee catch quotas. Harvest allocation shall be allotted among 32 individual licensee catch quotas as a percentage of the total allowable commercial harvest. In addition, no individual licensee catch quota allotted to a permittee may exceed 70,000 pounds until each allotted individual licensee catch quota equals 70,000 pounds. When all individual licensee catch quotas each equal 70,000 pounds, any further increases shall be divided equally



Figure 1: Wisconsin bloater chub commercial fishing zone boundaries. Boundaries are defined in NR 25.02(47) and (57).

among the individual licensee catch quotas. The license and quota allocations for the northern and southern zones are based on a calendar year open season.

**6. Summary of and comparison with existing or proposed federal statutes and regulations.** No existing or proposed federal statute or regulation governs commercial fishing in Wisconsin's waters of the Great Lakes.

**7. Comparison with rules in adjacent states.** There is currently no chub harvest in Indiana or Illinois waters of Lake Michigan. In Michigan waters there are modest state-licensed and tribal harvests, with participation too small to require harvest limits. Over 80% of the lake-wide chub harvest occurs in Wisconsin waters.

**8. Summary of factual data and analytical methodologies.**

1) The bloater chub population and commercial harvests in Wisconsin have declined dramatically.

The bloater chub population of Lake Michigan has fluctuated widely over the past 50 years. Following a steep decline in the 1970s, the population rebounded to very high levels in the early 1990s, but since then the population has declined steadily (Figure 2). These population estimates are derived from the lake-wide bottom trawl survey conducted by the USGS. These estimates have limitations because the bottom trawl survey is limited to depths less than 110 m, so it does not include fish at greater depths, and only the bottom portion of the water column is sampled so fish higher in the water column are not counted. However, unquestionably there is a trend of long-term decline in bloater chub abundance. Reasons for this more recent decline are not fully understood and may include disappearance of one of the bloater chub's most important food items *Diporeia*, a small Crustacean, due to invasive species.

[See pdf for Figure 2]

The Wisconsin commercial fishery was closed following the population decline in the 1970's but was soon reopened as the population recovered. The harvest limit was increased to the present level of 3,600,000 pounds in 1991, and has remained at that level even as the population has declined. The Wisconsin harvest is currently restricted to two areas, the northern and southern chub fishing zones (Figure 1), with allowable harvests of 600,000 pounds in the north and 3,000,000 pounds in the south. The reported commercial harvest has never reached the harvest limit, and in recent years has declined sharply, hitting a low of 15,216 pounds in 2012. During most of this period of population decline, both the harvest limit and the reported harvest were only a small fraction of the estimated lake-wide biomass, therefore the commercial harvest was not a likely factor in the population decline. However, the estimated lake-wide chub population declined to 3.2 million pounds in 2013, which is below the current Wisconsin harvest limit of 3.6 million pounds (Figure 3), making the current Wisconsin harvest limit outdated and unsustainable.

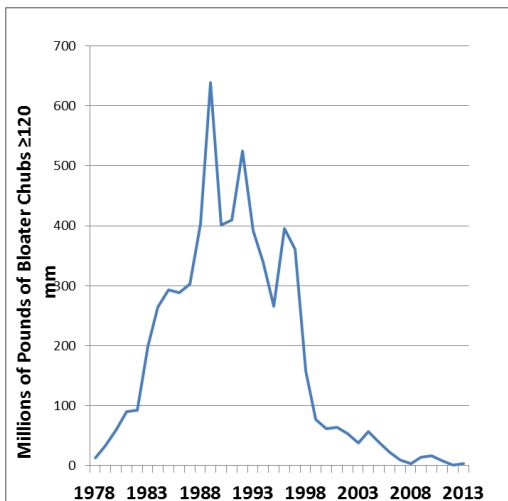


Figure 2: Chub biomass estimates from USGS bottom trawling survey from 1978 to 2013 in millions of pounds.

[See pdf for Figure 3]

2) The formula for allocating the harvest limit is confusing and should be updated.

The harvest limit for chubs is divided among license holders by rules that are more complicated than those used for other species. The northern chub fishing zone is managed as a “racehorse” fishery which means that it has an overall allowable harvest and any licensed fisher who holds a northern chub permit can participate in the fishery until the combined harvest of all fishers reaches 80% of the allowable harvest for that zone. In the southern chub fishing zone, 10% of the allowable harvest is reserved for a similar racehorse fishery. The remaining 90% of the allowable harvest is allocated to individual quota holders according to a formula. If the allowable harvest for the southern zone is 2,240,000 pounds or more, all individual quota holders receive an equal quota. However, if the allowable harvest for the southern zone falls below 2,240,000 pounds, a ranking/percentage system is used to determine individual quotas. This ranking system was established prior to rules allowing for the permanent transfer of individual chub quotas. These rules did not explicitly describe how the individual rankings and corresponding percentages transfer between license holders. For all other commercial species, quota allocations are based on simple percentage shares; in any zone each license is allocated a percentage share of the harvest limit, and the percentage share may be transferred permanently from one license to another. The more complex system that applies to chubs was deemed necessary when adopted over 30 years ago, but updates and revisions to the allocation formula are now needed.

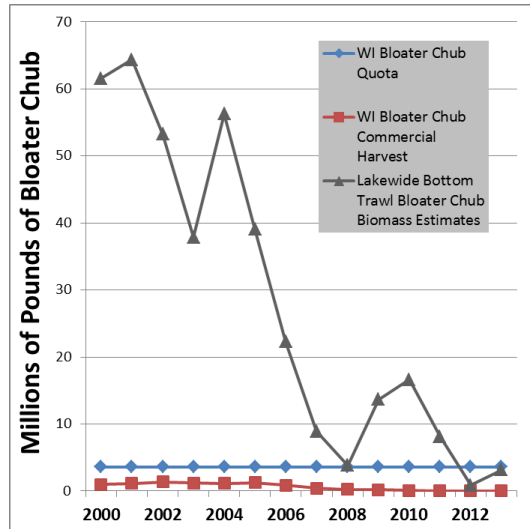


Figure 3: Chub biomass estimates from USGS bottom trawling, Wisconsin harvest and harvest limits.

**9. Analysis and supporting documents used to determine effect on small business or in preparation of an economic impact analysis.** The decline in bloater chub abundance in Lake Michigan has been confirmed by population surveys and commercial harvests. The value of the fishery has declined in response to the low populations and catches (Table 1). Rule changes are necessary in order to ensure a sustainable chub fishery over the long-term. The Lake Michigan Commercial Fishing Board was consulted during development of this rule and is in support of the rule changes.

The department conducted an economic impact analysis in April 2015 to determine if any individuals, businesses, local governments, or other entities expected to be adversely affected economically by the rule and no comments were received. There would be no implementation costs for the department.

Table 1: Summary of the harvest and dockside value of three chub products (dressed chubs, chub eggs, and the mixture of chub viscera known as “eggs and guts”) by Wisconsin commercial fishers in 2008 and 2013. <sup>1</sup>Price per pound values provided by a licensed wholesale fish dealer. Wholesale prices fluctuate.

	<i>product</i>	<i>price per pound<sup>1</sup></i>	<i>harvest (lbs)</i>	<i>dockside value</i>
2008	dressed chubs	\$3.00	268,034	\$804,102

	<i>product</i>	<i>price per pound<sup>l</sup></i>	<i>harvest (lbs)</i>	<i>dockside value</i>
	chub eggs	\$7.00	2,140	\$14,980
	chub eggs and guts	\$1.00	27,424	\$27,424
2013	dressed chubs	\$5.50	18,959	\$104,275
	chub eggs	\$10.00	545	\$5,450
	chub eggs and guts	\$3.00	3,053	\$9,159

**10. Effects on small business.** The rule would directly affect commercial fishers with permits to harvest chubs from Lake Michigan. Associated businesses may also be affected. However, it is expected that this rule would not substantially limit commercial fishers' opportunity to harvest chubs. If this proposed rule were in place for the past ten years, commercial fishers would have not been limited by this regulation because their harvest fell far below what would have been the total allowable commercial harvest. The low harvest over the past ten years was a result of economic factors (e.g., fuel, labor, market demand) and low catch rates for these fish that are no longer abundant. The low harvest was not a result of harvest regulations.

Adjustments in harvest limits affect the livelihoods of commercial fishers and associated businesses, but such adjustments are a necessary part of fisheries management. Because this rule will cause those adjustments to be more timely and responsive to fish population changes it will support stability in fish populations and in the fishery. Automatic harvest limit adjustments can result in short-term economic benefit to commercial fishers when populations increase and potential short-term economic losses in years when the fish population is in decline. For example, if the Wisconsin Lake Michigan spawning bloater chub biomass increases by 1,000,000 pounds then the total allowable commercial harvest would increase by 250,000 pounds. If the Wisconsin Lake Michigan spawning bloater chub biomass decreases, the total allowable commercial harvest would also decrease with the lowest potential total allowable harvest limit being 350,000 pounds. This strategy is supported by the department and the Lake Michigan Commercial Fishing Board.

The proposed rule does not impose any new reporting requirements on small businesses nor are any design or operational standards contained in the rule.

**11. Agency contact person.**

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**12. Place where comments are to be submitted and deadline for submission.** Written comments may be submitted at the public hearings, by regular mail, fax or email to the contact person listed above. Written comments may also be submitted to the department using the Wisconsin Administrative Rules website at <http://adminrules.wisconsin.gov>. A public hearing will be held July 29, 2015, and the comment submission deadline is July 31, 2015.

**SECTION 1. NR 25.02 (38m) is created to read:**

**NR 25.02 (38m)** “Lake Michigan adult bloater chub index” means the average of the three most recent bottom trawl and the three most recent acoustic annual estimates of the adult (greater than or equal to 190 mm) bloater chub biomass density in Lake Michigan, expressed in kilograms per hectare, as determined annually by the Great Lakes Science Center of the US Geological Survey.

**SECTION 2. NR 25.02 (69m) is created to read:**

**NR 25.02 (69m)** “Wisconsin Lake Michigan spawning bloater chub biomass” is expressed in pounds and equals 1,900,000 hectares multiplied by the Lake Michigan adult bloater chub index, multiplied by 2.2. Where the multiplier “1,900,000” is the approximate surface area of the Wisconsin waters of Lake Michigan expressed in hectares and “2.2” is the multiplier needed to convert the bloater chub biomass estimate in kilograms to an estimate in pounds.

**SECTION 3. NR 25.06 (2) (a) is amended to read:**

**NR 25.06 (2) LAKE MICHIGAN AND GREEN BAY.** (a) *Chubs.* The total allowable ~~annual~~ commercial harvest of chubs in Wisconsin waters of Lake Michigan shall be determined ~~by the natural resources board based on recommendations from the department~~ annually by the department on or before December 31 for the following license year.

1. The total allowable commercial harvest for any license year ~~may not exceed 3,600,000 pounds~~ shall equal 25 percent of the Wisconsin Lake Michigan spawning bloater chub biomass or 350,000 pounds, whichever is greatest.

2. No more than ~~600,000 pounds~~ one-sixth of the total allowable commercial harvest for any license year may be taken in the northern chub fishing zone.

3. No more than ~~3,000,000 pounds~~ five-sixths of the total allowable commercial harvest for any license year may be taken in the southern chub fishing zone.

4. ~~The department reserves 100,000 pounds three per cent of the total allowable annual commercial harvest of chubs to be used for special assessment.~~

**SECTION 4. NR 25.07 (2) (a) and (am) are repealed and recreated to read:**

**NR 25.07 (2) (a) Chubs.** 1. A chub fishing permit shall be issued under this subdivision to each applicant who selects the northern chub fishing zone under sub. (3) (d), is a licensed commercial fisher and held a Lake Michigan chub harvest permit for the northern chub fishing zone for the 1985-1986, 1986-1987, or 1987-1988 license year.

1m. A chub fishing permit and individual licensee catch quota shall be issued under this subdivision to each applicant who selects the southern chub fishing zone under sub. (3) (d) and is a licensed commercial fisher.

2. The department shall notify all permittees under subd. 1. who selected the northern chub fishing zone to cease fishing upon receipt of information that 85% of the total allowable commercial harvest in the northern chub fishing zone under s. NR 25.06 (2) (a) 2. has been harvested except that all nets in the water shall be lifted under s. NR 25.09 (2) (a) 10. and the legal fish therein harvested.

*(am) Chubs; southern fishing zone limitations.* All permittees under par. (a) 1m. who select the southern chub fishing zone under sub. (3) (d) shall be subject to the following limitations:

1. In the southern chub fishing zone, 90% of the total allowable commercial harvest established in s. NR 25.06 (2) (a) 3. shall be allotted among 32 individual licensee catch quotas as a percentage of the total allowable commercial harvest. The individual licensee catch quota allotted to a permittee is calculated using the individual licensee catch quota percentage multiplied by the total allowable commercial harvest established in s. NR 25.06 (2) (a) 3.

**Note:** In 1989, Each individual licensee catch quota was assigned to a permittee based on the reported individual authorized regular season legal chub harvest from April 1, 1981 through December 31, 1982. The permittees reporting the five highest chub harvests were assigned an individual licensee catch quota percentage of 3.94, sixth through tenth highest a percentage of 3.64, eleventh through fifteenth highest a percentage of 3.34, sixteenth through twentieth highest a percentage of 3.04, twenty-first through twenty-fifth highest a percentage of 2.74, twenty-sixth through thirtieth highest a percentage of 2.44, and thirty-first through thirty-second highest a percentage of 2.15. Transfers of full or partial individual licensee catch quotas allowed under s. NR 25.08 since 1982 have resulted in permittees who have full and partial

amounts of individual licensee catch quotas. The percentage and resulting poundage transfers are tracked by the department.

a. In conjunction with any chub individual licensee catch quota transfer subject to s. NR 25.08, the corresponding percentage of the total allowable commercial harvest, whether in part or whole, shall be transferred.

**Note:** For example, if Permittee A was originally assigned an individual licensee catch quota of 3.94% and half was transferred to Permittee B who already had an individual licensee catch quota of 3.64% and the total allowable commercial harvest was 1,700,000, Permittee A would receive 1.97% of the total allowable commercial harvest ( $1,700,000 * 0.0197 = 33,490$  pounds) and Permittee B would receive 5.61% of the total allowable commercial harvest ( $1,700,000 * (0.0197+0.0364) = 95,370$  pounds).

b. No individual licensee catch quota allotted to a permittee under subd. 1. may exceed 70,000 pounds until each allotted individual licensee catch quota equals 70,000 pounds. When an individual licensee catch quota allotted to a permittee reaches 70,000 pounds, any additional total allowable commercial harvest shall be divided equally among the remaining individual licensee catch quotas not equaling 70,000 pounds. When all individual licensee catch quotas each equal 70,000 pounds, for a total of 2,240,000 pounds, any further increases shall be divided equally among the individual licensee catch quotas. Quota allotments shall be made in whole pound increments.

2. In the southern chub fishing zone, 10% of the total allowable commercial harvest established in s. NR 25.06 (2) (a) 3. shall be allotted to permittees who do not receive individual allotted quotas under subd. 1.

3. Any permittee with an individual chub quota allotment under subd. 1. may temporarily transfer, for the remainder of the current license year, all or part of his or her individual chub quota allotment to a person who holds a permit under subd. 2., subject to s. NR 25.08 (intro.), (1), (4), and (5). However, a quota transfer approved under s. NR 25.08 (5) is not valid and may not be fished until the department, acting under subd. 6., has closed the southern chub zone "racehorse" fishery by notifying permittees fishing under subd. 2. to cease fishing; all of the transferee's nets in the water have been lifted and the legal fish in the nets harvested; and one calendar day has passed.

4. The department shall notify permittees to cease fishing upon receipt of information that 85% of their allotment as established in par. (am) 1. and 2. has been harvested except that all nets in the water shall be lifted under s. NR 25.09 (2) (a) 10., and the legal fish therein harvested.

**SECTION 6. EFFECTIVE DATE.** This rule shall take effect on the first day of the month following publication in the Wisconsin Administrative Register, as provided in s. 227.22 (2) (intro.), Wis. Stats.



SECTION 7. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on \_\_\_\_\_.