

Regulation Proposal Form

Print Form

Proposal Title

Half Moon Lake-Bass Regulation Change

Author Heath Benike-Fisheries Biologist-Eau Claire	Date 6-22-11
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Location Information:

Affected water(s) Half Moon Lake
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County Eau Claire	WBIC(s) 2125400
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Upstream/downstream boundaries, if applicable—Law Enforcement should be consulted N/A

Will this regulation affect Ceded Territory water and are there any anticipated impacts to tribal fisheries? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Current Regulation

Bass: Minimum length limit 14 inches, daily bag of 5 in total.

Proposed Regulation

Bass: No minimum length limit, however all bass between 14-18 inches must be released and only 1 fish greater than 18 inches is allowed. Daily bag 3 in total.

Management Goal

Summary statement that characterizes the desired fishery (e.g. provide a naturally reproducing harvest-oriented walleye fishery; provide a bass fishery dominated by large adults that maximizes predation on smaller fishes)

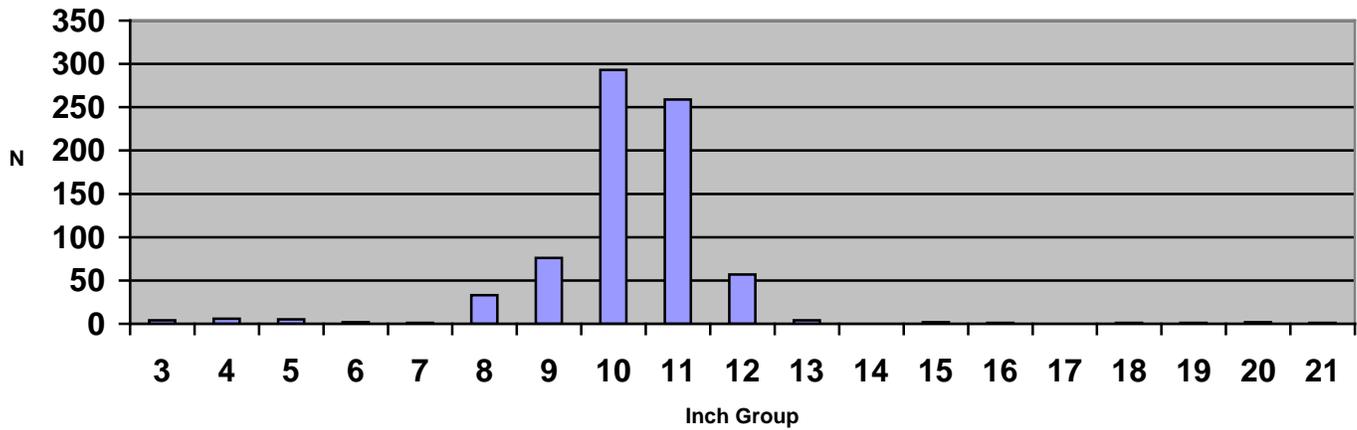
Provide a moderate density largemouth bass fishery with a quality size structure that meets southern bass zone growth standards.

Description of the Water(s) and Fishery

Provide a brief description of the water(s), past regulations and other management actions. Summarize all applicable fisheries data, particularly from surveys meeting protocols (Table 1).

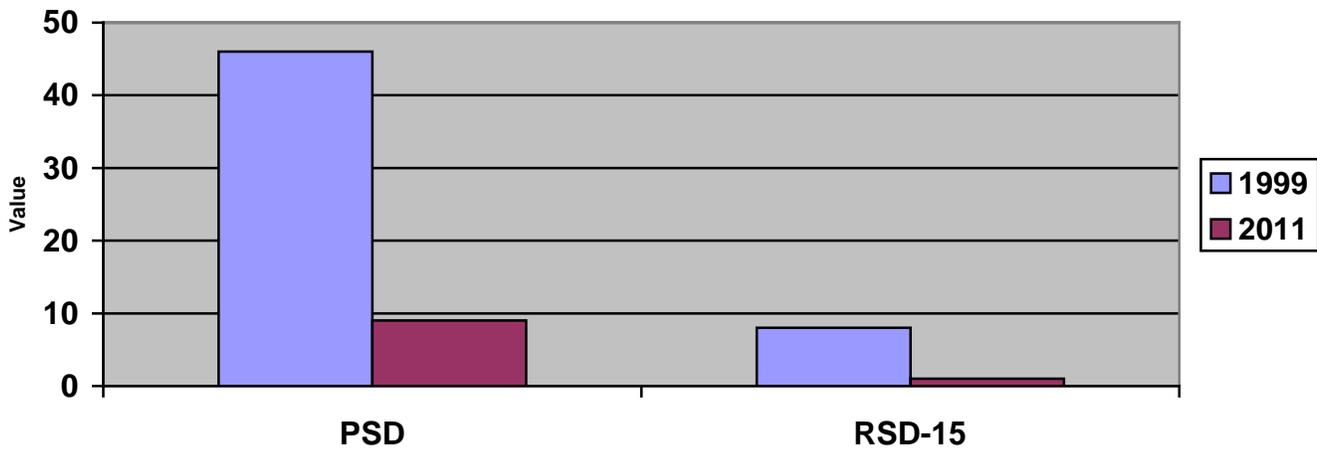
Half Moon Lake is a 132 acre backwater oxbow lake (mean depth 6=ft, max=9ft) in the City of Eau Claire located in Carson Park and is in the southern bass zone. Fish winterkill is not an issue. The lake is semi-non-motorized (gas engine restricted). Shore and ice fishing is popular. Recent Tier 1 sampling in the spring of 2011 documented a very high density largemouth bass fishery in Half Moon Lake. Smallmouth bass are absent. During the 2011 spring survey, a mark and recapture population estimate for largemouth bass > 7.9 inches was estimated at 59.2 fish/acre (95% CI 49.6-68.7). In comparison, a 1999 mark and recapture population estimate for largemouth bass > 7.9 in was significantly lower at 36.2 fish/acre (95 CI 31.0-41.4). In addition, 2011 SE-2 electrofishing CPE-8 for largemouth bass was 270 fish/hr or 150/mile (99th percentile), however CPE-15 was poor at 3/hr or 1.6/mile (34th percentile). The 2011 SE-2 length frequency for largemouth bass in presented in (Figure 1).

Figure 1. 2011 SE-2 Largemouth bass length frequency. Half Moon Lake-Eau Claire Co.



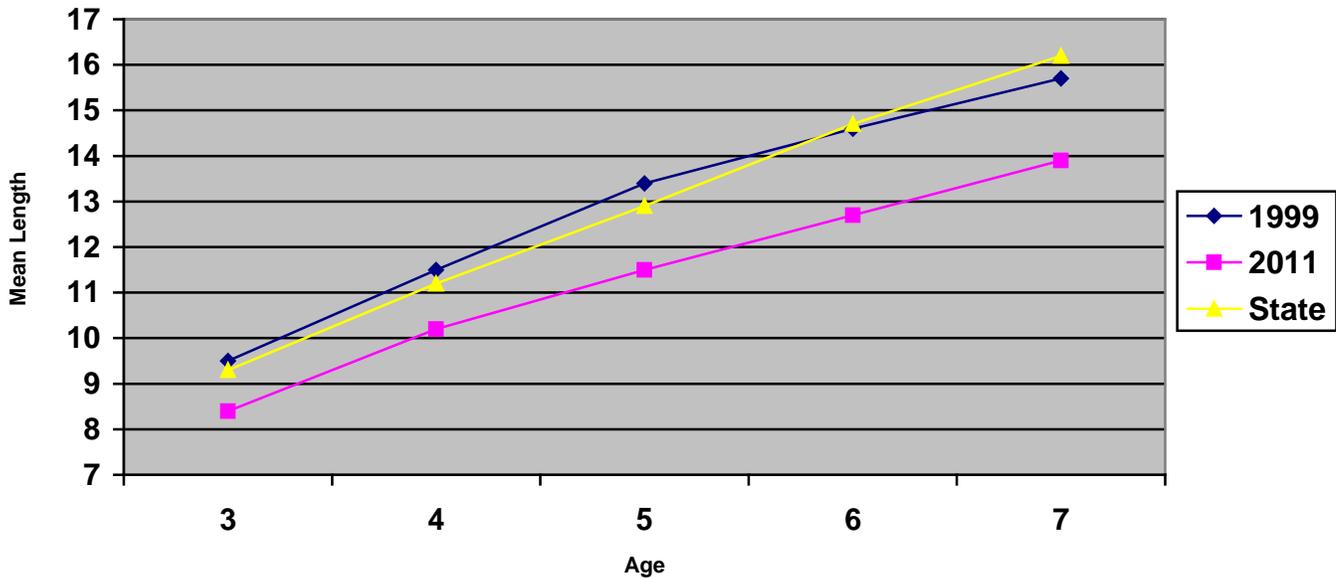
Size structure of largemouth bass in 2011 was also poor (Figure 2). SE-2 PSD was 9 (5th percentile) and SE-2 RSD-15 was 1 (8th percentile). In comparison, in 1999, largemouth bass PSD was 46 and RSD-15 was 8.

Figure 2: Largemouth bass PSD and RSD-15. Half Moon Lake, Eau Claire Co.



Growth of largemouth bass was also poor in 2011 (Figure 3). Largemouth bass are currently reaching 14 inches between their 7th and 8th year of growth. In 1999, largemouth bass were reaching 14 inches between their 5th and 6th year of growth.

Figure 3. Largemouth bass mean length at age. Half Moon Lake. Eau Claire Co. 1999, 2011 and Statwide Average.



Lastly, condition of largemouth bass was poor as measured by relative weight. Relative weight of 11 and 12 inch bass in 2011 was 90 and 84 respectively compared to 100 and 101 respectively in 1999.

Management Objective(s)

a) Goals are general, objectives are specific. Objectives are used to evaluate the effectiveness of your action and determine if you have achieved your goal. Provide a management objective that is specific, measurable, able to be achieved, related to the goal, and has a temporal component (e.g. increase walleye harvest rate to 0.1 fish/hour while maintaining recruitment at or above 10 YOY/mile within 5 years; increase largemouth bass RSD14 to 35 and bluegill RSD8 to 15 within 5 years

Reduce adult largemouth bass abundance > 7.9 in between 15-25 fish/acre or decrease CPE-8 to less than 150 bass/hr or 75/mile as measured by SE-2 by 2022.

Improve largemouth bass PSD from 9 to 40 and RSD-15 from 1 to 8 as measured by SE 2 by 2022.

Improve largemouth bass growth rates to meet southern bass zone standards by 2022.

Improve 11 and 12 inch largemouth bass relative weight values to 95 by 2022

b) Describe how the management objective and associated target levels for metrics were developed (e.g. lake management plan, stakeholder meeting, comparison to other water(s)).

Management objectives were developed based on historic fisheries data in 1999 when a lower density largemouth bass fishery was present with a more desirable bass size structure.

Current Problem

Use survey data or provide context for a similar water or group of waters (e.g. lake type, watershed) to demonstrate how the fishery is not meeting the desired management objective. Identify hypothesized problem(s) you hope to address.

The largemouth bass fishery is dominated by a high density (59.2/acre) poor size structure (PSD=9, RSD-15=1), slow growing bass (mean length 13.9 @ age 7), in poor condition (Wr=90 and 84 for 11 and 12 in bass respectively) and very few legal length fish are present for anglers to catch or harvest. Firstly, I hope to address high density, poor growth and low relative weight values by allowing anglers to harvest small surplus bass by removing the 14 inch minimum length limit which will hopefully reduce abundance and improve

growth, size structure and relative weight by reducing intra-specific competition. Secondly, I hope to improve the size structure of the bass fishery by protecting those fish that are fortunate enough to recruit into the projected slot range. Lastly, I hope to provide an increase in angler use and satisfaction of the bass fishery with the proposed changes.

Proposed Regulation Justification

How is the regulation change expected to meet your objective(s)? Demonstrate expected results of the regulation using tools such as modeling, comparisons to other waters, peer-reviewed literature, etc...

Implementation of a no-minimum length limit will allow harvest of small surplus bass that are currently protected from angler harvest under the 14 inch minimum length limit. Doing so should improve bass growth if densities are reduced. If successful, the 14-18 protected slot should also improve size structure of the current bass fishery by protecting those fish that are able to recruit into this size range. The one over 18 will still provide anglers the opportunity to harvest a trophy sized fish. Density dependant growth and size structure issues are not uncommon in northwestern Wisconsin largemouth bass fisheries. Other waters in the area are experiencing similar density dependant growth and size structure issues. Some examples of those most recently are: Countywide bass length limit removals occurred in Washburn and Burnett County (Damman 2010), bass size limit exemptions on various lakes in nearby Polk County (Benike 2007-Ward Lake and 2008-Half Moon Lake) and recent bass slot length limit regulations on similar sized lakes in Barron (Big Dummy Lake) and St. Croix County (Glen and Squaw Lakes) (Benike 2007 and Engel 2010 respectively). In addition, recent modeling done by fisheries management bureau staff suggest the above slot length limit should improve bass size structure as intended given the current state of the largemouth bass fishery in Half Moon Lake (WDNR Bass Management Plan Update-2010).

Evaluation Plan

Provide a suggested plan and timeline for evaluating whether the objectives are met in response to the regulation change. Indicate potential courses of action if objectives are not being met. If proposed regulation is not part of the "toolbox" (Table 2) the evaluation plan needs to be additionally detailed with an explanation of how the costs of evaluation will be covered.

The regulation will be evaluated under normal TIER 1 sampling and protocols which is on a 8 year rotation on this water. If needed a special evaluation could occur but is not anticipated.

Previous Action

Include details on previous regulation proposals that were intended to address the current problem, if applicable.

None

Public Participation in Developing Proposed Regulation

Was input solicited from stakeholders when developing the proposed regulation change? Include documented comments from affected user groups (positive and negative), contacts made with local Conservation Congress Representatives, lake associations, angler groups, etc...

No active lake organizations are present on this water. The City of Eau Claire Parks Department who manages Carson Park and the riparian zone around Half Moon Lake was contacted in regards to this proposal. They indicated they supported the proposed regulation change. Lastly, numerous anglers approached fisheries staff during the 2011 survey and many expressed concerns in regards to the poor quality of the bass fishery.

Small Business and Fiscal Effect

Explain who is likely to be economically impacted and in what way. If possible, provide estimates.

Fishing is a 2.75 billion dollar industry in the State of Wisconsin and creates 30,000 jobs. Providing quality fishing opportunities with reasonable diversified regulations is an important part in maintaining this industry. Allowing harvest of small surplus bass could increase angling interest for bass in Half Moon Lake, especially within the diverse angling community that exists in the Chippewa Valley. If this occurs, local business's near

Half Moon Lake such as bait shops, restaurants, hotels, taverns and gas stations might see an increase in angler driven business if more anglers come to Half Moon Lake to fish for bass with the proposed changes. If nothing is done, Half Moon Lake will likely continue to be dominated by a high density bass fishery with very few legal length fish available for anglers. This is not an attractive fishery to most anglers and they would likely choose to fish elsewhere for largemouth bass which is likely undesirable to the local economy.

Draft Question: for inclusion in Spring Hearing questionnaire
This proposal would (insert proposed regulation):

Eliminate the existing bass minimum length limit of 14 inches and daily bag of 5 in total and implement a no minimum length limit for bass, however all bass between 14-18 inches must be released and only 1 fish greater than 18 inches is allowed. The daily bag would be 3 in total.

The Management Goal is:

Encourage anglers to harvest small surplus slow growing largemouth bass that are in the 10-12 inch range. If successful biologists are optimistic that bass growth and size structure will improve by reducing intra-specific competition. Implementing the 14-18 slot will also ensure those bass that are able to recruit to larger sizes will remain in the fishery therefore enhancing largemouth bass size structure.

This regulation proposal is one tool to help meet the management goal because:

Currently, most of the largemouth bass in Half Moon Lake are less than 14 inches. The existing regulation is preventing anglers from harvesting abundant slow growing bass and creating a sub-optimal bass fishery with poor growth, size structure and condition.

Do you favor :

Removing the 14 inch minimum length limit and daily bag of 5 in total for bass and replacing that regulation with a no minimum length limit, however all bass between 14-18 inches must be released and only 1 bass over 18 inches is allowed, the daily bag limit would be 3 in total.

Fish Team Supervisor Regulation Proposal Review Checklist

Instructions: Please use this checklist as a guide for your review of the regulation proposal. A completed checklist is only necessary after you have made your decision to reject or recommend. After completion, save a copy and use the email button at the top of the proposal form to send the proposal package to the Regional Fish Supervisor, Kate Strom Hiorns (automated), and CC the proposal's author.

Proposal Title Half Moon Lake – Bass Regulation Change		
Author Heath Benike	Reviewer Bob Hujik	Date 7-06-2011
Fish Team Supervisor Reviewer Notes: Proposal is well done and has current data. Half Moon Lake can be considered an urban lake. There is high angling use and the proposed regulation will have a positive impact on the fishery due to the fact that the angling community that utilizes the lake is diverse. Unlike most lakes in the state and country where we see release rates of LMB at or above 80%, we expect release rates of small largemouth bass well below 40%. Local anglers who were asked about the fishery were in support of the regulation change and were in favor of changing the size structure to larger bass. Would be nice to have a 5-bag on lakes where we want to reduce bass numbers, while protecting larger fish.		

Recommended Action by Fish Team Supervisor

Approve Reject

Regional Fish Supervisor Regulation Proposal Review Checklist

Proposal Title Half Moon Lake Bass Regulation Change		
Author Heath Benike	Reviewer Bob Hujik	Date 7-06-2011
Location Information		
Regional Fish Supervisor Reviewer Notes: As Fish Team Supervisor and Regional Supervisor I approve this regulation. See comments in Fish Team Supervisor.		

Recommended Action by Regional Fish Supervisor

Approve X Reject

Species Team Regulation Proposal Review Checklist

Proposal Title Half Moon Lake-Bass Regulation Change		
Author Heath Benike	Reviewer Bass Team	Date 12/14/2011
Species Team Reviewer Notes: The Bass Team supports this regulation proposal. Data indicate a change has occurred and the current bass population is dominated by fish <13 inches and reduced growth rates. Given the high fishing pressure in the lake a slot limit is appropriate to maintain quality size structure. This poses a good opportunity for evaluation as the expected harvest rate is much higher than other waters where bass harvest is thought to be minimal thus a higher chance to see a response in the fishery.		

Recommended Action by Species Team

Approve Reject