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| |  | | --- | | **North American Journal of Fisheries Management <onbehalfof+Dan.Daugherty+tpwd.texas.gov@manuscriptcentral.com>** | | Attachments |  | **https://mail.google.com/mail/u/0/images/cleardot.gif**  **https://mail.google.com/mail/u/0/images/cleardot.gif** |

Dear Dr. Miranda:  
  
Thank you for submitting your manuscript, entitled "Length-Limits Fail to Restructure a Largemouth Bass Population: A 28-year Case History" to North American Journal of Fisheries Management.  Your manuscript has been reviewed.  
  
I received two, quality peer reviews and recommendations, as well as those of the associate editor assigned to your manuscript.  The review team found that, subject to some revision, your study and resulting manuscript could provide a very useful contribution to the fisheries literature that is of interest to our readership.  To that end, the reviewers provided a number of comments, questions and concerns that should serve well in guiding the revision.  Please carefully consider each.  
  
To start the revision, please click on the link below:  
  
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This will take you directly to the section of the site where you can submit your revision. Please (1) update the information provided as needed, (2) upload the file(s) containing your revised manuscript, and (3) upload a separate file containing detailed, point-by-point responses to the reviewers’ and editors’ comments. Using the drop-down menu, designate the manuscript files according to type (“Title Page,” “Main Document,” and so forth); designate the file containing your responses as “Response to Decision Letter.”  
  
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Because we are trying to facilitate timely publication of manuscripts submitted to North American Journal of Fisheries Management, your revised manuscript should be uploaded by 01-Jan-2017.  If it is not possible for you to submit your revision by this date, we may have to consider your paper as a new submission.  
  
Once again, thank you for submitting your manuscript to North American Journal of Fisheries Management.  I look forward to receiving your revision.  
  
Sincerely,  
  
Dan  
  
Daniel J. Daugherty  
Editor, North American Journal of Fisheries Management  
[Dan.Daugherty@tpwd.texas.gov](mailto:Dan.Daugherty@tpwd.texas.gov)  
  
  
Reviewer(s)' Comments to Author:  
  
Reviewer: 1  
  
Comments to the Author: (supplementary document attached)  
  
North American Journal of Fisheries Management  
“Length-limits fail to restructure a largemouth bass population: a 28-year case history”  
  
In this article, the authors describe how changes in length limit regulations in a Mississippi reservoir failed to produce expected changes in Largemouth bass population structure and showed evidence that changes in angler attitudes may have influenced this result. This paper describes a well-known trend demonstrated across North America that recreational black bass anglers are more often taking a catch-and-release approach to fishing, as opposed to harvesting. However, despite this change in attitude, management of black bass fisheries are still using length limits to alter populations for angler satisfaction. This paper is an example that local constituencies may need to change their approach to black bass management (whatever they may be).  
  
I recommend that this study is accepted with revisions to NAJFM as it is a perfect example of a “case history of successes, failures, and side effects of fisheries programs.”  
  
General overview thoughts:  
I thought that the methods used to understand multiple metrics simultaneously was clever. The clusters of metrics clearly showed similar trends, retracting any worries regarding choices in clustering algorithm, and allowing for easier interpretation of the multiple metrics.  
  
I thought that the manuscript was “light” on citations and the authors need to support some of their claims with published work.

CITATIONS WERE ADDED WHERE PROMPTED – 9 ADDITIONAL CITATIONS  
  
I wanted information on the stocking of Ross Barnett:  
1)      How often do they stock largemouth bass?  
2)      At what size do they stock largemouth bass?  
3)      Are they stocking Florida Bass? If so, is there any work to ensure proper identification?

ADDED INFORMATION TO METHODS (STUDY SITE)

4)      Could stocking be influencing the trends that you are seeing?

ADDED A PARAGRAPH IN THE DISCUSSION TO ADDRES THIS QUESTION  
  
I also was left asking:  
1)      Why were regulations changed over the past 3 decades?  
2)      What spurred these decisions?  
3)      What were the specific goals for each differing length-limit?

REGULATION CHANGES WERE GENERALLY FUELED BY REQUESTS FROM ORGANIZED ANGLER GROUPS. NEVERTHELESS, IN CRAFTING REGULATIONS THE AGENCY BALANCED ANGLER WANTS WITH THE NEED TO MAINTAIN DYNAMIC POPULATIONS OF BASS AND THEIR PREY WHILE CONSIDERING THE NEEDS OF ENTIRE ANGLING CONSTITUENCY. THE LAST TWO SENTENCEs UNDER THE HARVEST REGULATIONS SUBSECTION ENCAPSULATES THIS. IT WOULD BE TRICKY TO PROVIDE MORE DETAILS ABOUT THE SPECIFIC GOALS; WHILE THE DATA WERE ADEQUATELY PRESERVED, PARTICULARS ABOUT GOALS AND OBJECTIVES ASSOCIATED WITH EACH REGULATION CHANGE WERE NOT.  
  
In the discussion, you begin with describing your analysis, however, I would have much rather seen the biggest findings of your work: fisheries metrics aren’t responding to length-limits. Although I agree that your analyses were interesting and aided in your conclusions, it’s not the highlight of the paper. As such, I would recommend restructuring your discussion to reflect that.

THE DISCUSSION NOW BEGINS WITH A DIFFERENT PARAGRAPH AS SUGGESTED FURTHER BELOW BY THIS REVIEWER  
  
Line by Line Comments:  
  
Line 26: Please be consistent with the use of a dash when using the term “length-limit.” Based on looking at other articles within NAJFM, I would recommend removing it.

WE REVIEWED EVERY OCCURRENCE. THROUGHOUT, “LENGTH LIMIT” IS NOW HYPHENATED ONLY WHEN IT MODIFIES A NOUN, I.E. LENGTH-LIMIT REGULATION, BUT NOT WHEN THEY FOLLOW A NOUN, I.E. MINIMUM LENGTH LIMIT. WHITHOUT THE HYPHEN THE SENTENCE CAN BECOME CONFUSING. HOWEVER, EDITORS FIND A LOT OF EXCEPTION AND WE WILL ACCEPT WHATEVER THE JOURNAL’S EDITORIAL OFFICE WANTS TO DO.  
  
Line 26: insert “by fisheries management agencies” after implemented.

DONE  
  
Line 27: Replace “key” with “particular.”

DONE  
  
Line 28: insert “by anglers” after harvest.

DONE  
  
Line 29: change to: “implementation of harvest regulations”

DONE  
  
Line 30: Replace “show” with “manifest”

DONE  
  
Line 39: The closing sentence of the abstract could be strengthened. Make the reader want to continue reading here because the study is interesting!

REWORDED  
  
Line 50: Insert: “However, using length restrictions…”

DONE  
  
Line 60: Add evidence in the form of citations to your statement that: “Well-organizing angler groups can exert pressure on fisheries management agencies to modify length limits based on perceived gains in catch or size structure.” Readers might be interested.

DONE  
  
Lines 70-72: I’m not sure that this sentence is needed. It’s almost like a hypothesis, but its more speculation. Either change the structure of the sentence to be more concrete, or remove.

SENTENCE DROPPED  
  
Line 83: I’d like to see a map of where Barnett Reservoir is.

NO MAP ADDED. NOWADAYS A READER CAN GOOGLE “ROSS BARNETT RESERVOIR” AND AN INTERACTIVE MAP IS READILY AVAILABLE  
  
Line 107: Units for length and weight.

NO UNITS ADDED – THEY BECOME EVIDENT IN THE NEXT PARAGRAPH WHEN ACCOMPANIED BY NUMBERS   
  
Lines 112-116: Explain to the reader how you chose those groups (i.e. <8 in, 8-11.9 in, 12-14.9 in, >15 in)

DONE  
  
Line 139: Change to: “We focused our data analysis on testing our expectations…”

DONE  
  
Line 140: What is a new population state and how are you testing for this? This needs re-wording.

REWORDED  
  
Line 153: Replace “destroy” with “removes”

DONE  
  
Line 169: Remove “Population metrics.--” at the beginning. The beginning paragraph is on sampling.

DONE

Lines 169-172: It’s confusing how you use the terms “collection,” “sample.” Please be more explicit on what each of these mean?

REWORDED  
  
Line 170: Average number of samples: 848/28 = 30.29

CORRECTED  
  
Line 175: Put “Population metrics.--” at the beginning of this paragraph.

DONE  
  
Lines 205-214: Mean values given need some measure of error.

SE ADDED  
  
Line 240: change to: “…a level that may make length limit regulations ineffective…”

DONE  
  
Line 243: please provide evidence in the form of citations

WE REWORDED. IT IS INTUITIVE THAT IF YOU HAVE A FINITE NUMBER OF FISH AND HIGH FISHING EFFORT, A REDUCTION IN FISHING EFFORT IS LIKELY TO HAVE A BIGGER EFFECT THAN IF EFFORT IS LOW.

Line 247: Please give examples of where shifts in metric trajectories following a black bass regulation change have been observed. So ”…change are to be expected. For example…”

SENTENCE AND REFERENCE ADDED  
  
Line 247: Replace “Yet” with “However”

DONE  
  
Line 247-250: Sentence is too long. Cut it down into two sections. Example “…they did not correspond to regulations; in particular, the long-term trends…”  
REWORDED AS SUGGESTED

Line 261: Please show provide evidence to the statement: “This accumulation is expected to cause growth reductions” in the form of citations.

REFERENCES ADDED  
  
Line 280: I think that this entire paragraph sums up what you found in your study, and should be at the top of your discussion.

DONE AS SUGGESTED  
  
Table 1: I would like to know the sample sizes for each of the metric calculations

SAMPLE SIZE IS IN THE TABLE CAPTION (N=28)  
  
Figures: I like the figures. They are very clear. Only thing I would change is when you describe the percentage of fish caught. In the figures they are shown as, for example, CPH 12-15%. This is unclear to me. I’d prefer % CPH 12-15. Also, as stated before, I would add a map to orientate readers.

CHANGED AS SUGGESTED – NO MAP AS PER EARLIER COMMENT  
  
Reviewer: 2  
  
Comments to the Author:  
  
I have only a few minor comments and suggestions and am happy to see a well done case study making its way into NAJFM as that was the intent of this journal.  
  
Page 4 - line 66:  Decreases AND increases in overall effort could both limit responses.

REWORDED AS SUGGESTED  
  
Page 4 - line 72: because of differences in attitudes towards harvest and/or changes in angling pressure.

THIS SENTENCE WAS REMOVED IN RESPONSE TO REVIEWER 1 COMMENT  
  
In general, low angling effort or pressure would have the same impacts as the adoption of catch and release mentality by anglers.  Is there sufficient angling effort on this large of a reservoir to create changes in the population with changes in restrictions?  I would guess that could be the case...but in my region it would likely not be the case.  Given the extensive creel data available in this study, I think some discussion and demonstration of levels of angling pressure (i.e. hours per acre) is appropriate to fully support the authors conclusions about catch and release practices.

ESTIMATES OF ANGLING EFFORT WERE MADE WITH A ROVING CREEL IN 1986-1996 AND ADDED INTO THE STUDY SITE SECTION. MORE RECENT ANGLER SURVEYS DID NOT ESTIMATE TOTAL EFFORT.  
  
Given the authors own admission (Line 75) that population metrics changes have a lag period beyond regulation implementation, I questions whether inclusion of years 1-3 post-regulation change is appropriate in the analysis.  Examination of the trend charts doesn't appear to provide a answer to that question.  I understand that the perManova analysis is not affected by temporal correlation, but that's a different issue than a lag effort on the measureable variables.  As I'm not a statistician, I'll leave it to the other reviewers and editors to recommend any course of action to this point.

WE RETAINED THE DATA AND HAVE TO ACCEPT THE “NOISE” ADDED BY THE EFFECT DESCRIBED BY THE REVIEWER. SUCH ANALYSIS WILL INCORPORATE SUBJECTIVITY IN DECIDING HOW MANY YEARS POST-REGULATION TO LEAVE OUT.  
  
Overall, this paper is exactly the type of longitudinal case study that's very much missing in the literature and I look forward to seeing it in the NAJFM.  
  
Keith Hurley  
  
  
Associate Editor:  
  
Comments to the Author:  
Review of UJFM-2016-0146  
  
Thank you for submitting “Length-Limits Fail to Restructure a Largemouth Bass Population: A 28-year Case History.”  I received two reviews of the manuscript and I also reviewed the manuscript.  The reviewers liked the concept and approach of this manuscript.  I agree with the reviewers that the combination of the long-term case study and the unique statistical approach on a topic of interest merits inclusion in North American Journal of Fisheries Management.  However, there are a few areas that I think need to be clarified.  
  
I think a figure would help showing a timeline of the regulations.  This would help in the interpretation of your results.  I had a hard time keeping straight when the regulation occurred and for how long in the context of the other regulations.

FIGURES 2 AND 3 SHOW THE TIMELINE  
  
Some more background on the stocking and regulation changes at the reservoir would be insightful.  I appreciated the brevity of the manuscript but some more detail would be nice.

MORE INFORMATION ABOUT WAS ADDED AS DESCRIBED EARLIER.   
  
There needs to be a little more detail into the angler metrics.  Were these extrapolated values or summaries of the interview data?  What strata (year?) were the metrics extrapolated to if they were?   Were these values for all anglers that caught bass or were these values for anglers that were seeking bass?  Could species targeting (and pressure toward that species) have changed over this time frame?  The implications of this should be included in the Discussion.

WE ADDED ADDITIONAL DETAILS. NO EXTRAPOLATION WAS APPLIED TO COMPUTE THE THREE RATIOS CONSIDERED IN OUR ANALYSES. COMPUTATIONS WERE MADE USING TARGETED (BLACK BASS) EFFORT ONLY SO THERE IS NO NEED TO ACCOUNT FOR SHIFTS IN FISHING PRESSURE ACROSS SPECIES.  
  
The reviewers did a great job of pointing out areas that need to be clarified and ways to improve your message, so I will not rehash them here.  I think taking the reviewers’ comments and edits would result in an improved manuscript, and I encourage the authors to do so.  
  
A few other specific comments:  
Line 102 – delete “similar to those described by”

DONE

Line 104 -  How many samples?

VARIED AMONG YEARS AND ARE SUMMARIZED IN RESULTS SECTION

Line 127 – release numbers by species?

REWORDED

Lines 133-138 – are these metrics the extrapolated (year, month, week, or what strata; if so define) or are these raw estimates from the interviews?

NOW CLARIFIED

Line 149 – What distance?  Euclidean?

YES EUCLIDEAN. THIS INFORMATION IS GIVEN LATER IN THE LAST PARAGRAPH OF THE METHODS.

Line 146-156:  Describe what were the factors included in the perMANOVA

SINGLE FACTOR (REGULATION TYPE) REWORDED

Line 159 – Please clarify what you mean by “statistically indistinguishable internally but different over groups”

REWORDED

Line 172 – specify “fish” per collection

DONE

Line 178-180 – Years?

YEARS ARE NOW INSERTED IN PARENTHESES

Line 377:  Italicize b and Kn is not defined in captions

NOW ITALIZED AND DEFINED, RESPECTIVELY