**Date: 18 Dec, 2023**

**To: Dr. Robyn Forrest**

**From: Jeff Clements**

**Secondary Publications Editor**

**REFEREE’S REPORT (DFO, secondary publications)**

Thank you for accepting to review this document.

We would be grateful if you could return the manuscript with your comments **by 26 January 2023**. If you cannot review the paper because of circumstances have changed, please let us know.

The following form was prepared to facilitate your review. Your comments on the accompanying report form will be sent to the author. If you wish to remain anonymous, please check the appropriate space on the form. Remarks may also be written directly on the manuscript. If you wish to make comments to the editor which the author will not see, please use a separate page.

Thank you in advance for your assistance.

***Please return your review no later than: 26 January, 2023***

**Paper Title**: Proceedings of the Technical Expertise in Stock Assessment (TESA) national workshop on 'Best practices in age estimation', 31 January to 02 February 2023 in Moncton, New Brunswick

**Author(s)**: Daniel Ricard, Peter Comeau, Aaron Adamack, Jacob Burbank, Abby Daigle, Allan Debertin, Kim Emond, Tracey Loewen, Andrea Perreault, Gregory Puncher, Karen Robertson, Nicolas Rolland, Meredith Schofield, Andrew Smith, Francois-Etienne Sylvain and Stephen Wischniowski

**Report Series**: Canadian Technical Report of Fisheries and Aquatic Sciences

*Please note that the contents of the manuscript remain confidential until published. The names of the reviewers are revealed to the author(s), unless you wish to be an anonymous reviewer. If so, please indicate below:*

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| --- | --- |
| *You can reveal my name as a reviewer to the author(s) :* | *X (by default)* |
| *I want to be considered as an anonymous reviewer :* |  |

***Aggregate assessment*** – How do you rate this paper in absolute terms?

|  |  |  |
| --- | --- | --- |
| Poor to fair | Good | Very good to excellent |
|  |  | X |

***Is the subject of the manuscript;***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | No | Possibly | Yes | Comments |
| Within the scope of the report series targeted (see bellow)? |  |  | X |  |

***Fisheries and Oceans report series***

Reports in these series communicate new scientific information, document scientific data, summarize existing knowledge, provide economic and commercial analyses, or offer technical recommendations. The primary function and the intended audience of a report determine the series in which it should be published.

**a) Technical and manuscript reports** contain scientific and technical information that contributes to existing knowledge but which is not appropriate for the primary literature. Technical reports are directed to national or international audiences while manuscript reports deal primarily with national or regional issues. Distribution of printed manuscript reports is generally to regional audiences.

**b) Data reports** provide a medium for filing and archiving data compilations where little or no analysis is included. Such compilations commonly will have been prepared in support of primary publications or other reports. Generally, data specifically required to substantiate analyses should appear with the analyses as tables or appendices in a technical or manuscript report. Raw data considered worth archiving but not specifically reported for substantiation should be published separately as a data report.

**c) Economic reports** contain analyses of trends, studies of government policies, marketing programs, support programs, trade, tariffs, etc., and are directed to national and international audiences.

**d) Contractor reports** are unedited final reports from scientific and technical projects contracted by the oceanographic sciences and hydrographic sectors of the Department. The contents of the reports are the responsibility of the contractor and do not necessarily reflect the official policies of Fisheries and Oceans Canada. If warranted, contractor reports may be rewritten for other departmental publications series or for publication outside the government.

**e) Industry reports** contain the results of research and development useful to industry and are directed primarily toward individuals in the primary and secondary sectors of the fishing and marine industries. Distribution of industry reports is to national and international audiences.

***Is the subject of the manuscript*** *(Please summarize, in one or two sentences, the main contribution and novelty, if any, of this paper/document)****;***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | No | Possibly | Yes | Comments |
| Is the paper a new, original and valuable contribution to fisheries theory, methodology, modelling, education, etc? |  |  | X | This is the first time to my knowledge that ageing experts from all DFO regions have convened as a community |
| Is the paper a new, original, and valuable contribution to factual information about the aquatic resources of a particular region? |  | X |  | This was not the intent of the paper, but yes it does bring together knowledge in a new format |
| If the reply to either of the above questions is positive, is the paper of sufficiently wide interest to merit publication in one of the report series? |  |  | X | Yes: a) |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | No | Possibly | Yes | Comments |
| Is the paper technically sound and free of errors of fact or logic? |  |  | X | See minor editorial comments below |
| Are the objectives clear? Is the material clearly presented? |  |  | X |  |
| Is the methodology appropriate? |  |  | X |  |
| Are the assumptions and the analysis valid and adequately justified? |  |  | X |  |
| Are the interpretations and conclusions sound and justified by the data? |  |  | X |  |
| Are the data of appropriate quality? |  |  | X |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | No | Possibly | Yes | Comments |
| Is the quality of the language satisfactory? |  |  | X |  |
| Does the title of this paper clearly and sufficiently reflect its contents? |  |  | X |  |
| Are the references adequate, up-to-date, and relevant? |  |  | X |  |
| Are the approach, results and conclusions intelligible from the abstract alone? |  |  | X |  |
| Are the key words informative, appropriate and complete? | X |  |  | I could not find any key words |
| Are the illustrations of adequate quality, legible and understandable? |  |  | X |  |

*Could the paper be shortened without detriment to the material presented in it (e.g. by removal of poor, irrelevant, excessive, or redundant material)? Please indicate such material in the manuscript. Are all illustrations and/or tables necessary? If not, could some of them be removed? Alternatively, could the information in the paper be more clearly or concisely conveyed by the use of tables or figures?*

NO, the report is of appropriate length

***Overall evaluation*** – The paper should be:

|  |  |
| --- | --- |
| Accepted as it stands, apart from editorial changes. | X |
| Accepted after minor revision. |  |
| Subject to major revision. If revised paper is re-submitted, it needs to be reconsidered and re-reviewed. |  |
| Rejected outright. |  |

|  |  |
| --- | --- |
| The paper should be sent to another referee before terminating the review process (e.g. in the case of potentially contentious elements). If possible, please suggest the name (and e-mail) of a reviewer. |  |
| If you have recommended major revision and re-submission, would you be willing to review the revised manuscript? |  |

**Specific comments:** *Please add any other specific comments you may have (if necessary), continuing on a separate sheet (sheets).* ***Note:*** *It is not necessary to return the paper itself unless you have inserted comments on it which have not been included in your reply. Referee reports sent as e-mail attachments are welcome.*

Thank you for the opportunity to review these proceedings. As TESA chair, I am delighted that Dan and Peter organized the workshop, and have put together such a comprehensive GitHub repository and proceedings. As a DFO stock assessment scientist, I am excited to read about the development of new standards across regions. I am hopeful that we can include the recommendations in this report in our current efforts to renew groundfish stock assessments in Pacific region.

I have no major comments on the report, other than it could be more explicit about the contents of the GitHub repository and include references to it where appropriate. Also, I think a short paragraph describing the SmartDots software and a reference is needed.

Minor editorial comments are provided below. Please do not hesitate to get in touch if there are any questions. I am happy for my name to be provided to the authors.

**Minor editorial comments:**

I wonder if the report should contain the standard map of DFO regions? Not all external readers will be familiar with the boundaries of each region. The report relies quite heavily on reporting talks from different regions.

L116. Change “are” to “is” in “assessments are available”

L127. Change both instances of “that” to “who”

Table 2 is cited before Table 1 in the report. Switch them.

Figure 1 is never cited. Make sure it is cited before Figure 2, or switch.

L144. Perhaps indicate that Table 1 also includes links to the presentations. In general, relevant items on the repository could be cited throughout the report, if appropriate.

L155. concern *marine* stocks in the Atlantic …

L156. The recommendations also apply to a number of *different* structures

L181. … the point where they can reliably estimate ages *for a range of species?* and can teach others [I feel like it can’t take five years to become proficient in ageing one species]

L191. Quebec has an accent acute here but not elsewhere

L211. Reads a bit awkwardly. Suggest “If otoliths are read with the help of solutions such as glycerin, otoliths should be cleaned, dried and stored dry after reading”

L250. It would be helpful to add one or two sentences about what the SmartDots tool is/does. Is there a citation?

L265. a number of software***s***

L328-331. Is the R package referred to on L328 called CatchR? If so, make the link the first time it is mentioned

L341. Change to “Finally, a group discussion took place …”

L341. Change appears to appear

L413. Ageing strucures removed from an individual *animal* should be …

L420. 3. Reference collection***s***

L447. 4h. I think this means have at least two *trained* age readers for any given stock

L451. 5b. … for many year***s***

L476-479. Long awkward sentence. I struggled to understand what was to be regularly updated “the pattern in the growth structures recognition”? I’m not sure what that means

L482. 8c. This is a statement not a recommendation. What is the recommendation?

Table 1 (which I think should be Table 2). I did not check all the links, please double check they all work

Figure 2. This is picky but it would be easier to read if the regions were in different colours, and for the axis labels and strip text fonts to be bigger