

Scientific Advisory Group Review

12 December 2023

Provisional BIRA Report –2023

Department of Agriculture, Fisheries and Forestry

Import of live sturgeon for aquaculture Provisional biosecurity import risk analysis

Expert Panel

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Summary

This review provides advice to the Department of Agriculture, Fisheries and Forestry (DAFF or the department) from the Scientific Advisory Group (SAG) on the DAFF Provisional Report ‘Import of live sturgeon for aquaculture - provisional biosecurity import risk analysis’ (2023).

The SAG commends the department on its excellent response to the issues raised by the four submissions that were received in response to the draft BIRA report (the draft report). Overall, the SAG finds that the department has met its obligations to consider stakeholder submissions; to include appropriate scientific evidence; and to apply appropriate methodologies. It clearly sets out the supporting evidence for the biosecurity measures that should reduce the biosecurity import risk to an acceptable level of protection.

Most of the SAG’s comments are suggestions for small edits in the text to improve its clarity. Further, it would be helpful if the BIRA is placed more explicitly within a framework that acknowledges the ‘whole of government’ approach for importation of sturgeon that entails a range of legislation, in addition to the Biosecurity Act (2015). Several stakeholder concerns related more to this broader context outside the BIRA than to the BIRA itself. The SAG suggests the addition of a flow diagram to show the various stages that are involved in permission to import and cultivate sturgeon.

Introduction

The sturgeon biosecurity import risk assessment (BIRA) is in relation to the importation of *Acipenser* and *Huso* sturgeon into Australia for aquaculture purposes. Sturgeon is valued for its roe, better known as caviar. At present, Australia imports all its sturgeon caviar.

A BIRA is a mandated requirement for importation of live animals under the Biosecurity Act (2015). A critical part of the BIRA process is that the BIRA is reviewed by a Scientific Advisory Group (SAG), as regulated under the Biosecurity Act (2015) and the Biosecurity Regulation (2016), and as per the Biosecurity Import Risk Analysis Guidelines (2016).

The SAG was contracted to review the provisional report on 'Import of live sturgeon for aquaculture - provisional biosecurity import risk analysis' (2023) against terms of reference that assessed if the department had:

- appropriately considered the stakeholder submissions received in response to the draft report;
- included and properly considered scientific evidence relating to the environment and the conclusions of the provisional final report are scientifically reasonable and based on the material presented and available; and
- appropriately applied its methodologies for completing a biosecurity import risk analysis.

The provisional report was provided to the SAG for review in late October 2023. It is an updated version of the draft report that had been released for public comment on 11 July 2023. The draft report itself was preceded by a short issues paper published for public comment on 21 June 2022. The updates in the provisional report are in response to input from the four stakeholder submissions to the draft report. Additional recent scientific references have also been added.

The SAG considered both the draft and provisional reports plus the seven submissions to the short issues paper and the four stakeholder submissions to draft report. The SAG met virtually with the DAFF Animal Branch team on 13 September 2023 to discuss the work. The SAG was also offered the opportunity to meet or consult with credentialed experts in aquatic diseases. This was not deemed necessary (see below). The SAG provided the department with a copy of the penultimate version of this review to enable the department to highlight any factual errors made by the SAG. None were identified.

SAG Observations

The department has done an excellent job in considering the issues raised in the very few submissions that were received in response to the draft BIRA report. Moreover, the approach taken by the department to tabulate its response to these submissions, as well as preparing an additional document that identifies all the changes made between the draft and provisional reports, was very helpful and transparent.

The SAG has a few suggestions for improvements to the provisional report that should assist the reader navigate through the complex BIRA process. Table 1 (see below page 6) gives specific comments by the SAG on the department's responses to stakeholder submissions.

Issues to be Addressed

1. Several comments in the submissions have been addressed fully or partially in the provisional report. However, the length of the report and its fine detail make it hard for the reader to keep all salient factors in mind when assessing the residual risk of a disease incursion with the importation of sturgeon.

The SAG considers that stakeholders assume a ‘whole of government approach’ to importation of new species of animals. Submissions did not always focus on issues associated with the BIRA (the subject of the draft report) but alluded to other matters such as the potential ‘pestiness’ of the imported fish or the definitions of a RAS (recirculating aquaculture system).

We note that there appear to be three areas of government and legislation involved:

Legislation	Purpose	Responsibility
EPBC Act (1999)	<p>Stipulates conditions for importation to reduce the risk of ‘pestiness’ and to regulate trade in endangered and rare species.</p> <p>To be imported sturgeon species must:</p> <ul style="list-style-type: none"> • be on the Live Import List • have CITES certification • satisfy specific conditions for release from quarantine. In the case of sturgeon, they must be released and reared into a RAS. 	Federal Department: DCCEEW
Biosecurity Act (2015)	<p>Stipulates import conditions to meet appropriate level of protection (ALOP) for biosecurity to limit the incursion of diseases and parasites. This is undertaken in a BIRA.</p>	Federal Department: DAFF
State/Territory Legislation	<p>Sets the minimum biosecurity at each State level under their legislation. Sturgeon are currently prohibited species jurisdictions.</p>	Relevant State/Territory authorities and State/Territory Chief Veterinary Officers

The Provisional Report does mention each of these steps and that sturgeon must meet all requirements. However, it would be helpful to the reader to provide a

graphical flow diagram in Chapter 1 that outlines the steps necessary to undertake importation of sturgeon and who is responsible. This could also be repeated as a text or a diagram in Chapter 5 and then again in Chapter 20.

2. The four stakeholders that responded to the draft report highlighted a range of issues that have been addressed by the department. However, in a couple of cases discussed below in Table 1, the department has not altered the text of the provisional report. Rather its response is given in the document 'Dept response to submissions 311023' which will be published alongside the provisional report. The SAG believes that some of the department's responses should be included in the provisional report so that it can be viewed independently as a stand-alone document.
3. In the draft report, there is reference to consultation with the Department of Health to ensure public health considerations were included in the development of biosecurity policies. This reference has been removed from the provisional report. It should be re-inserted to ensure readers of the provisional report are given confidence that public health considerations were considered.
4. References on page 18 of the provisional report to the SAG's consultations with aquatic disease experts should be removed. The SAG notes the extensive references to up-to-date literature for finfish pathogens. Also, no fish pathogen expert made significant comments on the draft report. For these reasons, the SAG accepted that the department had considered the scientific evidence appropriately.
5. It is not clear why the department requires the fish to be reared to a size that permits visual confirmation of species identification (e.g., page 276), as opposed to using DNA technology. A reason for visual rather than molecular identification should be commented on in the report.
6. Page viii. Shift the whole table to a single page.
7. A few typographic errors remain in the text. For example, page 45, section 5.2 'health' not 'heath'.

Table 1. Response of Scientific Advisory Group to the Department’s Response to Stakeholder Submissions

Submission and Issue #	Section	Page #	Reviewer comment (extract)	Departmental response (extract)	SAG response
WA DPIRD #17 (Sampling Strategy)	5.6 Batch testing for hazards 20.2.6 (6) and 20.3.5 (8) Post-arrival quarantine (batch testing)	47 272 278	<p>The draft BIRA indicates the sampling regime should provide at least 95% confidence of detecting a hazard if it is present at a prevalence of 2%, but that these testing parameters would be determined for any hazard requiring batch testing.</p> <p>.....</p> <p>It is unclear whether 95% confidence and 2% prevalence will be the parameters used for all hazards. Additional detail on the sampling design, the samples required, the tests used (and their sensitivity and specificity), and any assumptions of the sampling model should be provided to demonstrate the sampling provides sufficient confidence of freedom.</p>	<p>The department has said:</p> <p>“the detail on the sampling design, the confidence and prevalence parameters to be applied, the samples required and the tests used (including their sensitivity and specificity) is yet to be determined. These details will be worked out in collaboration with our testing partner, the Australian Centre for Diseases Preparedness, after the final BIRA report is published.</p> <p>For the biosecurity measure of batch testing for hazards, this will be a lengthy process as for some hazards, particularly the sturgeon-specific hazards, we need to establish testing protocols for the first time in an Australian facility. Once these details are determined, they will be published as part of the proposed import conditions for the live sturgeon and stakeholders will have an opportunity to comment on them.”</p> <p>There are no proposed editorial changes to the report.</p>	<p>The SAG believes that at a minimum the provisional report should include at page 270, point 6, the text of the departmental response or a summary of that text; where possible, a broad reference in the appendices to the ACDP processes including design prevalence, sample size and test sensitivity could be included in the appendices.</p>
NSW DPI #12 (RAS Systems)	1.3		<p>“No definition has been included of what constitutes a “secure recirculating aquaculture system”. NSW DPI considers that a specific definition is essential for adequate</p>	<p>Edits to text in Provisional Report, page 271, point 11:</p> <p>“The sturgeon must enter secure recirculating aquaculture system (RAS) approved by the</p>	<p>There is uncertainty in relation to the minimum biosecurity standards for the RAS and why this is being set by DCCEEW (e.g., page 263).</p>

Submission and Issue #	Section	Page #	Reviewer comment (extract)	Departmental response (extract)	SAG response
WA DPIRD #25 (RAS Systems)	20.2.6 (11) and 20.3.5 (12) post-arrival quarantine	273 279	<p>mitigation of pest and disease risks, and that the definition of a “secure recirculating aquaculture system” needs to be limited to only “biosecure indoor recirculating tank-based aquaculture systems, with no discharge of untreated effluent water”, where biosecure is further defined to also include that no live products can leave the facility.”</p> <p>“...the only scenario supported by the EPBC Act is the importation of sturgeon to a secure RAS under permit, and 20.2.6(11) and 20.3.5.(12) indicate sturgeon must enter a “secure recirculating aquaculture system approved by the appropriate state or territory governments as per the import requirements under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>” once released from biosecurity control. Minimum biosecurity standards for a RAS should be developed as part of the proposed risk mitigation measures....”</p>	<p>appropriate state or territory governments as per the import requirements under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>.</p> <p>The minimum biosecurity standards for the RAS will be determined by the Department of Climate Change, Energy, the Environment and Water (DCCEEW). “</p> <p>Note the departmental response incorrectly refers to this change as being on page 273.</p>	<p>This conveys the impression that DCCEEW is the primary decision-maker for biosecurity whereas, in our understanding, that responsibility rests with the DAFF and its administration of the Biosecurity Act. If the standards approved by DCCEEW to manage the pest risks associated with an RAS are sufficient to manage the risk of diseases escaping from these systems, this should be made clearer in the Provisional report.</p> <p>In addition, it is our understanding that fish are a prescribed animal for aquaculture under Fisheries and Animal Health legislation across Australian jurisdictions and therefore the minimum biosecurity standards are set by the Chief Veterinary Officer (CVO) at the Commonwealth level and the CVOs at each State level under their legislation.</p> <p>DCCEEW sets containment requirements for animal in zoos and wildlife parks, but the CVO sets the parameters for the health status of all exotic animals imported into Australia.</p> <p>The current proposal lacks legislative and policy consistency.</p> <p>Suggested approach: <i>“The minimum biosecurity standards for the RAS will be determined under State and Territory legislation in consultation with DAFF and DCCEEW”</i></p>

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					Further, some text from the departmental response could be included into the text of the provisional report.