	<p>International Atlantic Salmon Research Board</p> <p><i>Report of the Review of the Metadatabase of Salmon Survey Data and Sample Collections of Relevance to Mortality of Salmon at Sea</i></p>	<p>ICR(22)03</p> <p>Agenda item: 4</p>
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Report of the Review of the Metadatabase of Salmon Survey Data and Sample Collections of Relevance to Mortality of Salmon at Sea

At its meeting in 2020, [CNL\(20\)12](#), the International Atlantic Salmon Research Board (the Board) agreed that the Metadatabase of Salmon Survey Data and Sample Collections of Relevance to Mortality of Salmon at Sea (the Metadatabase) should be reviewed. The Terms of Reference for the review were agreed at the 2021 Annual Meeting, [ICR\(21\)15](#).

The members of the Working Group were agreed by correspondence, following the 2021 Annual Meeting. The Group met by video conference on 2 and 5 November 2021. The report of the meeting is attached as Annex 1.

Decisions about the Metadatabase

The Board may wish to consider the recommendations of the Working Group and agree that:

1. the Metadatabase should not continue to be maintained;
2. the Metadatabase webpage should remain but with caveats related to when it was last updated;
3. a single excel spreadsheet should be provided on the webpage rather than a series of PDF links; and
4. If the Board agrees to these recommendations, that Parties / jurisdictions are asked for one final update before the Metadatabase is put 'on ice'.

Decisions about other areas of the Board's work

As set out in its Terms of Reference, the Working Group also considered whether other areas of the Board's work require review. The Board may wish to consider the recommendations and agree a mechanism (such as a Working Group to meet inter-sessionally by video conference) by which the Board may:

- consider its overall vision, scope and purpose;
- assess whether the funding available to the Board is commensurate with its vision, scope and purpose;
- identify the priorities the Parties now have for the Board; and
- consider establishing a process for requesting and reviewing proposals.

Secretariat
Edinburgh
5 April 2022

RMD(21)05rev

Report of the Review of the Metadatabase of Salmon Survey Data and Sample Collections of Relevance to Mortality of Salmon at Sea

By Video Conference

2 and 5 November

1. Opening of the Meeting

1.1 The Chair, Ciaran Byrne (European Union) opened the meeting. He welcomed members of the Working Group and thanked them for agreeing to undertake the work assigned to them.

1.2 He reminded participants that, at its meeting in 2020, the International Atlantic Salmon Research Board (the Board) agreed that the Metadatabase of Salmon Survey Data and Sample Collections of Relevance to Mortality of Salmon at Sea (the Metadatabase) should be reviewed, [CNL\(20\)12](#). This came about because, in 2020, the Working Group to Review the SALSEA-Track Programme and the Inventory of Research Relating to Salmon Mortality in the Sea, noted that many of the issues relating to the Inventory, such as relevance and utility, may equally relate to the Metadatabase, [ICR\(20\)07](#). The Board agreed to the recommendations of the Working Group, one of which was that:

‘the metadatabase be reviewed and consideration be given as to whether other areas of the Board’s work require review, and that this review be conducted by the Board.’

1.3 The Terms of Reference for the review were agreed at the 2021 Annual Meeting, [ICR\(21\)15](#).

1.4 A list of the members of the Working Group is contained in Annex 1.

2. Adoption of the Agenda

2.1 The Working Group adopted the Agenda, RMD(21)03 (Annex 2).

3. Consideration of the Terms of Reference

3.1 The Working Group considered the Terms of Reference which are as follows:

1. A Working Group reporting to the Board is established with the following high-level objectives:

a. Consider the relevance and utility of the Metadatabase of Salmon Survey Data and Sample Collections (the Metadatabase)

In the event that the Working Group recommends that the Metadatabase continue to be maintained:

b. Propose a future course for the Metadatabase by considering a full range of options, to increase its relevance and utility;

c. Consider how the Metadatabase could be better managed and presented.

2. In carrying out the objectives in paragraph one, the Working Group will:
 - a. Review the relevance and utility of the entries in the Metadatabase;
 - b. Review the processes related to the Metadatabase, including:
 - i. The process for maintaining and providing annual updates;
 - ii. The process of advertising to, or sharing the resource with, non-NASCO salmon researchers; and
 - iii. Propose modifications to procedures and tools related to the Metadatabase;
 - c. Propose ways to enhance awareness of the Metadatabase, to encourage greater use.
3. The Working Group should also consider whether other areas of the Board's work require review.

3.2 The Working Group was asked to take into account the following documents:

- [CNL\(17\)9](#), Report of the Sixteenth Meeting of the International Atlantic Salmon Research Board;
- [SAG\(15\)7](#), Report of the Meeting of the Scientific Advisory Group of the International Atlantic Salmon Research Board;
- [ICR\(12\)4](#), Progress in Developing a Metadatabase of Salmon Survey Data and Sample Collections of Relevance to Mortality of Salmon at Sea; and
- [ICR\(11\)4](#), Interim Report of the IASRB Working Group on Marine Salmon Survey Data and Sample Collection.

4. The Relevance and Utility of the Metadatabase

4.1 The Chair reminded participants of the original purpose of the Metadatabase as set out by the Board's Scientific Advisory Group (SAG) in 2013, [SAG\(13\)5](#). This was that:

'the Metadatabase would not be a vehicle to provide raw data to researchers and other interested parties, but rather a means to advertise the availability of the valuable and unique datasets related to the marine phase of Atlantic salmon. It would contain details of where databases and sample collections are held, together with details of the data or samples and conditions governing their accessibility.'

4.2 The Chair referred participants to the 'Background Paper for the Review of the Metadatabase', RMD(21)02, (Annex 3) which provides a brief history of the Metadatabase and provides information on its current status. The Secretariat provided additional information about the Metadatabase, including:

- the information currently provided in the Metadatabase;
- the way in which data and updates are provided to the Secretariat by Parties / jurisdictions though populating a spreadsheet;
- the process carried out by the Secretariat of transferring the data provided by Parties / jurisdictions in the spreadsheet, to an Access database;
- the creation of PDF documents linked on the webpage, containing: all individual records; all data collection records; and all sample collection records;

- the webpage hit statistics; and
 - the content of the Metadatabase webpage more broadly: [Metadatabase - Salmon at Sea](#).
- 4.3 As additional background information, the Working Group was informed about the Missing Salmon Alliance's '[Central Data Resource for Atlantic Salmon](#)'. This is a web application that aims to guide researchers to data sources for testing hypotheses, informing management activities, and ultimately improving Atlantic salmon population status.
- 4.4 The Working Group considered the relevance and utility of the Metadatabase. It made the following observations:
- the Metadatabase was established (amongst other reasons) to encourage research and collaboration, but it is not now performing that function;
 - there is no specific role for the Metadatabase at the present time. For example, it is not central to a particular project;
 - it is unclear who the Metadatabase is aimed at and who uses it;
 - the Metadatabase does not hold information that NASCO uses since ICES provides scientific data to NASCO;
 - the geographical coverage of the Metadatabase is limited;
 - the Metadatabase is a passive and relatively static platform;
 - the Metadatabase is not well used; and
 - there is no dedicated data manager to encourage data submission and to maintain and develop the Metadatabase.
- 4.5 The Working Group noted that the salmon science community is small and well-connected. If scientists require information, they are more likely to read published papers and to contact a data holder directly or reach out to a regional contact to learn more about the data available, than examine the Metadatabase. The Working Group also noted that other organizations, such as ICES, hold metadata at both a national and international level on platforms that are designed specifically for the purpose. The Board website is not designed in this way.
- 4.6 In light of this discussion the Working Group agreed that the Metadatabase has limited relevance and utility.
- 4.7 The Working Group considered whether the Metadatabase should continue to be maintained. It noted that although the Metadatabase website received few hits and that scientists may not know about it, the information provided could be useful. Should the Board begin overseeing projects in relation to mortality at sea in the future, the Metadatabase may become useful, if it is updated and expanded. The Working Group identified no current need for NASCO to have an up-to-date Metadatabase. However, if it remained on the website, the Metadatabase could be re-activated in the future, if appropriate.
- 4.8 The Working Group also considered the format of the Metadatabase. It noted that updates were provided by Parties in spreadsheet format but linked in PDF form on the webpage. The Working Group felt that the Metadatabase could be made more useful by providing an excel spreadsheet on the webpage instead of PDFs.

- 4.9 The Working Group agreed to recommend to the Board that:
- the Metadatabase should not continue to be maintained;
 - the Metadatabase webpage should remain but with caveats related to when it was last updated; and
 - a single excel spreadsheet should be provided on the webpage rather than a series of PDF links.
- 4.10 If the Board agrees to these recommendations, the Working Group also recommends that Parties / jurisdictions are asked for one final update before the Metadatabase is put ‘on ice’.

5. Review the Metadatabase

- 5.1 As set out above, the Working Group agreed to recommend that the Metadatabase should not continue to be maintained. Therefore, no further review of elements of the Metadatabase was conducted.

6. Consideration of Other Areas of the Board’s Work

- 6.1 The Working Group considered the overall role of the Board and its areas of work as set out in its Terms of Reference, [ICR\(20\)03](#). It noted that the Board’s role is:

‘to promote collaboration and co-operation on research into the causes of marine mortality of Atlantic salmon and the opportunities to counteract this mortality.’

And that the Board:

‘will oversee, administer, and seek to advance an International Atlantic Salmon Research Programme into the causes of marine mortality of Atlantic salmon and the opportunities to counteract this mortality through the following activities:

- *maintaining an inventory of relevant research projects (the Inventory) that are ongoing or planned and for which budgets have been confirmed;*
- *identifying research needs;*
- *evaluating the Inventory against research needs;*
- *identifying gaps in the Inventory and setting priorities for further research;*
- *providing a forum for co-ordination of relevant research efforts by the Contracting Parties of NASCO;*
- *developing administrative mechanisms to accept financial contributions to an International Atlantic Salmon Research Fund (the Fund);*
- *soliciting and accepting financial contributions and managing the Fund;*
- *establishing terms and conditions for soliciting, evaluating, approving and funding relevant research projects;*
- *funding approved projects and reviewing results in relation to the objectives of the Programme; and*
- *endorsing projects that are consistent with the objectives of the Programme.’*

- 6.2 The Working Group noted that the Board is currently carrying out very few of these tasks. It discussed whether the funding available to the Board enabled the tasks in the Terms of Reference to be conducted. The Working Group felt that the funding available and the tasks were not well aligned at present.
- 6.3 The Board's Terms of Reference appear to indicate that the Board should be setting a research agenda into the causes of marine mortality of Atlantic salmon. The Working Group noted that since the Board has not been proactive in this area, others have come forward with projects. The Working Group felt that the Board's role in accepting project proposals, reviewing them and determining whether they should be endorsed or funded was unclear. The role of the Scientific Advisory Group in advising the Board on project proposals was also discussed. It was felt that the process around the consideration of project proposals may appear *ad hoc* and that more clarity around this element of the Board's work may be useful. However, this Working Group also noted the approach recommended by the Working Group for the Review of SALSEA-Track and the Inventory of Research, [ICR\(20\)07](#), and agreed by the Board in 2020, whereby Board members could canvass colleagues on a potential successor to SALSEA-Track (and therefore a new signature project for the Board). Therefore, any proposed projects would be reviewed against the attributes set out in recommendation 2 of that Working Group's report.
- 6.4 The Working Group observed that in recent years the activities of the Board have reduced. The SALSEA-Track programme has closed, the Inventory has been simplified, and this Working Group now recommends that the Metadatabase is no longer maintained. The Working Group also noted the small amount of funding within the International Atlantic Salmon Research Fund that is available to support the work of the Board.
- 6.5 Despite these discussions, the Working Group considered that some areas of the Board's work are valuable, especially its role in accepting funds to support research into the causes of marine mortality of Atlantic salmon. It agreed that a temporary lull between signature projects need not be cause for concern.
- 6.6 The Working Group agreed to recommend that the Board may wish to:
- consider its overall vision, scope and purpose;
 - assess whether the funding available to the Board is commensurate with its vision, scope and purpose;
 - identify the priorities the Parties now have for the Board; and
 - consider establishing a process for requesting and reviewing proposals.

7. Other Business

- 7.1 There was no other business.

8. Report of the Meeting

- 8.1 The Working Group agreed the report of its meeting.

9. Close of the Meeting

- 9.1 The Chair thanked participants for their work and closed the meeting.

List of Participants

Ciaran Byrne	Inland Fisheries Ireland (Chair) (European Union)
Jaakko Erkinaro	Natural Resources Institute Finland (Luke) (European Union)
Peder Fiske	Norwegian Institute for Nature Research (NINA) (Norway)
Nora Hanson	Marine Scotland Science (United Kingdom)
Tim Sheehan	NOAA Fisheries Service (United States)
Nigel Milner	Institute of Fisheries Management (NGO Representative)
Emma Hatfield	NASCO Secretary
Wendy Kenyon	NASCO Assistant Secretary

RMD(21)03

Meeting of a subset of the Board to Review of the Metadatabase of Salmon Survey Data and Sample Collections of Relevance to Mortality of Salmon at Sea

By Video Conference

2 and 5 November 2021

Agenda

1. Opening of the Meeting
2. Adoption of the Agenda
3. Consideration of the Terms of Reference, [ICR\(21\)15](#)
4. Consider the Relevance and Utility of the Metadatabase of Salmon Survey Data and Sample Collections of Relevance to Mortality of Salmon at Sea (the Metadatabase)
In the event that the Working Group recommends that the Metadatabase continue to be maintained:
 - a) Propose A Future Course for the Metadatabase by Considering a Full Range of Options, to Increase its Relevance and Utility;
 - b) Consider How the Metadatabase Could be Better Managed and Presented
5.
 - a) Review the Relevance and Utility of the Entries in the Metadatabase;
 - b) Review the Processes Related to the Metadatabase, including:
 - i. The Process for Maintaining and Providing Annual Updates;
 - ii. The Process of Advertising to, or Sharing the Resource with, Non-NASCO Salmon Researchers; and
 - iii. Propose Modifications to Procedures and Tools Related to the Metadatabase
 - c) Propose Ways to Enhance Awareness of the Metadatabase, to Encourage Greater Use
6. Consideration of Whether Other Areas of the Board's Work Require Review
7. Other Business
8. Report of the Meeting
9. Close of the Meeting

RMD(21)02

Background Paper for Review of the Metadatabase of Salmon Survey Data and Sample Collections of Relevance to Mortality of Salmon at Sea

Introduction

At its Meeting in 2020 the Board agreed that the Metadatabase of Salmon Survey Data and Sample Collections should be reviewed, [ICR\(20\)16](#).

This came about because in 2020, the Working Group to Review the SALSEA-Track Programme and the Inventory of Research Relating to Salmon Mortality in the Sea, noted that many of the issues relating to the Inventory, such as relevance and utility, may equally relate to the Metadatabase, [ICR\(20\)07](#). The Board agreed to the recommendations of the Working Group, one of which was that:

‘the metadatabase be reviewed and consideration be given as to whether other areas of the Board’s work require review, and that this review be conducted by the Board.’

In light of ongoing restrictions related to the Covid-19 pandemic and the high NASCO workload, the Chair and the Secretary agreed that the review should take place after the 2021 Annual Meeting. The Terms of Reference for the review were agreed at the 2021 Annual Meeting, [ICR\(21\)15](#).

A Brief History of the Metadatabase

At its 2010 meeting, [CNL\(10\)9](#), the Board was advised that some valuable databases had been generated as a result of SALSEA-Merge and other initiatives such as the ICES Study Group on Biological Characteristics as Predictors of Salmon Abundance ([SGBICEPS](#)) and the ICES workshops on analysis of historical tag recovery data from oceanic areas. In addition to these electronic datasets, there were sample collections, including scales and genetic samples from the international sampling programme at West Greenland. It was noted that these databases could be valuable if accessible to researchers. The Board therefore established the Working Group on Marine Salmon Survey Data and Sample Coordination to consider and make recommendations and provide guidance on issues such as how to securely store both electronic data and samples, accessibility of the material and the cost implications of different arrangements, [ICR\(10\)5](#).

In 2011, the Board’s Scientific Advisory Group (SAG) received the Working Group’s interim report, [ICR\(11\)4](#). The Working Group concluded:

‘that it would be valuable for the IASRB to develop a meta-database detailing inter alia what data and samples exist, whether they were derived from international collaborative programmes or national research, where they are held, the person responsible for them, and their accessibility to researchers. This metadatabase could be held by the IASRB and might be made available on the IASRB website, if funds permit.’

The existence of this metadatabase would serve to highlight the value of the datasets and sample collections and hopefully minimise the risk of them being disposed of without prior warning. The Working Group stated that:

‘the most important role that the IASRB can play with regard to marine salmon survey

data and sample coordination is to establish a metadata base of existing datasets and sample collections.'

The Board asked the Working Group to continue to develop a format for the Metadatabase and to populate it, in consultation with the Parties / jurisdictions, [CNL\(11\)9](#).

In 2012, the SAG accepted a format for the Metadatabase and requested that Parties / jurisdictions provide relevant information, [SAG\(12\)5](#). By the 2013 Annual Meeting, information had only been submitted by Greenland and the United States for inclusion in the Metadatabase and the Board was advised that there had been some confusion concerning the scope of the information to be provided, [CNL\(13\)9](#). The SAG noted that the Metadatabase would not be a vehicle to provide raw data to researchers and other interested parties, but rather a means to advertise the availability of the valuable and unique datasets related to the marine phase of Atlantic salmon. It would contain details of where databases and sample collections are held, together with details of the data or samples and conditions governing their accessibility, [SAG\(13\)5](#). A background explanatory note was developed by the Secretariat and then SAG Chair (Annex 1). This was issued along with a form for providing information for completion by the Parties and jurisdictions.

In 2014, the format of the Metadatabase was changed and new guidance notes and data entry forms were agreed, [SAG\(14\)3](#). At the 2014 meeting of the SAG, there was discussion related to increasing the detail of the summary information provided within the Metadatabase for each entry and on the need for a secure storage location for the datasets, [CNL\(14\)9](#). It was agreed that the Metadatabase be posted on the Board's website prior to initiating any effort to increase the level of details provided for each dataset.

In 2015, the SAG discussed the high value of archival scale collections that, as a result of advances in analytical methods, could now be used for genetic, stable isotope and further growth studies. The SAG noted that these collections may be lost when individual scientists retire unless appropriate arrangements are in place to archive them and ensure their safe storage so that they may be available for analysis, [SAG\(15\)7](#). In 2016, the SAG noted that the Board could play a role in identifying such scale collections, raising their profile with a view to safeguarding them for future use. The Board agreed that information on these scale collections should, as a first step, be included in the Metadatabase, [ICR\(16\)7](#).

In 2019, it was recognised that the Likely Suspects Framework project and related workshops may draw on the Metadatabase, [ICR\(19\)07](#).

Current Status of the Metadatabase

The Metadatabase can be found on the Board website: [Metadatabase - Salmon at Sea](#)

It currently contains 32 entries: 18 data collections and 14 biological sample collections. Each entry contains some or all of the following information:

- where collections are held;
- a description of the data or samples; and
- the conditions governing their accessibility.

The entries are available as pdf documents (e.g. see below). Pdfs compiling all collections, all data collections and all sample collections are also available.

Parties are asked to update the Metadatabase each year by returning a spreadsheet with new entries or updates to existing entries. These are converted into Pdfs and posted on the website.



IASRB Metadatabase of Salmon Survey Data and Sample Collections of Relevance to Mortality of Salmon at Sea

Name of Data Sample Collection: **Estimated survival of wild smolts (%) to return to homewaters (prior to coastal fisheries) for River Dee (Wales)**

Information Description (e.g. including location of data/sample collection, # of samples):
Estimates based on tag recovery rates

Information Type: **Data**

Data Type:
 Assessment Data
 Tag Release/Recovery
 Freshwater Surveys
 Marine Surveys
 Index River Monitoring
 Genetic Baselines
 Other

Biological Sample Type:
 Scales
 Otoliths
 Tissue
 Stomach Contents
 Parasites
 Plankton
 Other

Start Year of Information: **1993** End Year of Information: **Ongoing**

Information Source: **National**

Jurisdictions included in Data/Samples:
 Canada
 Denmark
 Faroe Islands
 Finland
 France
 Germany
 Greenland
 Ireland
 Norway
 Portugal
 Russia
 Spain
 Sweden
 UK - England & Wales
 UK - N. Ireland
 UK - Scotland
 USA
 Iceland
 St. Pierre et Miquelon
 Unknown
 Potentially All

Information Location, i.e. Institute or Laboratory:
Natural Resources Wales

Information Manager's Name: **Ian Davidson**

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Accessibility of Information: **On Request**



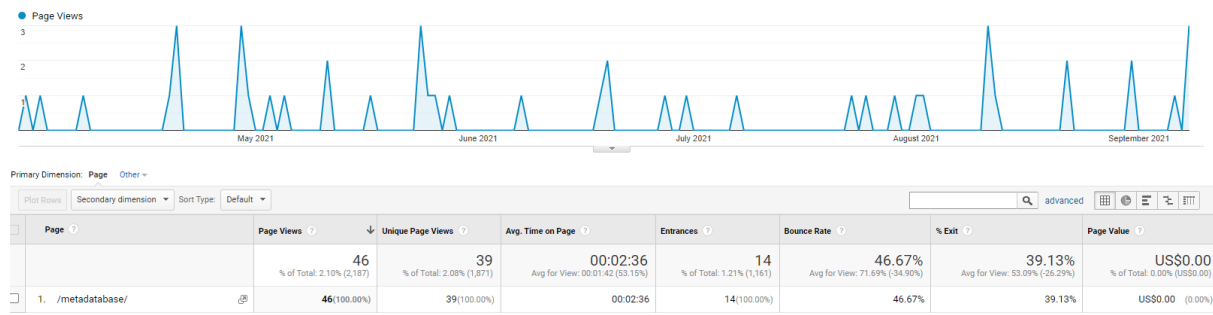
IASRB Metadatabase of Salmon Survey Data and Sample Collections of Relevance to Mortality of Salmon at Sea

Additional Information: **Estimated survival of wild smolts (%) to return to homewaters (prior to coastal fisheries) for River Dee (Wales)**

On Request

Website Statistics for the Metadatabase

Metrics for the Metadatabase on the NASCO website between 28 March 2021 and 9 September 2021 are shown below.



- Page Views: number of times a page is viewed;
- Unique Page Views: number of sessions during which a page was viewed one or more times (i.e. page views from the same user during the same session are aggregated);
- Avg Time on Page: average time a visitor stays on the page (minutes and seconds);
- Entrances: number of times this was the first page viewed on site, e.g. linked to from a Google Search;
- % Bounce Rate: % of visitors that navigate away from the website after only viewing one page; and
- % Exit: % of visitors who exit the website from this page and do not go on to look at any other pages associated with the website.

Secretariat
1 October 2021



CNL38.2401

Metadatabase of Salmon Survey Data and Sample Collections of Relevance to Mortality of Salmon at Sea

1. The International Atlantic Salmon Research Board (IASRB) was established by NASCO to promote collaboration and cooperation on research into the causes of marine mortality of the Atlantic salmon and the opportunities to counteract it. Through the Board, a major innovative programme of research on salmon at sea, the SALSEA Programme, was developed and then implemented through a public/private sector partnership (see www.nasco.int/sas/salsea.htm).
2. The Board has recognised that recent international initiatives under the SALSEA Programme had generated some extremely valuable databases. These include biological and genetic databases generated under the SALSEA-Merge project, and time-series of data and historical tagging information compiled by ICES workshops supported by the Board. Additionally, the Board noted the existence of some historical marine survey samples, such as those generated by the international sampling programme at West Greenland, that represent an invaluable resource dating back some 30 years or more. The Board had recognised the need to ensure that these databases and samples are securely held, maintained and procedures developed to allow access to them for further research.
3. The Board had agreed that the most important role it could play with regard to marine salmon survey data and sample coordination would be to establish a metadatabase of existing datasets and sample collections. A format for this database has been agreed. This metadatabase is not intended to be a vehicle to provide raw data to researchers and interested parties, but will serve to increase awareness among researchers and other interested parties of the availability of these valuable and unique datasets/sample collections related to the marine phase of the Atlantic salmon.
4. The Board now wishes to populate the metadatabase *inter alia* with details of the datasets/sample collections, including information on the data or sample type, a description of the information held, the information manager and the accessibility of the information. Your assistance in providing information to populate the metadatabase would be appreciated and an Excel form is attached for this purpose. If you have any questions about the metadatabase please do not hesitate to contact the NASCO Secretariat (hq@nasco.int).

Secretary and SAG Chairman
Edinburgh
21 August 2013