



**International Atlantic Salmon Research Board**

**ICR(11)4**

*Interim Report of the IASRB Working Group  
on Marine Salmon Survey Data and Sample Collection*



## ICR(11)4

### *Interim Report of the IASRB Working Group on Marine Salmon Survey Data and Sample Collection*

#### **Introduction**

1. At its 2010 meeting, the International Atlantic Salmon Research Board (IASRB) noted that some extremely valuable databases had been generated as a result of SALSEA-Merge and other recent 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. Both of these ICES initiatives were supported by the IASRB. In addition to these electronic datasets, there are sample collections, including scales and genetic samples from the international sampling programme at West Greenland for more than 30 years, which could be enormously valuable if accessible to researchers. These samples, for example, may have considerable potential given the development of new analytical techniques such as the genetic tools developed in recent years. The IASRB had agreed that it needed further 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. It decided, therefore, to establish a Working Group comprising two representatives each from Europe and North America and one from the Russian Federation to consider these matters and make recommendations.

#### **Terms of Reference**

2. The Terms of Reference for the Working Group are contained in ICR(10)5 and are as follows:
  - Compile a listing of available databases of relevance to the SALSEA Programme including a description of these data, the size of the database and the current location and agency/individual scientist responsible for their maintenance and storage.
  - If necessary, advise on appropriate arrangements for securely maintaining these databases and for updating the data if required, including appropriate quality control procedures.
  - Develop an agreed procedure with the owners/holders of the data regarding access to the information
  - Compile a listing of samples resulting from the international cooperative programmes held by NASCO Parties or jurisdictions both current and archival including a description of the nature and size of the samples, their storage and current locations and agency/individual scientist responsible for their maintenance and storage
  - Advise on options to ensure that these samples are safely maintained for future use.
  - Develop an agreed procedure with the owners/holders of these samples regarding access to the information
  - Advise on the possible roles for the Board in assisting with the maintenance, storage and updating of databases (including seeking advice from ICES) and for maintaining these biological samples

- Advise on approaches that might be adopted by the Board to encourage enhanced cooperation with regard to sharing of long time series of data being held nationally but which might support the work of the Board.

### **Composition and Working Methods**

3. The Working Group comprised Mr Ted Potter (EU), Ms Marianne Holm and Dr Vidar Wennevik (Norway), Mr Tim Sheehan (USA) and Dr Sergey Prusov (Russian Federation) and was chaired by Dr Ken Whelan. The NASCO Assistant Secretary supported the work of the Group. The Group worked by correspondence and several members of the Group met briefly immediately after the meeting of the ICES Working Group on North Atlantic Salmon. This is an interim report and the Group is willing to continue its work if the IASRB agrees with its recommendations for taking forward this important initiative.

### **Progress to Date**

4. The Working Group has made initial progress and its responses to each of its Terms of Reference are detailed below. The ToRs relating to compilation of a listing, secure maintenance and accessibility are repeated for both datasets and sample collections. In the interests of brevity, however, the responses are combined under the ToRs relating to datasets and not repeated for the ToRs relating to samples.

*Compile a listing of available databases of relevance to the SALSEA Programme including a description of these data, the size of the database and the current location and agency/individual scientist responsible for their maintenance and storage.*

5. The Working Group identified the following preliminary list of relevant datasets that relate to the marine phase of salmon and are, therefore, of relevance to the SALSEA Programme:
  - SALSEA-Merge
  - SALSEA North America
  - SALSEA Greenland
  - Faroes fishery sampling
  - Greenland fishery sampling
  - Various homewater coastal studies (e.g. Ireland, Norway, UK)
  - ICES historical tagging database
  - SGBICEPS
  - Genetic baseline databases
6. The Working Group recognises that most of these datasets include samples (scale samples as a minimum) as well as data. Some of the datasets and sample collections have been derived from collaborative international programmes while others are predominantly the result of initiatives by a single country or agency.
7. 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 meta-database could be held by the IASRB and might be made available on the IASRB website, if funds permit. The Working Group is willing to further refine this listing, to develop a database format for holding this information and to populate the database if the IASRB agrees to the establishment of such a meta-database. The existence of this meta-database 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 information developed by the Working Group could then be validated by IASRB members before it is made publicly available. The Group believes that there might be other datasets and sample collections (particularly scale samples) held in national laboratories which would have relevance to the SALSEA Programme and which might also be included in the meta-database, in due course. Details of these datasets and sample collections might be sought through a request to Board members, perhaps in conjunction with the annual request for the updating of the inventory.

*If necessary, advise on appropriate arrangements for securely maintaining these databases and for updating the data if required, including appropriate quality control procedures.*

8. The Working Group considers that this is not a matter for the IASRB as the individual datasets and sample collections are believed to be managed appropriately by the individual or agency responsible. However, this would need to be checked with the 'owners' on a case by case basis, in order to identify any issues of which the Group may be unaware. While there may be risks, and costs, associated with holding datasets and sample collections in one location, the current locations had generally been chosen for a good reason (e.g. location of specific expertise or laboratory facilities). However, the Working Group believes that this issue might need to be re-visited with involved parties when specific experts retire or take-up different responsibilities or if costs become a problem. Where there are proposals to dispose of sample collections, these might first be offered to other laboratories and a mechanism to facilitate this might be included in the meta-database.
9. The Working Group does not believe that the Board can play any significant role in maintaining or updating the datasets and sample collections other than establishing and updating the meta-database that will highlight their existence and accessibility. This in itself is a valuable step forward in raising awareness of the existence of the information, providing information concerning its accessibility and highlighting its significance to the international community. Reports could be made to the IASRB on the status of the datasets and sample collections included in the meta-database and the IASRB, through its Scientific Advisory Group (SAG), might advise how this information may support new research initiatives that are notified to the IASRB.

*Develop an agreed procedure with the owners/holders of the data regarding access to the information*

10. The Working Group notes that there are a number of different types of data in the list shown in paragraph 5 above. The tagging data is quite old and there should be relatively little sensitivity about releasing these data more widely. Many of the SGBICEPS data time series are, however, part of on-going programmes and the project managers may be less willing to release them. Many of the older datasets and sample collections were also

collected as part of national programmes and there may be considerable sensitivity about access to them. The Working Group concluded, therefore, that it may not be possible to develop generic guidance concerning access to the datasets and sample collections, but those responsible for the national datasets should be consulted with regard to whether, and if so how, the data may be accessed, and this information should be included in the meta-database. With regard to datasets and sample collections derived through international programmes, the Working Group believes that these may have additional significance and provide new insights into the marine phase of salmon given the development of new analytical tools. This might be particularly so for the material derived from the West Greenland fishery sampling programme, conducted for many years under agreements developed by the West Greenland Commission. The Working Group has not developed procedures concerning access to these datasets and sample collections but believes this issue should be considered further by the Board. It may be, for example, that the Board would wish to be advised of any requests for access to these datasets and sample collections in the future, particularly where destructive analysis (e.g. of scales) is proposed.

11. The Working Group also discussed the disposition of datasets and sample collections from shorter-term international programmes such as SALSEA. Some funding agencies may require the datasets to be made publicly available after a suitable period of time, although it was noted that under European Commission funded projects it is possible to 'ring fence', at the start of the project, existing datasets that will be analysed as part of the research. Furthermore, it may not be appropriate for laboratories to charge for access to datasets and sample collections when they have been collected under funding from another agency such as the European Commission. The Working Group believes that the project teams responsible for international datasets and sample collections (e.g. SALSEA) should agree protocols for storing and making datasets accessible following completion of the project, in agreement with the funders. This information should also be included in the meta-database. Where national data are compiled into international databases (e.g. tagging data) any restrictions on access to the data should be included within the documentation (e.g. with data held by the ICES data centre).
12. The Working Group noted that several datasets and sample collections are not well documented and this might be one of the greatest restrictions on making them accessible to other researchers. The Working Group concluded, therefore, that efforts should be made to ensure that all relevant national and international datasets and sample collections are fully documented and included in the meta-database. Again, this might be achieved through a request from the IASRB to the members of the Board.

*Compile a listing of samples resulting from the international cooperative programmes held by NASCO Parties or jurisdictions both current and archival including a description of the nature and size of the samples, their storage and current locations and agency/individual scientist responsible for their maintenance and storage*

13. See paragraphs 5 - 7 above.

*Advise on options to ensure that these samples are safely maintained for future use.*

14. See paragraphs 8 - 9 above.

*Develop an agreed procedure with the owners/holders of these samples regarding access to the information*

15. See paragraphs 10 - 12 above.

*Advise on the possible roles for the Board in assisting with the maintenance, storage and updating of databases (including seeking advice from ICES) and for maintaining these biological samples*

16. The Working Group does not believe that the IASRB can play any significant role in maintaining, storing or updating the databases or maintaining samples other than in establishing and maintaining the meta-database. This in itself is a valuable step forward in raising awareness of the existence of the information, providing information concerning its accessibility and highlighting its significance to the international community. The Board could also play a role in seeking from the Parties updated and additional information through an annual report linked to the return of information on the inventory of research related to mortality of salmon at sea.
17. The Working Group notes that there may be issues going forward regarding the costs of maintaining the datasets and samples and, given the international significance of some of this information and material the Board may wish to consider if it can offer assistance, if a need arises and if funds permit. Some assistance may also be appropriate in the form of support to allow compilation of datasets/samples, to modernise the databases, where appropriate, and in establishing inventories of samples where these are lacking. The Working Group recommends that these matters be given further consideration in future, if any issues arise.

*Advise on approaches that might be adopted by the Board to encourage enhanced cooperation with regard to sharing of long time series of data being held nationally but which might support the work of the Board*

18. The Working Group notes that recent ICES Study Groups and workshops have been successful in identifying, compiling and analysing multiple datasets and that the Board has supported expert participation in these initiatives. The Working group believes that the Board should consider continuing to support such initiatives, as funds permit, if further relevant study groups or workshops are established in future. The Working Group notes that attendance at these Study Groups and workshops has been constrained by availability of funds, and that even with IASRB assistance, this had somewhat restricted the progress made.

#### **‘Next Steps’**

19. The Working Group believes that the most important role that the IASRB can play with regard to marine salmon survey data and sample coordination is to establish a meta-database of existing datasets and sample collections, using the list developed by the Group as a basis. This will be an important step and if the Board agrees, the Working Group is willing to continue its work by developing, prior to the end of 2011, a format for the meta-database and by providing initial information to populate this database. The Group believes that where specific issues arise requiring the need for support to maintain

these datasets and sample collections the Board may wish to consider if it can offer assistance.

Ken Whelan  
IASRB Chairman  
23 May 2011