	<p><b>Council</b></p> <p><i>The Wild Atlantic Salmon Atlas</i></p>	<p><b>CNL(24)11</b></p> <p>Agenda item: 4.g)</p>
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*The Wild Atlantic Salmon Atlas*

**Purpose**

This paper presents NASCO’s Wild Atlantic Salmon Atlas (WASA) and includes the WASA Steering Committee’s recommendations to Council on the next steps for the Atlas.

**Decisions Related to the Atlas**

Decisions on the Wild Atlantic Salmon Atlas will be taken under Agenda item 6.b)(ii) NASCO’s Action Plan.

**Background**

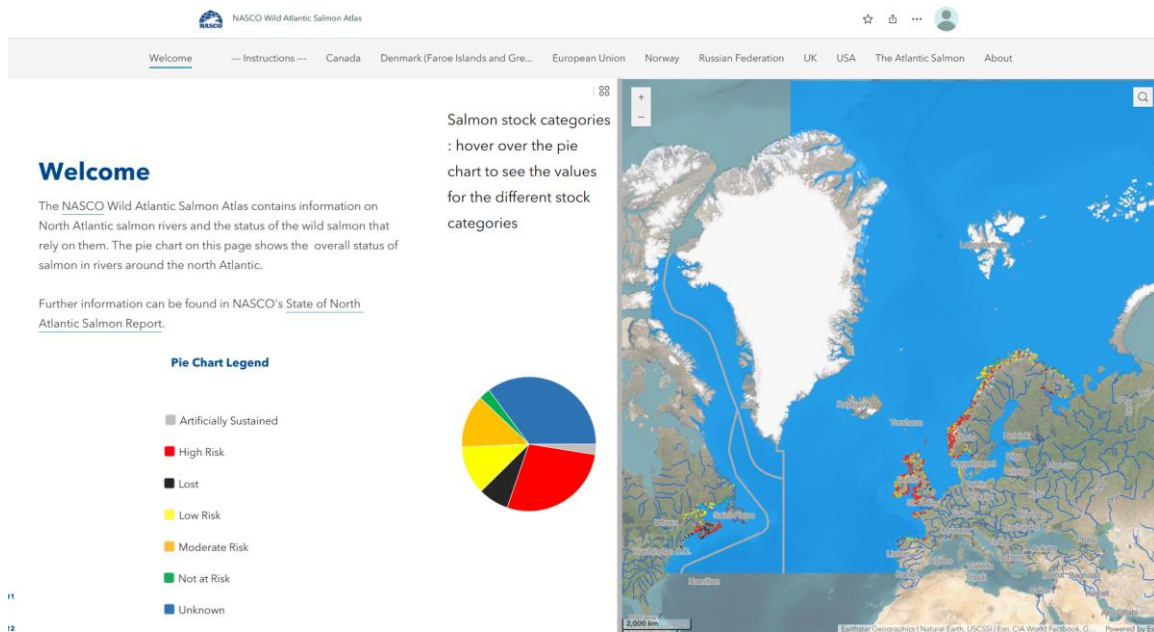
At its Annual Meeting in 2021, [CNL\(21\)62](#), Council agreed: ‘that NASCO should retain a website-accessible Rivers Database; to caveat the Rivers Database with the appropriate disclaimers; and that the Secretariat should make the Rivers Database available in a map-based form on the website as soon as possible.’ The Rivers Database was made available on the website: [NASCO Rivers Database – NASCO](#). Council also agreed: ‘to establish a Working Group to address high-level issues with respect to the Rivers Database, and to report back to the Annual Meeting in 2022’. The ‘Report of the Rivers Database Working Group’, [CNL\(22\)12](#), was considered by Council at the NASCO Annual Meeting in June 2022. All the recommendations made were accepted, including the information to be provided by the Parties for inclusion in the future Rivers Database. Council agreed to ask the Rivers Database Working Group to act as the Steering Committee for the development of the ‘Wild Atlantic Salmon Atlas’ (the ‘Atlas’) and to progress this work.

The Secretariat contracted a GIS specialist from the Forth Rivers Trust to develop NASCO’s Wild Atlantic Salmon Atlas in line with the recommendations contained in [CNL\(22\)12](#) and the decisions of Council at the Annual Meeting in June 2022, [CNL\(22\)53rev](#), under the direction of the Steering Committee. An update on progress, ‘Progress Report on the Wild Atlantic Salmon Atlas’, [CNL\(23\)16](#), was presented at the NASCO Annual Meeting in June 2023. The Secretariat, GIS specialist and Steering Committee have continued to develop the Atlas work since the 2023 Annual Meeting and are now able to present the Atlas to Council.

***Financing the Atlas***

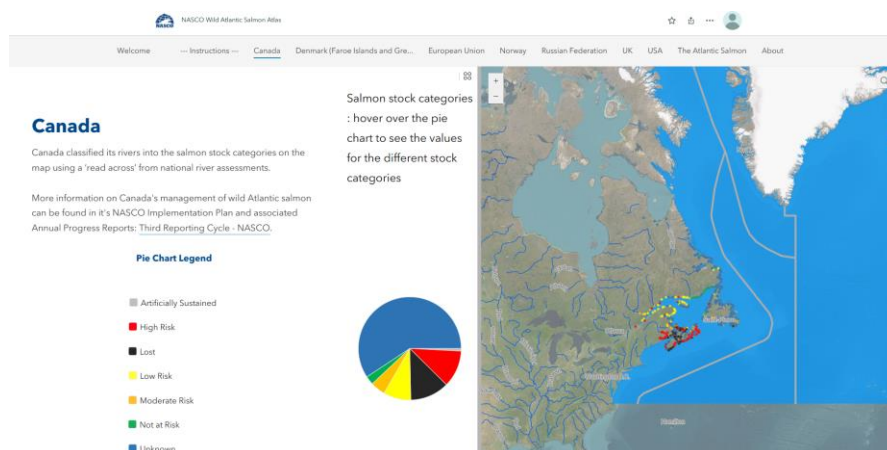
At its 2022 [Annual Meeting](#), Council agreed to use the Periodic Projects Special Fund to fund the development of the Atlas over two years. Council originally considered that around £10,000 would be needed to develop the Atlas. The current completed and planned work on the Atlas is within the estimated cost.

# The Wild Atlantic Salmon Atlas



The general layout of the Atlas has now been developed using the data in the Rivers Database, provided between 2016 and 2019. The Secretariat has met twice with the Steering Committee in 2024 and worked by correspondence to refine the Atlas and consult on its design and functionality. Most of the elements agreed in 2022 have been included in the Atlas although some could not be included, for technical or other reasons. An explanation of the features of the Atlas, developed in accordance with the specifications from the Rivers Database Working Group agreed by Council in 2022, is set out in Annex 1.

The Atlas shows information about North Atlantic salmon rivers. Each river mouth is shown with a coloured dot representing the stock status of the river, and data about the river are available when the dot is selected. A side bar is included to provide additional explanatory text, such as information about each Party / jurisdiction.



Additional 'tabs' include background information on Atlantic salmon and general information about the Atlas and its purpose.

A video has been created to provide a virtual tour of the Atlas and will be shown during the Annual Meeting as it is not currently possible to access the Atlas without publishing it online.

In future, when the required information is provided by Parties / jurisdictions, the Atlas will show changes in stock status over different time periods.

### **Recommendations from the Steering Committee on the Next Steps for the Atlas**

The Parties / jurisdictions will need to provide the information agreed in 2022 for inclusion in the Atlas (shown in Annex 2), which the Secretariat will use to populate the Atlas initially. *(N.B. No data are included for Iceland at present as Iceland was not a Contracting Party to NASCO when the previous information requests were issued for the Rivers Database. The current budget allows for inclusion of the Icelandic information once it has been requested and provided).*

1. The Steering Committee recommends that the Secretariat is asked to use the information provided under Table 2 in Annex 2 to draft text for the side bar for each Party / jurisdiction. The drafted text would then be sent to the relevant Party / jurisdiction for approval prior to inclusion in the Atlas.
2. The Steering Committee recommends that a webinar is held in September 2024 to allow the people responsible for providing the data for each Party / jurisdiction to ask any questions of the Steering Committee or discuss what is required of them.
3. The Steering Committee also recommends a ‘soft launch’ of the Atlas in Q2 of 2025, when users such as NASCO’s accredited NGOs and schools could be asked to provide feedback on the Atlas which could be incorporated, if necessary, in advance of the launch of the Atlas.
4. The Steering Committee recommends that Council agrees to publish the Atlas as developed by the Steering Committee in accordance with the following timeline:
  - Secretariat to request data as soon as possible after the 2024 Annual Meeting; webinar to aid provision of data, likely to be held in September 2024; data to be returned by December 2024; end Q1 2025 – data to be uploaded; Q2 2025 – ‘soft’ launch of Atlas; and Annual Meeting 2025 – Launch of Atlas.

The proposed timeline will result in the Atlas being published with new data, enabling the clear demonstration of trends through comparison of aligned data sets after the next round of data is sought; the update duration needs to be decided by Council.

5. The Steering Committee recommends that it continues to meet on an ad-hoc basis following the launch of the Atlas to address any feedback and to ensure that the Atlas remains up-to-date and relevant. Virtual meetings will be decided in consultation between the Chair and Secretariat.

### **Translation of the Atlas**

Recommendation 11 of [CNL\(22\)12](#), which was agreed by Council in 2022, states:

*‘The Rivers Database should be made available in the official languages of the NASCO Parties, and the Secretariat should work with the Parties to enable this.’*

The Secretariat has begun looking into options for translation of the Atlas and will continue to explore this further alongside the Next Steps above.

Secretariat  
Edinburgh  
17 May 2024

## Annex 1

**Table 1.** An explanation of the features of the Atlas, developed in accordance with the specifications from the Rivers Database Working Group agreed by Council in 2022.

	SPECIFICATION	EXPLANATION OF HOW THIS HAS BEEN / WILL BE ADDRESSED
<b>Data about each salmon river across the north Atlantic</b>		
1	River ID	Included in each river pop-up, in the table
2	Party	Included in each river pop-up, in the table
3	Country	Included in each river pop-up, in the sentence at the top
4	Region / Province	Included in each river pop-up, in the table
5	River Name	Included in each river pop-up, at the top, as a heading
6	Location Latitude	Included in each river pop-up, in the table
7	Location Longitude	Included in each river pop-up, in the table
8	Salmon Stock Category	Included in each river pop-up, in the sentence at the top
9	Stocking Intervention	Not currently, but will be included in the river pop-up when Parties provide the information
10	Salmon Stock Category Trend	Not currently, but will be included in the river pop-up when Parties provide the information
11	Other Information: Summary of Significant Recovery and / or Management Actions; Special Designations; Specific Threats; and Total Conservation Requirement	Included in each river pop-up, in the table.
12	Year in which the stock status assessment was conducted	Not currently, but will be included in the river pop-up when Parties provide the information
13	Links to further information	Not currently, but will be included in the river pop-up when Parties provide the information
<b>Data about a Region / Country</b>		
14	Data about a Region / Country	The side bar on the left hand side provides data about the relevant Region / Country. It currently contains information on how the salmon stock categories were devised and links to the Third Reporting Page on the NASCO website, for more information. However, the information provided by each Party will be used to draft comprehensive text for approval and inclusion prior to publishing the Atlas.

15	GIS shapefile requested from Parties / jurisdictions to display whole salmon river	Not currently, but will be included if Parties provide the shapefiles. As agreed in 2022, where a shapefile has not been provided, the catchment area is shown (in the river pop-up, in the table)
16	Main impact factors adversely affecting salmon stocks at a regional or national level	Not currently, but will be included in the side bar text when Parties provide the information
17	Information on the methods used to arrive at the Stock Classification Category	The side bar text on the left hand side provides data about how the salmon stock categories were devised
18	Links to additional overarching information on rivers (optional)	Not currently, but will be included in the side bar text when Parties provide the information
<b>Look and Feel of the Map</b>		
19	A map-based display, showing the whole river	The Atlas is a map-based display. Rivers are visible, especially when you zoom in.
20	River names appear when cursor hovers over a river	This is not possible at present within ArcGIS but the River name shows in the pop-up once a dot is selected.
21	When the river is selected, full data are shown	Yes – as set out above
22	Different layers / filters are available for the stock classification categories and other variables (e.g. Country) in different years	Different stock classifications categories can be shown in the ‘The North Atlantic’ slide, by clicking on the legend. Data by Country is available by scrolling down the side bar or selecting the Country tab at the top of the screen
23	A search facility	A search facility is available by clicking on the looking glass in ‘The North Atlantic’ slide.
24	Impacts adversely affecting salmon stocks are displayed at a regional level	Not currently, but will be included in the side bar text when Parties provide the information
25	Summary regional information is displayed, including impacts adversely affecting salmon stocks, management authorities, and links to websites	Not currently, but will be included in the side bar text when Parties provide the information
26	A summary display of rivers within a region is available, e.g. number of rivers, number of rivers in each stock classification category, including in summary charts	Data by Country is available by scrolling down the side bar or selecting the Country tab at the top of the screen. The pie chart for each country shows the number of rivers in each stock classification category
	Other NASCO information is mapped such as the NASCO Convention Area, Commission Areas, etc	The NASCO Convention area is shown in bright blue and Commission areas are shown.

27	The description of the Atlas should be caveated, for example, it should state the purpose of the database explicitly, how it is compiled, that it does not consider the size of stocks, and how it links to other sources of information on the status of stocks (e.g. ICES WGNAS reports, national conservation assessments)	An 'About' slide is included with general background information and caveats
28	Parties / jurisdictions should be recognised as the source and owners of the data	Included in the 'About' slide
29	It should be compatible on phones, tablets etc	The Atlas can be viewed on phone and tablet, although it is best and fully functional on larger screens.
30	It should be accessible – for example, takes into account colour blindness etc	The colours used in the Atlas are the same as those used in the Rivers Database, which had been chosen taking colour-blindness into account. The 'immersive reader' function on most browsers can be used to read the Atlas aloud and contains other accessibility features.
31	The NASCO Secretariat must be able to input all data to the Rivers Database	Yes – the NASCO Secretariat will be trained to input data
32	If technically feasible, Parties / jurisdictions, in different countries, should be able to input some data to the Atlas platform directly themselves, securely and potentially in draft (subject to technical advice), to be finalised by the Secretariat	This is possible if the Party has an ESRI account. However, it might be preferable for the Party to supply the data to the Secretariat in a spreadsheet format and for the Secretariat to input that to ArcGIS
<b>Outputs / Downloads</b>		
33	Data from the Atlas should be available for export. This should come with a note explaining that it is summary data and that detailed support and data could be sought from the relevant authority that owns the data.	This is available by clicking on the 'Actions' (four squares) in any slide. The caveat is included in the 'About' slide
34	It should be possible to download a report / map / image via a query function on the Rivers Database, with the NASCO logo embedded and there should also be capability to download maps and data in a useable format (e.g. jpegs and csv files).	This is available by clicking on 'Toggle Screenshot' on the 'Instructions' slide. There is currently no available function to include the NASCO logo, instead the data has a footnote that states 'Data taken from the NASCO Wild Atlantic Salmon Atlas'.

**Data required from Parties / jurisdictions (as agreed in 2022)***Table 1. Data required at river level for the Wild Atlantic Salmon Atlas*

<b>Field</b>	<b>Requirement</b>	<b>Detail</b>
Party	Mandatory	
Country	Mandatory	
Region / Province	Optional	
River Name	Mandatory	mainstem where it reaches the sea
Latitude	Mandatory	
Longitude	Mandatory	
Salmon Stock Category	Mandatory	as determined by Party/jurisdictions using the agreed categories of : 'low', 'moderate' high', 'lost' or 'unknown'
Year	Mandatory	year of assessment
Stocking Intervention	Mandatory	used as a management tool in last 5 years (yes / no)
Catchment area	Mandatory unless GIS shapefile of catchment provided	need to specify units (e.g. km <sup>2</sup> )
Salmon Stock Category Trend	Mandatory	will only appear once a second round of data is sought and provided
Other Information	Mandatory	e.g. details of any protected area; special stock characteristics; main impact factors (although main impact factors will also be provided on a regional or national basis under Table 2)
Links	Optional	any other information specific to river
<b>Other Information</b>		
Significant Recovery and/or Management Actions	Optional	
Special Designations	Optional	
Specific Threats	Optional	
Total Conservation Requirement	Optional	need to specify units (e.g. eggs)
GIS shapefile (polygon) of catchments	If possible	if not possible, provide catchment area

**Table 2.** Data required at jurisdiction level for the Wild Atlantic Salmon Atlas

<b>Content</b>	<b>Comments</b>
Party / jurisdiction	Jurisdiction where Party includes multiple countries (UK, EU)
Main impact factors	at regional or national scale
Stock status methods	provide links to methods / outputs of assessments if available
Additional	any additional text on rivers or management authorities