CNL(13)61

NASCO Implementation Plan for the period 2013-18

EU – Spain (Galicia)

CNL(12)61

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The main purpose of this Implementation Plan is to demonstrate what actions are being taken by the jurisdiction to implement NASCO Resolutions, Agreements and Guidelines.

Questions in the Implementation Plan refer to the following documents:

- *NASCO Guidelines for Management of Salmon Fisheries, CNL(09)43 (referred to as the Fisheries Guidelines');*
- *Minimum Standard for Catch Statistics, CNL(93)51 (referred to as the 'Minimum Standard');*
- *NASCO Guidelines for Protection, Restoration and Enhancement of Atlantic Salmon Habitat, CNL(10)51 (referred to as the 'Habitat Guidelines');*
- *Williamsburg Resolution, CNL (0 6)48; and*
- *Guidance on Best Management Practices to address impacts of sea lice and escaped farmed salmon on wild salmon stocks (SLG(09)5) (referred to as the 'BMP Guidance').*

Party:	**European Union**
Jurisdiction/Region:	**Spain (Galicia)**

1. Introduction

1.1 What are the objectives for the management of wild salmon? *(Max 200 words)*

The general objective is to promote and protect diversity and abundance of wild salmon stocks, maintaining where possible recreational exploitation under sustainable guidelines.

1.2 What reference points (e.g. conservation limits, management targets or other measures of abundance) are used to assess the status of stocks? *(Max 200 words)* *(Reference: Sections 2.4 and 2.5 of the Fisheries Guidelines)*

CLs have not been set for any salmon river in Galicia. From a very preliminary experience in upper river Eo a deposition rate of 8,02eggs/m² in optimal areas was estimated as S_{MAX} while S_{MSY} was determined to be 3,86 eggs/m². The last corresponds to a recruitment of 1,2 ind/m² in terms of summer parr density(0+) related again exclusively to optimal areas. Anyhow it is believed that the reach studied was a very productive one and best parr densities found in other rivers are quite far from this value (though biomass values maybe comparable). A 0+ summer parr density of 0,9 ind/m² in optimal areas is considered to be a very good one in galician rivers.

1.3 To provide a baseline for future comparison, what is the current status of stocks relative to the reference points described in 1.2, and how are threatened and endangered stocks identified?

Category	Description of category and link to reference points	No. rivers
1	*Very good status: > 0,90 parr/m²*	-
2	*Good status: 0,50-0,90 parr/m²*	*1*
3	*Medium status: 0,25-0,50 parr/m²*	*1*
4	*Poor status: 0,10-0,25 parr/m²*	*5*
5	*Endangered stocks: < 0,10 parr/m²*	*5*
6	*Unknown*	*4*
7	*Lost stocks*	*6*

Insert additional categories as required

TOTAL:	*22*

Additional comments:

Parr densities referred to last ten years average. Classes 1-2 may include rivers classified as "Not threatened with loss" under NASCO categories while classes 3-5 should be included in the "Threatened with loss" category but include some rivers "Restored" (4).

1.4 How is stock diversity (e.g. genetics, age composition, run-timing, etc.) taken into account in the management of salmon stocks? *(Max 200 words)*

Salmon populations in Galicia are comprised mainly of 2SW fish as 3SW fish are now very scarce; grilse were never a big part of the population though presently play an important role in spawning grounds. Anyhow 1SW fish are misrepresented in catch data, due to the early closure of the season (by the end of july) as flows use to be very low in mid summer. There is no autumn run in Galician rivers. A late opening date for fishing to 1st of may

intends to protect larger MSW fish in the rivers of galician government full responsibility. In Miño river (Spanish-P
ortuguese administration) the opening date is about February, while in river Eo reaches in which asturian authorities are involved it has been impossible to apply this measure but a few years.

No special management measures are applied to mixed-stock fisheries (but see 2.4)

Up to this time stocking has been made up exclusively of fish of galician origin, trying to avoid translocations from the Cantabrian basin to the Atlantic one or even from a river to another in each basin. Future restoration programmes may encounter difficulties as availability of fish is limited for some rivers.

1.5 To provide a baseline for future comparison, what is the current and potential quantity of salmon habitat? *(Max 200 words)*
(Reference: Section 3.1 of the Habitat Guidelines)

Historical habitat comprised more than 5.300 km of salmon rivers and tributaries but today just about 1.100 km of them are available to migrants. The main loss had place in the Miño river system where more than 3.000 km have been definitely lost due to hydroelectric development. The current area occupied by salmon is about 410 km, less than 40% of the present potential habitat and about 8% of the historical one.
Restriction of populations to the lowermost parts of rivers means that the quality of habitat is not the best for the species in terms of water quality and water temperature.

1.6 What is the current extent of freshwater and marine salmonid aquaculture?

Number of marine farms	*1 (experimental design)*
Marine production (tonnes)	*50-100?*
Number of freshwater facilities	*35*
Freshwater production (tonnes)	*3.800*

Append one or more maps showing the location of aquaculture facilities and aquaculture free zones in rivers and the sea.

1.7 To aid in the interpretation of this Implementation Plan, have complete data on rivers within the jurisdiction been provided for the NASCO rivers database?
Yes/no/comments

Yes (but seem not to be included in it yet)

2. Fisheries Management:

2.1 What are the objectives for the management of the fisheries for wild salmon?
(Max. 200 words)

There are no commercial fisheries for salmon in galician waters -neither in the sea nor in freshwater- but in the Miño estuary, a joint responsibility of Spain and Portugal governments. Sport fisheries are severely restricted and the general aim is to preserve them where possible avoiding risks for salmon populations.

2.2 What is the decision-making process for fisheries management, including predetermined decisions taken under different stock conditions (e.g. the stock level at which fisheries are closed)? *(Max. 200 words)*
(This can be answered by providing a flow diagram if this is available.)
(Reference: Sections 2.1 and 2.7 of the Fisheries Guidelines)

A TAC for each river is established prior to fishing season on the basis of the abundance information available of previous years (fish traps, counters, catches, parr densities and stocking).

2.3 Are fisheries permitted to operate on salmon stocks that are below their reference point and, if so, how many such fisheries are there and what approach is taken to managing them that still promotes stock rebuilding? *(Max 200 words.)*
(Reference: Section 2.7 of the Fisheries Guidelines)

Angling for salmon is allowed just in 6 rivers; 5 of it would be clearly under any reference point that could be fixed but stocking practices are intense in most of them and the TAC is really low (just 5 fish in some rivers!!!). Say fishing is allowed in these rivers only for the maintenance of the interest of people in the species and a certain level of protection for its habitat.

The case of river Miño is quite different as there is neither a real control of net catches nor a true knowledge of the stock. Stocking is intense in some of its galician tributaries and is supposed to play an important role on commercial catches but again there is a severe lack of information on this fishery and the salmon stock.

2.4 Are there any mixed-stock salmon fisheries and, if so, (a) how are these defined, (b) what was the mean catch in these fisheries in the last five years and (c) how are they managed to ensure that all the contributing stocks are meeting their conservation objectives? *(Max. 300 words in total)*
(Reference: Section 2.8 of the Fisheries Guidelines)

(a) *There are not truly mixed- stock fisheries in Galicia. The only one that could be considered to be so is the one operated in Miño river by nets, were an unknown proportion of fish from tributaries –which are managed by the regional government on a very strict basis- are caught in the main river fishery, managed by the government of Spain together with that of Portugal.*

(b) *Official catch for the last five years in river Miño was 23 salmon in average (just including data from Spain) but commercial fishing for salmon was banned during 2 years in the period and it is known that unreported catches in nets may be very high in this fishery.*

(c) *Stocking with fish of local origin is intense in spanish tributaries of Miño river whilst fishing for salmon is not allowed, but parr densities remain low (poor status).*

2.5 How are socio-economic factors taken into account in making decisions on fisheries management? *(Max. 200 words)*
(Reference: Section 2.9 of the Fisheries Guidelines)

Fishermen and other stakeholders are heard in a "General Fishing Committee" meeting (there are four "Province Committees" too, prior to the general one) which takes place each year prior to the proposal of the yearly fishing regulations. Any relevant action on fish populations is stated and debated in these committees.

2.6 What is the current level of unreported catch and what measures are being taken to reduce this? *(Max. 200 words)*
(Reference: Section 2.2 of the Fisheries Guidelines and the Minimum Standard)

The level of unreported catches is unknown. In the Miño fishery declaration of catches is not mandatory and it is believed that the number of unreported salmon fished by nets may exceed largely the declared catch. In the rest of salmon rivers the unreported catch consists mainly in a few illegal fish and some by-catches in coastal waters not easy to evaluate as are in theory discarded -retention of salmonid fishes is illegal out of riverine waters- and even those fish may be misclassified as sea-trout or even trout. In relation to running waters poaching is believed to exist in every river in a bigger or smaller extent and with the exception of river Eo -were controls are intensive- or maybe river Ulla, the unreported (illegal) catch may equal the declared one, as the total allowed catch is small in most of the rest of the rivers. Sea-trout fisheries in salmon areas are a permanent source of conflict where/when fishing for salmon is banned.

2.7 What are the main threats to wild salmon and challenges for management in relation to fisheries, taking into account the Fisheries Guidelines and the specific issues on which action was recommended for this jurisdiction in the Final Report of the Fisheries Management FAR Review Group, (CNL(09)11)?

Threat/ challenge F1	*Development of CLs for galician rivers and better management criteria for fisheries.*
Threat/ challenge F2	*Most facts on the salmon population of river Miño -and its relation with those of the tributaries- are still unknown and seems that there is no rationale for the management or control of present estuarine fisheries.*
Threat/ challenge F3	*Sea-trout or even trout fisheries are in continued conflict with the conservation of salmon specially in rivers where the species is in poorer status.*
Threat/ challenge F4	*Weakening of some populations is leading to the isolation of the southernmost populations (those in the Atlantic basin) from the Cantabrian ones which are into contact with those of asturian rivers.*

Copy and paste lines to add further threats/challenges which should be labelled F5, F6, etc.

2.8 What actions are planned to address each of the above threats and challenges in the five year period to 2018?

Action F1:	Description of action:	*Setting of CLs should be completed at least for rivers Eo and Ulla, where information is more extensive. CLs should also be fixed for rivers Masma, Mandeo and Lérez, derived from information on the previous where necessary.*
	Planned timescale:	*2015-2018.*
	Expected outcome:	*Development of a reliable management system to fix catch quota.*
	Approach for monitoring effectiveness & enforcement:	*Data from fish counters/traps and catch records. Summer parr densities derived from electrofishing.*
Action F2:	Description of action:	*Cooperation with the central government of Spain in the development of fishing rules and research on the salmon population of river Miño.*
	Planned timescale:	*2015-2018*
	Expected outcome:	*Reinforcement of the population in the main river and its tributaries.*
	Approach for monitoring effectiveness & enforcement:	*Catch records and data from traps in the main river and tributaries. Evolution of parr densities in tributaries.*
Action F3:	Description of action:	*Development and implementation of specific fishing rules, criteria or management strategies for sea-trout and trout in salmon rivers.*
	Planned timescale:	*2013-2018*
	Expected outcome:	*Minimizing adverse effects on populations and unreported catch.*
	Approach for monitoring effectiveness & enforcement:	*Improvement of salmon population status.*
Action F4:	Description of action:	*Development of a Conservation/Restoration Plan for salmon rivers in the A Coruña province*
	Planned timescale:	*2013-2018*
	Expected outcome:	*Reinforcement of the populations of rivers Mandeo and Xubia; recolonization of rivers Sor and Anllóns.*
	Approach for monitoring effectiveness & enforcement:	*Adult controls in fish traps or counters; summer electrofishing for parr.*
Copy and paste lines to add further actions which should be labelled F5, F6, etc.		

3 Protection and Restoration of Salmon Habitat:

3.1 How are risks to productive capacity identified and options for restoring degraded or lost salmon habitat prioritised, taking into account the principle of 'no net loss' and the need for inventories to provide baseline data? *(Max. 200 words)*
(Reference: Section 3 of the Habitat Guidelines)

Parr surveys are carried out every summer for the main salmon rivers, showing productivity trends and changes in different reaches. There is as well a "general inventory of (juvenile)salmon habitat" which allows comparisons between reaches but also provides the reference baseline for evaluating the effects of any potential pressure on salmon habitat.

3.2 How are socio-economic factors taken into account in making decisions on salmon habitat management? *(Max. 200 words)*
(Reference: Section 3.9 of the Habitats Guidelines)

See 2.5 but river habitat management is a responsibility of water authorities, which operate under the guidelines of the WFD. Besides most salmon rivers in Galicia are (or will be) included in Natura 2000 network. All of these facts impose a strong public participation in any decision on salmon habitat management.

3.3 What are the main threats to wild salmon and challenges for management in relation to estuarine and freshwater habitat taking into account the Habitat Guidelines, and the specific issues on which action was recommended for this jurisdiction in the Final Report of the Habitat Protection, Restoration and Enhancement FAR Review Group, (CNL(10)11)?

Threat/ challenge H1	*Temperature can be critical in rivers from this southernmost range for the species and this will be worse in the future as a result of climatic change.*
Threat/ challenge H2	*Quality of water is far away from the "good status" in some reaches of salmon rivers in Galicia.*
Threat/ challenge H3	*Water diversion is a critical problem in some rivers reducing availability of habitat as well as bringing out problems of accessibility.*
Threat/ challenge H4	*Populations are usually restricted to the lowermost reaches of rivers because of artificial obstacles, with limited or no access to cooler waters of good quality where the best spawning grounds or rearing habitat are located.*

Copy and paste lines to add further threats/challenges which should be labelled H5, H6, etc.

3.4 What actions are planned to address each of the above threats and challenges in the five year period to 2018?

Action H1:	Description of action:	*Criteria for management of riparian vegetation outside of RN 2000 will be developed. In RN 2000 guidelines have been already developed, but implementation is needed. Development of a cover index.*
	Planned timescale:	*2015-2018*
	Expected outcome:	*Maintenance of an adequate cover may contribute to attenuate summer temperatures.*

	Approach for monitoring effectiveness & enforcement:	*Cover index.*
Action H2:	Description of action:	*Following the implementation of the WFD there are several programmes ongoing aimed to the subject.*
	Planned timescale:	*2015?*
	Expected outcome:	*"Good ecological status" for all water bodies is a general objective under the WFD. An improvement in water quality is expected.*
	Approach for monitoring effectiveness & enforcement:	*Ecological status of water bodies, as published by water authorities. Densities of parr should be improved.*
Action H3:	Description of action:	*Implementation of compensation flows is ongoing under the guidelines of river basin management plans.*
	Planned timescale:	*2015?*
	Expected outcome:	*Recovery of some reaches that presently are under very reduced flows or completely dry.*
	Approach for monitoring effectiveness & enforcement:	*Re-colonization of potential habitat should lead to an increase of current habitat. Improvement of parr densities.*
Action H4:	Description of action:	*Removal of obstacles. Construction of fishways. Improvement of accessibility.*
	Planned timescale:	*2013-2018 depending on funding*
	Expected outcome:	*Access to upper reaches*
	Approach for monitoring effectiveness & enforcement:	*Increase of current habitat. Improvement of parr densities.*
Copy and paste lines to add further actions which should be labelled H5, H6, etc		

4. Management of Aquaculture, Introductions and Transfers, and Transgenics:

4.1 What is the approach for determining the location of aquaculture facilities in (a) freshwater and (b) marine environments to minimise the risks to wild salmon stocks? *(Max. 200 words for each)*

(a) *There are no general restrictions for this use; each case is evaluated individually. At the moment there are no salmon aquaculture facilities in freshwater in Galicia other than those (two) property of the regional government, devoted to stocking with fish of local origin.*

(b) *Presently a regional aquaculture strategy document is under development, including*

guidelines, location planning, restrictions and best practice reference documents that still must be reviewed but are supposed to include or consider the terms of the Williamsburg Resolution were applicable.
4.2 What progress can be demonstrated towards the achievement of the international goals for effective sea lice management such that there is no increase in sea lice loads or lice-induced mortality of wild stocks attributable to sea lice? *(Max. 200 words)* *(Reference: BMP Guidance)*
No information available from the only (experimental) salmon farm in Galician waters.
4.3 What progress can be demonstrated towards the achievement of the international goals for ensuring 100% containment in (a) freshwater and (b) marine aquaculture facilities? *(Max. 200 words each)* *(Reference: BMP Guidance)*
(a) *Not applicable.*
(b)) *No information available from the only (experimental) salmon farm in Galician waters.*
4.4 What progress has been made to implement NASCO guidance on introductions, transfers and stocking? *(Max. 200 words)* *(Reference: Articles 5 and 6 and Annex 4 of the Williamsburg Resolution)*
Regional authorities operate only with fish of local origin for stocking. *No information available from the only (experimental) salmon farm in Galician waters.*
4.5 What is the policy/strategy on use of transgenic salmon? *(Max. 200 words)* *(Reference: Article 7 and Annex 5 of the Williamsburg Resolution)*
Regional authorities operate only with fish of local origin for stocking. *No information available from the only (experimental) salmon farm in Galician waters.*
4.6 What measures are in place to prevent the introduction or further spread of *Gyrodactylus salaris*? *(Max. 200 words)*
Regional authorities operate only with fish of local origin for stocking and this parasite has not been detected in galician waters.
4.7 What are the main threats to wild salmon and challenges for management in relation to aquaculture, introductions and transfers, and transgenics, taking into account the Williamsburg Resolution, the BMP Guidance and specific issues on which action was recommended for this jurisdiction in the Final Report of the Aquaculture FAR Review Group, (CNL(11)11)?

Threat/ challenge A1	*Recently full competences on Aquaculture have been transferred and unified under a single management agency that is supposed to improve information on these matters in the next future.*
Threat/ challenge A2	

Threat/ challenge A3	
Threat/ challenge A4	
Copy and paste lines to add further threats/challenges which should be labelled A5, A6, etc.	

4.8 What actions are planned to address each of the above threats and challenges in the five year period to 2018?

Action A1:	Description of action:	*No information available.*
	Planned timescale:	
	Expected outcome:	
	Approach for monitoring effectiveness & enforcement:	
Action A2:	Description of action:	
	Planned timescale:	
	Expected outcome:	
	Approach for monitoring effectiveness & enforcement:	
Action A3:	Description of action:	
	Planned timescale:	
	Expected outcome:	
	Approach for monitoring effectiveness & enforcement:	
Action A4:	Description of action:	
	Planned timescale:	
	Expected outcome:	
	Approach for monitoring effectiveness & enforcement:	
Copy and paste lines to add further actions which should be labelled A5, A6, etc		