

	Council <i>Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2022 EU – Germany</i>	CNL(23)47rev
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Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2022

The Annual Progress Reports allow NASCO to evaluate progress on actions taken by Parties / jurisdictions to implement its internationally agreed Resolutions, Agreements and Guidelines and, consequently, the achievement of their objectives and actions taken in accordance with the Convention. The following information should be provided through the Annual Progress Reports:

- any changes to the management regime for salmon and consequent changes to the Implementation Plan;
- actions that have been taken under the Implementation Plan in the previous year;
- significant changes to the status of stocks, and a report on catches; and
- actions taken in accordance with the provisions of the Convention.

*In completing this Annual Progress Report please refer to the **Guidelines for the Preparation and Evaluation of NASCO Implementation Plans and for Reporting on Progress, CNL(18)49.***

These reports will be reviewed by the Council. Please complete this form and return it to the Secretariat **no later than 1 April 2023.**

Party:	European Union
Jurisdiction / Region:	Germany

1: Changes to the Implementation Plan
1.1 Describe any proposed revisions to the Implementation Plan (Where changes are proposed, the revised Implementation Plans should be submitted to the Secretariat by 1 November).
1.2 Describe any major new initiatives or achievements for salmon conservation and management that you wish to highlight.
<p>Several water-engineering measures were finalised in the Rhine tributaries in 2022 and further projects are either in the planning or implementation stage.</p> <p>In October 2022, the construction works for the fish pass at the dam in Rhinau (France) have started. Rhinau is one of three dams in the southern Upper Rhine that still must be equipped with fish passes, so that the ascending salmon can reach the Basel area and the southern Black Forest tributaries.</p> <p>The Netherlands continue to work on optimising the operation of the locks on the Haringvliet dam. A no-fishing zone has been established on the Haringvliet. The construction works for the fish migration river in the Afsluitdijk are going according to plan.</p>

The construction work to restore ecological continuity at the weir in Kostheim on the river Main, an important tributary of the Rhine, is nearing completion. Accompanying monitoring is planned.

The aims of these measures are to improve habitat quality and migration and to ensure sufficient drainage. These measures might significantly improve migration to known spawning areas, spawning activity, juvenile salmon abundance and the resulting long-term migration of juvenile salmon.

Due to the increasing development of high-quality habitats for salmon in the middle reaches of resettlement waters, as well as descent aids and protection facilities at hydropower plants, stock improvement measures can be relocated to such favourable sections upstream.

In 2022, the states in the Rhine catchment started work on commissioning a study to monitor the success of the reintroduction programme. The study is expected to provide insights into the causes of the low numbers as well as proposals for countermeasures.

2: Stock status and catches.

2.1 Provide a description of any new factors that may affect the abundance of salmon stocks significantly and, if there has been any significant change in stock status since the development of the Implementation Plan, provide a brief (200 word max) summary of these changes.

In 2022, that was characterised by very low water and discharge levels in the Rhine and very dry conditions in the catchment area, less than 200 adult salmon along with little natural spawning activities were registered in the Rhine catchment. Thus, the numbers remained at a low level.

The stocking measures in suitable tributaries in the whole catchment area were continued. In 2022, approximately 2 million young salmon were released.

Four pink salmon were detected in the Rhine-Meuse Delta in the Netherlands.

Similar to the Rhine, in the Weser and Elbe river basins, impairments of salmon reintroduction projects were reported due to summer drought and low water discharge. The number of observed salmon returns is also stagnating at a low level in this river basins.

Neither farmed salmon nor pink salmon were reported in the lower reaches of the Elbe River and other northern German rivers in 2022.

Some successful and planned spawning habitat restorations were reported in tributaries in the middle reaches of the Elbe River.

In the upper reaches of the Elbe River in Saxony, there is evidence of natural reproduction of salmon in rivers where salmon have not previously been released. It seems that Salmon naturally expand their range in this region.

2.2 Provide the following information on catches: (nominal catch equals reported quantity of salmon caught and retained in tonnes ‘round fresh weight’ (i.e. weight of whole, ungutted, unfrozen fish) or ‘round fresh weight equivalent’).

	In-river	Estuarine	Coastal	Total
(a) provisional nominal catch (which may be subject to revision) for 2022 (tonnes)	0,15t by recreational fisheries in Lower Saxony			
(b) confirmed nominal catch of salmon for 2021 (tonnes)	0,1t by recreational fisheries in			

	Lower Saxony, 0.04t by recreational fisheries in Brandenburg			
(c) estimated unreported catch for 2022 (tonnes)	0,1t by recreational fisheries in Baden-Wuerttemberg			
(d) number and percentage of salmon caught and released in recreational fisheries in 2022	A targeted catch and release in recreational fisheries on salmon does not exist in Germany			

3: Implementation Plan Actions.

3.1 Provide an update on progress on actions relating to the Management of Salmon Fisheries (section 2.9 of the Implementation Plan).

*Note: the reports under 'Progress on action to date' should provide a **brief overview** of each action. Please report in relation to the reporting year only or the most relevant recent year. For all actions, provide **clear and concise quantitative** information to demonstrate progress. In circumstances where quantitative information cannot be provided for a particular action because of its nature, a clear rationale must be given for not providing quantitative information and other information should be provided to enable progress with that action to be evaluated. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.*

Action F1:	Description of action (as submitted in the IP)	A targeted and monitored attempt to build up a self-sustaining salmon stock is under implementation in the Agger river system. River Agger is a tributary of the river Sieg in the Rhine catchment area. The productive capacity of the Agger river system is sufficient to carry a vital salmon population. The aim of the project is to examine whether it is possible to develop a self-sustaining salmon stock under the current framework conditions in a tributary of the Rhine.
	Expected outcome (as submitted in the IP)	Development and verification of a vital salmon population in the Agger river system. The objective is to generate an average fry density of one individual/m ² in early summer, and an average output of 9.000 downstream migrating smolts.
	Approach for monitoring effectiveness & enforcement (as submitted in the IP)	Experts of the North Rhine-Westphalia State Agency for Nature, Environment and Consumer Protection (LANUV NRW) and the Fish Migration Program NRW annually evaluate the results of the monitoring (rotary screw trap, electro fishing) in the Agger river system and decide on further measures. Restocking measures in the main stream, corresponding to natural reproduction rate, no restocking in the tributaries. Comparison of the development of natural reproduction and verification with genetic analyses.

	<p>Progress on action to date <i>(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)</i></p>	<p>Electro fishing campaigns resulted in an average fry density (born 2021/2022) far below the target. The results reflect the persistently low number of returning adult salmon in the Agger system: Due to low outflows during the migration period, only four were recorded in 2021, and only one each in the two previous years. It was decided to replace the lacking natural brood in the rivers Agger and Sülz (tributary) through a restocking measure (151,000 summer parrs, descendants of genetically known parent fish from the Salmon Program NRW). No restocking in all other tributaries.</p> <p>Monitoring of downstream migrating smolts (born 2020/2021) leaving the Agger system allowed an estimate of at least 6,000 to 17,600 individuals. According to a parentage analysis of genetic samples from these animals approx. 12 % originate from natural reproduction, and approx. 88 % from restocking. In the previous year 2021 around 13% came from natural reproduction, in 2020 around 46%.</p>
	<p>Current status of action <i>(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')</i></p>	<p>Choose an item.</p>
	<p>If 'Completed', has the action achieved its objective?</p>	<p>Ongoing</p>
<p>Action F2:</p>	<p>Description of action <i>(as submitted in the IP)</i></p> <p>Expected outcome <i>(as submitted in the IP)</i></p> <p>Approach for monitoring effectiveness & enforcement <i>(as submitted in the IP)</i></p> <p>Progress on action to date <i>(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed</i></p>	<p>The Nahe river is the last major salmon project river in the middle section of the Rhine, where no fishing ban zone has yet been established at his mouth into the Rhine. There is a great need for action to designate a fishing ban zone in this sensitive area to protect migrating salmon during the salmon run.</p> <p>Avoidance of illegal catches at the Nahe river mouth.</p> <p>The fisheries surveillance authority of Rhineland-Palatinate will supervise the implementation of the measure.</p> <p>First steps for the establishment of a fishing ban zone due to protect salmon during the salmon run period started. Fishing should be restricted 500 m upstream and 500 m downstream of the mouth of the Nahe river into the Rhine. Further action on the legal implementation of this measure is expected this year.</p>

	during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)	
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	If 'Completed', has the action achieved its objective?	

3.2 Provide an update on progress on actions relating to Habitat Protection and Restoration (section 3.5 of the Implementation Plan).

*Note: the reports under 'Progress on action to date' should provide a **brief overview** of each action. Please report in relation to the reporting year only or the most relevant recent year. For all actions, provide **clear and concise** quantitative information to demonstrate progress. In circumstances where quantitative information cannot be provided for a particular action because of its nature, a clear rationale must be given for not providing quantitative information and other information should be provided to enable progress with that action to be evaluated. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.*

Action H1:	Description of action (as submitted in the IP)	The German Federal Ministry of Transport, Building and Urban Development launched the program "Ecological Connectivity in Federal Waterways" in 2012. It's objective is to preserve and restore the ecological connectivity at about 250 barrages in German federal waterways to improve fish migration. Many of the proposed measures in the catchments of Rhine, Ems, Weser and Elbe are located in the migration routes to current or potential salmon reintroduction rivers. Hence, these activities have a high priority for reintroduction of salmon in Germany.
	Expected outcome (as submitted in the IP)	Increased accessibility of spawning and juvenile habitats.
	Approach for monitoring effectiveness & enforcement (as submitted in the IP)	For all the implemented measures, monitoring is provided. Here, the functioning of the fish passes will be tested for all relevant fish species.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed)	The Federal Ministry of Digital and Transport published the current concept of prioritisation of measures to improve the connectivity in the German Federal Waterways. The concept was discussed with and agreed upon by the sixteen German Federal States. Twenty-two fishways were already completed by 2021. About 52 measures out

	<p>during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)</p>	<p>of a total of 217 have started before 2021 and an additional 35 measures are projected to be started by the end of 2027. More than 50 of these measures are located in the River Rhine catchment whereas more than 40 measures belong to the Elbe-River catchment. In 2023, two measures at the barrage of Kostheim/Main and at Steinhavel/Havel will be finished whereas three measures (two at the River Neckar and one at the River Main) are brought to trial by the hydropower companies. Another 108 priority actions will be initiated after 2027, along with about 38 measures of lower ranking. At the barrage of Geesthacht (Elbe) the restoration of the southern fishway is still in process and will be finished in summer 2023 as well.</p>
	<p>Current status of action (Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')</p>	<p>Ongoing</p>
	<p>If 'Completed', has the action achieved its objective?</p>	<p></p>
<p>Action H2:</p>	<p>Description of action (as submitted in the IP)</p>	<p>Restoring of up- and downstream river connectivity and habitat quality is highly relevant for a successful salmon reintroduction in the German Rhine catchment area. In this context, many efforts are needed to reopen parts of the former salmon distribution area in order to establish stable salmon stocks on it.</p>
	<p>Expected outcome (as submitted in the IP)</p>	<p>Increased accessibility of spawning and juvenile habitats, increased habitat quality and decreased mortality due to barrages and hydropower plants.</p>
	<p>Approach for monitoring effectiveness & enforcement (as submitted in the IP)</p>	<p>For all the implemented measures, monitoring is provided. Here, especially the functioning of the fish passes will be tested for all relevant fish species. The enforcement of the measures is reviewed and evaluated a six-year cycle in the River Basin Management Plans management plans generated according to the EU Water Framework Directive.</p>
	<p>Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear.</p>	<p>In October 2022, the construction works for the fish pass at the dam in Rhinau (France) have started. Rhinau is one of three dams in the southern Upper Rhine that still must be equipped with fish passes, so that the ascending salmon can reach the Basel area and the southern Black Forest tributaries. Also in 2022, several river engineering measures with a fish ecological background were completed in the Rhine tributaries of Baden-Württemberg. Further projects are in the planning stage or</p>

	<i>Other material (e.g. website links) will not be evaluated)</i>	already in the implementation phase. The aim of these measures is to improve the quality of habitats, the ability of fish to pass through and to ensure sufficient discharge. It is expected that these measures will significantly improve migration to known spawning areas, spawning activity, juvenile salmon runs and the resulting outflow of juvenile salmon in the long term.
	Current status of action <i>(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')</i>	Ongoing
	If 'Completed', has the action achieved its objective?	
Action H3:	Description of action <i>(as submitted in the IP)</i>	One of the central tasks in the implementation of the EU Water Framework Directive in the Elbe catchment area is to establish river connectivity for fish. The coordination of this important water management issue takes place in the so-called supra-regional priority water network. The fulfilment of these tasks is of paramount importance for the reintroduction of salmon in the Elbe and its tributaries.
	Expected outcome <i>(as submitted in the IP)</i>	Improved access to spawning grounds and decreased mortality due to barrages and hydropower plants.
	Approach for monitoring effectiveness & enforcement <i>(as submitted in the IP)</i>	For all the implemented measures, monitoring is provided. Here, the functioning of the fish passes will be tested for all relevant fish species. The enforcement of the measures is reviewed and evaluated a six-year cycle in the River Basin Management Plans management plans generated according to the EU Water Framework Directive.
	Progress on action to date <i>(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)</i>	The International Commission for the Protection of the River Elbe has updated the International Management Plan for the Elbe River Basin District according to the European Water Framework Directive for the period 2021-2027. The selection of the supra-regional priority watercourses was slightly modified in the updated plan. The aim is to restore river continuity for migrating fish at all significant transverse structures of the Elbe river and 57 other water courses in the basin:

		<p>Restoring passage for fish in the supra-regional priority water courses – implementation and operational objectives</p> <table border="1"> <thead> <tr> <th>State</th> <th>Number of supra-regional priority water courses</th> <th>Number of sites with transverse structures</th> <th>Implemented in the first and second management period¹⁾</th> <th>Plan for the third management period²⁾</th> </tr> </thead> <tbody> <tr> <td>Germany</td> <td>Elbe + 42</td> <td>417</td> <td>182</td> <td>85</td> </tr> <tr> <td>Czech Republic</td> <td>Elbe + 15</td> <td>330</td> <td>62</td> <td>29</td> </tr> <tr> <td>Total</td> <td>Elbe + 57</td> <td>747</td> <td>244</td> <td>114</td> </tr> </tbody> </table> <p>1) Number of sites with transverse structures where river continuity for fish was restored in the period of 2010-2021 2) Number of additional sites with transverse structures in which measures for river continuity are to be taken until 2027</p>	State	Number of supra-regional priority water courses	Number of sites with transverse structures	Implemented in the first and second management period ¹⁾	Plan for the third management period ²⁾	Germany	Elbe + 42	417	182	85	Czech Republic	Elbe + 15	330	62	29	Total	Elbe + 57	747	244	114
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<p>If 'Completed', has the action achieved its objective?</p>																						
Action H4:	<p>Description of action (as submitted in the IP)</p>	<p>The German Ministry for Food and agriculture is funding a project, which is dealing with food web manipulation as a tool for the restoration of the hyporheic zone in eutrophicated rivers. <u>Inter alia</u>, this project is addressing the regulation of avian predation, as a central issue. The spatial transferability and thus the potential nationwide applicability of the project results is to be achieved by an experiment in 5 sections of two rivers (one of them is a salmon project river), in which an increased fish stock is created by a combination of stocking and cormorant deterrence. Cormorant predation will be quantified and the direct top-down effects is going to predicted using a model. A user's guide will be drawn up which presents the measure, describes its possible implementation and presents the effects and limits of the measure. This will be accompanied by intensive public relations work (press, scientific publications, training events, public lectures), which will mainly focus on the applicability and potential impacts of food web manipulation as an innovative measure to protect biodiversity.</p>																				
	<p>Expected outcome (as submitted in the IP)</p>	<p>For the first time, this project generates scientifically reliable data relating to a sustainable cormorant management in Germany. Therefore, the project is among others also relevant for the reintroduction of Atlantic salmon.</p>																				
	<p>Approach for monitoring effectiveness & enforcement</p>	<p>Monitoring of the effectiveness and enforcement of the measure is laid down in the project contract and is implemented by the contractor within the framework of the project.</p>																				

	<i>(as submitted in the IP)</i>	
	<p>Progress on action to date <i>(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)</i></p>	<p>Action H4 was completed on schedule at the end of 2022. The Project results provide evidence that the biomanipulation achieved by enhancing herbivorous and omnivorous fish stocks has the potential to mitigate the effects of eutrophication in medium-sized German rivers. The decrease in densities of large fish in the project rivers due to avian predation was verified and a correlation between low fish stocks and eutrophication effects was demonstrated. Thereby, it has been shown that management of overabundant populations of piscivorous birds (detering and lethal shooting) is necessary to maintain a healthy aquatic environment in the project rivers. Intensive public relations work accompanied the project. The experiences, interim results and findings of the project were communicated to the scientific public by means of articles in journals and presentations at conferences. Results were shared to the broader public through various channels: Newspaper articles, contributions to journals, radio and television reports, lectures, excursions and participation at the Week of the Environment in Berlin. To ensure transfer of the results into application and to enable the implementation of biomanipulation, a guideline for sustainable fisheries and river management was prepared and will be published soon. The project has thus contributed to applying scientific findings on the effectiveness of food web control in water protection practice. This makes it a pioneering project for the protection of biodiversity in Medium sized mountain streams, which typically serve salmon as spawning and nursery grounds in Germany.</p>
	<p>Current status of action <i>(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')</i></p>	<p>Completed</p>
	<p>If 'Completed', has the action achieved its objective?</p>	<p>Scientifically reliable data relating to a sustainable cormorant management in Germany could generated by the implemented action. In addition, the project has filled a knowledge gap that will allow managers of salmon reintroduction projects in the future, to base their actions on sound science and manage natural resources in rivers more effectively than in the past.</p>

3.3 Provide an update on progress on actions relating to Aquaculture, Introductions and Transfers and Transgenics (section 4.11 of the Implementation Plan).

*Note: the reports under 'Progress on action to date' should provide a **brief overview** of each action. Please report in relation to the reporting year only or the most relevant recent year. For all actions, provide **clear and concise** quantitative information to demonstrate progress. In circumstances where quantitative information cannot be provided for a particular action because of its nature, a clear rationale must be given for not providing quantitative information and other information should be provided to enable progress with that action to be evaluated. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.*

Action A1:	Description of action (as submitted in the IP)	Undertake a coordinated genetic monitoring in the entire Rhine catchment area.
	Expected outcome (as submitted in the IP)	Find out the most successful genetic management and stocking strategies for a successful reintroduction of salmon in the Rhine catchment area. Genetic monitoring will allow assessing 1. the efficiency of <ul style="list-style-type: none"> • stocking measures performed; • different strains that are stocked; • different stocking strategies (age, parents used, the origin of broodstock etc.) the relative importance for stocking of the different streams of the Rhine catchment.
	Approach for monitoring effectiveness & enforcement (as submitted in the IP)	Experts annually exchange information within the ICPR EG FISH about the genetic monitoring of salmon and optimize the genetic management of salmon in the Rhine catchment area.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)	The genetic analysis of samples that are taken during control fishing show that most salmon (0+, 1+) originate from stocking measures. However, a small number of parrs/smolts in several German rivers cannot be assigned to any hatchery and might originate from natural spawning. Scientists searched for differences in the timing of downstream migration between stocked "Irish" and "Swedish" salmon smolts in the Agger in 2021 and 2022. But no significant difference could be detected. An intensified and coordinated sampling of returning salmon has been coordinated between countries and takes place from 2021 to 2024. Unfortunately, the number of returners is low and not many samples are available for the genetic analysis. However, from about 50% of the returners the parents could be identified in a hatchery.
	Current status of action (Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an	Ongoing

	<i>ongoing action that is reported on annually, it should be marked as 'Ongoing')</i>	
	If 'Completed', has the action achieved its objective?	
Action A2:	Description of action <i>(as submitted in the IP)</i>	
	Expected outcome <i>(as submitted in the IP)</i>	
	Approach for monitoring effectiveness & enforcement <i>(as submitted in the IP)</i>	
	Progress on action to date <i>(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)</i>	
	Current status of action <i>(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')</i>	Choose an item.
	If 'Completed', has the action achieved its objective?	

4: Additional information required under the Convention
4.1 Details of any laws, regulations and programmes that have been adopted or repealed since the last notification.
4.2 Details of any new commitments concerning the adoption or maintenance in force for specified periods of time of conservation, restoration, and other management measures.

4.3	Details of any new actions to prohibit fishing for salmon beyond 12 nautical miles.
4.4	Details of any new actions to invite the attention of States not party to the Convention to matters relating to the activities of its vessels which could adversely affect salmon stocks subject to the Convention.
4.5	Details of any actions taken to implement regulatory measures under Article 13 of the Convention including imposition of adequate penalties for violations.
North American Commission Members only:	
4.6	Details of any new measures to minimise bycatches of salmon originating in the rivers of the other member.
4.7	Details of any alteration to fishing patterns that result in the initiation of fishing or increase in catches of salmon originating in the rivers of another Party except with the consent of the latter.