

	<p><b>Council</b></p> <p><i>Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2020 – EU – Germany</i></p>	<p>CNL(21)36</p>
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***Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2020***

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 2021**.

<b>Party:</b>	<b>European Union</b>
<b>Jurisdiction / Region:</b>	<b>Germany</b>

<b>1: Changes to the Implementation Plan</b>
<b>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).</b>
The response to question 4.3 (a)(i) will be revised in accordance with the recommendations of the NASCO IP Review Group and submitted to the Secretariat on time.
<b>1.2 Describe any major new initiatives or achievements for salmon conservation and management that you wish to highlight.</b>
<p>The 16th Conference of Rhine Ministers took place in Amsterdam in 2020. They mentioned that important progress has been made in restoring the ecological passability of the Rhine and its catchment area since 2013. In 2019, a new large Upper Rhine fish pass in Gerstheim 2019 was commissioned.</p> <p>Moreover, the new forward-looking "<a href="#">Rhine 2040</a>" programme was adopted with ambitious goals. It is aiming among others at reaching ecological passability for migratory fish upstream and downstream in the Rhine main stream from the mouth to the Rhine Falls and within the programme waters of the master plan for migratory fish (ICPR Technical Report No. 247 (2018): Master Plan Migratory Fish Rhine 2018).</p>

To restore ecological passability, the fish pass at Rhinau will be operational in 2024. The fish pass near Marckolsheim will be operational in 2026. The fish pass for the complex area Vogelgrün will be operational as soon as possible to ensure compliance with the relevant EU legislation, so that migratory fish can reach the Old(-Rest-)Rhine and Basel again.

The restoration of fish passability in the High Rhine up to the Rhine Falls and in the Swiss programme waters (Aare, Reuss, Limmat) will be implemented.

The migratory fish programme of North Rhine-Westphalia which includes measures for the reintroduction of Atlantic Salmon was prolonged until 2027.

## 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.

After two years with low numbers of returning salmon, in 2020 the number of returning adult salmon in the Rhine catchment has increased again. In total 489 salmon were registered in the Rhine catchment in 2020. However, whereas numbers in the Upper Rhine were high (new record at fish pass in Gambsheim with 160 salmon), only few salmon were registered in the tributaries of the Middle Rhine and Lower Rhine, like in 2018 and 2019. Experts suppose that this was again due to low discharges in the Rhine in the second half of 2020, the time period when Rhine salmon migrates towards their spawning grounds in the Middle and Lower Rhine. The number of registered adult salmon returning from the sea and observations of natural reproduction of salmon in the Rhine tributaries are documented and can be supplied if required. In 2020, 1.831.225 salmon has been stocked in suitable tributaries by stocking measures in the whole catchment area of the Rhine.

Also in the Elbe catchment area, 2020 was another extremely dry and warmer-than-average year. Rainfall during the migration period of the salmon provided in the upper Elbe moderate discharges so that the number of returnees was slightly better than in the last two years. In the Middle and Lower Elbe, low numbers of returnees were reported due to extremely low water levels. High water temperatures have probably also led to oxygen deficiency in the lower Elbe in the Hamburg area and thus may have impeded the migration of salmon in the main stem of the Elbe.

### 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 2020 (tonnes)	0,2t by recreational fisheries in Lower Saxony in 2020			
(b) confirmed nominal catch of salmon for 2019 (tonnes)	0,15t by recreational fisheries in Lower Saxony in 2019			

(c) estimated unreported catch for 2020 (tonnes)	0,1t by recreational fisheries in Baden-Wuerttemberg			
(d) number and percentage of salmon caught and released in recreational fisheries in 2020	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. 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.*

<b>Action F1:</b>	Description of action ( <i>as submitted in the IP</i> ):	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 ( <i>as submitted in the IP</i> ):	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 <sup>2</sup> in early summer, and an average output of 9.000 downstream migrating smolts.
	Progress on action to date ( <i>Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated</i> ):	Electro fishing campaigns resulted in an average fry density (born 2019/2020) far below the target. The results reflect the drought-related low in returner season 2019 with only one detected adult salmon in the Agger system. It was decided to replace the lacking natural brood in the Agger river through a restocking measure (111,000 summer parrs, descendants of genetically known parent fish from the Salmon Program NRW). No restocking in the tributaries. Monitoring of downstream migrating smolts (born 2018/2019) leaving the Agger system allowed an estimate of 3,500 to 10,300 individuals. These smolts result partially from natural reproduction, and partially from restocking (genetic samples will be processed in 2021 for the exact determination of the respective proportions).

	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
<b>Action F2:</b>	Description of action (as submitted in the IP):	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.
	Expected outcome (as submitted in the IP):	Avoidance of illegal catches at the Nahe river mouth.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	Unfortunately, the planning for the designation of the corresponding protected area has been delayed. However, the measure is to be implemented in 2022.
	Current status of action:	Ongoing
	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. 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.*

<b>Action H1:</b>	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.
	Progress on action to date (Provide a brief overview with a quantitative	In 2020 the Water and Shipping Administration and the German Federal Ministry of Transport and Digital Infrastructure set priorities to the 220 measures related to the ecological connectivity in the German Water ways.

	<p><i>measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):</i></p>	<p>These measures will be part of the third River Basin Management Plan written by the different Federal States in Germany. However there are 51 measures ongoing in the Federal Waterways at this time and 15 measures will be start until 2027. A part of 27 measures are located in the River Rhine Basin (1 at the River Ruhr; 8 at the River Lahn; 4 at the River Mosel; 6 at the River Main; 6 at the River Main and 2 at the River Regnitz) and 3 at the Danube River Basin (2 at the River Danube and 1 at the River Altmühl). About 6 projected fishways located in the River Ems and 5 in the River Weser Basin. In the Elbe River Basin more than 20 measures are in a planning phase or will be start in the next years. Of these 11 located in the Havel-Spree basin whereas another 6 projects be part of the Elde-River Basin. At least three measures at the Ilmenau River. At the barrage of Geesthacht the Water and Shipping Administration will start the construction work at the weir in 2021. The restoration of the southern fishway will be part of this work. At the northern fishway a pipe system has been constructed to generate an additional attraction flow.</p>
	<p>Current status of action:</p>	<p>Ongoing</p>
	<p>If 'Completed', has the action achieved its objective?</p>	
<p><b>Action H2:</b></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 succesful 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>Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):</p>	<p>At the hydropower plants Offenbach/Main und Mühlheim/Main fish protection and downstream fish passage is assured provisionally for the next 4 years by a 15 mm screen and by a permanent discharge over the weir. For two barrage weirs on the Main in Bavaria fish passes are in a plan approval procedure. In Upper Rhine tributaries Alb and Murg ecological continuity was restored at one and three more barriers, respectively. The ground-breaking ceremony for the construction of the fish migration river which will connect the North Sea with Lake IJssel took place on 25 January 2021.</p>
	<p>Current status of action:</p>	<p>Ongoing</p>

	If 'Completed', has the action achieved its objective?	
<b>Action H3:</b>	Description of action (as submitted in the IP):	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 (as submitted in the IP):	Improved access to spawning grounds and decreased mortality due to barrages and hydropower plants.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):	In 2020, the planning and implementation of measures for improving river connectivity moved forward in the Elbe catchment area. An exact overview of measures can be provided at the end of the second Water Framework management cycle. The data will not be available until May 2021. The exact implementation status of this measure can be presented next year.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
<b>Action H4:</b>	Description of action (as submitted in the IP):	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 be 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.
	Expected outcome (as submitted in the IP):	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.
	Progress on action to date (Provide a brief overview with a quantitative	As a first major outcome of the project, positive effects of fish stock manipulation for the habitat quality of the hyporheic zone were shown in the salmon project river (Huebner et al 2020, Gerke et al. 2020). Consequently, it



	<p><i>measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):</i></p>	<p>can be concluded that fish stock manipulation can be used to reduce eutrophication effects and thereby potentially enhance reproduction success of salmon. To assess whether that measure is a suitable tool for conservation and development of aquatic biodiversity, the quality of the experimental rivers will be analysed before and after a fish stock enhancement. In 2020, the before-samples have all be taken and measures to enhance the fish stock were put into action (cormorant deterrence, stocking). To quantify the cormorant feeding pressure in the experimental rivers, pit-tag antennae were successfully installed and tested in two rivers. In addition, European nase and Common chup were tagged in both rivers. The loss of tagged fish, which did not migrate through the antennae, can thereby contributed to cormorant predation.</p>
	<p>Current status of action:</p>	<p>Ongoing</p>
	<p>If 'Completed', has the action achieved its objective?</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. 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.*

<p><b>Action A1:</b></p>	<p>Description of action (as submitted in the IP):</p>	<p>Undertake a coordinated genetic monitoring in the entire Rhine catchment area.</p>
	<p>Expected outcome (as submitted in the IP):</p>	<p>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</p> <ol style="list-style-type: none"> <li>1. the efficiency of <ul style="list-style-type: none"> <li>• stocking measures performed;</li> <li>• different strains that are stocked;</li> <li>• different stocking strategies (age, parents used, the origin of broodstock etc.)</li> </ul> </li> </ol> <p>the relative importance for stocking of the different streams of the Rhine catchment.</p>
	<p>Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress.</p>	<p>In three to four winter seasons, (2017-2020) parent salmon in all hatcheries (Switzerland, Germany, France) were sampled genetically according to a uniform protocol. In Switzerland and France smolts have been genetically sampled in 2018 - 2020, first results are</p>

	<i>Other material (e.g. website links) will not be evaluated):</i>	available for France, Germany and Switzerland. The most important results are expected with returning salmon, which starts in 2021. An intensified and coordinated sampling of returning salmon has been coordinated between countries. The German Ministry for Food and Agriculture approved a project for the genetic monitoring in the German Rhine catchment in January 2020. This secures the financing of the German monitoring until 2024 (see <a href="https://gemolar.fish/">https://gemolar.fish/</a> ).
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	

<b>4: Additional information required under the Convention</b>
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.
<b>North American Commission Members only:</b>
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.