	Council *Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2020 – UK-Northern Ireland*	CNL(21)31

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**.

Party:	**United Kingdom**
Jurisdiction / Region:	**Northern Ireland**

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).***

None

1.2 Describe any major new initiatives or achievements for salmon conservation and management that you wish to highlight.

None

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.

The return of 1SW salmon exhibited a marked improvement in 2020 on several large rivers in N. Ireland. For example the River Bann experienced its best escapement since 1997 with 18,985

salmon detected at the counter site. Heavier runs of fish were also observed in some Foyle area rivers.

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').***

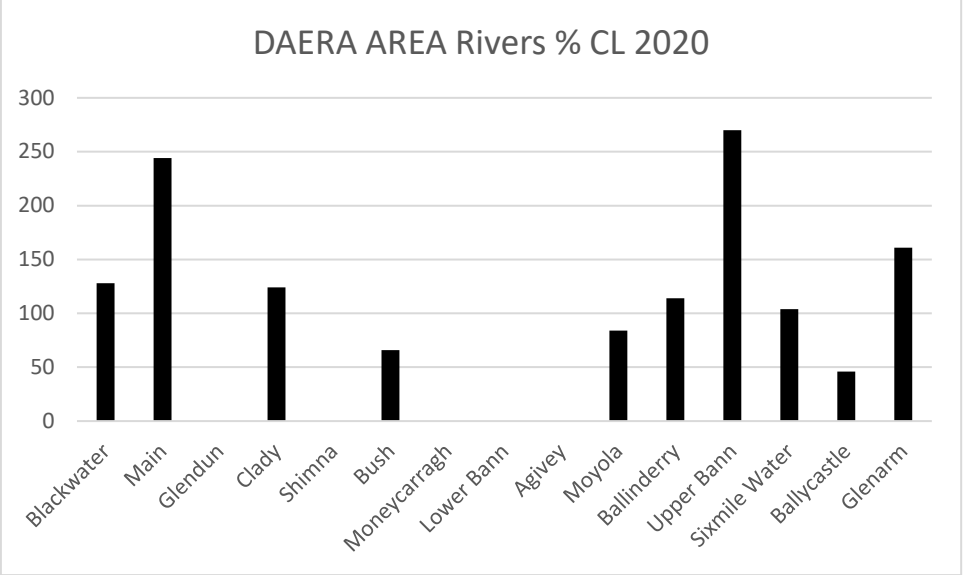
	In-river	Estuarine	Coastal	Total
(a) provisional nominal catch (which may be subject to revision) for 2020 (tonnes)	0.59t	0	0	0.59t
(b) confirmed nominal catch of salmon for 2019 (tonnes)	2.26t	0	0	2.26t
(c) estimated unreported catch for 2020 (tonnes)	0.1t			0.1t
(d) number and percentage of salmon caught and released in recreational fisheries in 2020	2293 - 97% C&R DAERA area 4423 - 87% C&R LA area			

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.*

Action F1:	Description of action (*as submitted in the IP*):	The target is to manage the 18 primary rivers affected by both commercial and recreational fisheries to exceed their CLs.
	Expected outcome (*as submitted in the IP*):	More primary salmon rivers increasing their adult returns and exceeding their CLs.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified*	Despite pressures due to COVID-19 restrictions most N. Ireland primary salmon rivers were assessed against CL in 2020 (see DAERA area rivers CL compliance for 2020 in fig below). Management of rivers in 2020 was based around scientific advice. Three salmon rivers were managed with a harvestable surplus in DAERA area in 2020 (Melvin, Clady & Glenarm). Harvest was tightly controlled

	evaluation, of progress. Other material (e.g. website links) will not be evaluated):	via allocation of carcass tags and a total of 68 salmon were harvested from these rivers. In the LA area all rivers were open with a harvestable surplus in 2020 except the River Finn (cross border catchment) which was C&R. The Rivers Mourne, Roe and Faughan met their management target (MT) and CLs in 2020. The River Finn did not meet its CL in 2020. 
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	YES

Action F2:	Description of action (*as submitted in the IP*):	Update Conservation limits and Management targets for 3 primary salmon rivers in Northern Ireland using refreshed habitat data.
	Expected outcome (*as submitted in the IP*):	To update CLs for the 3 rivers identified in Section 1.5.
	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):*	Due to COVID-19 restrictions and social distance measures, fieldwork was reduced in 2020 and updated habitat surveys were not possible. Work will commence in 2021
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action F3:	Description of action (*as submitted in the IP*):	Maintain the Long Term Monitoring of Wild Salmon Stock on the R Bush - used as an Index River for NI.
	Expected outcome (*as submitted in the IP*):	Maintain and build the long term dataset of adult returns, smolt migration, stock recruitment data, freshwater survival, marine survival, biological characteristics of the R Bush stock over the 5 year period.
	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):*	All the datasets were updated and completed in 2020 and annual survival metrics determined for the Bush salmon stock. The total adult return of wild salmon to the Bush river in 2020 was 1019 fish & marine survival rate of 1SW salmon was 7.1%. This return represented an increase on recent years. The salmon return was dominated by 1SW salmon (>95% of the 2020 run - determined from scale readings) and the condition factor improved. The freshwater survival rate from egg-smolt for the most recent fully recruited ova cohort (2015) was 1.00%.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	YES
Action F4:	Description of action (*as submitted in the IP*):	To assess mortality of wild salmon smolts moving from the freshwater to the marine environment.
	Expected outcome (*as submitted in the IP*):	To assess riverine mortality and identify possible areas of losses.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress.*	Despite challenges due to the COVID-19 lockdown some progress was made on this action point in 2020. A batch of 85 river Bush salmon smolts were tagged with acoustic tags (under the EU funded Seamonitor project) and riverine mortality estimates were assessed for spring 2020

	Other material (e.g. website links) will not be evaluated):	and added to a developing time-series. Mortality in the lower river Bush, prior to marine entry, was c. 30% and loss rates c. 7.8%/km for tagged smolts in 2020.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	YES
Action F5:	Description of action (*as submitted in the IP*):	To improve recreational catch returns and statistics from the current baseline of 5 - 10% to 30%
	Expected outcome (*as submitted in the IP*):	To increase catch returns / data for recreational caught salmon.
	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):*	The Licence / Permit system has been transferred to NICS IT Infrastructure and is now managed directly. A number of changes to the system are envisaged, including catch return processes and these will be progressed as soon as possible. In the Loughs Agency area there has been continuous progress on percentage catch returns from recreational anglers using the electronic system. The actual figure has not yet been calculated
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action F6:	Description of action (*as submitted in the IP*):	To protect wild salmon stocks from illegal activity.
	Expected outcome (*as submitted in the IP*):	To protect salmon stocks by detecting, deterring and disrupting any illegal activity directed at damaging or removing salmon stocks subject available resources.
	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):*	Organised patrols (on land and water) are carried out in both the DAERA and LA areas to deter, disrupt and detect illegal fishing activities. In 2020, 3150 patrols were carried out in the DAERA area and no detections made on the illegal capture of salmon. However a total of 88 illegal nets were seized. In addition 33 inspections were carried out on commercial premises where salmon can be bought or sold. In the Loughs Agency area in 2020, the following seizures were made - 7 boats, 37 nets, 55 fishing rods and 75 salmonid fish.
	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.*	
Action H1:	Description of action (*as submitted in the IP*):	To assess and provide fishery advice for 100% of River drainage maintenance schemes to protect salmon habitat and to incorporate mitigation / improvement measures where possible.
	Expected outcome (*as submitted in the IP*):	Ensure sensitive / mitigated engineering solutions to maintain or where possible seek opportunities to restore or enhance salmonid habitat.
	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):*	Fisheries advice was provided for the entire 2020 DFI river drainage maintenance works programme in both the DAERA and Loughs Agency areas to ensure protection of fish stocks and habitat at the sites where works were carried out. Quarterly meetings are held with DFI Rivers to discuss the ongoing maintenance programme and to ensure the works planned are not detrimental to fish stocks. Loughs Agency is regularly consulted by River maintenance and planning authorities and has a robust consultation response program
	Current status of action:	Completed
	If 'Completed', has the action achieved its objective?	Yes
Action H2:	Description of action (*as submitted in the IP*):	Management and control of water quality in salmon producing rivers in NI - the target is to have 70% of rivers at good ecological status by 2021.
	Expected outcome (*as submitted in the IP*):	Protection against degradation of salmonid habitat through pollution or waste disposals.
	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):*	NIEA carried out 1960 water pollution investigations in relation to reports of water pollution in 2020. Further actions were taken as appropriate. There were 12 incidents in 2020 in which fish were killed due to water pollution – 5 were classified as Major, 4 as Moderate and 3 as a slight fish kill. All discharges are regulated and fisheries advice is provided on them as part of the planning application process. The Loughs Agency Loughs Agency staff also investigated 280 reports / incidents of pollution in their area. The Northern Ireland Environment Agency continues to work towards achieving the objectives set out in the Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017. Since the publication of the interim WFD status in 2018 the

		Agency's focus has been on the water bodies that have deteriorated in status, prioritizing these water bodies for additional measures and intensive catchment investigations. The investigations identified pressures, and mitigations have been put in place. For many years we have been seeing reductions in nutrients in our waterbodies. More recently this trend has reversed, and increasing levels of soluble reactive phosphorus (SRP) has been the key reason for deteriorations in the 2018 interim status. This increase in SRP levels within our water bodies has slowed progress toward Water Framework Directive Targets. Legislation such as The Nutrient Action Programme Regulations 2019-2022 which aims to protect waters against pollution caused by nutrients from agriculture sources have been reviewed and amended in light of the changing SRP levels. Under the Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017 a new River Basin Plan will be published in 2021, along with a new Programme of Measures. The Programme of Measure will be reviewed in light of the emerging data on SRP within our waterways.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action H3:	Description of action (*as submitted in the IP*):	To identify and assess the impact of barriers on 18 primary salmon rivers in NI by 2024.
	Expected outcome (*as submitted in the IP*):	To carry out surveys to identify all potential barriers to fish passage in primary salmon rivers in NI subject to resources and assess fish passage at them.
	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):*	COVID-19 has impacted on catchment wide barrier assessments in 2020. Development work took place in the DAERA area on a barriers identification and assessment app. Potential barriers have been identified by a desk top exercise across all catchments within the DAERA area and will be assessed as part of a rolling programme of field based assessments. DAERA will continue to collect and review barriers data on primary Salmon rivers over the remaining period of this IP. Loughs Agency have information on GIS layers of all the potential barriers on primary rivers in their jurisdiction and an evaluation of this information is underway.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	

Action H4:	Description of action (*as submitted in the IP*):	To update inventory of current and potential salmon habitat on 3 primary salmon rivers in NI.
	Expected outcome (*as submitted in the IP*):	To update salmon habitat inventory data on a GIS database for the Blackwater, Glendun, Margy /Glenshesk rivers This will help identify and prioritise subsequent habitat enhancement actions. In the Loughs Agency area surveys have been completed and is recorded on GIS layers which are available.
	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):*	Due to COVID-19 restrictions and social distance measures, fieldwork was significantly reduced in 2020 and updated habitat surveys were not possible. This work will be carried over into 2021
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action H5:	Description of action (*as submitted in the IP*):	To enhance degraded habitat or improve salmon habitat on 2 primary salmon rivers annually in NI, with rivers below CL being prioritised.
	Expected outcome (*as submitted in the IP*):	To enhance degraded habitat or improve salmon habitat on primary salmon rivers in NI including government and stakeholder schemes.
	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 the DAERA area the following habitat works were carried out: Addition of 60 tonnes of spawning gravel added to improved spawning area on Moyola River. Addition of 300 tonnes of spawning gravel added to River Bush, alongside spawning bed improvement works. Addition of 60T spawning gravel to Agivey River. Installation of a habitat unit to Sixmile Water, including holding, nursery and spawning habitat, and narrowing of over-widened stretch. Easement of historical barrier to migration on the Clady River. The enhancement of 3 km of the Ballygawley River, and 0.4km of the Blackwater River comprising of the in-stream construction of paired deflectors, 2 stage channel and rubble mats for the development of parr/fry production. Bankside side revetment works was also carried out using cobble stone. Total stone materials used comprised of 3800 tons cobble stone. Desilting of 500 metres of naturally occurring spawning habitat on the Upper Blackwater Additional works, complementing the instream works was carried out on the Ballygawley River by the

		INTERREG VA funded Catchment Care programme and comprised of 6km river bank livestock fencing and 200 metres of soft engineering techniques to reduce bankside erosion at key points. 36 livestock drinkers were also installed reducing poaching of the river banks. 1700 native hardwood trees were planted along the river corridor to develop riparian buffer zones. Following on from previous works DAERA Inland Fisheries completed in 2019 on the main Blackwater River, the Catchment CARE programme erected approximately 5km of river bank livestock fencing, installed 19 livestock drinkers and planted 2000 native trees to develop additional buffer zones. An additional 475 tons of appropriately sized spawning gravel was also introduced to the Garvary River and localised minor watercourses in the NW part of the Lower Erne catchment. Loughs Agency carried out salmonid restoration works including - In stream habitat restoration, riparian tree planting and fencing and erosion management on the following rivers; Clanrye river River Derg River Faughan Burndennet river River Finn Glenelly river River Strule River Roe
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	

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.*

Action A1:	Description of action (*as submitted in the IP*):	To maintain the long term baseline data sea lice levels on R Bush wild salmon remote from NI Aquaculture production as advised in the BNP guidance.

	Expected outcome (*as submitted in the IP*):	Annual assessment of base sea lice levels on adult salmon remote from Aquaculture returning to the River Bush for each year of assessment.
	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):*	Sea lice infestation levels were monitored in the returning adults on the River Bush. In 2020 95% of fish had no sea lice, with 4% low to moderate and 1% moderate to high levels of sea lice infestation. These numbers are similar to the levels reported for 2019, which were among the lowest numbers recorded in the time series.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A2:	Description of action (*as submitted in the IP*):	Monitor for Non NI escapee aquaculture salmon in a wild salmon stock in N. Ireland.
	Expected outcome (*as submitted in the IP*):	Escapee aquaculture salmon not from NI are monitored annually at the River Bush trap.
	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):*	No escaped salmon observed in 2020 at the Bushmills trap.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	

<table>
<tr><td rowspan="4">Action A3:</td><td>Description of action (as submitted in the IP):</td><td>Monitoring sea lice levels in aquaculture salmon in N. Ireland.</td></tr>
<tr><td>Expected outcome (as submitted in the IP):</td><td>An annual assessment of sea lice levels of sea cage reared salmon in N. Ireland.</td></tr>
<tr><td>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):</td><td>Due to COVID-19 restriction and a reduced staff resource, two sea lice counts were carried out at harvests in 2020, One on the 29/01/2020 at Red Bay cage site and the other on the 31/02/2020 at Glenarm Bay cage site See attached supporting documents for results. Adult lice number remain low.
<table>
<tr><th rowspan="2">No. of fish harvested during inspection</th><th rowspan="2">No. of fish inspected</th><th rowspan="2">No. of positive fish</th><th rowspan="2">% fish infected with Lep. salmonis</th><th colspan="4">No of Lice per Fish</th><th rowspan="2">Total No of Lice</th></tr>
<tr><th>1</th><th>2</th><th>3</th><th>4</th></tr>
<tr><td>1500</td><td>425</td><td>0</td><td>0.00</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>1320</td><td>226</td><td>8</td><td>3.50</td><td>8</td><td>0</td><td>0</td><td>0</td><td>8</td></tr>
</table></td></tr>
<tr><td>Current status of action:</td><td>Ongoing</td></tr>
<tr><td>If ‘Completed’, has the action achieved its objective?</td><td></td></tr>
<tr><td rowspan="4">Action A4:</td><td>Description of action (as submitted in the IP):</td><td>Monitoring levels of genetic introgression of aquaculture salmon into wild stocks in NI.</td></tr>
<tr><td>Expected outcome (as submitted in the IP):</td><td>Triennial assessment of levels of genetic introgression of aquaculture salmon into wild stocks adjacent to the sites for salmon aquaculture in NI.</td></tr>
<tr><td>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):</td><td>The most recent data suggests there has been a decrease in the level of genetic introgression of farmed genetic material into wild stocks in UK NI between 2014 and 2018. In the 2014 study a maximum of 5.9% of juveniles had genomes of part farmed origin, compared to 1.9% in the 2018 study. The next study is scheduled carried out in 2021.</td></tr>
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	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A5:	Description of action (*as submitted in the IP*):	To assess marine aquaculture sites annually.
	Expected outcome (*as submitted in the IP*):	To assess the potential for escapement of fish from marine aquaculture in NI each year.
	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):*	Visual surface Inspections of infrastructure were carried out at both marine aquaculture sites in 2020 at the time of harvest listed at A3 above. There were no reports of farm escapes from Northern Ireland marine aquaculture sites in 2020.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A6:	Description of action (*as submitted in the IP*):	To establish Long term monitoring through the establishment of a sea lice-mortality risk index in wild anadromous salmonids in an area with aquaculture production.
	Expected outcome (*as submitted in the IP*):	An annual assessment of the risk of sea lice induced mortality in post-smolt salmonids in an area of aquaculture activity.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other*	Due to Covid 19 restrictions no progress has been made on this Action in 2020 but it's is hoped to initiate this work in 2021

	material (e.g. website links) will not be evaluated):	
	Current status of action:	Not started
	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.
None
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.
None
4.3 Details of any new actions to prohibit fishing for salmon beyond 12 nautical miles.
None
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.
None
4.5 Details of any actions taken to implement regulatory measures under Article 13 of the Convention including imposition of adequate penalties for violations.
None
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.