Agenda Item 6.5
For Information

Council

CNL(07)19

Report on Progress with the Development of a Database of Salmon Rivers

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Report on Progress with the Development of a Database of Salmon Rivers

1. In 2004 the US reported to the Council that it had developed a database of salmon rivers based on the detailed inventory format proposed in the NASCO Plan of Action for Habitat Protection and Restoration. This database replaced a basic listing of salmon rivers held and maintained by the Secretariat although, as a first step in populating the database, the US had imported this listing into the web-based system. The Council had welcomed development of this database, had agreed that it should be made available on NASCO's website and had asked each Party or relevant jurisdiction to appoint a coordinator or coordinators responsible for updating the database and reporting on progress. Following testing, the database had been made available for data entry through a website www.wildatlanticsalmon.com. The Council had agreed that the Parties should:

   - update the original salmon rivers database annually;
   - consider using the database to report basic salmon habitat and habitat impacts information so as to establish the baseline level of salmon production potential against which changes may be assessed;
   - enter generalised juvenile and adult salmon production data as data and resources permit.

2. The database was transferred to the NASCO website in 2006. On 1 February this year I wrote to all rivers database coordinators, copied to Heads of Delegations, requesting that a brief progress report be provided on the three tasks detailed in paragraph 1 above. I have received responses from EU (Denmark), EU (Ireland), EU (UK - England and Wales), Norway, Russia and the US as follows:

European Union

Denmark:
No progress to date but it will be undertaken in the near future.

Ireland:
The first and second tasks will be completed.

UK - England & Wales:
Over the last 12 months the information for the 65 principal salmon rivers has been checked and updated including information on basic salmon habitat but not on habitat impacts. Information on predicted smolt output has been included but not on adult salmon production because river specific conservation limits are set and assessed for the stock as a whole not for separate sea age components. The information will be reviewed annually to ensure current entries are up-to-date and new data added as resources and developments permit.

Norway

The intention is to update the information in the database during the summer.

Russia

Originally the database contained river information for 84 of the 123 Russian rivers. In the last 12 months river and habitat information has been included for 61 tributaries of the river Severnaya Dvina, one of the longest rivers in the north of Russia. Information is available for entry into the database for about 70% of the main salmon rivers in Russia and further work is underway to compile data for rivers in the Mezen river system and small rivers in the White and Barents Sea coast in the Karelia, Murmansk and Archangelsk regions (see Annex 1).

USA

As of March 2007, 118 rivers have been entered into the database and it is estimated that another 22 streams (mostly minor) need to be entered and a few need to be deleted. It is anticipated that this first step will be finished by the 2007 NASCO Annual Meeting. At that time, the list of US Atlantic salmon rivers will be considered complete. The next goal for the US will be to enter juvenile habitat data for these rivers into the database by 2008.

3. This is clearly a significant commitment but as the database is available on the Organization's website it is important that the updating of the original salmon rivers listing is undertaken as soon as possible. In the light of experience in using the database some modifications have been necessary to correct for technical issues and further changes will be needed to better adjust the format to the data available. Furthermore, the EU (Ireland) has suggested that the categories of stock status might need amending as they are rather broad at present. If the Council agrees, these and any other proposals for changes to the database could be considered in correspondence between the database coordinators and the Secretariat.

Secretary
Edinburgh
29 May 2007

Annex 1

REPORT OF THE RUSSIAN FEDERATION ON NASCO RIVERS DATABASE

To date the presence of Atlantic salmon is confirmed for 123 rivers (watercourses) of the Russian Federation, flowing in five subjects of the federation – Murmansk and Archangelsk regions, Republics of Karelia and Komi, Nenets National Okrug, which have direct access to the sea. Initially, included into the NASCO database were 84 of 123 Russian rivers. For these rivers the data base contained only information in the section "River Information".

In the past year, the Russian Federation included entries for 61 salmon rivers (tributaries of the first and second order) in the catchment of river Severnaya Dvina. For these rivers entries were made to both section "River Information" and section "Habitat Information".

Severnay Dvina is one of the largest rivers in the north of Russia's territory in Europe. Its total length is 744 km, the system includes 61 878 rivers and streams.

The natural production of Atlantic salmon in the Severnaya Dvina river system is in the tributaries only. There are no spawning grounds in the main stem of the river. At present salmon are known to spawn in tributaries of Bolshaya Severnaya Dvina and Vychegda, in the past the spawning also took place in tributaries of rivers Sukhona and Yug.

Of 61 tributaries of different order included into the rivers data base three are non-spawning tributaries. Other 58 tributaries have natural production of salmon in the main stem. The total area of spawning and nursery habitat is, according to our estimates, 17 878 km^2. The system of Bolshaya Severnay Dvina only (systems of Vychegda, Sukhona and Yug not included) contains about 30% of the total spawning and nursery habitat of salmon in the White Sea basin.

By 2007 most of the tributaries (46) supported sustainable production of salmon. Threats were identified for 13 tributaries. The production of salmon may only be lost in one tributary of the fourth order (small river of 19 km long).

Major threats to salmon stocks are logging, which causes changes of water quality and increases sedimentation, pollution from agriculture and illegal fishing.

On the whole, available for the entry into the data base are data for about 70% of main salmon rivers in the Russian Federation. In particular, compiled and ready for the entry are data for rivers Yug, Sukhona, Onega and Pechora, main salmon rivers in the Murmansk region. Work is being carried out to compile data for rivers in the Mezen river system and small rivers on the White and Barents Seas coast in the Republic of Karelia, Murmansk and Archangelsk regions.