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# **EUROPEAN INLAND FISHERIES ADVISORY COMMISSION**

## TWENTY- FOURTH SESSION

Mondsee, Austria, 14 – 21 June 2006

# PROGRESS REPORT SUB-COMMISSION I – Biology and Management

Chairperson: T. Brenner (Germany)
Vice-Chairperson: J. Caffrey (Ireland)
Rapporteur: I. Navodaru (Romania)
Technical Secretary: G. Marmulla (FAO)

Activities and achievements of the Sub-Commission during the intersessional period are summarized as follows:

## Joint EIFAC/ICES ad hoc Working Party on Eels

Convener: W. Dekker

From 23-27 January 2006, the Joint EIFAC/ICES ad hoc Working Party on Eels met at FAO Headquarters in Rome (Italy), with Terms of Reference including an update of the information on the status of the stock, a detailed description of the spatial distribution of eel fisheries, an evaluation of the options for, and effect of, glass eel re-stocking as a stock rebuilding measure, a feasibility study for the potential inclusion of spawner quality parameters in the stock assessment.

The general picture of the eel stock in Europe is one of declining trends: recruitment has declined in the 1980s, and reached a historical minimum in 2001, with no substantial improvement recently. Landings statistics show a decline during a much longer period, but these statistics are notoriously incomplete. The eel stock is outside safe biological limits. Current scientific knowledge is inadequate to derive specific and detailed management targets. Although no conclusive evidence could be compiled, anthropogenic impacts (e.g. habitat destruction, migration barriers, exploitation) have been shown to exceed tolerable limits in many places and management actions are therefore urgently needed.

## The Working Party recommends that:

- a) the rapid development and implementation of management plans is facilitated through a series of workshops and the development of guidelines, i.a. on
  - re-stocking practices,
  - recruiting eel immigration passages,
  - silver eel deflection schemes.
  - monitoring and post-evaluation procedures, potentially in pilot projects,
  - pollution and disease monitoring,
  - development of models and tools for management of the stock;
- b) areas producing high quality spawners (large sized females, low contaminant and parasite burdens, unimpacted by hydropower stations) be identified in order to maximise protection for these areas;

- c) management targets are set for spawner escapement with reference to the 1950s-1970s, either identifying the actual spawner escapement levels of that period in full, or 30-50% of the calculated spawner escapement that would have existed if no anthropogenic mortalities would have impacted the stock and where adequate data are absent, with reference to similar river systems (ecology, hydrography);
- d) within the framework of the WFD, due consideration (especially as regards reporting) should be given to eel as an indicator of river connectivity and ecological and chemical status.

The report of the 2006 meeting is currently being formatted. In the past, meetings of the Working Party were jointly organised by EIFAC and ICES, but publication of the (same) report was separate. The WP has now proposed to avoid this duplication, and has suggested a joint publication format. ICES and EIFAC still have to decide.

Following the advice to compile a recovery plan for the eel, the European Commission has issued a Communication on Development of a Community Action Plan for the management of European Eel, and proposed a Council Regulation establishing measures for the recovery of the stock of European Eel (Com 2005, 472 final). This proposal has been discussed with Member States, Fishing Industry and scientists in several meetings in Brussels. In relation to this, a Workshop was held in September 2005 in Sånga Säby (Sweden), to develop guidelines for proper inclusion of the eel in the Data Collection Regulation programme. A subsequent workshop was held at the end of March 2006, in Ispra (Italy), focusing on objectives and targets for regional management of the eel.

In January 2006, the FP6-project 022488 Slime has started (ending in July 2006). This project will bring together existing expertise on modelling eel stocks, focusing on a small set of well-documented case studies. It is shaped according to the 2004 recommendations of this WG. The workshops and the project are closely linked to the work of this WG, and participation of working party members has ensured adequate coordination. The development of national and river-specific management plans in the coming months will presumably require frequent participation of members of the eel working party.

## Ad hoc Working Party on Fish Monitoring in Fresh Waters

Convener: P. Hickley

A meeting of the Ad hoc Working Party on Fish Monitoring in Fresh Waters was held on 29th May 2004 in Wierzba, Poland, in association with the 23rd Session of EIFAC. Current membership of the WP comprises 32 participants from 15 countries. During the meeting, the WP commented on the European Committee for Standardization (CEN) draft standard entitled "Water quality - Guidance on the scope and selection of fish sampling methods". This Standard (prEN 14962), prepared by Mr Dehus (Germany), is about to be published.

Links were maintained with the Fish-based Assessment Method for the Ecological Status of European Rivers (FAME) project by some members of the WP also being FAME partner delegates. The project was completed during November 2004. The final leaflet can be downloaded from: <a href="http://fame.boku.ac.at/downloads/FAME">http://fame.boku.ac.at/downloads/FAME</a> Leaflet web.pdf

The WP made progress with an Information Note on Electric Fishing Best Practice. Work on this was expedited within the remit of the convenor's host country responsibilities and the WP are grateful to Mr Peirson (UK) and Mr Beaumont (UK) for their major contributions. It is hoped that member countries will field-trial the draft guidelines and provide feedback. The draft document has been posted on the EIFAC web site: <a href="http://www.fao.org/WAICENT/FAOINFO/FISHERY/body/eifac/WGFishMon/default.asp">http://www.fao.org/WAICENT/FAOINFO/FISHERY/body/eifac/WGFishMon/default.asp</a>

The WP commenced work on a short manual on recommended sampling methods for the monitoring of fish populations in fresh waters. Although text for some sections is still required, much is completed and the draft document is posted on the EIFAC web site as above.

The WP continued to provide its regularly updated list of fisheries related conferences, courtesy of Mr Shields (UK) and Ms Jackson (UK).

A joint EIFAC/CEN workshop was convened to produce a draft standard on "Water quality – Sampling fish with hydroacoustics". The workshop was held on 22<sup>nd</sup>-23<sup>rd</sup> March 2006 at the Freshwater Biological Association River Laboratory, Dorset, UK, and was attended by 15 selected experts from 9 countries. The output comprised an initial draft standard which can now be formally taken to CEN with the proposal that it be adopted as a new work item.

#### Ad hoc Working Party on Introductions and Stocking

Convener: I. Cowx

During the intersessional period a review of stocking and introductions in EIFAC countries was redrafted and a summary will be circulated at the 24<sup>th</sup> Session. The review updated that produced for the European Commission. A key output of this study is a framework to update the EIFAC Guidelines on Stocking and Introductions. This work has been used as a major contribution to the EU Council regulation "Setting rules governing the use of alien species in aquaculture" that was announced on 4 April 2006 registered as COM(2006) 154 final (see <a href="http://europa.eu.int/eurlex/lex/LexUriServ/site/en/com/2006/com2006\_0154en01.pdf">http://europa.eu.int/eurlex/lex/LexUriServ/site/en/com/2006/com2006\_0154en01.pdf</a> for copy). This regulation has important implications for stocking and introductions of fish in aquaculture in Europe.

It should be noted that the EIFAC work will form the basis of several initiatives including a UK Environment Agency project on guidelines for stocking and introduction of fish and a proposed intervention by FAO to produce guidelines on stock enhancement to implement the Code of Conduct for Responsible Fisheries. The latter was discussed at a workshop in Iran in 2005 and will be completed during 2006.

The Working Party was represented at the Biological Invasions in Inland Waters workshop in Florence in May 2005. Details of the session can be found on the conference web site (http://www.dbag.unifi.it/inwat/). The Convener of the WP presented the work of EIFAC and discussed the proposals to build risk assessment strategies into the Code of Practice.

The working party has been in close contact with the ICES working group on Introductions and Transfers of Marine Organisms to formulate a joint set of guidelines for aquatic organisms. This has culminated in a submission to the European Commission for funding under the Science to Support Policy funding call for a project entitled: Environmental impacts of alien species in aquaculture, and several EIFAC members are included in the submission. A decision is expected towards the end of the year, but this project will be a platform for future funded activities of the WP.

#### Ad hoc Working Party on Maps of fish distribution and aquatic habitat quality

Convener: R. Fricke

A first set of fish distribution maps for UK and Ireland is now available to start the database. However, at present no suitable maps are available as a basis for mapping of European inland water fishes and aquatic habitat quality. The existing maps (FAO) are not detailed enough and contain numerous errors. Therefore, it is necessary to either purchase or develop new maps of aquatic systems of the EIFAC area, which is currently under discussion between the convener and FAO. As funds are needed to provide such maps, the project may be delayed until they can be acquired. Input of data into the database cannot start before suitable maps are available. We hope to solve this problem by the end of 2006.

#### Ad hoc Working Party on Management of sturgeon

Convener: M. Chebanov

During 2005, members of this WP were actively involved in several sturgeon-related international meetings and workshops. Many of the WP members for instance took part in the 5<sup>th</sup> International Symposium on Sturgeons in Ramsar, Iran, in May 2005, organized by the World Sturgeon Conservation Society.

Furthermore, members of the WP attended the Workshop on Stocking for Rehabilitation of Fisheries in the Caspian Sea (Iran, 7-10 June 2005) supported by the Fisheries Department of FAO. An active preparatory work for the workshop was done by the convener of the WP on Introduction and Stocking along with the invited members of the Working Party.

These events were devoted to key problems of assessment of restocking efficiency with the use of juveniles, mass tagging, principles of broodstock formation management and early sex determination with the use of ultrasound.

At the 1<sup>st</sup> International Workshop on the Biology, Conservation and Sustainable Development of Sturgeon in Southern Europe ("BIORESTURGEONS") held in Granada, Spain, 26 Nov. – 1 Dec. 2005, only a few sturgeon conservation related oral papers were presented by WP members, as the prime objective of this workshop were conservation matters of sturgeons of the Iberian Peninsula. Some papers regarding conservation of Eurasian sturgeon were presented in accordance with the WP terms of reference.

A long-term project on mass tagging of sturgeon juveniles in the Black and Azov Seas has been brought forth by the Russian members of the WP in late December 2005. This new initiative of the Russian Federation for the basin was supported by some sturgeon experts from Ukraine, Bulgaria, Romania in order to develop a joint basin programme. There is also interest to conduct a related workshop in Krasnodar, Russia, presumably in late July 2006. The corresponding request has been forwarded to the EIFAC Secretariat.

Since 2004, some sturgeon projects with the participation of Greek, Bulgarian and Turkish members of the WP have been initiated. It is worth mentioning that there is good progress with these projects. During the intersessional period, members of the WP contributed towards the preparation of an Action Plan for Danube Sturgeons which was organized in 2005 by the Austrian WWF for the Council of Europe. The goal of the Action Plan is to secure and restore, through national action and international cooperation, viable populations of all Danube sturgeon species and forms by sustainable management and restoration of their natural habitats and migratory ways.

In 2006, the convener along with other experts of the WP assisted in the development of sturgeon culture and restocking programmes in Spain.

The members of the WP are also involved in working out a new (2006) version of the IUCN Red List Assessment – Eurasian Sturgeon species.

Cooperation with the World Sturgeon Conservation Society (WSCS) has been very productive. Since its organization in 2004, the WSCS has become the recognized body in the international conservation arena.

The WP linked its activities with the Black Sea Sturgeon Management Group (BSSMAG).

The convener of the WP in collaboration with other Russian members of the WP has compiled the following publications:

"Sturgeon Breeding and Rearing Handbook" (ISBN 5-7367-0499-4 in Russian). This book provides detailed material on culture technology for sturgeon species dealing mainly with brood stock handling, selection of breeders, holding strategies for breeders, induced spawning, fertilization, incubation and larval rearing.

"A field guide": Early Sexing and Staging Maturity in Live Sturgeons by Using Ultrasound Technique. This guide describes a new technique to determine the stage of gonad development in live fish.