

EUROPEAN INLAND FISHERIES ADVISORY COMMISSION

MEETING OF THE EXECUTIVE COMMITTEE

Rome, 19-21 May 2003

SUMMARY RECORD

1. OPENING OF THE SESSION

The Chairperson of EIFAC, Mr R. Müller, opened the Session of the Executive Committee of EIFAC on 19 May at 09.30 hrs. He announced that since the 22nd Session Bosnia and Herzegovina had become a member of EIFAC; the identification of a national correspondent was under way.

2. PLACE AND DATE OF THE TWENTY-THIRD SESSION

At the Twenty-second Session of EIFAC, the Polish delegate confirmed the invitation by the Polish authorities to hold the Twenty-third Session of EIFAC at Wierzba, Mazurian Lakeland, Poland, from 26 May to 2 June 2004.

The following timetable was proposed:

| | |
|---------------------------------------|-------------------------------|
| Tuesday, 25 May | Arrival |
| Wednesday - Saturday (a.m.) 26-29 May | Symposium |
| Saturday, 29 May (p.m.) | <i>ad hoc</i> Working Parties |
| Sunday, 30 May | Excursion |
| Monday-Wednesday, 31 May - 2 June | EIFAC Session |
| Thursday, 3 June | Departure |

Ad hoc meetings of Working Parties are envisaged on Saturday, 29 May (p.m.) and on Wednesday, 2 June (a.m.)

Dates and proposed timetable were agreed.

The Polish authorities had nominated Mr A. Wołos as Liaison Officer. A Letter of Agreement and Memorandum of Responsibilities had been signed between FAO and the Government of Poland by the end of 2002.

Mr A. Wołos informed the meeting that the Session and the Symposium would be held at the Conference Centre of the Polish Academy of Sciences in Wierzba. An official Opening Ceremony was planned on Monday 31 May at the beginning of the Session proper.

3. PREPARATIONS FOR THE SYMPOSIUM

The EXCOM discussed the EIFAC Symposium on Aquaculture Development – Partnership between Science and Producer Associations, which will be held in Poland, Wierzba, Mazurian Lakeland, between 26 – 29 May 2004 in connection with the 23rd Session of EIFAC. The Convener of the Symposium is Mr L. Váradi, the Chairperson of Sub-Commission II.

So far, proposals for only six papers and two posters have been received.

The meeting undertook to draft a "Final Call for Papers" for distribution through electronic and conventional channels as soon as possible (see Annex 1). It was agreed that abstracts including title can be submitted until 31 August 2003.

In order to reduce the amount of material to be reproduced before and during the Symposium, and following the example of the 2002 Windermere symposium, it was agreed that authors should be

instructed to prepare a one-page summary of their papers for distribution. They may also want to make a certain number of copies of their full paper available at the Symposium.

The EXCOM discussed the composition of an *ad hoc* committee for the preparation of the symposium, which would include the Convener (L. Váradi), the Chair (K. Gorycko), host country liaison person (A. Wołos), the EIFAC Secretary *ad interim* (G. Marmulla) and the Technical Secretary of the Symposium (U. Barg) as well as 2-3 interested aquaculture experts. Experts of the Federation of European Aquaculture Producers (FEAP) and the European Aquaculture Society (EAS) should also be invited to contribute to the preparations of the symposium.

FEAP and EAS, who both had asked to be involved in the preparation of the Symposium, should be invited to play an active role in the dissemination of information about the Symposium. An interim briefing meeting on the EIFAC symposium could be held on the occasion of the aquaculture meetings in Trondheim in August 2003, including the EAS conference and the 2nd Session of the FAO COFI Sub-Committee on Aquaculture.

It was suggested that later in 2003, organizers and secretariat should meet in Wierzba to look into details of the meeting facilities and arrangements, and, eventually, also to agree on the detailed structure of the Symposium.

The meeting noted that it was not possible to receive support from the EC for participants from European countries for the forthcoming symposium, as many of these countries would have become members of the EU by then; furthermore, the EC had notified the Secretariat that the programme for Accompanying Measures, through which support for the Windermere symposium had been secured, does no longer exist.

Action: U. Barg / L. Váradi / G. Marmulla

4. PROCEEDINGS OF THE 2002 SYMPOSIUM

Mr H. Naeve, EIFAC Consultant, reported that selected papers presented at the Symposium on Inland Fisheries Management and the Aquatic Environment, Windermere, 12-15 June 2002 will be published as a Special Issue of "Fisheries Management and Ecology". From the 21 contributions, originally proposed by the Steering Committee, five were rejected during the peer review process. To date, eleven papers have been received in final form, while five papers are still under revision by the authors. The meeting urged the Secretariat that all efforts should be made to publish the proceedings within 2003. Mr Hickley promised to exert some pressure on authors who have not submitted their final papers yet.

Action: P. Hickley

5. MEETING OF FAO AND NON-FAO REGIONAL FISHERIES BODIES

The report of the Third Meeting of Regional Fishery Bodies (RFBs), held in Rome, 3-4 March 2003, was noted. Points of interest to EIFAC raised at that meeting were (1) the issue of co-operation of RFBs with CITES relating to CITES listing of commercially exploited aquatic species, and (2) reference to external factors of major concern for fisheries management such as pollution, dams, hydroelectric establishments and other man-made habitat modifications.

The meeting also took note of FAO Fisheries Circular No. 985, "Summary Information on the Role of International Fishery Organizations or Arrangements and Other Bodies Concerned with the Conservation and Management of Living Aquatic Resources". That document includes information on EIFAC and its activities.

6. REPORT ON SUB-COMMISSION I

Chairperson: T. Brenner

6.1 *Ad hoc* EIFAC/ICES Working Party on Eels

Convener: W. Dekker

The EXCOM meeting noted the decline of the European eel stock and recognized the need for action.

Based on the previous Working Party reports, ICES and EIFAC recommend the improvement of eel habitat and the development of an international management plan for the whole stock. Exploitation (and other anthropogenic sources of mortality) is to be reduced to the lowest possible level until such a plan is agreed upon and implemented. This can only be achieved by internationally coordinated management actions at the national or regional scale. Development and implementation of a stock recovery plan will require and stimulate co-operation of national and regional managers. However, un-coordinated management actions in isolated areas are not likely to lead to a recovery of the stock.

The Scientific, Technical and Economic Committee for Fisheries (STECF) of the European Commission supports the advice of ICES and EIFAC. Though the total production of eel fisheries and aquaculture is low in comparison to many commercial marine fish species, the wide distribution and small scale of this fishery make the impact on rural economies considerable.

It was agreed that the Chairperson of EIFAC sends a letter to the EC, with copies to the FAO Fisheries Department and ICES, to reiterate EIFAC's concern about the status of European eel stocks, welcome any action to improve the stock and draw EC's attention to the potential role of EIFAC and its joint EIFAC/ICES Working Party in formulating a management plan.

Upon advice by W. Dekker, the meeting decided not to publish the report of the last session of the WP in Nantes separately but to await the report to of the next meeting which will be held in October 2003.

It was considered to send out an FAO press release regarding eel matters.

Action: R. Müller / T. Brenner

6.2 *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 15 June 2002 in Windermere, UK, in association with the 22nd Session of EIFAC.

The WP offered guidance to the work of the European Committee for Standardization (CEN) on the draft standard entitled "Water quality - Guidance on the scope and selection of fish sampling methods". Mr P. Dehus developed the standard into a third draft for consultation and the WP responded with comments.

Links with the FAME (Fish-based Assessment Method for the Ecological Status of European Rivers) project and WFD TAGs (Water Framework Directive Technical Advisory Groups) were maintained by some attendees of meetings also being members of the WP.

Work on best practice guidance for electric fishing was carried out within the remit of the Convener's host country responsibilities and a draft document will be available in autumn 2003.

Prior to the 23rd Session the WP intends to produce a bibliography of key web sites, standards and national protocols relating to fish monitoring in fresh waters. This should raise awareness and improve information exchange in relation to the activities of FAME, WFD TAGs and the responsible bodies within member countries.

6.3 Ad hoc Working Party on Introductions and Stocking

Convener: I.G. Cowx

No report was received. Mr P. Hickley volunteered to contact the Convener.

Action: P. Hickley

6.4 Ad hoc Working Party on Mapping of Fish Distribution and Aquatic Habitat Quality

Convener: R. Fricke (proposed)

It is proposed that Mr R. Fricke be appointed new Convener of the Working Party at the 23rd Session. It is furthermore suggested to then approve the amended TORs. The original TORs were set up and approved during the 20th Session in Carvoeiro. Until the 23rd Session, Mr Fricke can act as Convener *ad interim* of the WP on the basis of these TORs. However, his attention should be drawn to the fact that the wording "material" in the original TORs makes reference to literature, data bases and maps in both printed or electronic format.

Action: T. Brenner

6.5 Ad hoc EIFAC/GFCM Working Group on Management of Sturgeon

Convener: M. Chebanov

As a first step, experts of the following countries, i.e. Austria, Bulgaria, France, Georgia, Germany, Greece, Hungary, Italy, Poland, Romania, Russia, Turkey and Ukraine, were chosen to take part as members of the working group.

The preliminary work of the Working Party consists in the coordination and co-operation with other international bodies to improve the exchange of information and strengthen the existing networks by avoiding duplication of efforts. This has been carried out with the World Conservation Union (IUCN), CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and the World Bank's Caspian Sea Environmental Program.

It was noted by the meeting that the Convener of the Working Party will prepare a questionnaire which will be distributed among the members of the Working Party. Before distribution, this questionnaire should be sent to the EIFAC secretariat to assure that it be concise and as short as possible to increase the chances of reply. Once the completed questionnaires have been received by the Convener, he will hold a Working Party meeting to discuss information resulting from the questionnaires and to decide further actions.

Action: T. Brenner

7. REPORT ON SUB-COMMISSION II

Chairperson: L. Váradi

7.1 Ad hoc Working Party on Fish Diseases and Their Control

Convener: N.N.

The *Ad hoc* Working Party on Fish Diseases and their Control has not been active over the reporting period. There had been no feedback from the former Convener on whether the proceedings of the EIFAC/EAFP (European Association of Fish Pathologists) workshop on Carp and Sturgeon Health Management (held in 1999 in Rhodos, Greece) have been edited. The Technical Secretariat informed the EXCOM that the draft papers of the Rhodos workshop have been taken over by Mr D. Alderman, current president of EAFP, who will be working with Mr R. Subasinghe (FAO) on the report and proceedings, which will be finalized by the end of 2003.

Action: D. Alderman / R. Subasinghe

The EXCOM discussed the future of this Working Party. It was recognized that a new Convenor would need to be identified. In general, the Working Party should continue its activities with the overall focus on providing best practice guidance materials which should be based on best available science. The WP could also study fish disease transmission effects to wild populations resulting from culture-based fisheries or other practices. Future activities could also cover technical and scientific aspects and issues associated with present changes in fish health legislation in European countries. It was concluded that the Terms of Reference of the Working Party should be revised. EIFAC National

Correspondents will be encouraged to express their views and interest in the work of this Working Party.

Action: L. Váradi / U. Barg

7.2 Ad hoc Working Party on Aquatic Resources Management in Aquaculture

Convener: N.N.

Unfortunately, the Convener of this WP, Mr Y. Avnimelech, has retired and has withdrawn from all his EIFAC activities. Although a work plan and a study outline on Aquatic Resources Utilization by Aquaculture had been elaborated, there have not been any follow-up activities. The Chairperson and the Technical Secretary of the Sub-Commission have been trying to reactivate the work of the WP, taking into account the importance of aquatic resources management and the significant interest in the topic. It was agreed that a new Convener and new WP experts with genuine interest, competence and time should be identified. The Chairperson of the Sub-Commission has approached several experts, and is trying to organize an ad-hoc meeting during the European Aquaculture Society (EAS) Conference in Trondheim in August 2003.

Action: L. Váradi / U. Barg

7.3 Ad hoc Working Party on Organic Fish Farming

Convener: V. Hilge

This WP was established in 2000, and has been working with increasing activity since then. A meeting of the Working Party was held at Nuremberg, Germany, on 18 February 2002 on the occasion of the BIOFACH Conference and Fair. A number of questionnaires were sent out to the EIFAC National Correspondents with a view to producing an overview on organic fish farming in Europe including brackish and marine culture systems as well as on the status of organic fish feed production. The results of the questionnaires are still under evaluation and processing. Mr M. Halwart (FAO) provided additional briefs on the planned participation of the Convener at the INFOFISH Conference on Organic Aquaculture and Sea Farming 2003, the activities of the IFOAM (International Federation of Organic Agriculture Movements) working group on organic aquaculture, and the recent initiative by the Fédération nationale d'agriculture biologique des régions de France (French Federation of Organic Agriculture).

Action: V. Hilge / M. Halwart / U. Barg

7.4 Ad hoc Working Party on Market Perspectives of European Freshwater Aquaculture

Convener: L. Váradi

The EIFAC/EC Working Party on Market Perspectives of European Freshwater Aquaculture met in Brussels between 14-16 May 2001, and the report of this meeting was published as EIFAC Occasional Paper No. 35. The WP was instrumental in the organization of the international conference on Aquaculture Economics and Marketing, which was held between 29 September and 2 October 2002 at Szarvas, Hungary. The proceedings of the conference will be published this year as the 28th volume of the periodical "Halászatfejlesztés / Fisheries Development" of the Research Institute for Fisheries, Aquaculture and Irrigation (HAKI) Szarvas, Hungary. These proceedings will be distributed to the EIFAC network. It was agreed that the scope of work of this WP also be reviewed, and that a road map with major events and target dates be developed for this WP.

Action: L. Váradi / U. Barg

7.5 Eastern European Affairs

Eastern European aquaculture is of special interest to various organizations. The EAS established an Eastern European Committee; the Federation of European Aquaculture Producers (FEAP) will hold one of its PROFET Workshops in Hungary; the 23rd Session of EIFAC will be held in Poland. A Letter of Intent on a Network of Eastern European Aquaculture Centres will be signed during the forthcoming International Conference on Cold Water Aquaculture, which will be held during 8-12 September 2003 in St. Petersburg, Russia. EIFAC Sub-Commission II is actively involved in those initiatives, which are aiming at the better involvement of Eastern European countries in European aquaculture development programmes.

8. REPORT ON SUB-COMMISSION III

Chairperson: A.J.P. Raat

8.1 *Ad hoc* Working Party on Effects of Physical Modification of the Aquatic Habitat on Fish Populations

Convener: M. Zalewski

The Convener of the *Ad hoc* Working Party has scheduled an international Workshop on Ecohydrology and Physical Fish Habitat Modifications in Lakes, in November 2003. The rationale of the meeting is that physical modifications of lake habitats are considered to be one of the major causes of changes in fish communities, biodiversity and productivity. The need to understand the complex ecology of modifications in the water body has recently been given added impetus by the Water Framework Directive (WFD). It is in the interest of EIFAC to include the impacts of habitat modification on fisheries as a separate theme in the Workshop.

The Chairperson of Sub-Commission III shall contact the Convener regarding the exact date and place of the Workshop and to stress that in view of the importance of the meeting an early and widely distributed announcement is needed.

Action: A.J.P. Raat

8.2 *Ad hoc* Working Party on Methodologies for Rehabilitation of Lakes and Reservoirs

Convener: H. Lehtonen

The *Ad hoc* Working Party is preparing a Manual on Rehabilitation of Lakes and Reservoirs for Fish. The editors, Mr H. Lehtonen, Mr I.G. Cowx and Mr R. Müller, plan that the work will be completed during 2003. Three authors still have to complete their work and editing of the Manual has to take place. Blackwell Science is willing to publish the book in the same format as the book on Rehabilitation of Rivers for Fish. It was felt that Blackwell Science needs to make a proposal for a co-publishing agreement to the FAO Publication Sales and Marketing Group. Sponsoring the publication by Governmental agencies of member countries, e.g. the Environment Agency (UK), was identified as another possibility to finance the publication of the Manual.

The Manual has the following chapters:

- Introduction (Lehtonen)
- Typology of lakes and reservoirs (Cowx)
- Habitats and habitat requirements (Kainz)
- Classification of lacustrine habitats (Cowx)
- Impacts of man's activities on habitats (Cowx)
- Methods of rehabilitation (Lehtonen)
- Management and rehabilitation of regulated lakes (Vehanen)
- Rehabilitation of eutrophic lakes (Müller)
- Rehabilitation of acidified lakes (Appelberg)
- Biomanipulation (Hoppila)
- Management of spawning and nursery areas (Winfield)
- Management of aquatic vegetation (Coops)
- Rehabilitation of lake shores (Biro)
- Rehabilitation of lake fisheries by stocking (Cowx)
- Conclusions (editors)

Action: I.G. Cowx / H. Lehtonen / A.J.P. Raat

8.3 *Ad hoc* Working Party on Prevention and Control of Bird Predation

Convener: E. Staub

The Working Party is acting as a liaison group. It was felt that information on prevention and control of bird predation is useful for EIFAC. No information was received since the 22nd Session. The Chairperson of Sub-Commission III shall contact the Convener and request a report on relevant activities for the 23rd Session of EIFAC.

Action: A.J.P. Raat / E. Staub

8.4 *Ad hoc* Working Party on Influence of Management Practices on the Environment

Convener: M. Aprahamian

The Convener of the Working Party, Mr M. Aprahamian reported that a meeting was held at the 22nd Session of EIFAC on June 15th, 2002 at Windermere, England. Impact of stocking, biomanipulation, rehabilitation, impact of fish community management and conservation were discussed at the meeting.

The Windermere meeting identified issues where EIFAC could help by providing advice:

- The impacts of current fisheries management on freshwater ecosystems.
- How to predict the effect of current management practices on the environment.
- How to determine whether current management measures are appropriate.
- How best to promote sustainable management practices.
- How best to integrate process management, e.g. understanding what is happening around the catchment and identifying where management is needed.

The Windermere meeting concluded that EIFAC could help by providing guidelines / best practice advice on the following themes:

- Biomanipulation guidelines. In this respect the recent document of the Environment Agency (UK) on biomanipulation can serve as a useful reference for the Working Party.
- Stocking guidelines. Though high level generic guidelines are available it was considered that more detailed practitioner focused guidelines are necessary - in particular dealing with carrying capacity in both, rivers and still waters, risk assessment, costs and benefit analysis of different stocking strategies including examples of negative impacts (introgression, increased exploitation of wild stocks and other wildlife), how to mitigate if possible, and positive impacts (reducing exploitation on rivers). In this respect, the Environment Agency (UK) is developing a manual which will serve as a useful reference for further activities.

The EXCOM meeting considered the activities of the Working Party to be in line with the 1990 terms of reference with the exception of the topics dealing with stocking. This activity must be integrated in the programme of the Working Party on Introductions and Stocking.

Action: A.J.P. Raat / T. Brenner / I.G. Cowx / M. Aprahamian

8.5 *Ad hoc* Working Party on Handling of Fishes in Fisheries and Aquaculture

Convener: A.J.P. Raat

During the 22nd session, EIFAC decided to establish an *Ad hoc* Working Party on Handling of Fishes in Fisheries and Aquaculture.

A compilation of the basic scientific knowledge on the effects of handling of fishes in fisheries and aquaculture (fishing methods, harvest, holding and rearing, use of anaesthetics, slaughter) is in preparation. In March 2003 a questionnaire was sent to EIFAC correspondents and other relevant persons/ organizations to compile information on the current practice of handling of fishes in fisheries and aquaculture, including training programmes, and collate existing codes of practice and guidance in EIFAC member countries and relevant information from other countries. The questionnaire also aims at listing of the current and proposed legislation and regulation on handling in fisheries and aquaculture and in experimental settings in EIFAC member countries (including EU regulations). The information will be integrated in the report for the 23rd session in 2004. The report also identifies the relevant Web sites and other sources for information on welfare and handling of fishes and other relevant topics.

A workshop meeting of the *Ad hoc* Working Party in Utrecht (Netherlands) will be announced for November 2003. Besides information exchange the workshop shall consider whether it is useful to develop codes of practice on handling of fishes in fisheries and aquaculture, which can be used for better management and regulations in the EIFAC member countries.

Action: A.J.P. Raat / U. Barg

8.6 Liaison Group on EU Water Framework Directive (WFD)

Liaison Group: I.G. Cowx / A.J.P. Raat

During the 22nd Session of EIFAC in Windermere a Liaison Group, consisting of Mr A.J.P. Raat and Mr I.G. Cowx, on the WFD was established. The Group sets out the consequences of the WFD for fisheries and fisheries management, reports about these consequences to EIFAC and acts as a link between the EIFAC *Ad hoc* Working Party on Fish Monitoring and the EU project: Development, Evaluation and Implementation of a Standardized Fish-based Assessment Method for the Ecological Status of European Rivers (FAME). The following activities can be reported.

EU-funded project FAME

Development, Evaluation and Implementation of a Standardised Fishbased Assessment Method for the Ecological Status of European Rivers <http://fame.boku.ac.at/>. Documents on the following working packages of the project can be downloaded from this web site.

Development of a river typology. The typology developed within FAME to account for fish distribution in European rivers was derived on two main levels, using common themes from national schemes and the models proposed by the WFD.

- Grouping similar basins/ivers together at a "whole river/basin" level.
- Within river zonation to account for river zone variations.

Fish species classification. The FAME project has developed a standardised scheme, based around the functional guild concept, to address the requirements of a multi-metric assessment index. Published scientific literature, national fisheries reports and unpublished "grey" literature were collated, together with information from existing classification schemes, to produce a standardised classification scheme for fish species which are known to occur in FAME countries.

Defining Reference Conditions. Monitoring programs of the ecological status of European rivers and the degree of deviation from natural conditions require the establishment of biological reference conditions. Key approaches for deriving ecological reference conditions, namely spatial methods, modelling, historical evidence and professional judgement are outlined, and the advantages and disadvantages of each are discussed. Biological attributes of ecological quality (metrics) are selected with respect to their sensitivity to particular types of environmental stress. Reference conditions for the selected metrics and the appropriate strata are specified.

Metric Selection and Sampling Procedures for FAME. Different fish-based methods are used throughout Europe and the world to assess the ecological status of rivers. These methods were reviewed, the common components were summarized, and the distinct metrics and sampling procedures were identified and classified.

An overview of the different metrics used for IBI development world wide indicates that, despite a huge diversity in metrics chosen in different countries, most IBI have preserved the original classification of metrics among 4 major categories: species composition and diversity, trophic composition, fish abundance, and reproduction and condition.

In Europe, sampling methods differ largely. As a corollary, national sampling methods rarely exist. However, in some European countries, fish monitoring programmes have been designed to assess the ecological quality of rivers based on fish assemblages. The different procedures of fish sampling, both in wadeable and non wadeable rivers, are reviewed. Standardised electric fishing procedures have been precisely described for wadeable and non wadeable rivers, in agreement with the CEN directive for water analysis - sampling of fish with electricity (Work Item 230116).

The methods developed in different European regions or countries to assess the ecological quality of rivers by using fish-based methods, were reviewed. Despite the fact that indices have been developed quite independently, all these methods have retained the original ecological framework, including a series of metrics that describe the major biological attributes of a fish community. Some IBI methods have been developed for regional applications, or for some specific river types (such as small

headwaters with poor species diversity) while some others aim to be applied to wider area, as an entire ecoregion, or even to several ecoregions with different ichthyofauna.

EU-funded project AQEM

The Development and Testing of an Integrated Assessment System for the Ecological Quality of Streams and Rivers throughout Europe using Benthic Macroinvertebrates <http://www.aqem.de/>. The project has been finished in 2002.

EU-funded project STAR

Standardisation of River Classifications (STAR): Framework method for calibrating different biological survey results against ecological quality classifications to be developed for the Water Framework Directive <http://www.eu-star.at>.

The project has the objective to ensure the successful delivery of the aims of the project in the most cost-effective manner, to establish successful channels of communication between project partners, the EU Commission, other interrelated European and national projects, the water industry and the scientific community.

Symposium

The EXCOM meeting took notice that the Symposium on the Water Framework Directive, originally planned to be held in Hull in April 2003, has been postponed. The Chairperson of Sub-Commission III will contact the Symposium convener to enquire about the revised dates of the symposium.

Action: A.J.P. Raat

8.7 Ecological and human health effects from endocrine disrupting substances

During the 22nd Session of EIFAC in Windermere it was decided to discontinue the *Ad hoc* Working Party on Evaluation of Ecological and Human Health Effects from Endocrine Disrupting Substances. The Chairperson of Sub-Commission III thanked the Convener of the Working Party, Mr P.-D. Hansen for his activities in EIFAC. It was further decided that the Chairperson of Sub-Commission III should have a watching brief on the new developments on the effects of endocrine disruptors on fish and fish populations. Many wildlife species, especially fish, show signs of feminisation, with male fish producing large quantities of female egg yolk protein and developing sexual organs that are intermediate between male and female features, resulting in so-called intersex fish.

CREDO Cluster

Relevant information is supplied on the CREDO cluster <http://www.credocluster.info/index.html> that compiles information on projects dealing with reproductive disorders in humans and wildlife. Four projects funded by the European Union form the core of the CREDO cluster: EDEN, COMPRENDO, EURISKED and FIRE. Together, they represent over 60 research laboratories in Europe, with a total budget of more than 20 million Euros. The website of the CREDO cluster also refers to associated programmes in the field of endocrine disrupting substances.

CITYFISH

Modelling the Ecological Quality of Urban Rivers: Ecotoxicological Factors Limiting Restoration of Fish Populations <http://www.biosciences.bham.ac.uk/labs/taylor/CITYFISH.htm>. The overall objectives of the project are to determine the ecotoxicological factors limiting restoration of sustainable fish populations in polluted urban rivers in four European countries. In the UK and Italy the chosen species is chub, (*Leuciscus cephalus*), in the Netherlands and Germany it is bream (*Abramis brama*). Fish sampled from the wild population, plus fish held in cages at each sampling site, are being studied with respect to their swimming performance in relation to the pollution load they have accumulated. Fish exposed in relatively polluted conditions swim at slower sustainable rates than fish from clean water. This will affect their ability to maintain position or migrate within the river system.

The project includes a study to investigate the ways that people perceive the risks associated with poor ecological quality and the social advantages of a healthy fish population, in urban rivers. The outcome of the project will be an overview of the combined technological and socio-economic factors affecting implementation of an urban river ecosystem with a sustainable population of healthy fish and the development of more sensitive criteria for judging the quality of rivers, based on analysis of their fish populations.

Report on Estrogens and xeno-estrogens in the aquatic environment of the Netherlands

Publication of the report: *Estrogens and xeno-estrogens in the aquatic environment of the Netherlands. Occurrence, potency and biological effects*. RIZA/RIKZ-report no. 2002.001. ISBN 9036954010. to be ordered from Cabri Mailservice. POB 431, 8200 AK Lelystad, The Netherlands.

The report deals with a base-line study that provides a picture of the occurrence of a number of natural and synthetic estrogens in the aquatic environment as well as a view of the estrogenic effects in fish in surface waters. The field study indicates that estrogenic effects in fish populations are largest in regional waters that are strongly influenced by local sources of emission. Weak to moderate estrogenic effects in fish were found in large freshwater bodies.

8.8 Aquatic Environmental Hazard Assessment Criteria and Methods

The 2001 EXCOM meeting proposed that possibilities be investigated for the establishment of an *Ad hoc* Working Party on Aquatic Environmental Hazard Assessment Criteria and Methods, possibly in collaboration with related activities of the IMO/FAO/UNESCO-IOC/WMO/WHO/IAEA/UN/UNEP Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP). The Commission noted that GESAMP Working Group 33 had prepared a document entitled "Environmental Exposure Models for Application in Seafood Risk Analysis". This report was distributed for information and discussion during the 32nd Session of GESAMP (London, 6-10 May 2002).

Mr R. Blust, a member of GESAMP Working Group 33, was approached by the Chairperson of Sub-Commission III to initiate a similar scientific effort focusing on European freshwater fish species. The progress of this initiative was discussed during the EXCOM meeting in May 2003. It was decided that during the 23rd session of EIFAC it will be proposed to discontinue the activities of this Working Party.

9. REPORT ON SUB-COMMISSION IV

Chairperson: I.G. Cowx

9.1 *Ad hoc* Working Party on Recreational Fisheries

Convener: B. Breton

Recreational fisheries surveys have been undertaken in a number of EIFAC Member Countries. The *Ad hoc* Working Party on Recreational Fisheries has continued to monitor the output of such surveys. It was also noted that national codes of good practice for recreational fishing have been developed in a number of countries. The EXCOM encouraged the Working Party to pursue its effort to compile these documents and to draft a consolidated code of good practice on this basis.

The Chairperson of Sub-Commission IV shall contact the Convener and request a report on relevant activities for the 23rd session of EIFAC.

Action: I.G. Cowx / D. Greboval

9.2 *Ad hoc* Working Party on Socio-Economic Aspects of Inland Fisheries

Convener: M. Sipponen

The *Ad hoc* Working Party on Socio-Economic aspects of Inland fisheries pursued its work in two directions. First is the monitoring of the socio-economic surveys of recreational fishing which have been implemented in various countries, including those which will be undertaken under the aegis of the European Anglers Alliance (EAA) under the 6th Framework Programme for Research. The objective will be to produce methodological guidelines on this basis for the undertaking of socio-

economic surveys of recreational fisheries. The second direction concerns valuation methods. It was noted that Ms E. Roth was convening a workshop on "Economic Valuation Methods in the Management of Natural Resources" in Denmark on 26-27 August 2003. The Working Party is also following new initiatives regarding interdisciplinary analysis of commercial fisheries in Finland, with emphasis on fisheries management.

EXCOM suggested that the Convener, Mr M. Sipponen, represents EIFAC at the workshop.

10. EMERGING ISSUES – PROSPECTS FOR NEW ACTIVITIES

The Technical Secretary, Mr U. Barg, briefed the Executive Committee of the recent joint initiative by the European Environment Agency, EC DG Fish and EC DG Environment on the development of indicators on environmental integration of fisheries and aquaculture in the context of the Common Fisheries Policy. The Summary Report of the joint workshop (EEA-EC DG Fisheries-DG Environment) on "Tools for Measuring (integrated) Fisheries Policy aiming at a Sustainable Ecosystem", held 28-29 October 2002 in Brussels, was circulated. Although the focus of the meeting was primarily on marine capture fisheries, it was noted that there are opportunities for EIFAC to exchange experiences with the European Environment Agency given the interest by EEA in inland fisheries and freshwater aquaculture matters in Europe. The above mentioned report can be accessed at <http://eea.eionet.eu.int:8980/Public/irc/eionet-circle/irf/library>.

11. Working Party on Assessment of the Role and Functioning of EIFAC

Convener: R. Müller

In light of the deliberations of the 2nd Meeting of FAO and non-FAO Regional Fishery Bodies, the 22nd Session of the Commission had discussed the issue of strengthening EIFAC and had felt that there was a need to evaluate the role and functioning of EIFAC and to identify opportunities for its future. Therefore a small Working Group was established to carry out a performance assessment. The tentative terms of reference of this Working Group are:

- to compile and appraise a list of documents and reports prepared and published by the Commission since its foundation, including a synopsis of related activities (symposia, etc.);
- to identify potential obstacles impeding the work of the Commission, to elaborate measures for alleviating these difficulties, and to identify ways and procedures that will help the Commission to improve its performance, and
- to work out guidelines that will facilitate the identification of relevant emerging issues, and that will allow their prompt and adequate handling.

For the time being, the group is composed of the members of the Executive Committee.

The Convener presented a first draft list of documents and reports prepared and published by the Commission since 1980, as a continuation of the list of documents provided in the "Historical Review of EIFAC Activities", EIFAC Occasional Paper No. 13, 1981. The draft list will be completed and presented to the 23rd Session of EIFAC.

The activities of EIFAC fall primarily into the two categories of technical work and communication, both of which have strategic and reactive components. The Executive Committee discussed issues and obstacles impeding the work of the Commission, and possible ways to overcome them. The following items were found to be important:

- It is not always clear how EIFAC can fulfil the expectations of the Member States.
- Most of the work of the Commission relies on voluntary work carried out by experts from and at the expense of Member State organizations.
- EIFAC is not known well enough, even among some fisheries scientists. Information from the Commission to the National Correspondents and on to national bodies should be more frequent and better reflecting actual themes and emerging issues. Information transfer should be organized in a proactive way, e.g. by way of the internet, electronic mail or electronic bulletin. In order to reach the end-users in the Member States (research institutions, universities, fisheries

organizations, aquaculture producers, etc.), a list of these bodies should be established at national level that could serve as an address data base for direct communication. Conversely, ways to improve the flow of information from the fisheries bodies within Member States to the Commission should be sought.

- On the web pages of National Correspondents/their institutions/official national fisheries home pages, reference should be made to EIFAC, its work, EIFAC work in their own country, and a link should be established to the homepage of EIFAC in order to facilitate information transfer and to enhance the profile of the Commission.
- Frequent changes in staff of fisheries agencies in Member States may impede the proper flow of information.
- There is a lack of involvement of younger people in the work of EIFAC. One of the reasons is the lack of travel funds to participate in, e.g., working group meetings.
- The preparation of national country reports on inland fisheries and aquaculture for distribution at each Session of EIFAC.
- Member countries should send to the Secretariat a concise report reflecting the fisheries of their country to be included in the EIFAC homepage. These reports should regularly be updated by the countries.
- With the accession of a number of European states to the European Union in 2004, the role EIFAC plays may be changing. This should be followed attentively.

The Convener will prepare a draft document on the subject and circulate it to the members of the Working Group for review and feedback. The final document will be presented to the 23rd Session of EIFAC which will decide on further actions.

Action: R. Müller

12. ANY OTHER MATTERS

Twenty-fourth Session of EIFAC in 2006

Notice was received from the National Correspondent of Greece that his Government had intentions to invite FAO to hold the Twenty-fourth Session of EIFAC in Greece. It is intended to eventually present a formal invitation to the Twenty-third Session of EIFAC for decision. The theme of the Symposium will also have to be decided at the Twenty-third Session.

The Fourth World Fisheries Congress, 2-6 May 2004: Reconciling Fisheries with Conservation: The Challenge of Managing Aquatic Ecosystems

The Fourth World Fisheries Congress in Vancouver, Canada, will be a five-day global conference. It is in accord with the goals, purposes and objectives of the series of World Fisheries Congresses held every four years since 1992. The fourth congress in 2004 aims:

1. to systematize and explore the issues that underpin the reconciliation of fisheries with conservation,
2. to promote scientific advice, co-operation and partnership among the world's fisheries scientists, managers, the fishing industry, and conservation movement in achieving this vital goal.

The Fourth World Fisheries Congress is destined to be an historical contribution to fisheries science and management, culminating in a strong statement on the task of harmonizing fisheries and conservation (<http://www.worldfisheries2004.org/home.htm>).

The meeting took note that Mr R. Müller intends to attend the Congress and represent EIFAC.

13. CLOSING OF THE SESSION

The meeting approved the summary record of this Session. The Chairperson, Mr R. Müller, closed the Session on 21 May at 14.30 hrs.

Annex 1

**EIFAC SYMPOSIUM ON
AQUACULTURE DEVELOPMENT –
PARTNERSHIP BETWEEN SCIENCE AND PRODUCER ASSOCIATIONS**

Wierzba, Mazurian Lakeland, Poland, 26 – 29 May 2004

PROSPECTUS AND FINAL CALL FOR PAPERS

The European Inland Fisheries Advisory Commission will hold a Symposium on Aquaculture Development – Partnership between Science and Producer Associations, in connection with its Twenty-third Session in Poland from 26 May to 2 June 2004.

The main objective of the Symposium is to define the complementary roles of science and production, as expressed through producer associations in the development of the aquaculture sector.

Background and Rationale

The Symposium will continue the thrust of previous EIFAC Symposia that explored the challenges that face the fisheries and aquaculture sectors in the globalizing world. Sustainability has been a main guiding principle for all themes, providing major focus on key issues and interactions between aquatic production, aquatic environment and society. Further, EIFAC has been providing an international forum for information exchange and collaboration among European countries not only for scientists, but all stakeholders interested in sustainable development of inland fisheries and aquaculture, among them the representatives of producers.

There is an increasing trend towards creating partnerships and collaboration between aquaculture producers and scientists, government officials and other stakeholders. Producers are recognized as key players of sustainable aquaculture development, being direct users of resources during the production of food. However, more interaction and better communication and coordination between them and natural and social scientists and other stakeholders interested in aquaculture, is required. Producers should have a better stakeholder position through stronger representative associations particularly in view of the complexity and international dimensions of sustainability issues and also in view of the diversity of the European aquaculture sector. Aquaculture producers must play a stronger participatory role in sectoral development but the conditions for an effective stakeholder position in many cases have yet to be fulfilled.

Aims of the Symposium

The aims of the Symposium will be:

- (i) to make a broad assessment of the present roles, opportunities and needs of aquaculture producer associations in the EIFAC region,
- (ii) to identify the possible contributions by other stakeholders, including in particular, research institutions (natural and social sciences) and government agencies, in support of aquaculture producer associations, and
- (iii) to propose measures to strengthen participation, activities and positions of aquaculture associations in the management and development of the aquaculture sector.

Themes

Specific issues and challenges for attaining the long-term sustainability of aquaculture include:

- Promotion and definition of research and technology development programmes (including diversification into new farming systems, species and technologies) for sustainable aquaculture development.
- Human resource development, capacity building, and education, in particular, training, technology transfer and the provision of and access to information.
- Promotion of the appropriate and efficient use of resources, including water, sites, feed, seed stock and other inputs.

- Comprehensive policies and supportive legal and institutional frameworks based on communication and consultation with the major stakeholders, the producers.
- Enhanced partnership, participation and consultation of all stakeholders in the planning, development and management of aquaculture, including the promotion of codes of practice, codes of conduct and good management practices.
- Development of investment incentives, market studies, product marketing programmes and consumer awareness campaigns.

The Symposium will provide an appropriate forum to address the above issues, and to discuss the role of producer associations and their partnership with various actors interested in the promotion of more coordinated and sustainable inland aquaculture development in Europe. In particular, researchers, including natural and social scientists, government experts, non-governmental organizations, and other stakeholders, would contribute their views, experiences and recommendations, on the above issues. The Symposium will benefit from the experience and participation of the Federation of European Aquaculture Producers (FEAP), and the European Aquaculture Society (EAS), which are active partners of EIFAC. Since the Symposium will be held in an Eastern European country, a wide attendance of producers, scientists and their representatives from this region is expected for this professional forum.

Participation and contributions

The Symposium is addressed to aquaculture producers associations, scientists, government agencies, research and education institutions, environmental and social non-governmental initiatives, including groups representing consumer protection, private sector (e.g. suppliers, processors, retailers, etc.) and other interests with regard to aquaculture.

Written contributions and presentations are invited within any of the above broad headings. It is suggested that the majority will relate to experiences within countries, both reviewing past and present and predicting future opportunities for strengthening aquaculture producer associations and their interactions with other stakeholders. Inter-active discussion during the Symposium will lead to a major statement embracing the entire context and future of aquaculture producer organizations of Europe. Anyone wishing to present a paper or poster display should submit a title and abstract by 31 August 2003. The abstract of the proposed contribution should not exceed 150 words and should be submitted, preferably by e-mail, to the Technical Secretary of EIFAC Sub-Commisson II - Aquaculture, Fishery Resources Division, FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy, E-mail uwe.barg@fao.org, fax (+39) 065705 3020.

Papers will be accepted in English or French, the official languages of EIFAC, but no interpretation will be provided. The Steering Committee will review all abstracts in relation to the objectives and themes of the Symposium and the authors will be informed of the outcome by 1 December 2003. Successful authors must submit a draft manuscript not later than 1 March 2004.

The Convener of the Symposium is Mr L. Váradi (Hungary), E-mail: varadil@haki.hu, Fax: +36 66312142.

The Chairperson is Mr K. Goryczko (Poland), E-mail: rutkiirs@gd.onet.pl, Fax: +48 058 6818427.

Annex 2

AGENDA

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| Opening of the Session (R. Müller) | <i>EIFAC/EXCOM 2003/1, 2</i> |
| Place and Date of 23rd Session (A. Wołos) Timetable for Session / Symposium 2004 (G. Marmulla) Compilation of list of observers to be invited | <i>EIFAC/EXCOM 2003/3</i> |
| Preparations for the Symposium (L. Váradi / U. Barg) | <i>EIFAC/EXCOM 2003/4</i> |
| Proceedings of the 2002 Symposium (H. Naeve) | <i>EIFAC/EXCOM 2003/5</i> |
| Meeting of FAO and non-FAO Regional Fisheries Bodies (G. Marmulla) | <i>EIFAC/EXCOM 2003/6</i> |
| Report on Sub-Commission I (T. Brenner) Working Group on Eel Fish Monitoring in Fresh Waters Introductions and stocking Mapping of fish distribution and aquatic habitat quality Management of Sturgeon | <i>EIFAC/EXCOM 2003/7</i> |
| Report on Sub-Commission II (L. Váradi) Fish Diseases and their Control Aquatic Resources Management in Aquaculture Organic Fish Farming Market Perspectives of European Freshwater Aquaculture | <i>EIFAC/EXCOM 2003/8</i> |
| Report on Sub-Commission III (A.J.P. Raat) Effects of physical modifications of the aquatic habitat on fish populations Methodologies for rehabilitation of lakes and reservoirs Prevention and control of bird predation Influence of Management Practices on the Environment Handling of Fishes in Fisheries and Aquaculture EU Water Framework Directive | <i>EIFAC/EXCOM 2003/9</i> |
| Report on Sub-Commission IV (D. Greboval) Recreational fisheries Socio-economic aspects of inland fisheries | <i>EIFAC/EXCOM 2003/10</i> |
| Assessment of the Role and Functioning of EIFAC (R. Müller) | |
| Emerging issues – prospects for new activities | |
| Any other matters | |
| Closing of the Session | |

Annex 3

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