

**Procedures for Fish and aquatic Invertebrates TAG**

**Programmes.**

## Organised by the European Union of Aquarium Curators

( E.U.A.C.)

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**(1) Background**

Following the agreement and approval from both EAZA and EUAC that collaborative breeding programmes should be developed for fishes and aquatic invertebrates, an EUAC workshop was held at Chester Zoo in 1998 that led to the development of the mission, vision, and value statements for Fish and Aquatic Invertebrate Taxon Advisory Group (FAITAG). The special character and demographic nature of populations of fish and aquatic invertebrates resulted in the decision that such breeding programmes should be given a discrete identity. This led to the initiation of the idea of Aquatic Sustainability Programmes (ASPs). These results from the workshop discussions were drafted as a proposal to EAZA/EEP from EUAC and this document was circulated to all EUAC members for input and approval. The ideas were accepted in principle at the EAZA/EEP meeting at Berlin Tierpark, September 1998 and at the EUAC meeting at Barcelona Aquarium in October 1998. Many of the steps involved with the formal development and adoption of the proposed ASPs depend on the revisions in the membership and structure of EUAC.

The next stage of the process was to identify the procedures involved with the development of ASPs within the FAITAG and how these relate to both EEPs and other aquatic programmes, such as the North American Freshwater and Marine Fish Taxon Advisory Groups (FFTAG and MFTAG). A second workshop was held at Chester Zoo in 1999 and third workshop at Antwerp Zoo, involving a group of European zoo and aquarium curators. This document summarises the process of the meetings and the protocols that were developed for discussion and approval by EAZA and EUAC members.

**(2) EUAC FAITAG Mission Statement**

To establish co-ordinated sustainable species and support programmes as a means of increasing public awareness about fish, aquatic invertebrates and aquatic plants. These programmes, as appropriate, will place an emphasis on the threatened species and their habitats and in conjunction with promoting positive initiatives within the natural environment.

**(3) Executive Summary**

The Fish and Aquatic Invertebrate Taxon Advisory Group is an approved EAZA EEP Programme since 1999.

It is established within and managed by the European Union of Aquarium Curators to organise and develop programmes for the sustainable management of named taxa (species, species groups, or higher categories) of fishes, aquatic invertebrates and aquatic plants.

Other separate programmes are organised to generally support key health aspects of the species programmes including health and welfare, live food culture, breeding records and a taxonomic database.

This document lays out the mission, vision, values and objectives of the FAITAG and its component programmes, together with a synopsis of agreed protocols. It also sets out the processes of communication within EUAC and between EUAC and EAZA.

Exposé des missions  
Le FAITAG de l'EUAC établit et coordonne des programmes de gestion durable des espèces et des programmes support, pour une plus grande sensibilisation du public sur les poissons, invertébrés et plantes aquatiques.  
  
 Selon les cas, ces programmes s'intéresseront plus particulièrement aux espèces menacées ainsi qu'à leur habitat. En parallèle, ils développent des initiatives en faveur de l¹environnement.  
  
Domaine d¹application  
Le FAITAG (Fish and Aquatic Invertebrates Taxon Advisory Group) est agréé par l¹EAZA (l¹Association Européenne des Zoos et Aquariums) depuis 1999.  
  
 Fondé et dirigé par l'EUAC (Union Européenne des Conservateurs d'Aquariums), le FAITAG organise et développe des programmes de gestion durable de taxons précis (espèces, groupes d¹espèce ou taxons supérieurs) de poissons, invertébrés et végétaux aquatiques.  
  
 Afin de soutenir les programmes spécifiques, des études complémentaires précises sont menées. Elles concernent notamment la santé et le bien-être des espèces, l'élevage de proies vivantes, la consignation des reproduction, ainsi que la création d'une base de données taxonomique commune.  
  
Ce document décrit la mission, la vision à long terme, les valeurs et les objectifs du FAITAG, ainsi qu'un résumé des protocoles agréés par celui-ci et des programmes qui le composent. Il expose aussi les méthodes de communication au sein de l'EUAC et entre l'EUAC et l'EAZA.

# Hauptaufgabe

Einführung von gemeinsam koordinierten Erhaltungszucht- und Austauschprogrammen, um das öffentliche Bewußtsein für Fische, aquatische Wirbellose und Wasserpflanzen zu steigern. Bei diesen Programmen liegt der besondere Schwerpunkt möglichst auf den in

ihrem Bestand bedrohten Arten und deren Lebensraum, sowie in Verbindung

hiermit auf der Förderung von positiven Initiativen im natürlichen Lebensraum.

# Zusammenfassung der Ausführungen

Die Fish and Aquatic Taxon Advisory Group (FAITAG) ist seit 1999 ein offizielles EAZA EEP Programm.

Auf Initiative und Betreiben innerhalb und durch die EUAC werden für festgelegte Taxa (Arten, Artengruppen, größere systematische Gruppen) von Fischen aquatischen Wirbellosen und WasserpflanzenErhaltungszuchtprogramme organisiert und durchgeführt.

Unabhängig hiervon gibt es noch weitere Programme, die sich mit den für die

Erhaltungszucht grundlegenden Themen befassen. Hierzu zählen Veterinär- und

Tierschutzaspekte, Futtertierkulturen, eine Zusammenstellung von bisherigen

Zuchterfolgen sowie eine Datenbank zur zoologischen und botanischen Systematik.

Das vorliegende Dokument schildert die ethischen Grundsätze, den Wert sowie

die grundsätzlichen Ziele und Aufgaben der FAITAG. Es gibt einen Überblick

über die verabschiedete Form der Protokolle für eine TAG und für die sie

unterstützenden Programme. Es legt auch den Kommunikationsprozess innerhalb

der EUAC und zwischen EUAC und EAZA fest.

#### Declaración de la Misión

Coordinadamente, establecer especies sostenibles y programas de apoyo como medio para aumentar el conocimiento público de peces, invertebrados y plantas acuáticas.

Estos programas, de forma apropiada, pondrán énfasis en las especies amenazadas y sus hábitats en conjunción con iniciativas que promuevan su ambiente natural.

#### Resumen Ejecutivo

El Grupo Consultivo de Taxonomía de Peces es un programa de EAZA EEP aprobado desde 1999.

Está creado y dirigido por la Unión Europea de Cuidadores de Acuarios para organizar y desarrollar programas para el manejo sostenible de clasificación (especies, grupos de especies o categorías más altas) de peces, invertebrados y plantas acuáticas.

Se organizan otros programas que generalmente apoyan aspectos clave de programas sobre especies, incluyendo la salud y el cuidado, los alimentos vivos, los registros de natalidad y bases de datos taxonómicas.

Este documento explica la misión, visión, valores y objetivos de la FAITAG junto a una sinopsis de los protocolos acordados para la TAG y los programas que la componen. También expone los procesos de comunicación dentro de la EUAC y entre la EUAC y EAZA.

Dichiarazione della missione

Istituire in modo coordinato programmi sulle specie e programmi di supporto, come mezzo per accrescere la consapevolezza del pubblico nei confronti dei pesci, degli invertebrati acquatici e delle piante acquatiche. Questi programmi, a seconda del caso, intendono dare risalto alle specie minacciate e ai loro habitat, promuovendo contemporaneamente iniziative nell'ambiente naturale.

Sintesi del programma

Il Fish and Aquatic Taxon Advisory Group è un programma EEP approvato dall’ EAZA (European Association of Zoos and Aquaria = Associazione europea di zoo e acquari).

È istituito e condotto nell'ambito dell'Unione europea dei curatori di acquari, al fine di organizzare e sviluppare programmi per la gestione sostenibile di taxa definiti (specie, gruppi di specie o categorie superiori) di pesci, invertebrati acquatici e piante acquatiche.

Altri programmi vengono organizzati a sostegno di aspetti chiave relativi ai programmi sulle specie, questi includono: salute e benessere, colture di animali vivi da usare per l’alimentazione, registrazioni di riproduzioni e un database tassonomico.

Questo documento spiega la missione, gli intendimenti, i valori e gli obiettivi del FAITAG, insieme a un sommario dei protocolli concordati per il TAG e i suoi programmi sostanziali. Vengono anche spiegati i processi di comunicazione all'interno dell'EUAC e fra EUAC e EAZA.

**(4) FAITAG Organisation and Structure**

The recommended structure of EUAC FAITAG is shown in the diagram below:



**(5) Definition of Positions**

(a) *EUAC/EAZA Aquarium Committee.* Details of the structure and membership of this committee is given in the EUAC constitution (first approved Barcelona 1998).

(b) *FAITAG Co-chairs*. These will be appointed by the EUAC Executive Committee, normally following proposals from the Species Co-ordinators. The positions will be held for a three year period, and may be renewed. Elections will be held in conjunction with the EUAC Executive Committee elections.

(c) *Species Co-ordinators*. These will be appointed by the FAITAG Co-chairs. Two co-ordinators should be appointed per Species Programme in order to encompass aquaria from different geographic regions and of different types (e.g. zoo, private). The positions will be held for a three year period, and may be renewed. Species Co-ordinators must be EUAC members.

(d) *Support Programme Co-ordinators*. These will be appointed by the FAITAG Co-chairs. The positions will be held for a three year period, and may be renewed. Support Programme Co-ordinators must be EUAC members.

(e) *FAITAG Committee*. This comprises the FAITAG Co-chairs and the Species and Support Programme Co-ordinators.

(f) *Members*. These will be appointed by the Species Co-ordinator/Support Programme Co-ordinator following submission of a formal application. Non-EUAC members will be appointed as Associate FAITAG members and their application must be supported by two full EUAC members.

**(6) Criteria for participation in FAITAG Programmes**

(a) Participants must be a full or associate member of EUAC, but do not necessarily have to be a member of EAZA or a National Zoo Federation.

(b) Private individuals may apply for associate FAITAG membership, in which case they must fulfil the EUAC code of ethics. Such individuals (e.g. representatives of the university sector, wanting to take part in a programme) must be proposed by two full EUAC members.

(c) A condition of participation is attendance at a minimum of one meeting (EUAC annual conference or workshop, EAZA annual meeting) a year or submission of a full report in lieu of attendance.

(d) Participation in the FAITAG will not incur any fees, but it is understood that the person or institution that they are associated with will bear the costs for participation e.g. travels to meetings.

(e) Species programme stock will be co-operatively managed without financial gain. The costs of the transfer of programme stock will normally be borne by the receiving institution.

(f) The chair of a Species Programme must be a full or associate EUAC member, but can not be an Associate FAITAG member.

(g) New programme members must report on their activities to the appropriate Co-ordinator within six months of joining to ensure that all participants remain active within FAITAG.

**(7) Meetings and Reporting**

(a) The FAITAG committee must meet annually at the EUAC meeting as a closed administrative session for the purpose of communication and decision making within the group. Other meetings may be held at the EAZA annual conference and at other suitable venues and times.

(b) The results and progress of FAITAG through the year will be presented at both the EUAC and EAZA annual conferences in the form of a summary presentation by one of the co-chairs. Species and Support Programme co-ordinators may be requested to give more detailed presentations at the EUAC meeting to communicate significant progress.

(c) Species and Support Programme Co-ordinators will submit a written summary by the 30th June each year to the FAITAG Co-chairs.

(d) FAITAG Co-chairs will compile a written summary of all activities to the EUAC Executive Committee by the 15th July each year. This summary will be communicated to EUAC members for comment in advance of the annual EUAC meeting. The approved report will subsequently be submitted to EAZA in the same year.

(e) Regional meetings may be held as part of a Species or Support Programme, but these may not substitute for the annual EUAC FAITAG meeting. Regional meetings should only be held with the approval of the Species/Support Programme Co-ordinators and minutes must be submitted to the relevant co-ordinator.

**(8) Species and Support Programme Annual Report**

A typical annual report should incorporate the following elements, as appropriate:

(a) Name of Co-ordinator(s) and date of election.

(b) Membership list (with institution details).

(c) List of species in programme.

(d) Studbooks, inventories and other relevant documentation.

(e) Meetings and workshops held.

(f) Surveys conducted or underway.

(g) Publications, including husbandry guidelines, databases etc.

(h) Information on key developments during the year.

(i) Goals for the coming year.

This should be a considered a standard format and working order to enable easy collation for the overall summary and annual report.

**(9) Minimum commitment**

(a) Holding representative species and submit information / records as required by the co-ordinator.

(b) Species programmes - Holding representative species and submitting records to Species Programme Co-ordinator.

(c) Support programmes - submit information and data to Support Programme Co-ordinator.

**(10) Aquatic Species Programme (ASP) Statements**

(a) The participants developed species programme objectives, considering husbandry, breeding, research, outreach, education and communication. The following have been developed for each programme:

(i) Mission

(ii) Objectives

(iii) Timed action plan (short term by IAC Monaco/ two year/ five year)

**(11) Aquatic Species Programmes (ASP) and Support Programmes**

The following Aquatic Species Programmes, Support Programmes and Co-ordinators are now in place:

***Aquatic Species Programmes***

|  |  |
| --- | --- |
| **Programme** | **Co-ordinators** |
| Elasmobranchs | Mark Smith, Lisbon Aquarium  Juan Romero, NMA Plymouth |
| Seahorses | Heather Hall, London Zoo  Michael Laterveer, Rotterdam Zoo |
| Seadragons | Isabel Koch, Stuttgart |
| Cardinalfishes | Eugene Bruin, Artis Zoo  Nadia Ounais, Monaco |
| African Cichlids | Brian Zimmerman, London Zoo (pending membership)  Philippe Jouk, Antwerp |
| Livebearers | Jen Nightingale, Bristol |
| Corals  Coldwater corals | Pierre Gilles, Monaco  Rolf Hebbinghaus, Aquazoo Dusseldorf (pending membership)  Stig Saegrov, Bergen |
| Jellyfish | Rainer Kaiser, Berlin Aquarium  Thomas Jermann, Basel Zoo |
| Crustaceans | Sam Furrer, Zurich Zoo |
| Live Food Culture | Michael Laterveer, Rotterdam Zoo |
| Marine Plants | Peter Morris, Kew Gardens  Bernardo Nascimento, ZooMarine |

***Support Programmes***

|  |  |
| --- | --- |
| **Programme** | **Co-ordinators** |
| Fishes taxonomic database | Joao Pedro Correia, Lisbon Aquarium |
| Marine Breeding Records | Michael Laterveer, Rotterdam Zoo |
| Aquatic Health Manual | Stig Saegrov, Bergen Aquarium |
| Water Quality | Piet Sondervan, Artis Zoo Aquarium  Mike Causer, Nausicaa |
| EUAC Database | Stig Saegrov, Bergen Aquarium |

**(12) Elasmobranch ASP**

**Co-ordinators:** Mark Smith (Lisbon Aquarium) and Juan Romero (National Marine Aquarium, Plymouth).



**(13) Seahorse ASP**

**(a) Co-ordinators**

Heather Hall (London Zoo) and Michael Laterveer (Rotterdam Zoo).

**(b) Mission**

Improve husbandry of syngnathids in aquaria, increase co-ordinated research efforts with links to, and involvement with, the field conservation of seahorses. Increase public awareness of seahorse biology and their wild status.

**(c) Objectives**

(i) Improve the survival and breeding success of seahorses in European aquaria.

(ii) Improve the knowledge and information exchange. Potentially develop a studbook and promote a Regional Collection Plan for seahorses in European aquaria.

(iii) Develop co-ordinated research projects for seahorses among European aquaria.

(iv) Involve European aquaria in research and conservation projects for native European seahorses.

(v) Run taxonomy and husbandry training workshops.

(vi) Address aquarium trade issues.

**(d) Action Plan**

*Short-term*

(i) Develop European priority list of species and research projects.

(ii) Increase involvement of European aquaria in Syngnathid email listserver.

(iii) Update inventory of seahorses held in European aquaria.

*Medium term*

(iv) Develop basic husbandry guidelines for seahorses.

(v) Run a seahorse taxonomy training workshop.

(vi) Develop an educational exhibit on the trade in seahorses.

*Long term*

(vii) Make a significant contribution to the conservation of European seahorse species as a priority by aquaria. Increase aquarium involvement in the conservation of seahorses.

**(14) Seadragon ASP**

**(a) Co-ordinator:**

Isabel Koch (Stuttgart)

**(b) The mission, objectives and action plan** (to be developed)

# **(15) Cardinalfish ASP**

**(a) Co-ordinators**

Nadja Ounais (Monaco) and Eugene Bruins (Amsterdam ) .

**(b) Mission**

To ensure the survival of the Indonesian cardinalfish, *Pterapogon kauderni*, in the wild and to develop programmes for other species of cardinalfish.

**(c) Objectives**

*List of species in programme*

The ASP currently concentrates on *Pterapogon kauderni*

1. **Action Plan**

**(i) Studbooks, inventories and other relevant documentation:**

None, yet, although copies of relevant publications can be asked to

Eugène Bruins.

**(ii) Surveys conducted or underway:**

* A questionnaire sent to all EUAC members in 1997 gave an overview of the status by then of husbandry, population and breeding results on

*Pterapogon kauderni*  (proceedings EUAC '97)

**(iii) Publications, including husbandry guidelines, databases etc.:**

- Husbandry guidelines are to be completed soon.

- A report on an ethological research at the Amsterdam Aquarium on

*P. kauderni* has still to be published.

**(iv) Information on key developments during the year:**

- Contact with the Dutch WWF turned out to be not fruitful.

- M.A. Moreau and K. Lunn, supervised by Heather Hall, did a project in the Banggai region. Objectives: information on trade, environmental education and an underwater survey.

- The proposed project of Coral Cay Conservation (CCC) never developed into a full programme. Alastair Harborne however gave information for the project mentioned above.

* Alejandro Vagelli of the New Jersey State Aquarium set up a field

research station which might be supported by this species programme.

* In 2000, again a large amount of offspring has been send to different

public aquaria throughout Europe (and Pretoria) by Amsterdam (150

animals), Monaco (100 animals) and probably others.

**Goals for the coming year:**

* To enlarge the husbandry knowledge specifically for *P. kauderni* and

completing the husbandry guidelines.

- Development of a list a institution who want to be actively involved in this species programme.

* To enlarge knowledge about population-management by self-study, to

ensure a well-managed, sustainable population in captivity of

*P. kauderni*.

* Develop a research programme for *P. kauderni*, including studies of the

male mouth-brooding, feeding trails to improve nutritional and feeding techniques, schooling behaviour and studies of symbioses with urchins.

***Future goals:***

* To determine the status of P. kauderni in the wild, and to determinate the

possible presence of subspecies. *P. kauderni* has been seen also in Lembeh Strait (in 2000) and probably also at the Pade Aido Islands (in 1995)

- To initiate an in situ conservation programme with appropriate

collaborators.

- Ensure the survival of the Bangai Cardinalfish in the wild and to develop

programmes for other species of cardinalfish.

**(16) African Cichlid ASP**

**(a) Co-ordinators**

Brian Zimmerman (London Zoo, pending membership) and Philippe Jouk (Antwerp Zoo)

**(b) Lake Victoria Cichlid: Mission**

**(c) Objectives**

(i) Obtain voucher specimens (ontogenetic series) of each species held in the programme

(ii) Monitor morphological variations within species held at different collections

(iii) Implement private member participation

(iv) Secure populations in Europe

(v) Develop standardised educational resource pack

(vi) Continued participation within health screening programmes

1. Organise haplochromine taxonomic training workshops for participants
2. Maintain bibliography
3. Develop research programmes in cryopreservation and genetics

**Madagascar Cichlid Working Group**

1. **Mission**

**(g) Objectives**

(i) Develop husbandry guidelines

(ii) Secure populations

(iii) Produce species list of animals held within European aquaria

(iv) Develop standardised educational resource pack

**Barombi Mbo Cichlid Working Group (proposed)**

**Mission**

**(j) Objectives**

(i) complete proposal for establishing Barombi Mbo Cichlid subgroup

(ii) reproduce currently held stock

(iii) secure aquarium populations

(iv) develop husbandry guidelines

(v) develop standardised educational resource pack

**(17) Livebearer ASP**

**(a) Co-ordinator**

Jen Nightingale (Bristol Zoo)

**(b) Mission / Objectives**

(i) To use freshwater threatened livebearing fish as a flagship for tropical freshwater conservation.

(ii) To actively contribute to the long-term persistence of livebearing fishes through *in-situ* efforts and well managed breeding programmes.

(iii) To advance all aspects of husbandry techniques for livebearing fishes

(iv) To collect and widely disseminate all information on livebearing fishes

## (c) Action Plan

# *Short-term*

(i) Develop priority list of livebearing species

(ii) Set up a rare freshwater fishes server to increase communication

(iii) Send out questionnaire to all European aquaria to assess level of commitment and stocks held

# *Medium-term*

(iv) Continue the collating of hermirhamphid literature and the photo id library

(v) Increase Hemirhamphid husbandry skills with particular reference to captive breeding and nutrition

(vi) Expand goodied species held captively in Mexican Universities by collecting from original localities.

(vii) Continue supporting project at Morelia (Aqualab, University of Morelia) and potential other projects

(viii) Hold captive stocks of wild caught goodeids (known provenance) in European Aquaria with good managed breeding programmes

# *Long-term*

(ix) Develop Sulawesi field programme.

(x) Set up Aquarium in Mexico exhibiting native livebearer (and other?) species.

(xi) Set up Conservation site at El Rincon campsite, Guadalajara, Mexico.

**(18) Coral ASP**

**(a) Co-ordinators:**

Pierre Gilles (Monaco) and Rolf Hebbinghaus (Dusseldorf, pending membership)

**(b) The mission, objectives and action plan** (to be developed)

**(19) Crustacean ASP**

**(a) Co-ordinators**

Sam Furrer (Zurich Zoo)

Supported by Ian Hughes (c/o Chester Zoo).

**(b) Mission**

To establish co-ordinated crustacean conservation projects within zoos / aquaria.

**(c) Objectives**

(i) Recruit members to programme to work with local populations

(ii) Conduct Europe wide surveys on crustacean work and interests - Encourage or activate programmes where necessary.

(iii) Contact American Aquarists for information on how programmes have developed and which species are already being worked on.

(iv) Develop interpretation

(v) Consider the establishment of sub-groups.

(vi) Working groups for White clawed crayfish and Tadpole shrimp. Possibly also for Coral shrimps.

**(d) Action plan**

(i) Above information to be collated over next 2 years

**(e) *Austropotamobius pallipes* Working Group - Mission**

To assist in the English Nature Species Recovery Programme/UK Biodiversity Action Plan for this species by maintaining a captive population, producing awareness/educational material and conducting appropriate research.

**(f) *Austropotamobius pallipes* Working Group - Objectives**

(i) Continue captive breeding

(ii) Consider offering to act as lead partner for the UK Biodiversity Action Partnership/English Nature Species Recovery Programme.

(iii) Recruit members to programme to work with local populations

(iv) Conduct Europe wide surveys on regional status - Encourage or activate programmes where necessary.

(v) Develop interpretation

(vi) Assess the need for and possibilities of genetic work

(vii) Research husbandry requirements

(viii) Update management guidelines

(ix) Join International Astacological Association

**(g) *Austropotamobius pallipes* Working Group - Action plan**

(i) All objectives in progress to be completed within 2 years.

**(h) *Triops cancriformis* Working Group – Mission**

To assist in the English Nature Species Recovery Programme/UK Biodiversity Action Plan for this species by maintaining a captive population producing awareness/educational material & conducting appropriate research.

**(i) *Triops cancriformis* Working Group - Objectives**

(i) Continue captive breeding

(ii) Continue acting as lead partner for the UK BAP/EN SRP

(iii) Recruit members for trial releases into zoo paddock pools

(iv) Release and monitor ‘wanted’ poster

(v) Conduct Europe wide surveys on regional status - Encourage or activate programmes where necessary.

(vi) Develop interpretation

(vii) Assess the need for and possibilities of genetic work

**(j) *Triops cancriformis* Working Group - Action plan**

(i) All objectives in progress to be completed within 2 years.

**(20) Jellyfish ASP**

**(a) Co-ordinators**

Rainer Kaiser (Berlin Aquarium) and Thomas Jermann (Basel Zoo).

**(b) Mission**

Improve husbandry and management of jellyfish in aquaria through the free exchange of knowledge and training.

**(c) Objectives**

(i) Exhibition of jellyfish

(ii) Widen the knowledge of the public about jellyfish through the publication of information.

(iii) Conduct research on the essential factors for the husbandry of jellyfish.

(iv) Promote the permanent culture of self-sustaining populations of jellyfish.

(v) Widen the knowledge in husbandry techniques for the long-term culture of jellyfish species, which can currently be kept only for a short term period.

**(d) Action Plan**

*Short term*

(i) To contact people who may be interested in the husbandry of jellyfish.

(ii) Produce a list of participants in this project and of the jellyfish species that are kept and cultured in aquaria.

*Long term*

(iii) Standardisation of the husbandry of jellyfish species.

(21) Live Food Culture ASP

**(a) Co-ordinators**

Michael Laterveer (Rotterdam Zoo)

Supported by Paul Hale (Underwaterworld, Hastings)

# (b) Mission

Sharing the knowledge of culturing life food in a small-scale aquarium setting, tracking new developments and developing an aquarium culturing manual.

# (c) Objectives

(i) Focus on food for marine organisms (freshwater may follow).

(ii) Gather information of the techniques generally used from public aquaria, aquaculture and research institutes.

(iii) Combine the existing culturing techniques in to a standard aquarium protocol (small-scale, including different techniques)

(iv) Update the protocols on a two-yearly basis and include newly developed culturing techniques.

(v) Combine the different standard protocols into an aquarium culturing manual.

(vi) Track the developments in artificial feeds.

## (d) Action plan

*Short term*

(i) Rough set up of English protocols for Rotifers, *Artemia* and algae (used in Rotterdam Zoo)

(ii) Discussion on standard set up

(iii) Involvement of more ‘ASP’ Members

### (iv) Work out a detailed 2 year action plan

*Medium term*

(v) Contact experts (e.g. associate ASP members)

(vi) Complete the standard protocols

(vii) Feedback and new developments

(viii) Translate the protocols in German, French etc.

#### (e) Protocol development

(i) Life history & taxonomy

(ii) Use & availability

(iii) Recipes

(iv) Trouble shooting

(v) Reference list people involved

(vi) Materials used

(vii) Literature

**(22) Marine Plant ASP**

**(a) Co-ordinators**

Peter Morris (Royal Botanical Gardens, Kew) and Bernardo Nascimento (Zoo Marine)

1. **Mission**

To enable the successful cultivation of marine plants in aquaria and to improve education on the importance of marine plants to the natural world and their role in the conservation of endangered species

**(c) Objectives**

To cultivate marine plants in aquaria in order to

(a) Avoid the depletion of coastal species collected for aquaria

(b) Provide a more natural environment for coastal fauna.

(c) Increase the possibility of natural breeding of animals in this habitat,

(d) Provide a natural filtration system

(e) Increase the possibility of providing vegetarian species with more natural food hence expanding the number of vegetarian species maintained.

**(d) Action plan**

(i) Conduct a survey to determine who is successfully growing marine plants and how:

(a) In aquaria

(b) In commercial cultivation

(c) In scientific institutions

(ii) Produce a guideline of how to successfully cultivate mangroves.

**(23) Fishes Taxonomic Database SP**

**(a) Co-ordinators**

João Correia and Mark Smith (Lisbon Aquarium)



**(24) Marine Fishes Breeding Record Database SP**

**(a) Co-ordinator**

Michael Laterveer (Rotterdam Zoo)

# **(b) Mission statement**

Promote and improve the breeding of marine fish by collecting and distributing the basic data available from public aquariums, research institutes, aquaculture and private sector.

# **(c) Objectives**

(i) Collecting information on the breeding efforts from:

(a) public aquaria

(b) aquaculture

(c) research institutes

(d) private sector

(ii) Analysing the data from the public aquariums to create the base line information.

(iii) Determine the key factors influencing the breeding success.

(iv) Develop a RCP to improve the general knowledge and to liaise with public aquariums and other relevant organisations.

(v) Develop the means for an up-to-date accessible database.

(vi) Combine the existing breeding techniques into a standard aquarium manual.

(vii) Track new developments and make them available.

## **(d) Action plan**

*Short term*

(i) Base line information of public aquaria in Europe available.

(ii) Presenting analyses of the present database.

(iii) Discuss the set up and future progress of the MFBR.

(iv) Involvement of more ASP Members.

(v) Set up the collaboration between other ASP’s (Syngnathidae, Banggai Cardinal Fish, Elasmobranch) and the MFBR ASP.

(vi) Extending the survey to the Indo-Pacifc Region

### (vii) Work out a detailed 2 year action plan

*Medium term*

(viii) Collect more information

(ix) Contact experts (associate ASP members)

(x) Write a manual for generally used standard breeding techniques.

(xi) Provide a mechanism for feedback and new developments

## (25) Aquatic Health Manual SP

**(a) Co-ordinators**

Juan Romero (Plymouth), Pablo Areitio (Madrid), Anders Uldahl (Copenhagen), Stig Sægrov (Bergen).

**(b) Mission / Objectives**

(i) Create a system for organising the Aquatic Health Manual of EUAC,

(ii) Organise a network of aquaria that will contribute to the group. Standardise medical report forms for use in the contributing aquaria.

(iii) Identify principal diseases in these public aquaria and their treatment today.

(iv) Try to combine the different procedures and experience in fish medicine today and develop recommendations for use in public aquariums. Make these recommendations available for the members of EUAC in a CD-Rom / Internet

**(c) Action plan**

# (26) EUAC-FAITAG System

**(a) Co-ordinator**

Stig Saegrov (Bergen Aquarium)

**(b) Mission**

Compile and disseminate information among EUAC members through the combination of:

## (i) Fishes Database

## (ii) Marine Fish Breeding records

## (iii) Live food culture records

## (iv) Aquatic Animal Health Manual

(v) Others

**(c) Action Plan**

### (i) List of contacts

(ii) Share Email addresses

### (iii) Set-up EUAC / FAITAG system (http://www.EUAC.org)

###### (iv) Format documents

(a) MS Excel 95 for Fishes Database & Breeding / Feeding

(b) MS Word 95 for Animals Health Manual

###### (v) Organisation / Consulting

(a) All documents / databases available under "EUAC system" Intranet

(b) Available on-line or on CD-ROM

(c) User must have MS Office installed

### (vi) Protection

Site manager will assign passwords to developers (read-write) and users (read-only)

### (vii) Data collection/updates

(a) Send letter / Email to recipients of initial mailing requesting their data

(b) Participants contribute / receive update yearly

**(27) Water Quality ASP**

**(a) Co-ordinator(s)**

Piet Sondervan (Artis Zoo Aquarium Amsterdam) and Mike Causer (Nausicaa)

**(b) Mission**

The mission of the Water Quality ASP is to compile and share knowledge to create suitable environments for aquatic animals.

**(c) Objectives**

1. Create a database of water quality data collected from EUAC participants.
2. Gather information of the waterquality criteria both for seawater and freshwater and create a standard protocol.
3. Produce a list of optimal analyses to facilitate data comparison.
4. Reach a consistent set of water quality parameters to be used within EUAC.
5. Assess country differences regarding obtaining and discharging aquarium water
6. Document aqua-agriculture knowledge for aquarium purposes.

**(d) Action plan**

1. Send a questionnaire to all EUAC institutions to obtain an overview of the present-day efforts in water quality management
2. Create a database of water quality data and criteria.
3. Make an inventory of water quality units and produce a draft list of suggested units, for the next EUAC meeting in La Rochelle in October 2002.

**(28) Workshop Participants and Programme Co-ordinators**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Organisation** | **Co-ordinators &**  **EUAC position** | **Email address** |
| Paul Van den Sande | Antwerp Zoo | EUAC Executive director | <cyper@planetinternet.be> |
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| Rolf Hebbinghaus | Dusseldorf Aquarium | Corals | \*\* |
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