
INCOFISH Progress Report for March 2008

Coordinator's Report (by Rainer Froese)

-- I have been trying to get the attention of Nokia or Ericsson for follow-up on our species information service (SpeciesBase). No progress so far but not giving up either. Meanwhile Google Oceans is interested in our AquaMaps (WP Biomapping) and that might lead to something. We sent them our ideas how a respective icon and pop-up window could look like, and test data for the Northeast Atlantic.

-- Silvia and I met with Jens Ambsdorf and Jörg Grabo from the German Lighthouse Foundation. We identified several avenues for collaboration: 1) Empower poor fishing communities: Lighthouse has projects in the Philippines and Africa; they already have a catch database; they are working with GTZ; their Philippine partners will visit LB to see how we can join forces to enable artisanal fishers to manage themselves; 2) World Ocean Network is a group of public aquariums that wants to inform their 400 million annual visitors about the oceans; a touch screen with our seafood guide as part of the exhibition could be a joint project; 3) Lighthouse is in contact with Google Oceans; apparently Silvia Earl and the scientific steering committee aim for '10 hotspots' globally for which information will be collected; obviously our AquaMaps with >200,000 spots is the more logical approach. Points 1) and 2) relate to WP Simple Indicators and point 3) relates to WP Biomapping.

-- I participated in a retreat of the 'Future Ocean' Excellence Cluster of Kiel University. I am one of the PIs in charge of Overfishing. During a poster session I presented our seafood guide.mobi, our brand new Retailer's Seafood Guide, a prototype tool to play with yield and biomass per recruit as a function of fishing effort and size at first capture, and our AquaMaps. That led to several good discussions with colleagues from other disciplines. Among others, I am involved in a mini-project where we will explore options for improving fisheries in the EC, making best use of legal options and market mechanisms. Also, I met Nikolaus Gelpke, the editor of the German magazine MARE; they will bring out an article about our 'Fisch im Handy', which is still making waves in the German media.

-- Work on predictive AquaMaps for 2050 is continuing. We had a first run producing maps for 1,500 species. A number of problems were identified and solutions are being implemented.

-- Grace is updating the trophic levels in our ISSCAAP table. These are used in our trophic analysis tools. Also, the FAO catch data have been updated to 2006.

-- I managed to convince Mike Guiry and AlgaeBase to join FishBase and SealifeBase in producing AquaMaps and showing summary information through SpeciesBase. This gives a major boost to our effort of covering life in the oceans: AlgaeBase holds over 120,000 species.

-- I have been invited by HDE, the main German retailer association, to inform them about options for resourcing fish from sustainable fisheries. I will give the usual overview of the status of fisheries and then present the latest version of our Retailer's Seafood Guide. This is what I would call "Impact in the real world."

Project Support Team (by Silvia Opitz)

- Instead of white Christmas in December we enjoyed white Easter in March.
- While it was snowing outside we wrote up the meeting report, handled invoices and expense claims of participants of the 4th Project Steering Committee meeting held in Kiel from 21-22, February.
- Silvia prepared the documentation for another request for an amendment to the INCOFISH contract, mainly to get the permission to use the auditing money for subcontracts, and submitted it to the European Commission in Brussels.
- With the help of Sven Mohr, we updated the "WP11 homepage" and "About us" page at www.incofish.org. We have uploaded a **slide show on the third annual and final reporting requirements at www.incofish.org/Aboutus/INCPPTShow.php**. The show was presented during the 4th (= final) Project Steering Committee meeting (21/22 February, 2008). Below the administrative show(s) you will find the presentations of INCOFISH workpackages 1-10. These shows could be viewed as a summary of the results of each workpackage.
- Sven had been doing the general maintenance of the IncoFish & FishBase servers; updating FishBase to the latest version 2/2008; fixing problems with IncoFish pages; uploading files to the IncoFish site; updating the IncoFish tables; upgrading the database server from FreeBSD 6.3 to FreeBSD 7.0
- Sven developed a Google Maps based mapper.
- Sven attended an informational meeting of MySQL to clarify what the consequences would be of the MySQL-Sun merger.
- During the remaining time we were doing our usual work such as reviewing deliverables and advising participants on project matters.

WP 1 Data, Tools and Outreach (by Lotta Jarnmark)

Project development/Outreach:

Hosted Mini workshop in Stockholm March 3-5, 2008 together with WP3, and inviting WP2. See WP2 (C. Jarnmark).

Prepared for and participated in the Final Project Steering Committee meeting in Kiel, Germany. Reviewed portal pages for maintenance with S. Opitz and Sven Mohr. Conducted discussions

with several WPs on last development requests. Reviewed Tools and Portal development progress as well as economic status (C. Jarnmark, M. Bimbao).

Coordinated, prepared and presented the Panukat Isda national press conference and exhibition of INCOFISH tools (Aquamaps, ISFG, DEB, Herbivores tool, invasive exotics, all rulers and more). The event was to promote the new fishruler for the Philippines in Manila March 12, 2008 in coordination with governmental institutions BFAR and NFRDI, FishBase Research and Information Group, World Fish Center PO, Conservation International. (All FishBase staff, N.Bailly, M. Bimbao, C.Jarnmark). <http://www.incofish.org/News/Presskit.php>
<http://www.incofish.org/Workpackages/WP7/WP7Fishrulers.php>

The FishBase team worked devotedly and very hard and well organized and made several interesting connections for example with BFAR and BAS for possible future projects and collaboration. The event was very successful in terms of media coverage and representatives from all stakeholders. <http://www.incofish.org/News/IncoMed.php>

A radio interview was broadcasted through Veritas, a Catholic shortwave station broadcasting to Asia in different languages. Rudy Reyes (official press contact) was interviewed by Melo Acuna on Monday, March 17, 2008.

Separate event page under construction.

Portal development:

Updated 40 pages, for example:

Results: <http://www.incofish.org/Results/Results.php>

Maps: <http://www.incofish.org/Results/Maps.php>

Tools: <http://www.incofish.org/Results/Tools.php>

Publications: <http://www.incofish.org/Results/Publications.php>

Discovered and fixed several dead links coming from recent unreported structural changes on the server (C. Jarnmark).

Researched Search Engine Optimization (SEO) tools for implementation on portal. (C. Jarnmark, C. Elloran)

WP2 Shifting Baselines

Mini workshop arranged in Stockholm March 3-5, 2008 to benefit the cooperation between WP1, WP2 and WP3 in the final adjustments to the WP2 database search engine and applications including maps of WP3 (C.Jarnmark). Tripreport:

<http://www.incofish.org/Workpackages/WP1/WP1Downloads.php>

Updated Backflash files with database links:

<http://www.incofish.org/Workpackages/WP2/Toolset.php> (E.Agbayani, C.Jarnmark)

Graphic improvements to backflash files underway. (J.Glorioso, A. Atanacio)

WP3 Biodiversity Mapping

Updated Mapping pages:

<http://www.incofish.org/Results/Maps.php>

WP5 MPAs

Discussed the introductory stage in development of D5.3 an MPa network tool based on Ecopath for implementation with Aquamaps. (C. Jarnmark)

WP6 Coastal transects

Updated dead links to CTAM on the portal. Maintained requests for more poster printing for WP6.

WP7 Sustainability indicators

Presented and demonstrated Panukat Isda, the Philippine Fishruler at press conference and exhibition in Manila, Philippines March 12, 2008. See WP1. (C.Jarnmark)

WP8 Valuation of Ecosystem services.

D8.3 Undergoing final development steps, please preview and respond with any comments. (C.Elloran, C. Jarnmark)

<http://www.incofish.org/Workpackages/WP8/D8.3/>

Uploaded D8.3 and D8.4 (C.Jarnmark):

<http://www.incofish.org/Workpackages/WP8/WP8Downloads.php>

<http://www.incofish.org/Workpackages/WP8/WP8ObjDelMiles.php>

<http://www.incofish.org/Results/Results.php>

WP9 Ecotourism Indicators

New data submitted for update to tool, maintenance of tool underway (C.Elloran, C.Jarnmark).

Portal *statistics*, viewed Traffic, January - March 2008:

Unique visitors	Number of visits	Pages	Hits	Bandwith
3164	4740	13748	41744	3.02 GB

ISFG related URLs: 1670 views

Seafoodguide.mobi January- March 2008:

Jan	3931	5345	44999	165173	241.43 MB
Feb	3206	4057	36334	149240	236.42 MB
Mar	1723	2429	21043	63507	98.95 MB

Aquamaps, Fishbase Taiwan server January - March 2008:

Hits	% of Total FB Hits
143536	4.44

Residual INCOFISH tools hosted on FishBase TW server estimation: Unknown.

WP 2 Shifting Baselines (by David Starkey/John Nicholls)

Research

Each partner has completed at least one full INCOFISH WP2 Shifting Baselines dataset, complete with Supporting Documentation and referencing. Most of the WP2 partners have either published, or submitted, papers, articles and/or chapters in books and volumes. Final efforts in terms of research have been dedicated to the submission of publications.

Preparations have been and are being made for a final WP2 mini-Workshop scheduled for 14-15 April 2008 in Vigo, Spain. The aim of this Workshop is to synthesise WP2 findings and finalise a jointly authored high-impact paper based upon the findings and collaborative efforts. Delegates from RUC, IMARPE, UHULL, UNIABDN and IEO will be attending with further possible input from MEI and CEFAS. Details of this workshop will shortly appear on the INCOFISH WP2 Data Pages website at: <http://www.hull.ac.uk/incofish/WorkshopReports/WorkshopReports.htm>

Each of the WP2 partner institutions (RUC, UNIABDN, UHULL, CDF, IMARPE, CEFAS, and MEI) has provided relevant confirmation of their data submissions prior to the final project closure at the end of April 2008.

Data management

In response to various presentation and dissemination requirements from the management group (WP11) a mini-Workshop was held in Stockholm, Sweden, from 3-5 March 2008. Representatives from WP1, WP2 and WP3 met to discuss, plan and develop further the requirements for graphic depictions, tweaked data search facilities. A further development at this workshop was the reformatting of the WP2 database containing the standard searchable datasets into a sequential format that enables the search engine to function more efficiently. Final data corrections and formatting continued to be submitted, primarily for aesthetic and presentation purposes rather than data referencing, amendments or corrections.

WP 3 Biodiversity Mapping (by Jonathan Ready)

- AquaMaps released in beta testing version through openModeller with WP1 (provisional tests show it is working OK, but we have more tests to do).
- We have submitted the paper testing AquaMaps and comparing to other systems. Other papers are on the way too.
- Collaboration with Will Le Quesne (WP 5) has resulted in the current version of the MPA tool, which is under refinement.
- Otherwise NRM is wrapping up the reporting phase.

WP 4 Ecosystem Modelling (by Paco Arreguin-Sanchez)

Modelling process

Modeling continues for all partners to test hypothesis associated to deliverable D4.5.

Advances on Deliverables

Deliverable D4.4 is still under development and it is expected to be completed by mid April. Deliverable D4.5 has been fulfilled but partners continue working in publications as reported below.

Coordination activities

Most coordination activities have been aimed to reinforce and facilitate the commitments related to Deliverables D4.4 and D4.5. Of particular importance are joint papers (with contribution of several partners) being lead by some partners.

Specific activities by partners

All partners are involved in writing papers as mentioned before; and some products are on the way:

LASA

Main work during March was writing publications. The publication titled “Trophic mass-balance model of Northern Adriatic Sea: analysis of a human-impacted food web” is finished, some minor revisions are being made, before submitting it to Estuarine, Coastal and Shelf Science Journal (instead of Ecological Modelling, since we decided that the paper is not completely pertaining to the scope of this journal). The joint WP4 publication lead by LASA titled “Scaling relations in aquatic ecosystems trophic networks” is being completed. Final calculations have been done and now writing is going on, in order to submit the paper before mid-April.

ECNU

Jiang Hong has completed her visit to Cefas successfully with the help of Dr. Steve Mackinson, Prof. Nick Polunin and Dr. Will LeQuesne. Her major work in Cefas was spatial validation of the North Sea Ecospace model and prepared a manuscript entitled “Spatial validation of the North Sea Ecospace model predictions”.

UNIConcepción

Main work has been focused in preparing and leading the manuscript "Does fishery affect the interaction strength in marine ecosystems?". It must be sent before April 14th to an international ISI journal of high impact. Five colleagues (3 from CICIMAR and one from UNIConcepcion will be meeting the first week of April at the Universidad de Concepcion (Chile) to continue with the Shanghai's workshop agreement about this paper.

CEFAS

Main work was aimed at finishing the manuscript of the joint paper titled “Which forcing factors fit? Using ecosystem models to investigate the relative influence of fishing and changes in primary productivity on the dynamics of marine ecosystems”. A first draft of this manuscript is under review by co-authors and it is expected to be submitted before end of April. CEFAS leads this paper.

CICIMAR

CICIMAR as WP4 leader has been working in the organization of deliverable D4.4 and as a partner has been working on four documents to be published: 1) a book on oceanographic data

containing spatial distribution of some environmental variables in the Campeche Bank, SST, Cla, Primary production, mean sea level and currents. This book contains monthly images and data files with a resolution of 6". A multimedia DVD is also being created with this information containing facilities to get data from areas selected with a mouse on images; 2) a small publication aimed to public concerning the impact of the shrimp trawl fishery on ecosystems in the Gulf of California. This contribution is being developed in conjunction with other regional projects; 3) We intend to finish a book on the impact of bycatch mortality from trawl fisheries on ecosystems. Scientific contributions are based on simulations and computation of ecosystem indices. At least seven ecosystems are considered; and 4) a book with descriptions of trophic models representing interacting ecosystems. Some colleagues are planning a trip to UNI Concepcion in order to make progress with a joint paper.

Collaboration with other WP's.

Recently the report titled "Analysing ecosystem effects of selected marine protected areas with Ecospace spatial ecosystem models" was published in the Fisheries Centre Research Report under the leadership of WP5. In this report some members of the WP4 collaborated as planned, particularly CEFAS (2 persons), ECNU (2 persons) and CICIMAR (8). Some non-WP4 members were co-authors..

Papers published

Paper entitled "Trophic controls of jellyfish blooms and links with fisheries in the East China Sea" has been published by Ecological Modelling in Feb 2008.

Papers Submitted:

ECNU. As a bug was found in the EwE version used for simulations of the manuscript entitled "Ecosystem model predictions of fishery and conservation trade-offs resulting from marine protected areas in the East China Sea" which we had submitted to the journal of 'Environmental Conversation', a corrected paper was re-submitted using the bug fixed EwE version. At this step participation of Dr. Will LeQuesne was of particular importance.

ECNU. Paper manuscript entitled 'Impact of large jellyfish bloom on the pelagic pathway of the East China Sea ecosystem' has been accepted for publication by the Chinese journal of 'Marine Environmental Science' and now is under revision.

MCM DEAT. Shannon, L.J., Coll, M. and Neira, S. Examining indicators of ecosystem changes and effects of exploitation from trophic models fitted to time series data in three ecosystems. Ready for submission to Ecological Modelling.

Papers in Preparation:

1. UNIPAD-LASA: lead the joint (between partners) paper in metabolic scaling relations in trophic network models of ecosystem.
2. Cefas has continued to work toward completion of a paper on the relative roles of climate and fishing with target submission in April (between partners paper).

3. UniConcepción as leading partner, in collaboration with CICIMAR, continue processing information for the paper on ecosystem indicators. Paper is expected to be submitted next April (between partners paper).
4. UNIPAD-LASA: paper titled “Trophic mass-balance model of Northern Adriatic Sea: analysis of a human-impacted food web” will be submitted before 15th April to the Estuarine, Coastal and Shelf Science Journal.
5. Spatial population dynamics of the red grouper, *Epinephelus morio*, stock on the Campeche Bank, Mexico. Tentative journal: Fisheries Research
6. Dynamics of the mid-size fishing fleet of the red grouper *Epinephelus morio* of Yucatan, Mexico, based on habitat quality. Tentative journal: Fisheries Research
7. López-Rocha J. A., F. Arreguín-Sánchez and J. A. de Anda-Montañez. Spatial and seasonal trends of catchability of red grouper *Epinephelus morio* on the continental shelf of Yucatan, Mexico and its connotation for fishery management”. Tentative journal: Fisheries Management and Ecology.

WP 5 Marine Protected Areas (by Nick Polunin/Will Le Quesne)

March saw several WP5 publications advancing.

3 papers have returned from review and all have been accepted subject to corrections in line with the reviewers comments, these 3 papers are Jiang et al on Ecospace simulations of MPAs in the East China Sea, Le Quesne and Codling with a general analysis of the relationship between dispersal, MPA size and degree of protection afforded, and Le Quesne 'Are bad MPAs any good, or just a new way of making old mistakes?'

The FCRR report on the D5.2 simulations of MPAs has now been published and is available online from the UBC server: http://www.fisheries.ubc.ca/publications/reports/report16_2.php

This takes the total publication outputs from WP5 to 5 papers accepted or published in international peer review journals, 2 reports published as part of the UBC Fisheries Centre Research Report series, and at least 2 more papers in the pipeline.

Following the discovery of the bug in the Ecospace software a streamlined version of the D5.3 analyses has been decided upon and a reduced set of the MPA simulations are being re-run for the Gulf of California, East China Sea and Northern Benguela Current. This analysis is currently underway and will lead to a publication examining the response of different systems to the introduction of MPAs following a set of objectively defined criteria.

Will Le Quesne and Jon Ready (WP3) have commenced the analysis of the global coverage of threatened species by MPAs combining Aquamaps with the GlobalMPA database. We are currently waiting to receive the most recently updated version of the MPA database.

WP 6 Coastal Transects (by Ratana Chuenpagdee)

- Submitted the revised manuscript on CTAM for the book publication resulted from the Delta Conference held in 2007
- Revised the manuscript for Ocean and Coastal Management
- Worked on the simple analysis of CTAM models (as an added-value product)
- Discussion with stakeholders in Aberdeen about CTAM
- Continued to add more CTAM models
- Continued to work on the other manuscripts

WP 7 Simple Indicators for Sustainable Fisheries (by Amanda Stern-Pirlot)

WP 8 Valuation of Coastal Ecosystem Products and Services (by Rashid Sumaila)

1. Claire Armstrong, Ratana Chuenpagdee and Rashid Sumaila worked on developing a bottom trawl habitat indicator;
2. Abbie Trinidad worked on developing a proposal that will allow her to continue work on the political sensitivity index our work package initiated after Incofish is over;
3. Rashid Sumaila chaired and provided comments at a workshop sponsored by the Prince Albert II Foundation in Monaco entitled “Prospects for the sustainable management of fishery resources in areas beyond national jurisdiction”, Monaco, March 20-21, 2008.
4. Rashid Sumaila attended a workshop organized by Claudia Wosnitza in Lima Peru and presented a talk titled “Socio-economic indicators of fisheries management”, March 24-25, 2008;
5. Rashid Sumaila gave seminar at the Federal University of Rio Grande entitled: Bio-socio-economic research, Rio Grande, Brazil, March 28, 2008;
6. Rashid Sumaila gave a seminar organized by the College for Interdisciplinary Studies (CFIS) as part of UBC’s Celebrate Research Week entitled “Whose fish – ours or our grandchildren’s?” in Vancouver, Canada, 12 March 2008.
7. New publications:
 - a. Sumaila, U.R., L. Teh, R. Watson, P. Tyedmers and D. Pauly (*in press*). Fuel Price Increase, Subsidies, Overcapacity and Resource Sustainability. *ICES Journal of Marine Science*.

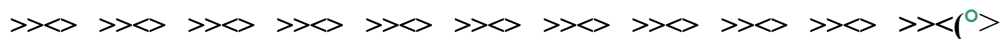
- b. Sharp, R. and U.R. Sumaila (*in press*). Quantification of U.S. Marine Fisheries Subsidies. *North American Journal of Fisheries Management*.
- c. Chueng, W. and Sumaila, U.R. (*in press*). Trade-off between conservation and socio-economic objectives in managing a tropical marine ecosystem. *Ecological Economics*.
- d. Teh, L., William W.L. Cheung, Andy Cornish, Clarus Chu and U. R. Sumaila (*in press*). A Survey of Alternative Livelihood Options for Hong Kong's Fishers. *International Journal of Social Economics*.
- e. Liu, Y. and Sumaila, U.R. (2008). Can farmed salmon production keep growing? *Marine Policy*, 32, 497-501.
- f. Bailey, M., Rotinsulu, C., and Sumaila, U.R. (2008). The Migrant Anchovy Fishery in Kabui Bay, Raja Ampat, Indonesia: Catch, Profitability, and Income Distribution. *Marine Policy*, 32, 483-488.

WP 9 Impacts of Ecotourism (by Priscilla Cubero)

WP 10 Legal Instruments for Sustainable Fisheries (by Gerd Winter/Marion Markowski /Till Markus)

The final versions of the report on the ‘promotion and management of marine fisheries in the EU’ (D10.5) and the report on ‘allocation and management of EEZ fisheries resources: an in-depth legal analysis of instruments in comparative perspective’ (D10.6.b) have been submitted to the INCOFISH management. The country reports on Mexico (D10.4.b) and Brazil (D10.2.a) have been revised in terms of language. The Mexico report has also been submitted to the project management. The remaining deliverables are being finalised.

IUCN has been contacted and agreed to publish the WP10 country reports and summary. Gerd Winter spent 10 days in Lima to consult on measures of how to cope with the crisis of hake fisheries. This was an opportunity to probe the methodology of legal clinic developed by WP 10.



End of Report