Unfortunately, this really isn’t about an exploratory expedition to the Kerguelen Islands (though I would have loved for it to be!). Rather, Daniel Pauly and I went to Paris to attend the workshop on modeling the Kerguelen ecosystem (Figure 1), held at the Muséum National d’Histoire Naturelle (MNHN) in late September 2003. This was one of the rare occasions where Daniel delivered an Ecopath course in his native tongue. Incidentally, some of the participants were not aware that Daniel is French and they arrived armed with English up their sleeves, greeting Daniel in their best English. When Daniel responded in French, they were all amazed to have discovered a compatriot. That immediately broke the ice, paving the way to a successful workshop and to Daniel’s two-day lecture on Ecopath with Ecosim being received with keen interest. Participants included representatives from the Centre d’Etudes Biologiques de Chizé; l’Observatoire Océanologique de Villefranche sur Mer; L’Université du Littoral Côte d’Opale; the Centre de Geostatistique of the École Nationale Supérieure des Mines; the Université de Rennes 1; and of course, our partners from the MNHN Guy Duhamel and Patrice Pruvost.

We might ask why the MNHN is interested in keeping an eye on these islands, part of the French Antarctic territories. In the early 20th century, the large number of marine mammals around Kerguelen archipelago (notably sperm whales, elephant seals and fur seals) was the target of a fishery which continued until the late 1960s - when whaling as a whole was banned (IWC 1994). In the 1970s, the Soviet Union started bottom trawling, targeting marbled rockcod, mackerel icefish and grey rockcod without any management or control (G. Duhamel, pers. com.). Then, in 1978, an EEZ was established, which led to the creation and implementation of a fishery management scheme (Duhamel 1995) which included a limit of seven trawlers. In 1984, a stock of Patagonian toothfish was discovered in the area, but it was not until 1996, when the Japanese discovered a liking for the white tasty flesh of the toothfish, that the industry switched from bottom trawling to longlining for toothfish (Duhamel 1993). This highly profitable fishery led to the emergence of an illegal longline fishery in 1997 which is now still operating. This longlining produces large bycatch of other fish species, e.g. macrourids and skates, and also seabirds (Capdeville and Duhamel 1996), as well as marine mammals (e.g. orcas).

Why ‘rediscover’ Ecopath in the title of this account? Well, because I did rediscover Ecopath. The last time I used this modeling approach extensively was for my Ph.D.
... the participants all agreed that this model represented the Kerguelen ecosystem well ...

Thus in the end, Patrice was able to present a well balanced model to the workshop participants. This elicited constructive comments and suggestions and, aside from some minor adjustments to the parameter estimates of a few major groups, the participants all agreed that this model represented the Kerguelen ecosystem well. They also agreed that a follow-up workshop focusing on testing different fishing scenarios and simulations using Ecosim and Ecospace is a logical progression to this effort.

References

This year’s ICES Annual Science conference was held in Tallinn, Estonia, one of the three small Baltic States sandwiched between Russia and Poland. The prime purpose for this trip was to present to the European fisheries science and advisory community a paper of the key findings and recommendations of our project to date. Additionally, I arranged to meet with local scientists in order to establish cooperative working relationships for our fisheries data-recovery efforts. Estonia and the other Baltic states (Latvia and Lithuania) represent a special challenge for improving global fisheries time series, given that they became independent countries only with the dissolution of the former USSR. Thus, prior to the early 1990 catches taken by Estonian, Latvian and Lithuanian vessels were reported as part of USSR catches within the FAO statistics.

The conference was well attended, with 200 papers and 41 posters presented in 15 theme sessions over four days. While major emphasis was placed (for geographically obvious reasons) on the Baltic Sea, topics ranged from the traditional (fisheries technology and stock assessment) to more progressive and holistic themes such as stock recovery and reference points. One interesting point was the fact that the president of ICES (Pentti Mälkki) in his opening remarks, as well as all three keynote addresses, by Fredrik Wulff (University of Stockholm, Sweden), Randall Peterman (Simon Fraser University, Canada) and John Caddy (Mexico), while covering diverging topics, all made a plea for the urgent need for scientists to improve communication outside of the direct science forum, especially with decision makers and the public. Judging by the amount of media and high-level briefing exposure our project has achieved so far (see publication and media records listed on our web page: www.saup.fisheries.ubc.ca), it seems we are on the right track and ahead of the curve in this area.

Other highlights of the conference were the theme sessions on long-term changes in spatial distribution and abundance, recovery planning, and reference points. The paper I presented was titled “Towards sustainable fisheries: mapping regional and global trends in abundance and catches”, and summarized the major project findings to date. I also outlined some of the solutions we propose for the global fisheries crisis, with major emphasis on reduction of overcapacity, and on the need for ecosystem recovery through the establishment of no-take zones of substantial size (Pauly et al. 2002; Russ and Zeller 2003).

An additional outcome of this European visit was the establishment of co-operation with local scientists in our data recovery efforts. Thus, I met with Dr. Henn Ojaveer (Estonian Marine Institute), the author of a paper on Estonian fisheries catches in Baltic waters from 1928 to 1995 (Ojaveer 1999), and with Dr. Maris Plikshs (Latvian Fisheries Research Institute), who deals with Latvian fisheries catches. Attempts continue to try to extend this collaboration to Lithuania.

On a lighter note, it was pleasing to see that an established organization like ICES has not lost its sense of humour, as evidenced by a poster contribution entitled “Staying in tune with our ecosystem”, authored by none other than J. Bach, G. Mahler, F. Schubert and Co-author Charlie”, and submitted for the imaginary theme session, Σ, on “Ecosystem Tuning Management”. The authors allege that “an exciting new scientific area has emerged in hydroacoustics: the tuning of various fish species. Tuning has been performed for many years with data, but now a small group of scientists has started tuning the fish themselves.” The authors further present a simple mathematical formula designed to assist in individual scale-tuning of fish. The equation, replicated below (without permission) has been passed on to the Fisheries

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Letter to the editor: Aquaculture in the Philippines

by Josh E. Moncrieff

As things stand, the threat presented by aquaculture development comes in a variety of forms. Many of the potential downsides of intensive and semi-intensive fish farming – including physical, chemical, and biological pollution – are widely acknowledged, and well represented in your article on Chile. Additionally, development of the Philippines’ coast has resulted in widespread destruction of mangroves in the rush to develop fish-ponds. Another concern commonly expressed by artisanal fishers is that as large, high-value, farmed fish become increasingly prevalent, the demand for smaller fish – those that can still be caught in significant quantities in the wild - will sharply decrease. This would inevitably lead to lower prices for their wild catch, and a corresponding decrease in their income.

While many artisanal fishers in the Philippines would like to see a decrease in aquaculture activity, it seems unlikely that the industry’s growth will be slowed or stopped by government intervention. It is more realistic to hope that industry, NGOs, and community-based organizations of fishers will take a more active role in managing this development to ensure that artisanal fishers are not driven away from their traditional livelihoods. In addition to ensuring that sound environmental practices are adhered to, a variety of approaches should be considered. These would include granting coastal property rights to artisanal fishers and their communities, improving access to sources of credit in coastal communities, expanding fishers’ access to education and training, and developing alternative livelihoods to ease the transition from fisheries for those that desire to follow such a path. While such efforts would not single-handedly bring socio-economic parity to the Philippines’ marginalized artisanal fishers, they could play an essential role in the process of beginning to recognize the needs and rights of this portion of the Philippines’ population.

Josh Moncrieff is a UBC graduate, with a degree in oceanography. In 2002, he began a CIDA-funded internship in the Philippines coordinated by the International Marine Institute of Memorial University, Newfoundland. He is now a Masters student at the University of Calgary.