

FISHBYTES

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Talking with fishers of the Upper Gulf of California, Mexico

by Hector Lozano

In April of this year, I spent 22 days travelling in Baja California and Sonora, visiting the three principal fishery ports in the Northern Gulf of California, San Felipe, Gulf of Santa Clara and Puerto Peñasco, as part of the field work for my PhD thesis. As you read in *FishBytes* (Vol 8-6), this project is focused in the Upper Gulf of California,



Fermin "Indio" Peñales (left) an 82 year-old fisherman from Puerto Peñasco who started fishing in the Upper Gulf in 1939. At the right is José María Castillo from the Gulf of Santa Clara, who has been fishing in the Northern Gulf since 1942. Photos by H. Lozano

where anthropogenic activities (diversion of the Colorado River in the USA) have changed the physico-chemical conditions and triggered a collapse of this Mexican ecosystem, recognized as a breeding area for economically important species and as essential habitat for several species in danger of extinction. My travel was supported by award of the 2002 Cecil and Kathleen Morrow

scholarship, and I had the opportunity to build trust through friendships with the fishers of these communities. Although I was considered an "outsider", I had several long conversations not only about fish and marine resources, but also concerning community issues, cultural norms and beliefs, values and needs associated with the use of the Upper Gulf as a Biosphere Reserve (established in 1993).

I utilized informal and semi-structured interviewing techniques to gather local knowledge from 42 artisanal and industrial fishers, panga owners, leaders of cooperatives and personnel of the Biosphere Reserve from the three ports. The first part of these interviews was designed to obtain the opinion of the fishers about the problems of having the Biosphere Reserve situated in the area where they live. The second part was focused on their perception of past abundances and diversity in this ecosystem, including information about fishing methods, seasons, zones, reproduction of the target species. They had a number of opinions and proposals for management and my interviews confirmed not only the long fishery tradition (60% of the fishers interviewed had 20 or more years fishing in the area), but also the economic crisis in the fisheries of the Upper Gulf. Of the interviewees, 85 % thought that their fisheries would be worse in the future, and almost 90% did not want their sons to become fishers. Those with long fishing experience recognized the negative impact of the fresh water diversion from the Colorado River by consecutive U.S. dams built since

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the 1940s. Ninety per cent of the fishers associated the dams with a negative effect on their fisheries. On the other hand, 70% believed that the Biosphere Reserve is the best way to protect the marine resources of the Upper Gulf.

The main objective of my field work was to obtain an estimate of past abundances of the principal groups living in the area in order to reconstruct past states of the Upper Gulf of California ecosystem. Unfortunately, although there are records from some historical

expeditions, there were no quantitative biological studies before the 1980s and the abundances or size populations for non-commercial species are unknown. Each interviewee made a comparison according to his criterion of past abundances, decade by decade until 2000 (when it was possible). For some groups I have been able to use these comments to construct approximate series between 1950 and 2000. I will use this information, combined with recent biomass surveys and fishery data, to tune and validate Ecosim dynamic simulations

that track and emulate changes caused by water diversion, fishing and fluctuations in climate in the Upper Gulf of California. I am most grateful to the Cecil and Kathleen Morrow Scholarship for making this possible.

Hector was the winner of the 2002 Cecil and Kathleen Morrow Scholarship, which is the result of a generous endowment by Cecil B. Morrow, awarded annually to the student with the best academic travel proposal for research work using techniques developed at the Fisheries Centre.

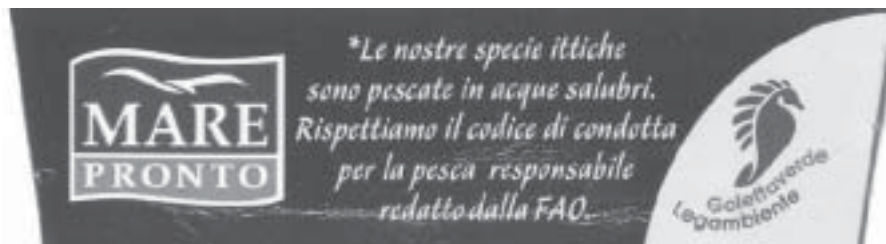


Some of the interviews were performed on board of pangas (right) or trawl ships (centre) or on the beach. Sometimes, finding a cooler place (the heat reached up to 45 °C) was necessary while I was waiting for the coming pangas (right).



Selling the Code of Conduct ?

by Tony Pitcher



The picture shows a label from a frozen pack of Nile perch fillets from Lake Victoria, Tanzania on sale in a Rome supermarket. A rough translation is "Our fish species are caught in salubrious (= wholesome, healthy) waters. We respect FAO's Code of Conduct for Responsible Fisheries". This is an ecolabel, with the aim of positively influencing the consumer to buy the fish.

Those of us who know Lake Victoria might be somewhat surprised to know that it is considered salubrious. The lake has been

modified by heavy agricultural runoff, by species introductions (including this very Nile perch) and by overfishing. There is also a serious bilharzia problem around the lakeshore. While many Nile perch fisheries meet European Union microbiological import regulations, and some of them may be as well-managed as other fisheries, the claimed "respect" for the Code of Conduct might lead the reader to believe that Nile perch fishery management, fishing practices, post-harvest practices, trade and fishery

research, as covered by the FAO Code, have been evaluated as being in a high degree of compliance (but - notice that carefully-placed full stop!)

Here at FAO I am told that, "while FAO is busy trying to promote a more active implementation of its Code, it is not involved in any ecolabelling scheme and has not expressed any intention to do so." So who, other than the fish trader, authorised that label? I am not aware of any independent organisation certifying any degree of 'respect' for the FAO Code, so the ecolabel is most likely self-attributed. This raises a number of issues: Is the public being deceived by the label? Can a fish marketer legally refer to the FAO Code in such a way? Should there be a more formal and "certified" reference to the Code? The issue is currently being pondered deeply by FAO's legal department.



Beverton Medal 2003: Learning from the past and rebuilding the future

by Tony Pitcher

Earlier this year, the Fisheries Society of the British Isles awarded the 2003 Beverton Gold Medal to Tony Pitcher, for lifelong achievements in fisheries science (see FishBytes 9-3). The following is a transcript of his acceptance speech, delivered at the FSBI Annual Conference, Norwich, July 4th 2003.

The theme of your 2003 FSBI conference is 'Fish as Models of Behaviour'. You may be interested to know that the first recorded meeting on this topic took place in Rimini in 1222, organized by my namesake, St Antony of Padua. St Antony, a Portuguese who became patron saint of Lisbon, led a most remarkable life, confronting Saracens in Morocco, escaping only to be shipwrecked in Sicily, working his way up Italy to Padua and subsequently taking over the revolutionary new Franciscan order when the gentle St Francis died. By all accounts a persuasive preacher with a keen nose for heresy, he is said to have preached to a large school of fishes at Rimini, extolling 'fish as models of behaviour' in comparison to the unruly 13th century Italians, who were anything but models of behaviour and believed all sorts of unapproved things. Today, you can see beautiful azure tiles depicting St Antony's 'preaching to the fishes' scene just inside the door of Lisbon cathedral.

Here is another image from history: Ray Beverton inventing a revolutionary algorithm on the back of a tank turret during a lull in the fighting of the D-Day landings, thereby founding a whole discipline. Anyone who can do this certainly deserves a medal named after him. Ray was way ahead of his time in

many respects; for example he was the first to devise a quantitative threshold that represents explicitly the local extinction (=extirpation) of a fish population - a process with which fisheries

ecologists have recently become deeply concerned. Hence, I am greatly honoured to be presented with the medal that bears his name.

For myself, history is very important as it shapes in profound ways what I am doing now. My current research is encapsulated by a saying of George Santayana, the Spanish-American philosopher and poet: "Those who cannot remember the past are condemned to repeat it". The work aims to reconstruct past ecosystems as they were before massive depletions of biodiversity, and then managing our fisheries in such a way as to avoid repeating the same fate. This work attempts to address what EO Wilson has called "the folly our descendents are least likely to forgive us". It entails much computer modeling and quite a number of assumptions, not to say leaps of faith, and has elicited the comment that Tony Pitcher is nowadays "out to lunch". St Antony liked to insist that you can have only one religion - but, as Villy Christensen has pointed out, it's actually OK to have more than one computer model,



The Beverton Medal being presented, after a nice roast lamb dinner, to Prof. Tony Pitcher by Dr Inigo Everson, President of the Fisheries Society of the British Isles, before about 110 members at their Annual Conference in Norwich, UK.

providing that (Santayana again) "scepticism, like chastity, should not be relinquished too readily".

I hope you can join me in trying to do something to restore our devastated aquatic ecosystems - I think it is the most important thing that fish biologists can do now. You can do something to help: as Aldo Leopold, the American conservation pioneer said: "Relegating conservation to government is like relegating virtue to the Sabbath; it turns over to professionals what should be the daily work of amateurs".

And so, I am delighted and deeply honoured to be presented today with the Beverton Medal: I hope that what I am able to accomplish next will be as worthy of your support.



Front and back view of the Beverton Medal.

AFS 2003 Meeting in Québec City

by Cameron Ainsworth

The 133rd annual meeting of the American Fisheries Society was held August 10-14 at the Centre des Congrès de Québec in Québec City. With over a thousand participants, it was the largest AFS convention in the society's long history. The meeting hosted 20 concurrent oral sessions, over 200 poster presentations, training workshops, an industry trade show, social events, and a raffle to benefit the Peter Larkin Student Travel Fund. On Monday morning, Daniel Pauly led off the plenary session with a sobering word on the worldwide decline of wild fish populations, which was the theme of the conference. Other introductory talks from Dr John Avise of the University of Georgia, Dr Peter Maitland from the Fish Conservation Centre in Scotland and Dr John Casselman from Ontario's Ministry of Natural Resources helped set the stage for what would be a diverse and multidisciplinary discussion on current research in fish, fisheries and ecosystem ecology of marine and freshwater systems.

Eight researchers represented the UBC Fisheries Centre with oral presentations and co-authored papers. Amanda Vincent talked on the understated conservation concerns associated with the globalization of the Asian seahorse trade (with co-author Dale Marsden), and Jackie Alder delivered a poignant report on the effects of trade globalization in impoverished fishing communities, with special reference to Mauritania. Daniel Pauly gave a well-attended presentation on the need to establish a network of MPAs, to replace natural 'reserves' that are lost as fishing technology improves. Sylvie Guénette discussed some of the ecological changes observed in demersal species of Guinea, and Cameron Ainsworth summarized



From left to right: Cameron Ainsworth, Lyne Morissette, Alida Bundy, Daniel Pauly, Eric Parkinson, Sheila Heymans. Not pictured: Jackie Alder, Sylvie Guénette, Dale Marsden, Amanda Vincent.

the work of the *Back to the Future* project in Newfoundland. Sheila Heymans and Lyne Morissette delivered a marathon of talks along with their CDEENA colleagues detailing that project's impressive ecosystem modelling efforts in the North-West Atlantic.

Delegates had the opportunity to mingle outside of work at several organized

events. A mid-week students' gathering gave students a chance to socialize and network, while Québec's waterfront played host to the Old Port Social for all conference goers. An early morning run around the historic Champs-de-Bataille Park was organized on the Wednesday for the fit and well-rested, with Amanda and Jackie completing the 5 km run in respectable time. Finally, we toasted the end of a successful week at the closing cocktail reception in the centre's foyer. Next year's AFS meeting is in Madison, Wisconsin and will investigate the theme, "Leopold's legacy for fisheries".



Congratulations



Congratulations to Fisheries Centre research fellow, Dr Maria Lourdes (Deng) Palomares and FishBase collaborator Nicolas Bailly, who were married in Paris on August 23, 2003. Please join us in wishing them a wonderful and prosperous life together!

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