



The ReefBase Newsletter provides registered users with updates on new additions to the ReefBase database and website. You have received this newsletter as you are a registered user of ReefBase and indicated that you wanted to receive our electronic newsletters.

To view / edit your ReefBase account or unsubscribe to this newsletter, please visit: <http://www.reefbase.org/account>

### In this issue

#### Announcements

1. [Destructive fishing information, Reefs At Risk](#)
2. [TNC launches new toolkit for Marine Conservation Agreements](#)
3. [Book Release: Status and management of the sea cucumber fishery of La Grande Terre, New Caledonia](#)

#### ReefBase Publication Database

1. [Computers and the Future of Fisheries](#)
2. [Climate Warming, Marine Protected Areas and the Ocean-Scale Integrity of Coral Reef Ecosystems](#)
3. [Quantitative Research Surveys of Fish Stocks](#)
4. [Managing excess capacity in small-scale fisheries: Perspectives from stakeholders in three Southeast Asian countries](#)
5. [Planning the Use of Fish for Food Security in the Pacific](#)

#### Online GIS

1. [May 2009 NOAA Coral Reef Watch's Satellite Monitoring Products](#)

## Announcements

### 1. Destructive fishing information, Reefs At Risk

The Reefs at Risk Revisited project needs to identify the locations where destructive fishing (i.e., dynamite/blast fishing and poison fishing) is currently taking place in support of a global analysis of threats to coral reefs. We are asking coral reef and fisheries experts around the world to contribute their knowledge to this effort. We would appreciate if you would identify these locations, to the best of your knowledge, by drawing an outline of the locations of destructive fishing on a Google Earth map. The outline (or polygon) that you draw on Google Earth can be emailed to us for import into GIS, which will help with our modeling of threats to coral reefs. Please follow the instructions at ReefBase website (<http://www.reefbase.org/whatsnew.aspx?newsdategroup=200906#301>) for identifying these areas of destructive fishing. If you have any questions please email Katie Reytar at [kreytar@wri.org](mailto:kreytar@wri.org).

## 2. TNC launches new toolkit for Marine Conservation Agreements

The Nature Conservancy, with the assistance of partners, has just launched the new Practitioner's Toolkit for Marine Conservation Agreements at <http://www.mcatoolkit.org>. The new toolkit has expanded its substantive and geographic scope, to include: an Overview, which answers basic questions, dispels myths and defines terms; a downloadable Field Guide that walks practitioners through a four phase process to: 1) analyze the feasibility of MCAs; 2) identify and engage stakeholders; 3) design agreements; and 4) implement agreements; Field Projects which provides 20 in-depth case studies and inventories over 100 projects; Country and U.S. State Analyses that assess the legal and policy frameworks for MCAs in specific geographies; U.S. State Maps that identify where relevant spatial data can be accessed; and Resources which provides information on contacts and funding, publications and presentations, related tools, sample agreements and conferences. Please update any bookmarks or hyperlinks you may have to <http://www.mcatoolkit.org>.

For more information, contact Jay Udelhoven, Senior Policy Advisor at The Nature Conservancy: [judelhoven@tnc.org](mailto:judelhoven@tnc.org) or 206-343-4345, ext. 339.

## 3. Book Release: Status and management of the sea cucumber fishery of La Grande Terre, New Caledonia

As part of its "Studies and Reviews" series, the WorldFish Center has recently released a book of a multi-disciplinary research programme on the sea cucumber fishery of La Grande Terre, New Caledonia. The programme includes underwater censuses, biological studies, fishery-dependent surveys, socio-economic surveys, analyses with habitat variables, a stakeholder workshop and management recommendations. The underwater surveys of sea cucumber, giant clam and trochus cover 50 reef sites, spanning 500 km of coast. The book highlights 20 generic lessons for evaluating invertebrate fisheries that should be useful for researchers and fisheries managers elsewhere. A limited number of colour copies were printed.

To download the publication, please follow this link:

[http://www.worldfishcenter.org/resource\\_centre/WF\\_2033.pdf](http://www.worldfishcenter.org/resource_centre/WF_2033.pdf)

## ReefBase Publication Database

### 1. Computers and the Future of Fisheries

- The world's fisheries are a shambles. Everywhere we see signs of massive overexploitation, breakdown of regulatory and enforcement systems, and woefully inadequate investment in assessment and science. The credibility of fisheries science has been questioned with studies that have revealed severe overestimates in abundance and productivity in historical assessments for several major fisheries (Hutchings and Myers, 1994; McGuire, 1991; Parma, 1993; Pauly, 1994; Walters, 1996), indicating that we have contributed directly to the overcapitalization that we have traditionally blamed on greed and managerial stupidity. And all this has happened while whole new worlds of information gathering and analysis have been opened to us through computer technology. I am reminded of an old poster that is still displayed prominently on my office wall, a gift from participants in a 1979 Sea Lamprey International Symposium, displaying the adage "To err is human. To really foul things up requires a computer!" In those days the adage was referring to the growing pains of an information management industry for such human affairs as banking; little did we know at the time how well it would apply to models that were appearing at the time for improving fisheries assessments.

Walters, C.J. 2009. Computers and the Future of Fisheries. Computers in Fisheries Research (2nd Edition). Springer Netherlands. 399-412pp.

[http://www.reefbase.org/resource\\_center/publication/main.aspx?refid=27158&linksource=nl](http://www.reefbase.org/resource_center/publication/main.aspx?refid=27158&linksource=nl)

## 2. Climate Warming, Marine Protected Areas and the Ocean-Scale Integrity of Coral Reef Ecosystems

- Coral reefs have emerged as one of the ecosystems most vulnerable to climate variation and change. While the contribution of a warming climate to the loss of live coral cover has been well documented across large spatial and temporal scales, the associated effects on fish have not. Here, we respond to recent and repeated calls to assess the importance of local management in conserving coral reefs in the context of global climate change. Such information is important, as coral reef fish assemblages are the most species dense vertebrate communities on earth, contributing critical ecosystem functions and providing crucial ecosystem services to human societies in tropical countries. Our assessment of the impacts of the 1998 mass bleaching event on coral cover, reef structural complexity, and reef associated fishes spans 7 countries, 66 sites and 26 degrees of latitude in the Indian Ocean. Using Bayesian meta-analysis we show that changes in the size structure, diversity and trophic composition of the reef fish community have followed coral declines. Although the ocean scale integrity of these coral reef ecosystems has been lost, it is positive to see the effects are spatially variable at multiple scales, with impacts and vulnerability affected by geography but not management regime. Existing no-take marine protected areas still support high biomass of fish; however they had no positive effect on the ecosystem response to large-scale disturbance. This suggests a need for future conservation and management efforts to identify and protect regional refugia, which should be integrated into existing management frameworks and combined with policies to improve system-wide resilience to climate variation and change.

Graham, N.A.J., T.R. McClanahan, M.A. MacNeil, S.K. Wilson, N.V.C. Polunin, S. Jennings, P. Chabanet, S. Clark, M.D. Spalding, Y. Letourneur, L. Bigot, R. Galzin, M.C. Ohman, K. C. Garpe, A.J. Edwards, C.R.C. Sheppard. 2008. Climate Warming, Marine Protected Areas and the Ocean-Scale Integrity of Coral Reef Ecosystems . PLoS ONE 3(8): e3039.  
[http://www.reefbase.org/resource\\_center/publication/main.aspx?refid=26784&linksource=nl](http://www.reefbase.org/resource_center/publication/main.aspx?refid=26784&linksource=nl)

## 3. Quantitative Research Surveys of Fish Stocks

- Fisheries research surveys are designed and conducted for a variety of purposes.

Some examples are those of defining geographical limits of distribution, describing diurnal movements or seasonal migrations, and determining abundance.

The main purpose considered here is that of determining abundance. Quantitative research surveys of fish stock abundance are carried out to avoid the well-known shortcomings of fishery-dependent methods. Five generic survey types are described: egg and larval survey, mark-recapture experiment, fish capture survey, acoustic survey, and optical survey. Methods of direct observation (Godø 1998) are emphasized.

Foote, K.G. 2009. Quantitative Research Surveys of Fish Stocks. Computers in Fisheries Research (2nd Edition). Springer Netherlands. 145-190pp.  
[http://www.reefbase.org/resource\\_center/publication/main.aspx?refid=27159&linksource=nl](http://www.reefbase.org/resource_center/publication/main.aspx?refid=27159&linksource=nl)

## 4. Managing excess capacity in small-scale fisheries: Perspectives from stakeholders in three Southeast Asian countries

- The management of fishing capacity—in both inland and marine fisheries—is a major policy concern in most countries in Southeast Asia. Excess capacity leads to a number of negative impacts, such as resource use conflicts, overfishing, environmental degradation, economic wastage, and security threats. This paper presents the results of a regional study that examined various approaches to managing excess fishing capacity in small-scale fisheries in Southeast Asia. More specifically, the

paper presents an analysis of perceptions of stakeholders in Cambodia, Philippines and Thailand regarding preferred solutions to addressing excess capacity. The paper concludes with a discussion of policy guidance for addressing excess fishing capacity based on the stakeholder-preferred solutions.

Salayo N., L. Garces, M. Pido, K. Viswanathan, R. Pomeroy, M. Ahmed, I. Siason, K. Seng, A. Masa. Managing excess capacity in small-scale fisheries: Perspectives from stakeholders in three Southeast Asian countries. *Marine Policy* 32 (2008) 692–700pp.  
[http://www.reefbase.org/resource\\_center/publication/main.aspx?refid=26789&linksource=nl](http://www.reefbase.org/resource_center/publication/main.aspx?refid=26789&linksource=nl)

## 5. Planning the Use of Fish for Food Security in the Pacific

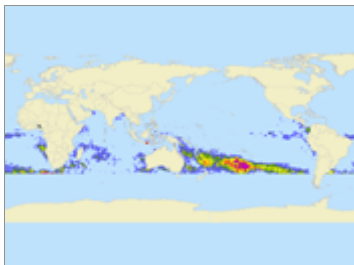
- Fish is the mainstay of food security in much of the Pacific. Forecasts of fish requirements in 2030 indicate that coastal fisheries will be able to meet demand in only a quarter of the island countries and territories surveyed. To ensure food security and meet minimum health requirements for fish, governments need to provide more local access to tuna and develop small-scale pond aquaculture. Diversifying fish sources will better enable rural households to cope with natural disasters, social and political instability, and climate change.

The WorldFish Center. 2008. Planning the Use of Fish for Food Security in the Pacific. (Policy Brief; 1865) The WorldFish Center. Penang, Malaysia. 8 p.

[http://www.reefbase.org/resource\\_center/publication/main.aspx?refid=27169&linksource=nl](http://www.reefbase.org/resource_center/publication/main.aspx?refid=27169&linksource=nl)

## Online GIS

### 1. May 2009 NOAA Coral Reef Watch's Satellite Monitoring Products



This map shows the global observations of coral bleaching occurrences combined with NOAA Coral Reef Watch's satellite monitoring products including Sea Surface Temperature, Sea Surface Temperature Anomaly, Bleaching HotSpot and Degree Heating Weeks. These datasets are added into ReefBase Online GIS each month.

To view the latest May 2009 maps, click here.

<http://reefgis.reefbase.org/redirect.aspx?urlid=46401&linksource=nl>

ReefBase::A Global Information System For Coral Reefs

Website: <http://www.reefbase.org> Email: [reefbase@cgiar.org](mailto:reefbase@cgiar.org)