



Member’s report on activities related to ICRI

Reporting period July 2012 - October 2013

NOTE: TO CHECK A BOX DOUBLE CLICK ON IT AND TICK ‘CHECKED’ UNDER ‘DEFAULT VALUE’ IN THE POP UP WINDOW

- 1. General Information** (note that this information will be posted on the ICRI website in your member page: <http://www.icriforum.org/about-icri/members-networks>)

Are you an ICRI Member?	Yes
Member type (Country / Organization):	Non Governmental Organization
Focal Point 1:	Research Director
<i>Name:</i>	Dr Alasdair Harris
<i>Organization:</i>	Blue Ventures
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Focal point 2:	Conservation Programmes Manager
<i>Name:</i>	Frances Humber
<i>Organization:</i>	Blue Ventures
<i>Email:</i>	fran@blueventures.org
Last meeting attended:	27th ICRI General Meeting
Related website(s)	www.blueventures.org

- 2. Updates on your activities** (new initiatives/programs/projects of your government /organization which will be of interest to the ICRI Members). Examples include MPA declarations, World Heritage sites status, economic valuation of reefs, policy changes in relation to coral reefs etc.

Since our creation in 2003, Blue Ventures has established itself as a leader in community-based tropical marine conservation, marine ecotourism and the development of integrated approaches to coastal conservation and poverty alleviation. Working amongst some of the world’s poorest coastal communities, Blue Ventures develops community-owned marine conservation solutions by integrating conservation and community development. We use social entrepreneurship to tackle some of the critical challenges facing marine biodiversity and coastal communities.

Madagascar

In Madagascar, Blue Ventures promotes sustainable fisheries and marine conservation by focusing on empowering communities to self-organise and implement simple and holistic fisheries management. This includes establishing community associations to manage and co-manage Locally Managed Marine Areas (LMMAs) and Marine Protected Areas (MPAs), promoting the use of fisheries management tools such as temporary and permanent marine reserves, and the removal of destructive fishing practises.

LMMMA Model

Locally managed marine areas have emerged as an effective solution to the challenges of marine conservation and traditional fisheries management throughout the tropics. LMMAs are characterized by local fishing communities playing a prominent role in management, and BV is currently providing site-based support at five sites: the Velondriake LMMMA, Belo-sur-Mer, the Barren Isles in Maintirano, Teariake in Morombe, and Manjaboaka in Ambatomilo.

In addition to supporting community associations and local fishers, Blue Ventures also works to engage private sector partners, such as seafood collection companies, to ensure that management measures are backed by clear economic incentives and have the potential for both scalability and long-term sustainability.

Specifically, BV has focused on three traditional fisheries of economic importance to coastal communities: Grey octopus (*Octopus cyanea*), mud crabs (*Scylla serrata*), and the multi-species coral reef fishery.

Octopus

Octopus is harvested throughout southwest Madagascar and is sold almost exclusively to seafood collection companies for export. Harvesting methods are low-tech, and consist mostly of gleaning with a spear on reef flats during low tide. Management measures have focused on temporary closures of discrete fishing grounds, which complement a regional 6-week closure of the entire southwest octopus fishery during the austral summer (Dec 15th – Jan 31st). To date 176 closures have been held in southwest Madagascar since 2004. A further 18 have been held in northern Madagascar and in August 2012 the first international replication of the management technique occurred on the Mauritian island of Rodrigues.

New large-scale data analyses of 8 years of octopus landings data quantitatively prove that closures are profitable to communities by increasing total income from octopus at a village level.

Crab

Similar to octopus, mud crabs (*Scylla serrata*) are a fast-growing and economically important species. Mud crabs spend a majority of their life cycle in mangrove forests and creeks, and similarly to octopus have the potential to respond well to a similar model of temporary closures of fishing grounds.

Crab reserves have shown rapid uptake in communities in the Menabe region of western Madagascar, with a total of 15 closures since 2011.

Finfish

Strategies for the management of the mixed species coral reef fisheries include establishment of permanent coral reef and mangrove reserves, and the banning of destructive fishing practices. To date there are 6 permanent reserves covering 110 hectares of reef within the Velondriake LMMA.

Ongoing ecological and socio-economic monitoring programmes will provide future evidence of the impacts of both temporary and permanent reserves and other management strategies. Surveying is currently undertaken annually on 37 reef sites within the Velondriake LMMA, 12 reef sites in Belo sur Mer and a further 12 sites in the Barren Islands.

Mihari network

In addition to site-based support, Blue Ventures is supporting peer-to-peer learning between LMMA-implementing communities through various networking activities.

LMMAAs are evolving throughout Madagascar and the Western Indian Ocean, with more than 50 LMMAs in the region today compared to just 5 in 2005. We are supporting the LMMA movement in Madagascar by fostering connections between the country's 36 LMMAs through exchange trips, telephone trees and an annual forum. This network is enabling LMMA managers to learn from each other's experiences, and is strengthening their voice in national policy-making.

In June 2012, the first forum brought together 55 representatives from 18 LMMA communities throughout Madagascar, and resulted in the formation of an informal LMMA network, called "MIHARI".

Widening the network further, Blue Ventures also co-organized a workshop for LMMA managers at the 2012 IUCN World Conservation Congress in Jeju, South Korea. The purpose

of the workshop was to bring together LMMA managers from around the world to share their stories, and explore the potential benefits of creating a global learning network. The workshop brought together representatives of 16 LMMAs from around the world, as well as a variety of members of the international conservation community, and a short-film was produced documenting their experience.

Belize

Blue Ventures has been working in Belize since 2010. Since this time Blue Ventures has been working on the facilitation of a market-based intervention for the management of invasive lionfish. Lionfish are now being actively removed by fishers for international export and for sale in the developing domestic market.

Over the next year the project will focus on growing the domestic lionfish market as well as monitoring the effectiveness of different removal strategies.

Blue Ventures conducts comprehensive biological monitoring of two connected Marine Protected Areas (MPA): Bacalar Chico Marine Reserve and Corozal Bay Wildlife Sanctuary. The results of these monitoring activities are shared with management agencies, the Belize Fisheries Department and the Sarteneja Alliance for Conservation and Development (SACD) in annual reports, through participatory conservation action planning sessions, and internal review sessions.

In addition, Blue Ventures works with fishing communities, primarily in Sarteneja, the largest fishing village in Belize, to increase awareness of environmental threats and engage fishers in the accomplishment of conservation targets.

Nationally, Blue Ventures is an active member of Belize's National Coral Reef Monitoring Network, which provides a framework for all coral reef conservation organisations to work to by developing a National Biodiversity Monitoring Plan. Blue Ventures has also been involved in the production of regional biodiversity reports for the Mesoamerican Barrier Reef, through our partnership with the Healthy Reefs Initiative.

3. Contribution to the ICRI GM

Your responses to the following questions will assist the Secretariat in assessing contributions towards the major themes of the current ICRI action plan and objectives of the general meeting.

a. Community-based monitoring

Are you engaged in, or support community-based monitoring in your marine areas? If so, think about what works and what doesn't with it to be prepared for workshop discussions on this topic. The discussions will revolve around:

- The benefit of community-based monitoring for management and reporting
- Way forward and how countries could support each other through a network of persons involved in monitoring and an online database.

Blue Ventures supports community based monitoring for a large number of its projects. Community based monitoring programmes include:

- Mangrove reserve monitoring
- Fisheries landings monitoring
- Shark landings monitoring using mobile technology (ODK)
- Technical support to the Sarteneja Alliance for Conservation and Development

In addition we also employ and train local community members to undertake all of our socio-economic surveying.

Community members involved in monitoring programmes are also involved in result dissemination to communities through village level presentations, inter-village exchanges and local radio.

We are currently developing the website Livewiththesea.org as a platform for the MIHARI network of LMMAs. Eventually it is hoped that this will also serve as a database portal and communications forum for community managers and supporting organisations.

b. Co-management

Do you have co-management arrangements in place for your marine reserves? If so, start thinking about what they are, and what works for you in preparation for workshop and field trip discussions on this topic. There will be some interactive exercises to help guide your thinking and possible way forward.

Is there any other topic you would like to raise during the meeting?

YES NO

If yes, please indicate which topic and the reason why you would like to raise it:

[Insert text here]

4. Please list relevant publications, reports you have been released since the last meeting.

Title (incl. author and date)	Type of publication (Paper, report etc.)
Ateweberhan, M., Chapman, J., Humber, F., Harris, A. and Jones, N. (2011) Bacalar Chico: Belize Barrier Reef's northernmost marine reserve. Too Precious to Drill: the Marine Biodiversity of Belize. Fisheries Centre, University of British Columbia.	Report
Barnes-Mauthe, M., Oleson, K.L.L and Zafindrasilivonona, B. (2013) The total economic value of small-scale fisheries with a characterization of post-landing trends: An application in Madagascar with global relevance. Fisheries Research, 147 pp 175-185	Paper
Benbow, S., Harris, A. and Humber, F. (2011) Managing Madagascar's octopus fisheries. Proceedings of the Workshop on Octopus cyanea fisheries. Blue Ventures Conservation Report.	Report
Chapman, J.K. 2012. Status of marine resources in Bacalar Chico Marine Reserve 2011. Blue Ventures Conservation Report.	Report
Cripps, G. (2011) To live with the sea in Madagascar. SWARA pp 48 - 51.	Article
Cripps, G. (2011) Feasibility study on the protection and management of the Barren Isles ecosystem, Madagascar. Blue Ventures Conservation Report.	Report
Endeva, C.G., Krämer, A. and Winkler, J. (2012) Business Case for Adaption; Wealth of the Oceans: Blue Ventures, Madagascar. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Case Study.	Report
Guest, J.R, Baird, A.H., Maynard, J.A, Muttaqin, E., Edwards, A.J., Campbell, S.J., Yewdall, K., Affendi, Y.A. and Chou, L.M (2012) Contrasting Patterns of Coral Bleaching Susceptibility in 2010 Suggest an Adaptive Response to Thermal Stress. PLoS ONE 7 (3): 1 - 8.	Paper
Hantanirina, J.M.O. and Benbow, S. (2013) Diversity and coverage of seagrass ecosystems in south-west Madagascar. African Journal of Marine Science 35 (2): 291-297	Paper
Harris, A. (2011) Out of sight but no longer out of mind: a climate of change for marine conservation in Madagascar. Madagascar Conservation and Development 6 (1), 7 - 14.	Paper
Harris, A., Mohan, V., Flanagan, M. and Hill, R. (2012) Integrating family	Paper

planning service provision into community-based marine conservation. <i>Oryx</i> 46 (2): 179 - 186.	
Humber, F. and Hykle, D. (2011) Report on the workshop for the adoption of a management and conservation plan for marine turtles in Madagascar. Blue Ventures Conservation Report.	Report
Jones, B. (2012) Socio-economic Monitoring: A baseline assessment of the fishing villages of the Kirindy-Mite MPA. Blue Ventures Conservation Report	Report
Jones, N., Ateweberhan, M., Chapman, J., Humber, F. and Gough, C. (2011) Bacalar Chico Marine Reserve 2010: a survey of the coral reefs in Bacalar Chico Marine Reserve, Belize. Blue Ventures Conservation Report.	Report
Le Manach, F., Andriamahefazafy, M., Harper, S., Harris, A., Hosch, G., Lange, G.-M., Zeller, D., Sumaila U.R. (2012) Who gets what? Developing a more equitable framework for EU fishing agreements. <i>Marine Policy</i> .	Paper
Le Manach, F., Gough, C., Harris, A., Humber, F., Harper, S. and Zeller, D. (2012) Unreported fishing, hungry people and political turmoil, the recipe for a food security crisis in Madagascar? <i>Marine Policy</i> 36, 218 - 225.	Paper
Le Manach, F., Gough, C., Humber, F., Harper, S. and Zeller, D. (2011) Reconstruction of total marine fisheries catches for Madagascar (1950-2008) Fisheries catch reconstructions: Islands, Part II. Fisheries Centre, University of British Columbia.	Paper
Raberinary, D. and Benbow, S. (2012) The reproductive cycle of <i>Octopus cyanea</i> in southwest Madagascar and implications for fisheries management. <i>Fisheries Research</i> 125-126:190- 197.	Paper
Rougier, R., Ateweberhan, M. and Harris, A. (2013) Strategies for improving survivorship of hatchery-reared juvenile <i>Holothuria scabra</i> in community-managed sea cucumber farms SPC Beche-de-mer Information Bulletin 33 pp 14-22	Paper
Mora et al (2011) Global Human Footprint on the Linkage between Biodiversity and Ecosystem Functioning in Reef Fishes. <i>PLoS Biology</i> , Vol 9 (4), 1 - 9.	Paper
Sauer, WHH., Potts, W., Raberinary, D., Anderson, J. and Sylvio Perrine, M. (2011) Assessment of current data for the octopus resource in Rodrigues, western Indian Ocean. <i>African Journal of Marine Science</i> 33 (1), 181 - 187.	Paper
Vincent, I.E., Hincksman, C.M, Tibbets, I.R and Harris, A. (2011) Biomass and Abundance of Herbivorous Fishes on Coral Reefs off Andavadoaka, Western Madagascar. <i>West Indian Ocean Journal of Marine Science</i> 10 (1), 83 - 99	Paper
Westerman, K. and Gardner, C.J. 2013. Adoption of socio-cultural norms to increase community compliance in permanent marine reserves in southwest Madagascar. <i>Conservation Evidence</i> (10), pp. 4-9	Paper
Westerman, K., Oleson, K.L.L and Harris, A. 2012. Building socio-ecological resilience to climate change through community-based coastal conservation and development: Experiences in southern Madagascar. <i>Western Indian Ocean Journal of Marine Science</i> Vol. 11, (1), pp. 87-97	Paper
Westerman, K. 2012. Expansion of community based marine conservation in the WIO. <i>WIOMSA Magazine</i> (5), pp. 9-12	Article

5. Please indicate upcoming coral reef-related meetings you or your organisation will attend

2nd Global Conference on Land - Ocean Connections (GLOC-2) October 2- 4 2013,

Montego Bay, Jamaica

17th meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) of the Convention on Biological Diversity (SBSTTA-17), 14-18 October 2013 Montreal, Canada

2nd Global Marine World Heritage Site Managers Conference, 17-20 October 2013, Corsica, France

International Marine Protected Areas Congress, 21-27 October 2013, Marseille, France

9th Pacific Island Conference on Nature Conservation and Protected Areas, 2-6 December 2013, Suva, Fiji

Other: [\[Insert text here\]](#)

2013 World Seafood Congress, 28 September–3 October 2013, St Johns, Canada

Eighth WIOMSA Scientific Symposium, 28 October - 3 November 2013, Maputo, Mozambique

International Population, Health, and Environment Conference, 11-12 November 2013, Addis Ababa, Ethiopia

International Conference on Family Planning, 12-15 November 2013, Addis Ababa, Ethiopia

Community based aquaculture in the western Indian Ocean: challenges faced and lessons learned (workshop), 9-11 December 2013, Zanzibar, Tanzania