



# EBM KUBULAU BULLETIN



VOL. 10. SEPTEMBER 2009

Ni sa bula vinaka! Welcome to the tenth edition of the WCS EBM Kubulau Bulletin. The bulletin brings together news and results from ongoing activities by the Wildlife Conservation Society within the Kubulau area.

## ROADSHOW OF THE KUBULAU PLAN

On the 3<sup>rd</sup> of September, Akanisi Caginitoba, Thomas Tui and Sirilo Dulunaqio left for Kubulau to complete the final stage of the management plan activity for 2009; the ridge-to-reef management plan roadshow.

The roadshow of the ridge-to-reef plan was conducted to raise community awareness. "It is critical to have a greater outreach of the community actions and the various management rules for the natural resources of Kubulau" said Thomas Tui, assistant director for Wildlife Conservation Society-Fiji.

Rules were explained to each village, who were all given copies of the ridge-to-reef management plan that was signed by the various Turaga ni Yavusas from Kubulau to show their support and endorsement towards protecting and managing their natural resources.

Management rules and community actions posters were also distributed to all villages and a copy was put up at each village community hall. "It is important for every member of the community to be aware of the management rules and actions. This will contribute to greater returns and better management of resources", said Ravulolo Vasukibau, chair of the protected area and resource management sub-committee.

These activities were done in the evening at the community hall during kava sessions. It was also a good opportunity for the villages to clarify certain doubt on resource management in Kubulau.



Thomas Tui and Akanisi Caginitoba in Kubulau during the roadshow of the ridge-to-reef plan.

"This is good for the people of Kubulau and now we know what to expect as we have our resource management bible" Apisai Naulu said.

"This was extensive but also exciting as we got to meet people who helped us put together this extensive document, and caught up with laughs and stories around the kava bowl" commented Thomas.

### KEY EBM MESSAGES:

*Preservation of functional integrity of Fiji's ecoscapes through community based management.*

- Successful EBM relies on cross sectoral planning and management
- Inland and lowland communities need to manage resources together
- EBM protects habitat for all stages of life
- Improving land and fishing practices helps protect natural resources
- Public health and livelihoods depend on environmental health

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## KRMC TRAINING

In August the Kubulau Resource Management committee (KRMC) members gathered in Namalata to attend the implementation training conducted by WCS team.

This training was designed to: confirm roles and membership of KRMC sub-committees; review management actions identified in the ridge-to-reef plan; allocate responsibility for the management actions to various KRMC sub-committees; prioritize and develop start times for the actions; identify knowledge, skills, and resources needed to implement the actions.

Apart from this, internal and external

communication within Kubulau, gazetted of marine protected areas, and compliance and monitoring were also discussed.

“We will seek endorsement of the sub-committees from the *Bose Vanua* and the first task after endorsement will be to schedule a meeting of the different sub-committees to set in place a structure for reporting” said Paulo Kolikata, chairman of the KRMC.

Paulo also commented that “I’m happy this training workshop has been conducted and now KRMC and the various sub-committee will be better do it’s allocated tasks”.



Paulo Kolikata, chairman of the KRMC with members present at the sub committee training workshop.

## ANCHOR MOORING IN KUBULAU

THE GOAL OF ECOSYSTEM-BASED MANAGEMENT IS TO MAINTAIN AN ECOSYSTEM IN A HEALTHY, PRODUCTIVE AND RESILIENT CONDITION SO THAT IT CAN PROVIDE THE SERVICES HUMANS WANT AND NEED.

In early October 2009, six moorings were installed within the Namena Marine Reserve.

This project was a threat reduction initiative to prevent anchor damage to the delicate coral reefs and the world class dive sites that attract divers from all over to visit the beautiful reefs within the Kubulau Qoliqoli!

Anchor damage is caused when a dropped anchor lands on the reef. The anchor not only kills corals, which provide shelter to fish and invertebrates, but can also kill other animals that are unfortunate enough to be where the anchor lands.

The serious issue of heavy anchor damage to the coral reefs and dive sites in the Kubulau Quoliqoli was voiced at a Namena Marine Reserve Stakeholder Committee meeting, along with a request for action.

In response, the Coral Reef Alliance raised the necessary funds for the installation of these moorings, with generous contributions from The Mar Viva Foundation, Greenforce, Jean Michel Cousteau Resort, and Aggressor Fiji Ltd.

Tui Kubulau has formally requested that

the Namena Marine Reserve be considered an ‘Anchor Free Zone,’ and that all visiting dive boats make use of the new heavy-duty moorings.

Earlier in the year, three near-shore moorings were installed, making the five coastal villages of Raviravi, Namalata, Navatu, Kiobo, and Natokalau accessible to dive operators.

Village visits for dive tourists were trialed in three of these villages by Nai’a Cruises, which everyone thoroughly enjoyed. It is hoped that in the future, more dive operators will make use of these moorings to join in the village visit fun!



Anchor moorings are marked by buoys, such as this shown in the picture.



Anchor damaged coral reefs from Ningaloo reef in Western Australia

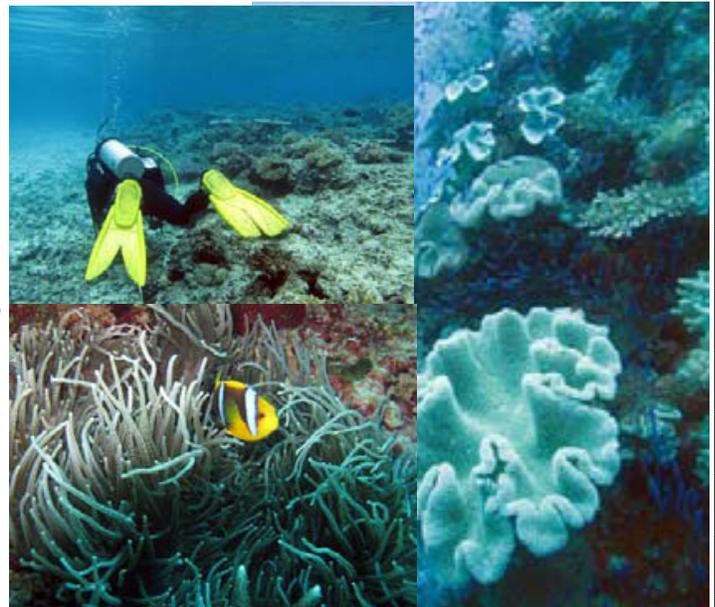
## HABITAT MAPPING

In September, the WCS marine team with Dr. Chris Rolfsema and Anders Knudby conducted a series of habitat surveys in Kubulau. Dr. Rolfsema is helping WCS make habitat maps of traditional fishing grounds, while Anders Knudby will use the habitats maps made by Dr Rolfsema together with WCS field data to develop spatial models of fish assemblages.

This type of information is critical in understanding and predicting what fish are associated with each habitat. By developing habitat maps based on satellite imagery, it is also possible to monitor how habitats change over time.

All of these information are important in helping communities make the most informed decision to better manage their marine resources.

As more information is available, the Kubulau Resource Management Committee (KRMC) will be updated to help them make better resource management decisions.



Habitat pictures from Kubulau

## KIA HARVEST

In September 2008, the WCS field team conducted surveys of fish size and abundance inside and adjacent to the Kia Island tabu. Following the initial survey, the 3 villages of Kia opened the tabu for a fundraiser.

WCS returned to repeat the surveys in October following four weeks of intensive fishing. The results show that before fishing, there was a natural gradient of fish size and abundance, with more abundant large fish in the north part of the tabu and very few fish of mainly smaller sizes in the control area (Figure 1, left).

Following the harvest, the gradient disappeared (Figure 1, right), as many fish from targeted families of trevally, surgeonfish, snapper, emperor and parrotfish were removed for food and for sale.

WCS has just completed another survey of the Kia tabu one year later to assess whether there has been recovery of fish communities.

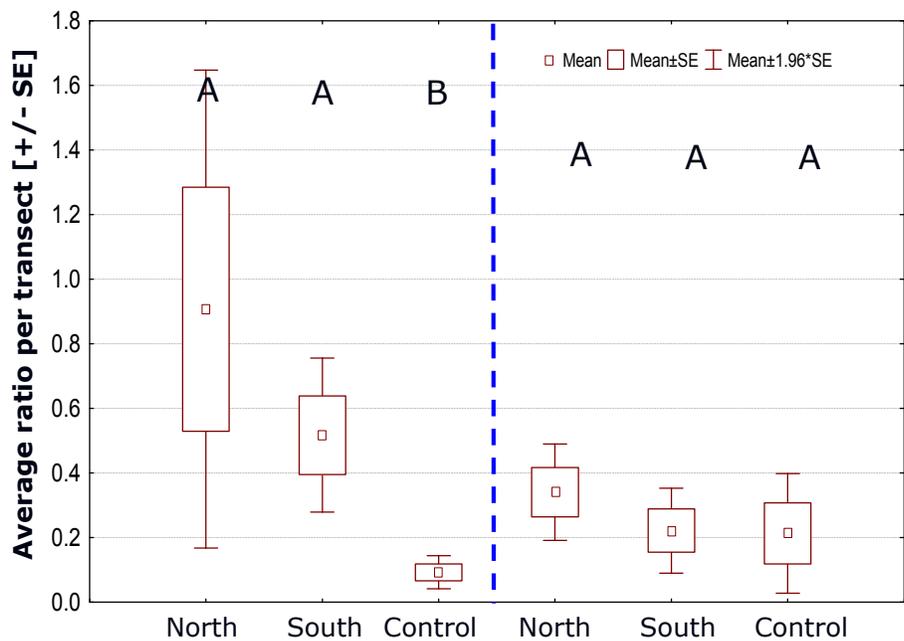


Figure 1. Ratio of the number of fish bigger than 25 cm versus the number of fish less than 25 cm. The left side shows abundance prior to harvesting in the North part of the tabu, the South part of the tabu, and the control areas open to fishing South of the Tabu. The right side is after the harvest.

FIJI ECOSYSTEM BASED  
MANAGEMENT (EBM) = HEALTHY  
PEOPLE, PROCESSES AND SYSTEMS

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## ONGOING AND UPCOMING EVENTS

- **Sep 09**-Roadshow of the Kubulau 'ridge-to-reef' plan to 10 villages in Kubulau.
- **Sep 09**-Kubulau ground truthing survey trip.
- **Sep 09**-Biological survey in Kia.
- **Sep 09**-next EBM Kubulau bulletin.
- **Jan 10**-Consultations with communities on terrestrial protected areas.

## WET SEASON SURVEY WI-O

The survey for the wet and dry season for the two major catchments in the district of Kubulau, Bua was undertaken in November 2005 (Dry season) and April 2008 (Wet season) by the Wetlands International-Oceania's field team.

To summarize the two seasons and the two catchments, there were:

- 48 different fish species recorded
- 37 species were found in the lower catchments
- 16 species were found in the middle catchment
- 4 species were found in the upper catchments
- 3 endemic species were found in the upper Kilaka River
- There was no introduced species recorded in both the catchments, except for the Wacua Lake which had introduced species of tilapia (*Oreochromis mossambicus*)

There was a lot more species recorded during the wet season when compared to dry season and this is probably due to the increase in the volume of water in river systems which allows for species migration along the two rivers.

By studying the movement of fish between wet and dry season, we can further identify important areas that can be added under protection.



The wet season survey team

## ANY QUESTIONS...?

Please send your questions and letters to the EBM Bulletin Editorial Team, using the contact details above. The deadline for submissions to the next newsletter is Monday 5<sup>th</sup> November 2009. Please contact the Editor for further details.

### TAQOMAKI NI NODA VEIKABULA



The Wildlife Conservation Society (WCS) is a U.S. based international NGO, with conservation programs all around the world, including Fiji. Over the past century, the WCS has worked to establish more than 130 parks and protected areas on land and at sea as well as working on threatened species. WCS works to save wildlife and wild places by understanding and resolving the critical problems that threaten key species and large, wild ecosystems around the world.

Our "Ecosystem-based Management" work is funded by the David and Lucile Packard Foundation and the Gordon and Betty Moore Foundation, which started in 2004. It is led by WCS, with the partners of the World Wide Fund for Nature - Fiji, Wetlands International, and the University of the South Pacific. A second EBM site is at Macuata, to the north. This newsletter focuses on the work led by WCS at Kubulau.

