Northern shores of Roebuck Bay. Image from 'Life Along Land’s Edge'. © Jan Van de Kam.

SEPTEMBER 2008

shika no ula
inishie no shio
sonomamani

Roebuck Bay
tides are as they used to be
and always will be

Haiku courtesy Takako Biber
**Exciting News!**

The Roebuck Bay Working Group (RBWG) has won a major State Award.

The State Coastal award was presented to Yawuru Traditional Owner Neil McKenzie and RBWG Project Officer Kandy Curran at the 4th State Coastal Conference in November 2007. With a large number of impressive entries in the *Outstanding Community Group Effort* category, members of the RBWG are ecstatic their considerable efforts in community driven management planning have been acknowledged and Roebuck Bay is receiving much needed recognition of its high cultural and ecological values.

**So what has the RBWG achieved since 2004 to attract such a prestigious state coastal award******

**A Brief History**

The RBWG now boasts 34 members and these include Yawuru Traditional Owners, representatives from conservation, ornithology, government agencies, commercial pearling and fishing, local government and Broome community. Without any management plan to protect Roebuck Bay into the future, the group formed in 2004 with the aim of progressing a community based management plan to protect the unique environment and compatible uses. The RBWG’s success is based on a commitment to Traditional Owner and community involvement in management planning and dedication to building local capacity to care for the natural and cultural heritage of Roebuck Bay. RBWG achievements thus far include:

**Roebuck Bay Management Planning**

- Designing integrated management planning process for Roebuck Bay inclusive of Traditional Owners and the community;
- Securing resources to complete a long term scope of planning works;
- Raising awareness of shorebird conservation and protection;
- Mapping community values and issues;
- Producing Interim Management Guidelines (flyers to be published in 2008);
- Progressing a community based Management Plan for the Crab Creek area (inclusive of the Ramsar area), with work currently underway.
What has the RBWG Been Doing?

Building capacity and education
The RBWG has been making considerable efforts to increase understanding of Roebuck Bay and build local involvement in its care. Examples include:

• Flyers and signage on Roebuck Bay cultural and ecological values;
• Involvement in ‘Celebrate the Bay’ Forum in Broome in 2004 and 2006;
• Formation of RBWG Sub-Group to address Lyngbya blooms in bay (2006/7/8);
• Co-hosting a Lyngbya Forum to inform the community about algal blooms in bay;
• Two entries in WA Coastal Awards to build capacity/education about the bay;
• Media output in newspapers and magazines about Roebuck Bay;
• Promoting on-ground projects: Australian Wader Study Group (BBO), Mud Sampling (BBO), Bird of Prey Monitoring (BBO), Seagrass Monitoring (EK);
• Producing a biannual RBWG Newsletter to build capacity and education.

Management Planning for the Crab Creek area of Roebuck Bay
The RBWG is currently developing a values based management plan for the Crab Creek area in consultation with Traditional Owners, key stakeholders and the community. The plan will consider ecological, social and cultural values of the area, the pressures acting upon those values and appropriate management responses/actions for implementation. A draft management plan will be completed by December 2008. The consultants carrying out the work are Sharon Griffiths and Associates in association with Dave Deeley (Acacia Springs Environmental) and Yawuru Traditional Owner Neil McKenzie. The team can be contacted through the project manager, Sharon Griffiths on 08-9192 2225 or email ccmp1@westnet.com.au
As children you couldn’t get us kids out of the water, we’d stay till the tide would leave us. When the tide came in we’d go fishing. We didn’t expect mum and dad to cook the fish. All the little boys when they were at school and could see the tide was in, would come down with their spears and go and spear a fish, cook it on the beach. I loved to fish at the back of DEMCO for salmon.

We would go down to McDaniel foreshore near Buccaneer Rock, looking for cockle shells and crabs. We would pick them up from the mud, we’d dig in between the rocks. We’d give the ngajimana (cockles) a good wash to clean them. Ngajimana are a favourite seafood, a main food. You boil it up, the fluid is nice in the shell like a soup and it tastes nice. They are good for anyone feeling sick, coming down with the flu, crave for something from the sea so you would go and clear yourself by eating cockles. Other shells that were good were bunymen a little white/brown mussel, lot of meat in it - you would pull it out from the rocks.

The crabs, sometimes pull them out with a hook, put them on their back and then grab by the claws. They would be right to pick up when its neap tide. When low tide more deeper. High tide close to the rocks – they move around. There was plenty crab back in the 50’s. We’d go out and fill a bag with crabs, only collect in season time. With so many people coming to town, they are more scarce.

Roebuck Bay really important in our childhood – is still important to us. If you have no money, you could always go down to collect shells or crab, get a feed there. You could go fishing for catfish, bream or salmon. Really important to look after the food source, it’s in the mud too, keep all those shells together, keep the mud safe. I’m concerned about pollution in the bay, over fishing, go out on the weekend see so many boats around. Some are out just to have good fun, some catch too many.

The bigger fish, the females, are the ones who carry eggs - taking those fish destroys the eggs. When fish have their eggs, no flavour in their flesh. Only eat when they have flavour, so follow the seasons. Most Aboriginal people don’t have boats, have to walk to where we fish. Can’t go out like in the old days and fish. Handy with a spear too, spear a stingray or something. We’d cook the crabs and salmon on the fire, more flavour with the mangrove wood. Often we see dolphins bringing in the fish chasing right into the shallow water. Got to protect the bay.
Human Impacts on Roebuck Bay

Toxic Blue-green Algae
DEC in collaboration with the RBWG, are investigating toxic blue-green algae Lyngbya (*Lyngbya majuscula*) in Roebuck Bay. Lyngbya occurs naturally in areas across much of the tropical zone, however can bloom in response to elevated nutrient inputs. The seasonally high level of Lyngbya is of great concern for the natural ecosystem, recreational activity and fishing, as this particular species can be severely toxic at stages in its growth leading to impacts on wildlife and symptoms in humans who come in contact with the blooms. Lyngbya competes with seagrass leading to a reduction in density and adversely impacts on fish, dugong and turtles.

DEC is carrying out investigations to determine the extent of the threat as well as likely sources of nutrient drivers. Findings from studies in 2003, using stable isotopes of carbon and nitrogen to identify the main sources of energy driving the food webs in the bay, show elevated nutrient levels in waters adjacent to the town. The source of enrichment is currently unknown but could be related to urban run-off and or groundwater discharge from the Broome Township.

At least 20 surface water drains have been found to be carrying urban run-off into the intertidal zone and remedial action may be required to manage adverse water inflows and high level nutrients brought into the bay during the first rains. There are also indications that groundwater may be carrying nutrients into the bay. DEC has begun investigations to assess nutrient loads carried by surface water drains. Further investigations are underway in collaboration with DEC and Water Corp to assess a number of shallow bores to measure nutrient loads leaching into the bay. The key message is that Lyngbya is a natural organism that appears to have become more evident in recent years. Clumps of algae on beaches should be avoided.
Human Impacts on Roebuck Bay

Thorough Cleanup of Crab Creek Foreshore and Bushland
Two major cleanups of rubbish from the Crab Creek foreshore and surrounding bushland have resulted in 355 cubic metres of rubbish removed. The first clean up on Saturday March 27th 2008, coordinated by the DEC, the Broome Bird Observatory and RBWG, attracted 30 plus volunteers which was great to see. Many rubbish items however were too large for volunteers, so RBWG member Peter Biber approached DPI for a grant of $30,000 for the removal. Fortunately DPI was able to provide the necessary grant funds and 350 cubic metres of rubbish - which had been rotting away on the Ramsar listed foreshore and surrounding bushland, was removed. The cleanup has been very thorough so A BIG THANK YOU TO EVERYONE INVOLVED.

Kimberley Cleanup of Crab Creek foreshore. Image: © Kandy Curran.

Some of the large rubbish items removed from Crab Creek with grant funds sourced from DPI.
**Wanted!**

**VOLUNTEERS** for RBWG member projects in Roebuck Bay that are WORTHWHILE and lots of FUN

Volunteer releases a Bar-tailed Godwit for AWSG. Image: © Kandy Curran

**Shorebird Research (Australian Wader Study Group/Global Flyway Network)**

Our group regularly undertakes research into the migratory shorebirds of Roebuck Bay. These shorebirds breed in the northern hemisphere, as far away as Siberia and spend the remainder of their year here in the bay. The main activity is the capture, banding and release of birds for survival and migration studies. It is a privilege to hold these magnificent travelers in your hand. Newcomers are very welcome and will be given instruction in handling birds. The work is hot and hard and immensely rewarding!

Contact: Chris Hassell P (08) 9192 8585, email: turnstone@wn.com.au website [www.awsg.org.au](http://www.awsg.org.au)

Chris Hassell banding a migratory shorebird. Image: © Kandy Curran.

**Mud Sampling (Broome Bird Observatory)**

Each month a small team takes mud samples at two sites in Roebuck Bay, which has the richest biodiversity of any mudflat in the world. These samples are sorted in the Broome Bird Observatory's 'mud lab', and then sent to a specialist team in the Netherlands for identification. Long term monthly sampling enables the monitoring of seasonal and annual changes in invertebrate abundance. Everyone is welcome to join the sampling sessions.

Contact: Jon and Anne King (08) 91935 600, email bbo@birdsaustralia.com.au website [www.broomebirdobservatory.com](http://www.broomebirdobservatory.com)

Blue-spotted Mudskipper in the mudflats of Roebuck Bay. Image: © Chris Hassell.
Volunteers for RBWG Member Projects in Roebuck Bay

Bird of Prey Monitoring (Broome Bird Observatory)
Roebuck Bay is listed under the Ramsar Convention as a wetland of international significance due to its importance for migratory shorebirds. Fifty percent of disturbance to shorebirds is caused by birds of prey and there is anecdotal evidence that bird of prey numbers are increasing. BBO aims to establish baseline data on bird of prey numbers and movement patterns within this Coastwest funded project. Monitoring involves strolling along the bay's northern shores once a month to count birds of prey. The final survey for the one-year project is 20 September, so don't miss your last chance to help out. No prior knowledge of birds is necessary.

Contact: Jon and Anne King (08) 91935 600 or email bbo@birdsaustralia.com.au website www.broomebirdobservatory.com/

Bird of prey disturbs a flock of migratory shorebirds. Image: © Jan Van der Kam.

Seagrass Monitoring (Environs Kimberley)
Under the guidance of a team leader, volunteers from the Broome community meet every three months to monitor seagrass cover in the Bay. Inevitably the many unique marine creatures, dugong trails and peculiar animal tracks and traces divert our attentions temporarily, but ushered by the tide, our monitoring objectives are usually met within two hours at each of our three sites. New volunteers are always welcome, both adults and children, no experience necessary.

Contact: Environs Kimberley (08) 91921922 or email envrkimb2@westnet.com.au

Volunteers involved in seagrass monitoring on Roebuck Bay. Image: © Fiona Galloway.
Marine/Coastal Research in Roebuck Bay and the Region

Tracking Bar-tailed Godwits on their Incredible Northward Migration
Local and international scientists gathered at the Broome Bird Observatory in February this year (BBO) to insert satellite transmitters into 15 migratory Bar-tailed Godwits. This exciting research follows on from 2007 when a Bar-tailed Godwit, infamously known as E7, was satellite tracked (a scientific first for a bird this size), flying non-stop from Miranda in New Zealand to northern China (10,000 km) then to Alaska (6,000 km) and after breeding, back to New Zealand clean across the Pacific Ocean (11,700 km). The Godwits which were released at Roebuck Bay in February 2008 will enable scientists and the global community to watch their incredible migration between their non-breeding grounds in Broome and breeding grounds around Yakutia in Siberia. An important component of the collaborative research, organised by Chris Hassell representing the Global Flyway Network and Australian Wader Study Group in Broome, is to learn more about the global migration patterns of declining shorebird species in the Pacific Basin. To track the journey of these remarkable ‘travelling birds go to: www.globalflywaynetwork.com.au

![Satellite flagged Bar-tailed Godwit with aerial protruding beyond its tail feather. Image: © Jan Van de Kam.](image1.jpg)

Sawfish Rostrum Project
A population genetics research project is currently being conducted by Murdoch University in the Kimberley including Roebuck Bay. Phone Nicole on 9360 2813 or email fish@murdoch.edu.au

![Uca flammula on Roebuck Bay’s fertile mud flats Image:© Chris Hassell.](image2.jpg)
Who are Members of the RBWG?

Current RBWG Member List (33)
Australia Wader Study Group/Global Flyway Network: Chris Hassell.
Broome Bird Observatory (BBO), Birds Australia (BA): Jon & Anne King.
Broome Port Authority (BPA): Vic Justice.
Broome Shire Council (BSC): Darryl Butcher, Elsta Foy, Peter Matsumoto.
Broome Visitor Centre (BVC), Australia’s NW Tourism (ANWT): Roger Colless.
Kimberley Prof. Fishermen’s Association (KPFA): Milton Cormino, Bob Masters.
Department for Planning & Infrastructure (DPI): Peter Biber, Pam Baskind.
Department of Environment and Conservation (DEC): Alan Byrne, Sharon Ferguson, Fiona Galloway, Troy Sinclair.
Department of Fisheries: (DoF) Rachael Green.
Environ Kimberley (EK): Maria Mann.
Kimberley Land Council (KLC): Jane Blackwood.
NRM Coordinating Group (NRM): Melissa Coates.
Pearl Producers Association (PPA): James Brown.
Roebuck Plains Station: Sarah Miller.
Thangoo Station: John Grey.
Volunteers: Danielle Bain, Beau Bibby, Jason Fowler, Tegan Gannaway, Jan Lewis, Grant Pearson, Bianca Priest.
Water Corp (WC): Anthony Bodycoat.
WWF Australia (WWF): Tanya Vernes.

Wanted!! ACTIVE Members
Anyone interested in joining the Roebuck Bay Working Group, please contact:

RBWG Project Officer Kandy Curran
P (08) 91940155
E roebuckbay@klc.org.au

Disclaimer
The Roebuck Bay Working Group has made every effort to verify all facts in this newsletter.