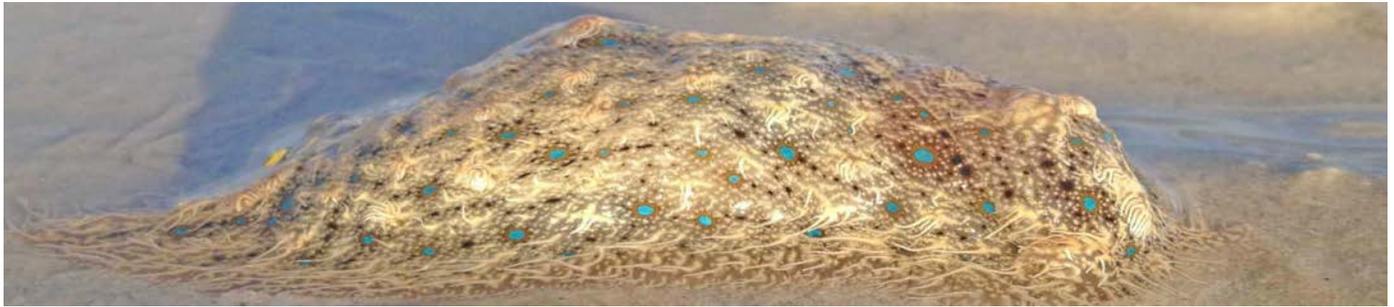


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World-renowned Roebuck Bay becomes a marine park

The much anticipated [Yawuru Nagulagun Roebuck Bay Marine Park and Yawuru Birragun Conservation Park](#) was announced in Broome on October 7, 2016. The parks signify a major milestone in the conservation and management of Yawuru sea country, including the world's most productive tropical intertidal mudflats, which are the feeding grounds for migratory shorebirds (gamirda-gamirda).

The ten year marine park management plan covers 78,840ha from Gantheaume Point to Cape Villaret. The Yawuru Nagulagun Marine Park will be jointly managed by Parks and Wildlife and the Yawuru Registered Native Title Body Corporate, providing a boost for conservation, tourism and jobs for Yawuru people to manage their sea country. The Class A Marine Reserve has seven management programs with prioritised strategies.

The Birragun Conservation Park covers 19,120ha of land outside the Broome townsite and includes parts of the Roebuck Bay Ramsar site and National Heritage area. The conservation park will be jointly managed for the purpose of conservation, recreation, and traditional and customary Aboriginal use by Parks and Wildlife and Yawuru Registered Native Title Body Corporate.

Congratulations to Yawuru people who worked collaboratively with Parks and Wildlife to develop management plans for the parks, and to the RBWG who developed preliminary community based management plans for Roebuck Bay (2004-2010). Christopher Nutt, who has commenced work as the new Parks and Wildlife Marine Park coordinator, brings the perfect mix of experience, having written the plan for the marine park.



KICKING BUTTS WITH NEW APPROACH TO MARINE DEBRIS

With the productive waters surrounding Broome receiving a never-ending stream of litter, RBWG enlisted Tangaroa Blue Director, Heidi Taylor, to run a [Source Reduction Workshop](#). As Heidi explained in Broome on October 20, "If all we do is clean-up, that's all we'll ever do. Understanding where litter and marine debris comes from, enables us to tackle the release at the source, reducing the amount of litter entering the beautiful Broome environment in the first place."



Workshop attendees agreed to use Tangaroa Blue [Source Reduction Plans](#) for future clean-ups, to provide consistent data on the types and amounts of debris and help track the sources of litter. So what is the data telling us from recent litter collections in Broome? The top item on Roebuck Bay's foreshore (townsite) is glass; whilst on Cable Beach, it is cigarette butts. Overall, however it's plastics at the top of the litter pile – on Roebuck Bay 52 percent of the litter is plastic and on Cable Beach 83 percent.

The State will introduce a [Container Deposit Scheme](#) (10 cents back on drink containers) in mid-2018, however there are no plans to ban single use, singlet style plastic bags such as in SA, NT, ACT and TAS. If concerned, send letters to the Environment Minister, asking for a WA Container Deposit Scheme and plastic bag ban.

Sponsors Rangelands NRM Landcare program, State NRM and Tangaroa Blue

STUDY OF WORLD'S RICHEST INTERTIDAL MUDFLATS ON FILM

RBWG has made another great film, this time about the remarkable benthic life of Roebuck Bay and Eighty Mile Beach. With a benthic mapping expedition underway on the intertidal mudflats of Roebuck Bay and Eighty Mile Beach in October 2016 to amass a data set of the benthos, it was timely for filmmaker Paul Bell to film Yawuru Rangers, scientists and volunteers sieving mud from 2,000 sites.

Incredibly, topshells, mudwhelks and snails reach an abundance of 3,000 per sqm in Roebuck Bay's rich mudflats.



Bivalves are plentiful too, with 30 different species. Surprisingly, the most abundant and diverse animals are worms. These invertebrates are superfoods for migratory shorebirds, replenishing fat stores for their annual life cycle on the flyway. The film shows the importance of benthic animals for migratory shorebird's life cycle, the interconnectedness of Roebuck Bay and Eighty Mile Beach Ramsar sites, and importance of baseline data to inform the management of the marine parks and Ramsar sites. The film will be shown at the Film Fest and Sun Pictures in 2017.

Film sponsors: Rangelands NRM and State NRM through Royalties for Regions

PEARL SHELL, TOADS, TIDES, CROC AND BENTHOS ALLURE

The Science on the Broome Coast presentations in the second half of 2016 attracted record audiences. The presenters covered a fascinating array of research projects including, [Northern Australia's ancient mother of pearl industry](#), [Taste aversion training of goannas to avoid cane toads](#), [Kimberley tidal movements and ocean currents](#), [Estuarine and freshwater crocodile populations in the Kimberley](#) and [The remarkable animals in the mudflats of Roebuck Bay and Eighty Mile Beach](#).

The presentations were held at the University of Notre Dame, with the exception of the National Science Week event, which attracted more than 250. Indeed, [Kimberley tides and ocean circulation](#) was held at Town Beach on a sublime starry evening in August, with a backdrop of the ebb and flow of a Kimberley macrotide across the mudflats of Roebuck Bay. To read the stories from the 2016 Science on Broome Coast presentations, go to [Science Network WA»](#) and [WA Marine Science Institution»](#)

The 2017 Science on Broome coast program will be out shortly on the [Roebuck Bay Working Group website](#).

Sponsors: Inspiring Australia, Rangelands NRM, State NRM through Royalties for Regions, WA Marine Science Institution, Parks and Wildlife, University of Notre Dame.



COMMUNITY STENCILLING

Sixty people from the Broome community have painted azure Keep Our Bay Clean stencils on Broome's footpaths to raise awareness of the onerous connection between nutrient enriched stormwater runoff and blooms of Lyngbya in the Bay. [Media stories](#), a short film and posters have been developed to show just how many people care about Roebuck Bay's water quality and marine life, and to remind everyone to **'do their bit'**. This means keeping rubbish and nutrients (fertiliser, garden waste, sewerage, carwash



detergents, animal faeces) out of Broome's stormwater drains as they discharge this pollution directly into Roebuck Bay. The other important **'little bit'** is to [Coastal Garden to keep Broome's waters clean healthy »](#) This is simply, growing native plants, mulching heavily and trapping rainwater using depressions and swales to reduce nutrient enriched runoff entering Roebuck Bay and feeding toxic blooms of Lyngbya.

Sponsors Rangelands NRM National Landcare Program, State NRM & Royalties for Regions

PAINTING THE CREATURES IN THE SOFT WARM MUD

Over 100 school children had the novel experience of going out onto the richest mudflats in the world with Yawuru Rangers, wetland scientists and artist Angela Rossen (UWA) in the October Parks and Wildlife school holiday program. The students produced an amazing collection of artworks from their experiences on the Roebuck Bay's mudflats and looking at the fascinating invertebrates under microscopes. Their artworks were shown at the [Mudflats and Moving Pictures](#) event in Broome on October 21, 2016. This was followed by a re-screening of the 2015 MUD AND SALTwater SHORT FILM FEST.



Sponsors: Rangelands NRM National Landcare Program, State NRM, Royalties for Regions

2017 MUD AND SALTWATER SHORT FILM FEST

The biennial [Mud and Saltwater Short Film Fest](#) is off and running again, with State NRM funding to run the Fest in 2017, filmmaking workshops and develop a website. The categories have been expanded to include the Kimberley coast and Films from above (drones). Two re-screenings of the Mud and Saltwater Film Fest resulted in 1,000 people watching the films on the big screen in 2016. Go to the new [Mud and Saltwater Short Film Fest website](#) » for information about the film fest in 2017 including filmmaking tips, categories and watch the short films from the inaugural Film Fest in 2015.



Sponsors Rangelands NRM National Landcare Program, State NRM & Royalties for Regions

TEAMING UP WITH BROOME SHIRE

RBWG has applied for a State NRM Community Action Grant of \$36,000. With the Dakas Street stormwater drain eroded and a dumping ditch for garden waste and litter, and the surrounding area - a wasteland for antisocial behaviour, RBWG decided to collaborate with Broome Shire, schools and residents on the grant. If successful, a bush tucker trail will provide bushfoods and create pride in the reserve and natives planted at the top of the stormwater drain catchment, and reduce runoff and toxic *Lyngbya majuscula* blooms in Roebuck Bay which respond to nutrients in stormwater.



Sponsors State NRM Program through Royalties for Regions

MINISTER ASKED TO COMMISSION RELINE OF SEEPING PONDS

The RBWG Management Committee met with HON Mia Davies MLA on September 30, 2016 to request an urgent reassessment of works at Broome South Water Treatment Plant to reline one seeping holding pond and bring into disuse two others. Specifically, RBWG asked the Minister to commission the relining of all ponds (primary, secondary, tertiary) at Broome South Waste Water Treatment Plant (BSWWTP) to halt the seepage of nutrients from wastewater ponds into Roebuck Bay.



The main concerns raised in the letter:

- BSWWTP is an ageing plant (35 years old) not keeping pace with 'best practice' wastewater treatment e.g. zero risk of environmental pollution from seeping Secondary and Tertiary ponds lined with compressed pindan – not state of art lining technology.
- BSWWTP struggles to deliver requisite services according to best practice i.e. ongoing contamination from seepage and overflow of wastewater into Roebuck Bay in 2000.
- BSWWTP is located very close to Roebuck Bay - an international listed Ramsar site, National Heritage site and Nagulagun Roebuck Bay Marine Park. The sensitivity of the location increases the risk of impacts from seepage of pollutants into Roebuck Bay on water quality, marine life and the world-recognised Ramsar values. The most concerning impacts are from the blooms of 'Maidens Hair' (*Lyngbya majuscula*), which have been worsening over the last decade on the seagrass meadows downgradient of the plant. These toxic cyanobacteria blooms thrive on nutrients in wastewater.

KEY TO RBWG's SUCCESS

The success of RBWG events and projects in 2016 is due to collaborations, enthusiastic sponsors and active RBWG participation and support for projects. A big thank you to the RBWG Management Committee (Dr Alexander Watson, Jason Fowler, Grey Mackay, Julie Melbourne, Kandy Curran), RBWG members, and the sponsors of RBWG projects: Rangelands NRM, Inspiring Australia, State NRM, Royalties for Regions, Parks and Wildlife, WA Marine Science Institution, University of Notre Dame, Land Corp and Broome Shire.

Want to know more about Roebuck Bay and RBWG?

🚩 [LIKE and follow the RBWG Facebook Page »](#)

🚩 [Check out the new RBWG website »](#)

Disclaimer: RBWG has made every effort to verify all facts in this newsletter.

RBWG works to raise awareness and promote responsible management and protection of Roebuck Bay's natural and cultural values and status as a Ramsar and National Heritage listed wetland and Yawuru Nagulagun Roebuck Bay Marine Park.
