

Issue 3 - Spring 2019

Welcome to the third issue of Ngari Capes Marine Park News

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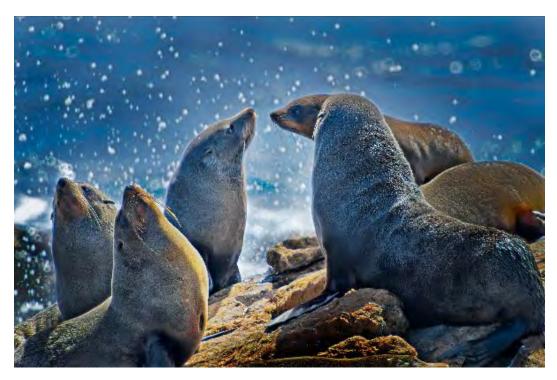
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Peak fur seal period at Cape Naturaliste

Local citizen scientist Mr Ian Wiese and Associate Professor Chandra Salgado Kent (<u>Edith Cowan University</u> and <u>Oceans Blueprint</u> continue to work together to keep an eye on the local long-nosed fur seal (previously known as New Zealand fur seal) colony off Cape Naturaliste.

From their observations over the last few years, they have found that more than 200 seals occupy the area near Bunker Bay at their annual peak in early September. The team will be

looking out for pups at the end of the year, although in past years there have been few sighted. They will also be keeping an eye out for entanglements, with fish hook entanglements sighted in recent years.



Above: Fur seals. Photo - Ian Wiese

Q&A with Ngari Capes Research Scientist Ben French

In the very first issue of *Ngari Capes News*, you might remember the segment on BRUVS (Baited Remote Underwater Video Stations). This program was led by Research Scientist Ben French. Footage collected from this expedition in February is still being analysed, however in the meantime Ben was happy to answer a few questions about the work he has been doing.



Above: Ben French deploying the pick-up rope attached to one of the BRUVS.

Why we do BRUVS? What can it show us?

BRUVS are used are a way of monitoring fish community ecology. They allow us to identify the different species present, their abundance and also their length using photogrammetry. This, in turn, allows us to estimate the age of the fishes present and the biomass which helps us understand the level of fishing pressure and other pressures affecting the communities. We can, therefore, quantify the effectiveness of sanctuary zones that restrict fishing and also measure broadscale changes due to ocean warming and climate change. The approach relies on long-term data sets, this means a one-off study is of limited use and repeated studies annually or every few years over a long time period give us enough data to understand trends in the condition of fish communities.

How often do we use BRUVS? What time of year is best and why?

The more data the better! Realistically every two or three years this program is completed. Summer is the best time of year. This is when the weather is reasonably reliable, allowing us to get out on the water and do the work. The lower levels of swell make the visibility better underwater and also there are historical data that we need to compare our data to, which were collected during the summer months.



Above: Deploying one of the BRUVS on board the PV Hamelin.

How long is the BRUVS process?

We collected 350 hours (175 hours stereo) over a five-day period. The time-consuming part is the video processing, which is nearly finished [hooray!]. Depending on the number of species and the number of individuals present the analysis takes months of time from a full-time technical officer/fish taxonomist.

What is the benefit of using this method over others?

The alternative method involves divers swimming along and noting down the fish they see. The advantage is the data is immediately produced as the diver writes it down. The downside of this is it relies on the subjective opinion of a particular diver; comparing data over long time periods can identify trends in diver expertise as much as it picks up trends in global warming or overfishing, which makes the data less reliable if you don't have the same staff over a ten or 20 year period. Also, if a diver is unsure that they correctly identified a particular species, they cannot go back and check. As well as this, some fish are scared of divers and may hide when they swim past BRUVS don't have any of these issues; the videos can be reanalysed and viewed over and over if different staff are unsure of species identities, the method also accurately calculates the fishes size rather than relying on diver estimates.

How long have we been running this program in NCMP?

The Parks and Wildlife Service completed their fist BRUVS expedition this year in February. However, UWA and DPIRD have over a decade of data collected at the same locations and using the same methods. Combining this data will allow us to look at decadal trends in fish abundance in the NCMP over periods of marine heatwaves and during the establishment of the marine park and sanctuary zones.

When we might be able to see some results?

We are still weeks away from seeing the data produced from our own survey which has currently logged approximately 9000 observations of over 100 different species. Once we have this data finalised and the

compared to the previously collected data from different agencies, then the overall data set will be analysed and presented in the next marine park report.

What we are expecting to see in the results?

Hopefully increasing abundances and diversity.

Do you have any marine park questions that you would like to ask Research Scientist Ben French? If so, please send them to eden.baxter@dbca.wa.gov.au for them to be answered and presented in the next newsletter.





Top: Screen-grab from the BRUVS footage showing some nice sized pink snapper.

Bottom: Screen-grab from the BRUVS footage showing a black dhufish.

Tangaroa Blue 2019 Beach Clean-up and how you can be involved

Registrations are now open for the 2019 WA Beach Clean-Up. The event, organised by Tangaroa Blue Foundation, is in its 15th year and is calling all ocean lovers to get involved. If you would like to organise or join a clean-up in Ngari Capes Marine Park you can <u>register</u> your site here.

It costs nothing to participate and all materials, volunteer insurance, and logistical support is provided.

Ngari Capes Marine Park Rangers will be coordinating a clean-up at Wilyabrup Beach on Sunday 20 October. Please contact Fiona on 0437 209 108 if you would like to volunteer at this site.

There are also existing clean-up sites extending from East Geographe Bay around to Flinders Bay in Augusta, and some of the longest running clean-up sites are located at Yallingup, Injidup, Ellensbrook, Foul Bay and Quarry Bay. If you'd like to join one of these existing clean-ups you can contact the site coordinator through Tangaroa Blue.

You can download the Tangaroa Blue Australian Marine Debris app onto your smartphone and record the items you collect on the day directly to the Australian Marine Debris Initiative (AMDI) Database. This valuable data contributes to research on dispersal patterns and identification of marine debris sources which assists the development of strategies for reducing marine debris at its source.

The Australian Marine Debris Initiative is available from <u>iTunes</u> and <u>Google Play</u> stores.

If you would like more details on the upcoming beach clean-ups, please contact Dan at Tangaroa Blue on 0431 530 724 or the Ngari Capes Marine Park team on 9752 5555.

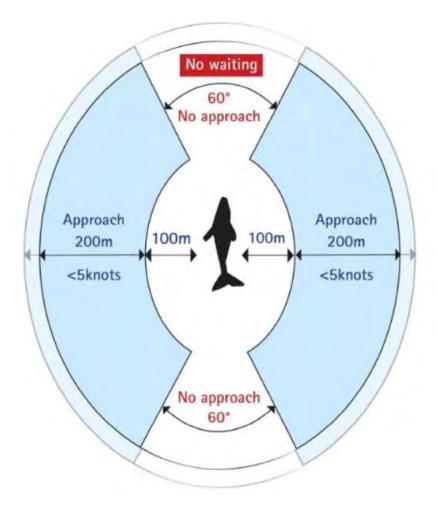


Whale watching safety

At this time of year, Ngari Capes Marine Park is fortunate to be visited by humpback and southern right whales as they begin their southern migration. Whale watching is a wonderful experience the whole family can enjoy. During spring many whale watching options are available to the public, such as commercial tour operator vessels, recreational vessels and also from land. Shore-based whale watching is popular at Cape Leeuwin Lighthouse, Cape Naturaliste Lighthouse, and Point Picquet.

For those of us that like to enjoy whale watching from a vessel the most important rule to remember is to not approach within 100 metres of a whale. This is not only for your safety but for the safety of the animal. If a whale does approach your vessel it is your responsibility to move away and keep 100 metres distance at all times. These are large, powerful animals and they may react violently if they feel threatened.

If you would like more information on whale watching in Ngari Capes Marine Park, visit your local Parks and Wildlife Service office or call on (08) 9752 5555.



Above: Keep a safe distance from whales.

The fishing seasons are changing

The Department of Primary Industries and Regional Development (DPIRD) uses seasonal fisheries closures to ensure there are fish for the future. In October, there are some important dates for recreational abalone, demersal finfish, and rock lobster fishing.

Those people who go recreational abalone fishing need to remember that the Southern Zone extends from the Busselton Jetty to the South Australian border and will open on 1 October to 15 May the following year.

Conversely, the West Coast Bioregion demersal finfish closure is from 15 October to 15 December. Demersal (bottom-dwelling) fish, such as dhufish and pink snapper, are highly vulnerable to overfishing, as they are long-lived and slow-growing. The demersal closure is important to ensure these iconic and tasty fish are abundant now and in the future.

The rock lobster night fishing ban changes on 15 October from 6pm - 6am to 7.30pm - 4.30am. Right in time to enjoy the spring sun!

To stay up-to-date with all the fishing rules, visit <u>fish.wa.gov.au</u> or download the free Recfishwest app from the App Store or Google Play.



Above Western rock lobster. Photo - Sandy Clarke

New rules for blue swimmer crab fishing in Perth and the south-west

New measures are being introduced to protect blue swimmer crab breeding stock and safeguard the future of this popular species.

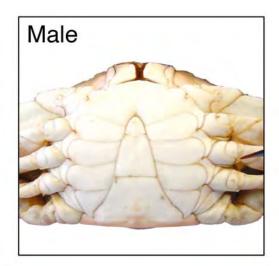
From 1 September to 30 November each year, all waters, rivers, and estuaries from the Swan River to Minninup Beach (15km south of Bunbury) are closed to crab fishing.

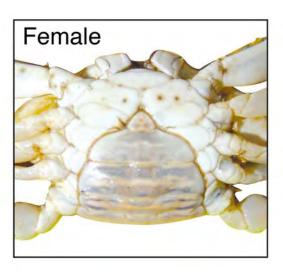
Then from 1 December 2019, a new bag limit of five crabs per fisher will be introduced for the Swan and Canning rivers.

Locally, Geographe Bay will remain open to recreational blue swimmer crab fishing all year, however, a maximum of five female crabs will be allowed as part of the 10 crab bag limit per

fisher from 1 December 2019. The boat limit is unchanged (20 crabs) but a limit of 10 female crabs will apply from 1 December 2019.

The easiest way to check gender is to flip your crab over and look at the V-shaped abdominal flap on its underside. A male's flap is narrow and angular while a female is broad and rounded.





Above Male and female blue swimmer crab. Photo - DPIRD

These changes will help ensure healthy crab stocks for future generations to enjoy. For more information, visit <u>fish.wa.gov.au</u> or contact the Busselton DPIRD Office.

Seabirds in peril

By Christine Wilder, Convenor – Cape to Cape Bird Group (a regional group of BirdLife WA)

Based in Margaret River since 2005

This year BirdLife WA's Cape to Cape Bird Group has begun documenting pelagic and other seabirds within our capes. Due to their habitat, these ocean-dwelling birds are much less likely than terrestrial birds to be observed by citizen scientists, let alone identified, counted and documented. For me, these are the most interesting group of birds, and as with other birds around the world, they are now in peril from several major threats.

In June 2019 I began regular seabird charters with small groups of sea-birders on Leeuwin Charters' AMSAR-certified vessel Diversion, a 45-foot commercially and purpose-built boat located at Augusta Boat Harbour. These trips circumnavigate the St Alouarn Island Group and travel further south into open ocean to enable us to identify and count seabirds (see map of track below). Ocean trips are exciting for birdwatchers who may not have set eyes on an albatross or even a seabird in its wild ocean habitat.

These charters have presented excellent opportunities for our WA-based group to add to data and seabird images taken over five years by Ian Wiese around Sugarloaf Rock and Pt Picquet. We are working with mentor David Mills to identify and catalogue the data and these records are being forwarded on to Plaxy Barratt at BirdLife WA's office in Perth, for recording on the ocean and pelagic group's database.

I was also lucky enough to attend a fascinating presentation in June 2019 on marine debris. The presenter, Plastics Researcher Dr Harriet Paterson, shared her research on the aquatic environment of the south coast of WA with a focus on plastics and their relation to marine birds, fish and beaches.

References

Muller, D. 2019. Map showing track for Cape Leeuwin Bird Charter. Leeuwin Charters. Paterson, H.L., & Dunlop, J.N. 2018. Minimal plastic in flesh-footed shearwater Ardenna carneipes burrows in southwestern Australia colonies. Marine Ornithology 46: 165-167. Reid, Tim A., Hindell, Mark A., Eades, David W., & Newman, Mike. 2002. Seabird Atlas of South-eastern Australian Waters. Pp. 146.

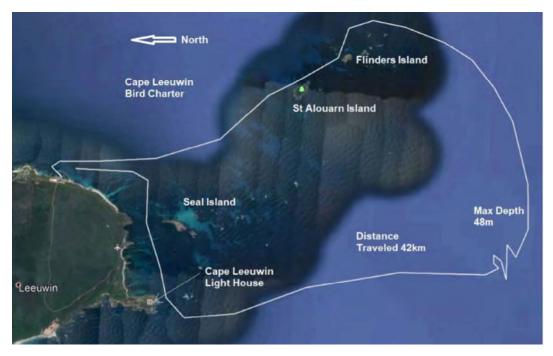
Roman, L., Paterson, H., Townsend, K.A., Wilcox, C., Hardesty, B.D., & Hindell, M. 2019. Size of marine debris items ingested and retained by petrels. Marine Pollution Bulletin 142: 569-575.



Above First-year shy albatross. Photo - Ian Wiese

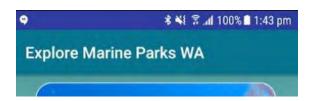


Above Indian yellow-nosed albatross. Photo - Ian Wiese



Above Map of the track taken by Cape Leeuwin Bird Charter.

Do you know about marine park sanctuary zones?



Before visiting any marine park, it's important to always 'know your zones' and find out what you can do in each zone. Since 10 April the Ngari Capes Marine Park zones have been



enforced.

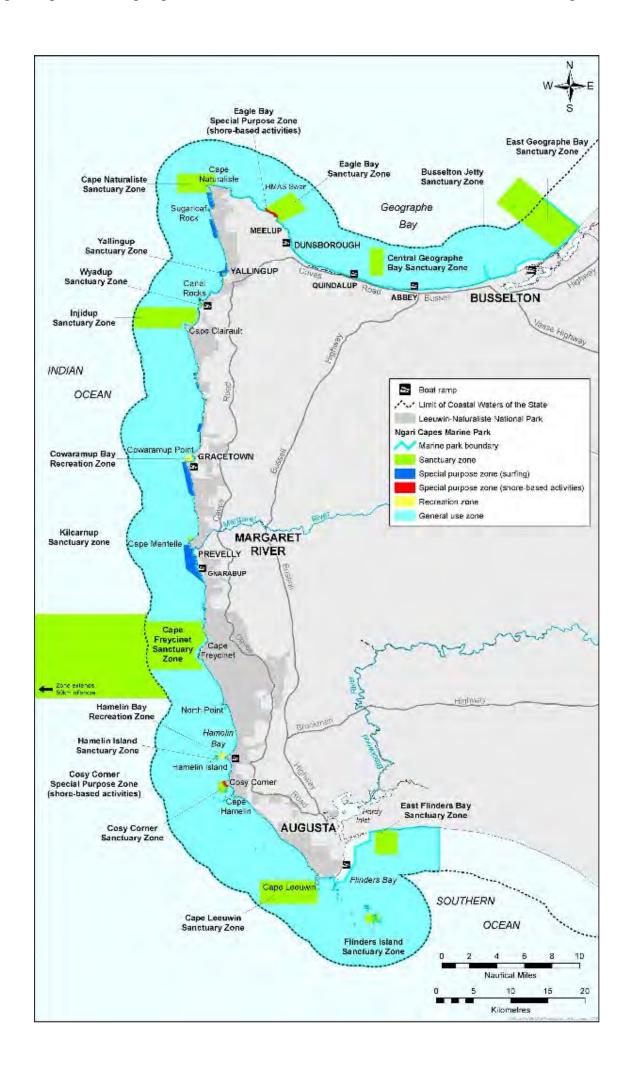
These zones cater for a wide range of user groups from fishers, scuba divers and snorkellers to surfers and kayakers.

While allowing sustainable recreational and commercial activities, zoning also provides for conservation. By establishing sanctuary zones for undisturbed nature study and passive enjoyment of the natural environment.

The map below is a great guide, however if you require more information about the zones and what activities are permitted, please download the Marine Parks WA App or call the Parks and Wildlife Service Busselton office on 9752 5555.

Get the app on iTunes

Get the app on Android



Above Map of Ngari Capes Marine Park showing zones.



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