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Issue 14 - Winter 2022

# Welcome to the 14th issue of *Ngari Capes Marine Park News*

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Above: Bunker Bay



## Marine park update

Welcome to whale season in the South West!

It is during this time of the year that the Ngari Capes Marine Park is visited by the "gentle giants" of the ocean as they migrate north. Within the marine park there are a variety of ways you can spot a whale such as by boat or by one of the whale lookouts along the Ngari Capes Marine Park coastline.

Above the water, our marine rangers have been keeping busy with the annual large whale disentanglement refresher training. This year the marine team was fortunate to have local fisheries officer Kevin Johnson from the Department of Primary Industries and Regional Development (DPIRD) join the training. In between undertaking further training the marine team has also been involved with ongoing seabird surveys at Saint Alouran Island with the help of researcher Dr Erin Clitheroe from Murdoch University. The team is excited to follow up on their initial findings with another field trip to Alouran Island planned for September.



**Photos above, Left**: Marine team in point boat, cutting ropes off fake whale tail on the large whale disentanglement course.

Right: Kye and Erin at Saint Alouran Island looking for penguins.



Below the water, the marine team has taken their watermanship skills to the next level. In May this year, the team participated in a two-day free-diving course to improve their ocean awareness and ocean safety. The course challenged the team members both physically mentally and further developed valuable skills for when diving. Some of these skills that were further developed include advanced equalisation techniques, breathing techniques to improve air consumption and efficient movements underwater. Although the course was challenging for all team members it was thoroughly enjoyed and the team was grateful for the invaluable skills that the instructor Mr Joe Knight provided the team with.

Photo above: Eden, Kye, Dave, Ian and Glen with One Ocean International chief trainer Joe Knight.

## Meet NCMP new marine ranger Glen Sutton



I grew up in the south-west of WA, born and raised in the small agricultural town of Manjimup. Having always had a love of the marine and coastal environment, but living inland, I would spend every possible weekend exploring the south coast, from Augusta to Albany and everywhere in between, camping, fishing, surfing and snorkeling.

After completing high school in 2011, I spent a year in the construction industry before commencing with the Department of Environment and Conservation as a seasonal conservation employee in October 2012, based in the Pemberton work centre. Over the following years, I continued working with the Department whilst studying at Edith Cowan University and completing a coastal environmental science degree. In 2019, I transferred to Busselton to seek more opportunities within the marine space and I worked as a conservation employee and then as the Busselton work centre coordinator, before commencing in my current role as marine park ranger in January this year.

Having spent such a long period of time involved with terrestrial based works and predominantly fire management, I'm enjoying the change of scenery and the diversity that comes with the role of marine ranger, able to contribute to marine conservation whilst working and discovering such an amazing part of the WA coast. The Ngari Capes Marine Park team are highly skilled individuals and a great team to work with, which I am grateful to be able to learn from and further develop my skills as a marine ranger.

## **Island Surveys**

On May 19 this year, the Ngari Capes Marine Park team took advantage of the favourable weather conditions to conduct seabird surveys at Saint Alouran Island. The team of five, led by researcher Dr Erin Clitheroe, was dropped off and picked up from the island with the help of Augusta's Marine Rescue group.





Images above: Getting dropped off at St Alouarn island by jetski.

St Alouarn Island is a Class A reserve located approximately 6.5 km southeast of Cape Leeuwin. Despite being only a few kilometres from Cape Leeuwin it's a particularly exposed location. Weather windows and access points to this island are few and far between. However, for seabirds this is perfect! The island is covered by low-lying vegetation, granite gneiss and limestone capping. Plenty of overhangs, ledges and places to dig burrows in the softer sediments can be found on the island. In previous surveys of the island, the presence of little penguin nests has been recorded. As has the presence of several birds such as *Pacific gull, Flesh-footed Shearwater, Little Shearwater* and *Crested Tern.* 



**Images above:** Little penguin burrow with feathers on the ground, Erin using a burrow camera to inspect a burrow, A little shearwater burrow. **Credit to Erin Clitheroe for this image** 

This year's primary objective for the seabird survey at St Alouarn was to establish the presence of little penguins on the island. During the survey no little penguins were seen, however several nests were located. The team were able to determine that these were in fact little penguin nests by size of the nests, excrement and the mounted feathers left in the nest. It is hoped that a second survey during peak breading times for the little penguins, between September and November, will help determine the abundance of penguins on the island.



Images above: Back at Augusta Marina, on board Marine Rescue vessel

## Look who's back!



Images above: Taken by Blair Ranford - Mother and calf Southern Right

It's whale watching season - remember to keep your distance. Humpback, southern right and blue whales visit Ngari Capes Marine Park off the south-west coast this time of year, every year.

In May, thousands of whales make their way up from the cold Antarctic waters north to the warm, tropical waters to calve. In August, they turn around and travel down south again, back to the feeding grounds of the polar waters.

To see one of these incredible creatures do pec slaps, tail slaps, spy hop or breaching is awesome. The best places to see them are Cape Naturalist Lighthouse, Cape Leeuwin Lighthouse and Point Piquet. If you have a boat, there are a few rules to remember:

The diagram below shows the separation distance needed between vessel and whales.

- \* Never swim with whales; never touch the whale.
- \* Keep to the separation distances in the diagram

You must not restrict the path of a whale or approach from behind.

Remember - it is an offence under the *Biodiversity Conservation Act 2016* to approach a whale by vessel or person closer than the separation distances permitted.



#### Ear Bone Science

A showcase of hundreds of different Western Australian fish species has been published, identifying fish by their 'ear bones'.

Fisheries researcher Chris Dowling spent more than 10 years taking thousands of photographs of otoliths from as many species of fish from WA's South West as he could lay his hands on to create WA's first otolith catalogue.

Otoliths or 'ear bones' are small bone-like structures made of a hard calcium carbonate matrix found in a fish's inner ear, used by the fish for balance and hearing. Being bone, they are often the last parts remaining after the fish has been eaten, digested or decomposed.

In addition to being used to age fish, another useful feature of otoliths is that each species has their own unique otolith shape, making fish identifiable from just these tiny bones.

Chris's catalogue showcases 268 different species that occur in the South West of WA. As well as identification of different species, catalogues such as this can be used to assist researchers examining the diets of piscivores, such as seabirds, seals or dolphins, or otoliths found in Aboriginal middens.

To highlight any variation in otolith size and shape within species over the fish's lifetime, Chris has included up to three otolith images for each species in the catalogue. This resource will help researchers recreate diets or fish assemblages of the past and present, and because otoliths increase in size as the fish grows, can also be used to estimate the size of the fish.

The online version of the catalogue can be found here http://researchlibrary.agric.wa.gov.au/fr\_frr/3/



# NCMP Science update (stereo-BRUVs)



Here in the Ngari Capes Marine Park the team run a suite of long-term monitoring programs to detect and manage changes in our unique marine ecosystems. Without understanding what marine creatures are changing, and why – we wouldn't be able to manage the marine park effectively to promote biodiversity and take care of this special patch of the WA coast.

This summer, the team completed fieldwork and data collection to feed into our finfish long-term monitoring program - a program that's been running in collaboration with other departments and universities since 2009 (pre-marine park!) and is one of our most extensive datasets.

We use stereo-Baited Remote Underwater Video systems (stereo-BRUVs) which are basically two cameras sitting in a frame, that are dropped to the seafloor and left to record the fish found there. The fish are attracted to the bait on the frame and swim into our camera's field of view, which allows us to count and measure them back in the video-lab thanks to the fancy stereo configuration.

The team dropped 175 of these systems this year! From Geographe Bay all the way down to Augusta, focusing on areas that are sanctuary zones. From this data we'll be able to tell:

- If fish communities are changing
- How (increasing or decreasing trends) they're changing
- If they're changing differently inside versus outside of sanctuary (no-take) zones

Data from previous years have shown our fish communities in the NCMP are diverse and stable, which is great news for the ecosystem and the avid fishermen of the region! And although this year's data isn't fully analysed yet, we're already seeing significant numbers of Pink Snapper and Dhufish in nearly every drop, which is great news. Stay tuned for more in depth results that will be coming out soon.



All Images above: Taken by BRUVs within NCMP 2022

## **Fishing For Knowledge**

University of Western Australia (UWA) researchers have been hard at work over the last few years exploring the knowledge fishers hold about the marine environment. There is little doubt that fishers have a wealth of knowledge about the oceans, but often this knowledge isn't incorporated into management decisions. Acknowledging this, UWA received funding through the Australian Government's Our Marine Parks Grants to delve into this area further.

Researchers have spoken to nearly 40 professional fishers up and down our wonderful coast and have learnt some amazing things on a diverse range of topics including oceanography, habitats, fish stocks, ecology and species distributions. Much of this knowledge goes beyond scientific observations, speaking to the unique nature of fishers' relationships with the ocean.

Whilst fishers proved very willing to share on a diversity of topics, the researchers have emphasised the need to work closely with fishers to ensure knowledge is shared appropriately and in ways that don't compromise their livelihoods. This can be as simple as checking in with fishers before sharing their information.

As the project enters its final phases, the team will be focussed on sharing some fisher insights with the wider community, highlighting the possible benefits of incorporating fishers' knowledge into management. Look out for community events about the Fishing for Knowledge project near you.



**Image above:** Professional fisher discussing "the whites" migration of the Western Rock Lobster with the Fishing for Knowledge research team. **Photo credit: Robin Bottrell** 

For more information about the Fishing for Knowledge contact the project at <u>rob.hoschke@uwa.edu.au</u> or head to <u>www.parksaustralia.gov.au/marine</u> to look at all the projects that have been funded through the Australian Government's Our Marine Parks Grants Program.







Do you know about marine park sanctuary zones?

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#### **Explore Marine Parks WA**

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**Explore Marine Parks** 

Before visiting any marine park, it's important to always 'know your zones' and find out what you can do in each zone. Since April 2020, the Ngari Capes Marine Park zones have been enforced.

These zones cater for a wide range of user groups from fishers, scuba divers and snorkelers, 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 for marine parks around the capes or anywhere off the WA coast 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 plus National Park Zones in adjacent Australian Marine Parks.

