

Ngari Tales

News from the Ngari Capes Marine Park

No. 6: Winter 2015

Welcome to the sixth issue of *Ngari Tales*, a newsletter for everyone who wants to know more about the Ngari Capes Marine Park: one of Western Australia's most recently created State marine parks, located in the south-west of WA.

Halving the herring catch

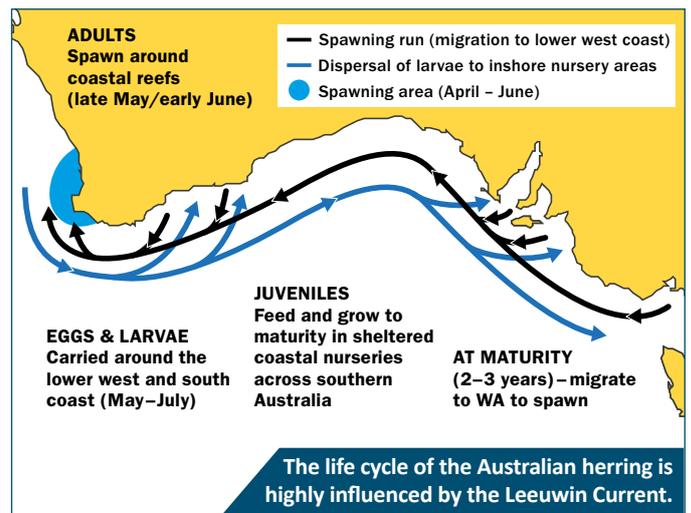
The Australian Herring *Arripus georgianus* has long been considered a 'bread and butter' species for recreational fishers. It is the favoured catch for many residents of coastal towns adjacent to the Ngari Capes Marine Park and it also makes up a small but important component of commercial fishing catches on the south and west coasts.

However, an assessment of the Australian herring stock by the Department of Fisheries revealed that, due to a combination of environmental factors and fishing pressure, the stock is depleted and the catch needed to be halved to ease fishing pressure on the stock and allow it to rebuild.

After extensive consultation between the Department of Fisheries, Recfishwest and the WA Fishing and Industry Council, the **daily bag limit** for herring has been **reduced from 30 to 12** (as of 1 March 2015). The commercial herring G-net fishery on the south coast was also closed.



Australian herring *Arripus georgianus*.



Research has shown that most herring caught in WA waters are juvenile or adults yet to spawn; sexual maturity is reached when two to three years old and about 20 centimetres long. During April and late May, mature herring migrate from the south coast, back around the capes to WA's lower west coast where they gather in late May and early June to spawn.

But it's not just fishing pressure that has affected herring stocks. Annual variations in the Leeuwin Current and, in recent years, above average ocean temperatures have also influenced their migratory and spawning patterns.

While the recent changes to the herring rules will affect fishers, research by Fisheries scientists has demonstrated that using changes to fisheries management to recover stocks such as rock lobster and demersal scalefish has been very effective.

Halving our catch will promote herring recovery. Fishers can also help by donating their herring frames (skeletons with intact head and guts) to their local Department of Fisheries office. This will enable our research scientists to monitor the age of herring in local waters and provide crucial information to management bodies. For more information, visit www.fish.wa.gov.au/frames.

Salmon esCAPEades

The salmon season usually comes with the passing of the autumn equinox. Schools of this prized fish hit our local waters in abundance, to the delight of fishers. The salmon run was predicted to arrive a little later than usual this year due to warmer ocean temperatures.



A happy fisher with a salmon at Bunker Bay.

Western Australian salmon are a magnificent fish and they attract anglers from far and wide. Both Dunsborough and Yallingup are popular spots where salmon can be easily caught from the shore and small rocky outcrops. Salmon run in enormous schools that are visible from the beach, particularly when the water starts to churn! However, these schools also attract a host of predators, including whaler sharks (tiger sharks included!), dolphins and the occasional seal.

The legal bag limit for salmon is four per day and fishers need to release unwanted fish carefully to avoid harming them and give them the best possible chance of post-release survival – many fishers suggest using barbless hooks for easy release. Homemade poppers are preferable to live bait, which used to include herring. However, given the recent reduction in bag limit for herring (to 12), this is not a sustainable practice. Seasonal salmon anglers enjoy the thrill of watching their painted wooden popper bouncing in the water with a feisty fish in tow.

Remember, many favoured fishing spots are within the confines of the Ngari Capes Marine Park. Our marine ecosystem is precious so please take home all your litter and broken tackle. Fillet your catch at home or designated stations and don't leave fish frames or offal on the beach. Most of all, fish safely and have fun!

Seagrass monitoring in the marine park

by Dr Cindy Bessey, Parks and Wildlife

Seagrasses are flowering plants found in the ocean that often form dense meadows. These seagrass meadows provide a food source for a multitude of organisms, including fish, birds, and invertebrates. In fact, seagrass meadows are generally more productive than land crops, rivalling even corn and sugar cane in productivity. Seagrass meadows also provide nursery habitat for economically important finfish species, as well as habitat for some endemic and protected species. Seagrasses help to stabilise coastal sediments and play a critical role in maintaining our coastlines.

The Ngari Capes Marine Park contains some of the most extensive temperate seagrass communities on the west coast. The seagrass communities within the marine park are generally undisturbed but globally, seagrasses are one of the fastest declining habitats on earth. Seagrass communities are threatened by human impacts from coastal development, nutrient input from catchment activities, stormwater run-off and sewage discharge, as well as unregulated mooring and anchoring. To ensure the seagrass habitats of the Ngari Capes Marine Park remain healthy, the Department of Parks and Wildlife is establishing a seagrass monitoring program throughout the park.

Parks and Wildlife's Western Australian Marine Monitoring Program (WAMMP) assesses the health of seagrass communities by determining the condition of seagrass at permanent sites throughout the park. Divers use underwater markers to denote transect lines at each site, enabling them to return to the same location over time. Divers then swim along these lines, counting the number of seagrass shoots and taking pictures of the seagrass canopy to determine seagrass cover. Initial surveys establish a baseline for future comparison, which provides scientists and managers with a way to detect any changes in the health of the seagrass over time. In February this year, Parks and Wildlife district and marine staff established seagrass sites at Geographe Bay and Cowaramup Bay. Equipped with dive slates, compasses, markers, hammers, measuring tapes, rulers, cameras, underwater paper and pencils, staff descended to depths of up to 18 metres to survey the seagrass communities of the Ngari Capes Marine Park.



Photo: Cindy Bessey DPaW.

Staff establish a seagrass transect and count the number of shoots during WAMMP monitoring within Geographe Bay.

Shannon Conway



Showcasing our capes is easy for any avid photographer. Rain, hail or shine, there's beauty to behold! But under the waves lies a different story. Getting the perfect photo at your favourite diving spot can often prove tricky when you are five metres below sea level and negotiating water conditions with a tank on your back! These are the sort of daily tasks that

underwater photographer Shannon Conway takes in his stride (or splash). We have been lucky enough to employ the services of this award-winning photographer. Shannon visited Ngari Capes Marine Park in January and spent two weeks filming and photographing some of the iconic species and protected habitats within the sanctuary zones. Unlike the coral reefs in our northern waters, temperate marine ecosystems are often overlooked for their biodiversity and undervalued for their intrinsic, economic and social importance. Bringing images of our underwater sanctuary to the surface will enable more people to appreciate and enjoy this special and environmentally important marine environment.



A young dhufish *Glaucosoma hebraicum*.

Shannon has been a professional photographer for 10 years and has won many underwater photography awards. He has travelled to exotic locations around the world and has even dived the inland caves of the Nullarbor and Mount Gambier. For more information or to see more of Shannon's photography, visit www.underwaterphotography.com.au.



Abundant marine life in the Ngari Capes Marine Park.

Creature feature – smooth stingray

The Ngari Capes Marine Park is home to the largest stingray in the world – the smooth stingray (*Dasyatis brevicaudata*). The largest specimen ever found weighed a whopping 350 kilograms and was 4.3 metres long and 2.1 metres wide. It is often mistaken for the black stingray (*Dasyatis thetidis*), which is found in waters north of Fremantle.

The smooth stingray has a grey-brown body featuring distinctive white freckle-like pores on either side of its head and across the base of its fins. Its short tail contains two venomous barbs of different size. As a defence strategy, the smooth stingray is able to curl its tail like a scorpion to display the barbs to predators.

The smooth stingray is perfectly adapted to cruising over long distances and foraging along the sea bed. Like the platypus and the shark, the smooth stingray has electrical sensors around its mouth (called ampullae of Lorenzini) which can detect the natural electrical fields of potential prey. Favourite foods include molluscs, crustaceans and the occasional small fish. These are crushed with its powerful ventrally-placed mouth.

Even newborn rays are equipped with all the adaptations required for survival. Like most rays, smooth stingrays are *viviparous*. This means that the young are hatched *in utero* and embryos are nourished internally from the yolk and a fatty, milk-like substance produced by the mother. They are born live when they are around 36 centimetres in diameter in litters of up to 10. After birth, these 'mini adults' receive no parental care and must fend for themselves.

If you've ever visited Hamelin Bay near Augusta, where rays and skates are protected, you may have had the pleasure of viewing these gentle giants up close. More curious and playful than aggressive, smooth stingrays will enter the shallow waters to interact with swimmers and divers. This behaviour began in the 1950s when commercial fishers cleaned their fish and discarded the guts in the water. When cleaning tables were introduced, the stingrays came in even closer, scrounging for a meal. Communities in towns along the south-west coast have come to value the presence of these inquisitive creatures and enjoy interacting with them while out fishing.

Remember rays are wild animals and can be dangerous if provoked. Please look but don't touch.

With such a big rap, it's no wonder the smooth stingray, along with its northern relative the black stingray, have recently been listed as recreationally protected fish in the West and South Coast bioregions (see www.fish.wa.gov.au/About-Us/Media-releases/Pages/Two-stingray-species-now-protected-in-the-South-West.aspx).

What's in a name?

Scientific names can often be a mouthful and *Dasyatis brevicaudata* is no exception. But what does it mean?

- *Dasyatis* – from the Greek words 'dasys' meaning rough or dense and 'atus' meaning tail.
- *brevicaudata* – from the Latin words 'brevis' meaning short and 'cauda' meaning tail.

The smooth stingray is also referred to as the short-tailed stingray.

The Noongar word for stingray is Bamba (bam-bar).



A smooth stingray comes close inshore.

Further information

For more information about the Ngari Capes Marine Park or to register to receive this newsletter electronically contact:

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