



# KIMBERLEY MARINE

RESEARCH STATION • CYGNET BAY

MAY—JUNE 2022



Traditional Bardi Jaawi people performing at the marine park ceremony

Photo by: Loc Hua

## *In This Edition...*

The Farm is back into full swing with the return of interstate and international visitors to the farm. With the weather moving into dry season, we are enjoying the warm days but beanies are a must at night!

We also experienced a few heavy rain days after the tail of a cold front passed through, with 46mm of rain coming down on the farm in two days!

The proposed Bardi Jawi Marine Park had its traditional opening where we witnessed our own Dileye in action.

We welcome back our pearling technicians for another Harvest and Spawning Season, with our technician Mike this year beginning an immersive hatchery tour open to the public.

Finally, we take a closer look at the two rarer pearls, the gold pearl and even rarer pink pearl!



Wet Weather Hits Cygnet Bay!

Photo by: Will Mcauliffe

## ***Buccaneer Archipelago Marine Park Opening***

After years in the making and multiple proposals the Buccaneer Archipelago Marine Park had an opening ceremony on Main Beach at One Arm Point on Wednesday 29<sup>th</sup> June. It has been in the works since 2019 and is the first ever co-designed marine park between traditional owners and state government. It covers approximately 660 000 hectares in the west Kimberley within Bardi Jaawi, Mayala and Dambimangari sea country.

The Buccaneer Archipelago has extraordinary natural values encompassing hundreds of islands surrounded by fringing coral reefs, sponge gardens and extensive seagrass beds supporting a large ecosystem of marine life. Protecting environmental, stakeholders and cultural value has been key to the design process while ensuring the stories, culture and vision of traditional owners for a strong and healthy country are protected for current and future generations.



**Dilleye, a Bardi Jawi man who can be seen on boat tours at Cygnet Bay!**

**Photo by: Karina Dixon**

## **NEWS FROM THE RESEARCH STATION**



***Ditylum brightwellii* under the microscope**

**Photo by: Jenn Haig**

Here at KMRS we are lucky enough to have support from a range of experts across all our projects. As apart of our monthly sampling, we analyse the water for phytoplankton under the microscope as they are a first sign of distress on the water environment. During the May Monthly Sampling, we stumbled across a weirdly shaped phytoplankton so we emailed James McLaughlin at CSIRO for help. We were delighted that it was actually a *Ditylum brightwellii* under going cell division which you can see in the image to the left! This phytoplankton is a natural occurring diatom which is a vital part of our local ecosystem.





Mike explaining the inner workings of an Oyster

Photo By : Jenn Haig

# AROUND THE FARM

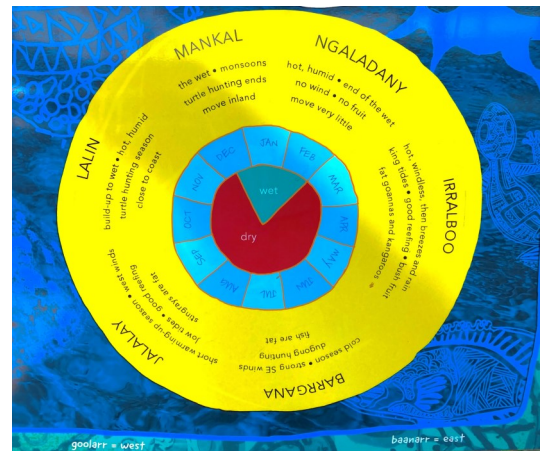
## New Pearl Technician Tour

We welcomed back Mike our pearl technician for another season of harvesting and spawning, however this year he has opened the doors of the hatchery to the public with the introduction of a new tour titled “Pearlers Technician Experience”.

The art and skill of being a pearl technician is far and few between; on this tour Mike shares with you his knowledge about the oysters, the process of harvesting pearls, re-seeding and so much more! We at KMRS we lucky enough to be apart of the pilot tour on the 21st of June and it is safe to say that the Oyster is the underrated mollusc!

## Bardi Jaawi Seasons

As the night temperature drops in Cygnet Bay, we enter the Barrgana season on the Bardi Jaawi seasonal calendar. This calendar is divided into six seasons and the change of season is decided by the changes in the weather, what the plants and animals are doing and how fat the fish are. Barrgana is apart of the cold/ dry season with strong south easterly winds where the fish are fat and it is good for hunting dugong. This has definitely been felt on the farm with constant easterly winds bringing chilly mornings and increased swell which has definitely not impressed our pearling crew!



A visual guide of the Bardi Jaawi seasons on display at the One Arm Point Hatchery.

## The Gold Pearl

On the 26<sup>th</sup> June the lovely Jacki harvested a 14.5mm rare gold pearl with an A3 grade, valued at \$2800 during one of our Pearl farm tours.



Golden pearls are very rare – less than 1% of *Pinctada maxima* oysters produce nacre of this colour. They only occur in gold-lipped *P. maxima* oyster but it is not guaranteed that every gold lipped *P. maxima* oyster will produce a golden pearl. The deeper the gold the more expensive the pearl is. What a great find!



Jacki (right) and the lucky tour-ist (left) who picked out the shell with the golden pearl!

Photo: Gigi McKercher

## ***Rarity of Pink Pearl***

The pink pearl is one of the most rare to come across. Akoya and South Sea oysters can produce pink pearls naturally. Pink pearls are a naturally occurring color which are found predominantly in freshwater pearls but can still be found in saltwater oysters. They are so rare our Pearl Technician Mike has only seen two over his 25 year career in the pearling industry\*\*\* fact check this

There are two main factors that contribute to the color of a pearl

1. The type of oyster - The color of a pearl is influence by the colour of the lip of the oyster. When there is an irritant in the oyster it uses the epithelial cells which secrete a hardening liquid. This is the same material which is used to make its shell which is used to coat the irritant which translates to the color of the pearl.
2. Thickness of nacre layers—The more layers of nacre the thicker it is the richer the color of the pearl

### **FUN FACT**

Pink pearls signify purity, honesty, wisdom, integrity and spiritual transformation in the life of the owner. It is said to help an individual with spiritual guidance and self-acceptance. It is also know as the 'stone of sincerity'.

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Kimberley Marine Research Station



@kimberleymarineresearchstation



@KMRS2009

### **Contact us via..**

Phone:+61 8 9192 4999

Email: [research@cygnetbaypearls.com.au](mailto:research@cygnetbaypearls.com.au)

## **STAFF NEWS**

### ***Hello to our new interns!***

Jenn started her internship with KMRS in May, as a recent Coastal and Marine Science graduate from Curtin University in Perth. Leaving her full-time job in Supply Chain behind, she followed her passion of the Kimberley to Cygnet Bay and is even happier that she is escaping the Perth Winter!

Karina recently joined us towards the end of June and graduated from Murdoch University Perth where she studied Marine Science and International Business. Karina is excited to gain some hands on industry experience in aquaculture and broaden her field research skills.



**Our interns Karina (left) and Jenn (right) out in the bay for a sunset paddle!**

**Photo By: Jenn Haig**