



# KIMBERLEY MARINE

RESEARCH STATION • CYGNET BAY

## JULY - AUGUST 2019



Photo of the month! An octopus patiently waiting for the tide to come back in. Photo by: Ashley Bachert

### Hello to our new interns!

At the beginning of July we welcomed another Josh to the team. Josh has just completed his BSc in Coastal and Marine Science at Curtin University and is excited to learn about the ins and outs of the Kimberley coastline!

We also welcome Ashley who joined us at the beginning of August. Ashley has a BSc in Marine and Freshwater Biology from the University of Guelph, Canada. She is especially excited to learn more about Kimberley super corals!

### Farewell to Josh and Cristian

Cristian has finished up the field work portion of his master research and will be heading back to the University of Western Australia to continue the rest of his masters thesis. Cristian has really enjoyed looking at the diverse biofouling found on his samples! We can't wait to see his results!

Josh has gone off to travel the world, his skills at the chipping table will be greatly missed!

### IN THIS EDITION...

The last few months have been really busy here at Cygnet Bay, with lots of projects and the peak of tourism season. You will find updates on current research at KMRS, staff that have come and gone as well as exciting developments from around the farm, including a very welcome surprise from our most recent harvest and a new addition to our fleet.



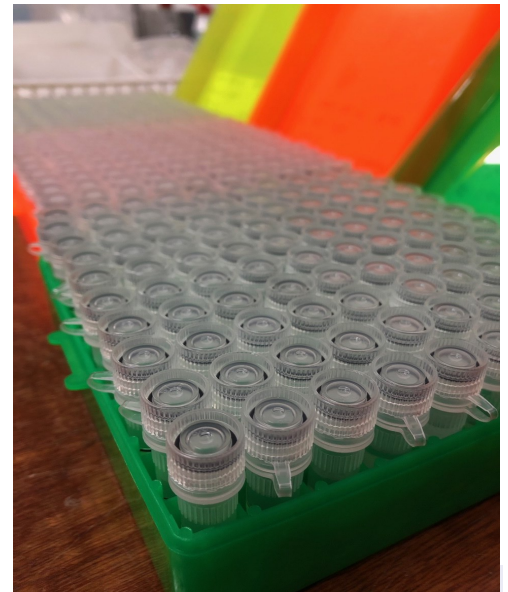
Left to right: Millie, Cristian, Ashley, Liam, and Josh out on the cleaning boat . Photo by: Gary Firman



# NEWS FROM THE RESEARCH STATION

## ***CRC Sampling***

At the beginning of August, KMRS sent the last of our CRC samples to JCU to help us get a better understanding, on the genetic level, of how oysters respond to juvenile pearl oyster mortality syndrome. Following the delivery, KMRS has been fortunate enough to take the lead position for our continuing Cooperative Research Centre project. We are excited to start preparation for the spawning of new spat in October, to act as a new base of CRC data. We will be very busy in the upcoming months preparing the hatchery for this big event. Stay tuned for updates on how everything is going!



## ***Getting ready for spawning***

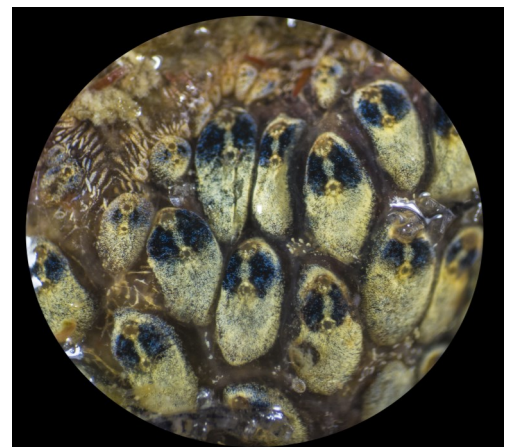
To get ready for the first CRC spawning here at the farm, we will be preparing DNA samples for genotyping at JCU. These samples will be used to determine the strongest and most resilient families that will be used for spawning later this year. Identifying these resilient oysters will allow us to selectively breed family lines that will be more resistant to mortality events, increasing the productivity and quality of our *Pinctada maxima*.



Cristian grabbing all of the biofouling samples he can find, even during shell delivery. Photo by Gary Firman.

## ***Masters Research– Biofouling***

Over the past few months at the research station, we have been fortunate enough to have our KMRS intern, and UWA master student Cristian Tejada researching biofouling around the farm. Hundreds of shells were sampled as well as from the lines, droppers and panels. Cristian has already found around 180 species and there are more to come. It is possible that a few of them could be invasive. This knowledge gained through the project will contribute to further research into biofouling through aquaculture ventures in this unique part of the world. We are looking forward to hearing about his results soon.



Colonial ascidian found during sampling. Photo by Cristian Tejada.





Sunsets enjoyed from shell island.

Photo by: Ashley Bachert

## MORE FROM THE RESEARCH STATION



Interns Josh and Cristian taking shell measurements from the new shell delivery. Photo by: Ashley Bachert

### ***Shell Delivery***

The farm has been extremely busy through August, with a huge amount of new shell being delivered after fishing from 80 mile beach . These adult shell were placed onto lines in panels over just the course of a day, however an immense amount of time has been put into preparing everything to be ready for this day, Measurements were taken of these oysters to establish baseline data that can be used in years to come. This information is extremely valuable especially in assessing the growth of the oysters after weather or health events are seen around the farm. All involved were very happy with the sizes of the shells that were delivered.

### ***Re-seeding***

Throughout July and August we have been reseeded oysters that have previously produced pearls. Our technician Garata has done an incredible job of re-seeding a huge batch of shells for this period, which will be ready for harvest after a few years of cleaning and maintenance out on the water. We are excited to see if this

batch can produce some amazing pearls of the same quality and size as our recently collected Sun and Moon pearls.

### ***Coral Monitoring***

Our coral monitoring projects have continued over the past few months and have added to our existing data that we have collected since 2016. Our current projects include both transect studies as well as coral tile recruitment studies. Our coral transects thankfully have not shown a significant increase in bleaching or disease, and their health has remained relatively consistent in recent months. Our coral tile project which is looking at recruitment of an assortment of sessile organisms while focusing on coral is looking promising, and we will be gathering more data in the coming weeks. As the seasons change in the Kimberley, and various species start to spawn, it will be interesting to see if the competition for settling on these tiles ramps up. We hope to see some good data from KMRS in the upcoming newsletter!



Intertidal corals exposed during low tide. Photo by: Ashley Bachert

# AROUND THE FARM

## *Sun and Moon*

The 13th of July was a very special day! During harvest not one but two 18mm gem quality round pearls were discovered! One gold and one white, together nicknamed “The Sun and the Moon”. The pearls are on display in the Broome boutique for locals and visitors to view!



New vessel “Bonza B9” ready for boarding. Photo by Ashley Bachert

## Tourism

### *New Vessel*

We are happy to announce the addition of “Bonza B9” to our tour boat fleet! This new vessel allows us to conduct tours without having to do a boat transfer. It is a 9.8m amphibious vessel, allowing for high performance on the water, and up to 9.5km/hr on land, perfect for our giant tides. Come on out and try it for yourself!

### *Farewell*

We say goodbye to our pearl farm sales and tourism manager Tamika, she has been an integral team member for the last three seasons. We wish her all the best on her travels.

## FOLLOW US...

For more updates, photos and details on available positions follow us on our social media platforms. We love to share knowledge!



The Sun and Moon. Photo taken by James brown

## Other News

### *Humpback whale freed!*

An adult humpback whale was freed right here at Cygnet Bay! The Department of Biodiversity had been tracking the entangled whale via satellite equipment from Cable Beach where it was first spotted with approximately 10-15m of fishing gear attached to it. With the whale safe in the bay the rescue team was finally able to cut the whale free of the ropes and set it free!



Left– Satellite tracking of the humpback whale's movement. Right– freed humpback whale. Photos retrieved from ABC Kimberley Facebook.



Kimberley Marine Research Station



@kimberleymarineresearchstation



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Check out our website for more info.. <https://www.kmrs.com.au/>

Contact us via.. Phone: +61 8 9192 4999 Email: [research@cygnetbaypearls.com.au](mailto:research@cygnetbaypearls.com.au)