



KIMBERLEY MARINE

RESEARCH STATION • CYGNET BAY

SEPTEMBER – OCTOBER 2018



(Photo courtesy of Coline Julière, 2018)

News from the Research Station

One in a million find at Cygnet Bay!

September started off with an amazing and lucky find. One of our pearling technicians found 10 pearls within one of our oyster's mantle tissue (Nine keshi, one seedless) with an additional blister pearl created from seeding. This occurrence is quite rare and there are many possibilities as to how it may have happened. Regardless, it is an exciting find to finish this year's pearl harvest at Cygnet Bay. This oyster shell and its pearls are now on display at the Cygnet Bay Restaurant.



Oyster with 10 pearls inside. Blister pearl can be found in the corner of the shell.

End of Harvest

The 2018 harvest wrapped up in early September with pearl technicians taking a much needed break before continuing on with tagging of brood stock oysters. The pearling crews continued on with cleaning duties and line maintenance. It's tiresome work, but worth the rewards at the end. We look forward to 2020's pearl harvest from this year's first operation seeding.



Michelle with intern Abbie, heading to our sampling site. (Photo: Elise Pinto, 2018)

Juvenile Pearl Oyster Mortality Syndrome

Previous years have seen a great decline in health of pearl oysters due to an unknown cause. Interns and the research team have continued collecting data to investigate why mortality is occurring. To assist with investigations, Fisheries Research Assistant Michelle Condy visited the farm to undertake bacterial analysis on some of our spat. It is hoped that the mystery cause is known soon so it can be managed.

Samples are currently in the process of being analysed so we look forward to seeing the results.

Other research from the interns

Coral Frame Recruitment Monitoring

In addition to monthly coral assessments using the KMRS fixed transect lines, Interns will be also be taking a look at coral recruitment over the next few months with deployment of multi-tile recruitment frames (previously used by WAMSI) to assess recruitment of juvenile coral polyps. Recruitment will be monitored at 4 different locations around Cygnet Bay to analyse variations between subtidal and intertidal reefs. This project aims to expand upon current coral monitoring conducted at KMRS, and (if successful), will add-on to current monitoring programs for coral at Cygnet Bay, capturing spawning and brooding coral recruits all year.

Coral Transects

Interns are continuing to monitor the health of Cygnet Bay's corals in the intertidal reef near the front beach of Cygnet Bay. Analyses of current data indicates good health in the current transect locations.

Rock Oysters

All tiles for Andy's 3-monthly trials for assessing growth and survival of *Saccostrea* oysters have now been deployed. These tiles will now be monitored for a "grow out" period of three months each to assess variation in spat fall density and survivorship. Building up to the warmer weather we expect to see some spat fall occurrence increasing which the interns will be investigating upon monthly collection of tiles.

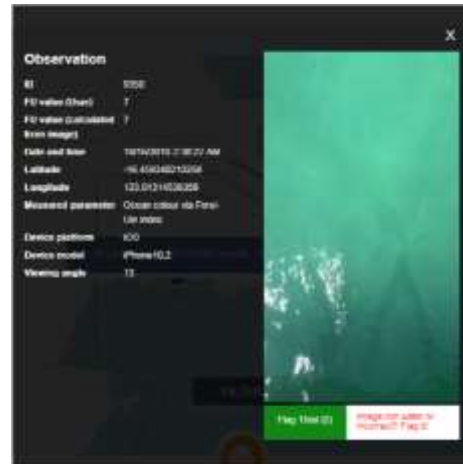


A boulder coral

New Citizen Science App for assessing water quality – Visit from CSIRO

CSIRO visited the station, introducing a new way for water quality to be analysed involving citizen scientists through an app on their tablet or phone. The 'EyeonWater' app allows the user to take a picture of the water to assess quality through identification of photosynthetic aspects of the water and comparing that to satellite-derived water colour.

Images processed through the app are made available to anyone interested in knowing more about their water quality, whether the ocean, river, lake or other water bodies. The research team hope to incorporate this app into the monthly water monitoring at Cygnet Bay to assess health of the waters in the bay and encourage any willing participants to download the app and give it a go!



Picture taken of water at Cygnet Bay for demonstration with the KMRS research team

More information can be found on: <http://www.eyeonwater.org/apps/eyeonwater-australia>

Around the Farm

Masterclass 2018

- 27th August – 2 September 2018



Visitors grading pearls with James Brown

Towards the end of August/early September, the inaugural masterclass voyage was launched. This unique experience gives visitors a 'behind the scenes' look into pearl farming. Voyagers can participate at either the Cygnet Bay Pearl Farm in WA or the Broken Bay Pearl Farm in NSW, with the option of traveling the both farms for a more in-depth experience. This year's Masterclass saw 5 lucky people seed their own oysters in addition to harvesting a pearl. A very successful voyage!

Geoffrey 'Gurrumul' Yunupingu Documentary Screening

In September, staff and visitors had a chance to watch a documentary about Gurrumul; a blind indigenous musician with a passion for sharing his stories through songs and music. Gurrumul's voice is one of fragility and power, and greatly admired both within Australia and the rest of the world. Directed by Paul Damien William, Gurrumul is described as an inspiration to all. His voice is mesmerising, with the ability to affect people in ways most other artists are yet to achieve.



Photo credit: Duane Preston 2018

Gurrumul is the 7th highest grossing film in Australian history, winning awards across the globe for its powerful message and showing of this unique talent.

Staff News



Terry Hunter (Photo credit: Ben Collins 2018)

Terry Hunter on the dark history of Pearling.

Our very own Terry Hunter was recently interviewed by ABC to tell of the treatment of local indigenous people back in the 1800s from his very own Great Great Grandfather, Harry Hunter. In the 1870s, notorious Blackbirder Harry Hunter would force men and children to dive for pearl shell and if they didn't come back would be beaten to death. Terry's mission is to reconcile his family history and increase awareness of the dark history of pearling to improve relationships with indigenous people. Terry Hunter's story can

be found using the following link: <http://www.abc.net.au/news/2018-09-09/slavery-in-australian-pearling/10217488>

Dorado

It is an exciting time for all staff, as our great boat, the 'Dorado' will be sent back into the bay for an upcoming movie. It has been a while since this lady has been in the water so we are looking forward to seeing her out there after three years of been grounded. Stay tuned for more!

Life as an Intern

Elise Pinto was interviewed recently by ABC discussing the internship available to students and graduates here at KMRS. Internships run for 2-3 months throughout the year, with interns gaining experience in both aquaculture practice and marine research projects such as coral monitoring, rock oyster recruitment and analysis of phytoplankton. It is a unique opportunity for students who wish to gain more practical experience whilst experiencing the Kimberley.



Sandys workshop on portraiture

Visitors

'Artist in Residence' - Meet Sandy McKendrick

Sandy McKendrick visited in September to explore new ideas for different artworks in addition to gaining some inspiration for her upcoming theatre production. Sandy is a local artist from Fremantle, and well known for her use of recycled materials in her artworks. The staff has been having some fun learning how to sketch and draw each other whilst creating sculptures, towels and bags using materials found around them, and gaining inspiration from nature in Cygnet Bay.

Meet our newest Interns

Welcome Joan Gao and Tahlia Newnham

Joan Gao is a Masters student from Curtin University. Her research focused on fish health and parasitology. Joan is looking forward to gaining more experience on a pearl farm and experiencing the beautiful Kimberley region.



Joan and Tahlia on their first day interning.

Tahlia Newnham graduated from Curtin University with a Bachelor of Science majoring in Coastal and Marine Science.

During her studies she has tagged Flatback Turtles up in Port Hedland, lived aboard in the Abrolhos Islands collecting marine debris and completed biodiversity surveys in Exmouth. She hopes to gain experience in aquaculture management and increase her skills working with commercial vessels.

Farewell to Abbie and Elise.

It has been an eventful few months for Abbie and Elise, with rare pearl finds, data collection for oyster research and ongoing research projects. Thank you for all your great work this season. We wish you all the best on your return home.



Photo of the Month



Eggs being laid by a Northern Baler Shell
(Photo by Sandy McKendrick, 2018)



(Photo by Liam Rawlins, 2018)

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