



KIMBERLEY MARINE

RESEARCH STATION • CYGNET BAY

MARCH - APRIL 2019



Cockle shells in an Aboriginal midden close to Cygnet Bay

Photo by: Benjamin Delfs

NEWS FROM CYGNET BAY

The start of the season

In the first week of April we welcomed back the start of the tourism season . The buzz is back with the return of our lovely visitors and tourism staff (with many familiar faces returning from last season, as well as some new ones). The tourism season gives us a chance to share knowledge with a broad demographic and hopefully fuel a wider respect for our oceans.

Weather

March brought less than half the monthly rainfall average, rounding out a very dry wet season. In contrast, the first week of April was wet with 49mm recorded at the weather station but what felt like lots more around the bay. The road was closed temporarily, with our food truck being one of many to get stuck in the floods spanning the north. With the rain passing we are glad to have had some before the rest of the dry-season!

The tourism team

A great team is essential in our remote setting and we are so lucky to have welcomed back so many. We also have some lovely new faces working in the gallery! Sarah and Carol, we have already seen you lead some great farm tours.

A warm welcome to our new Tourism manager Fenn, who has taken over the role from Jamie (some big shoes to fill)! We can't wait to see your plans come to life.

NEWS FROM THE RESEARCH STATION

Coral monitoring

The research station has two coral-monitoring projects which have been ongoing since 2016. When an El Niño event led to global bleaching even the extremely resilient inter-tidal "SUPER" corals in the Kimberley were affected. Our transect project provides us with monthly data, indicative of the health and any variation in the coral reef assemblages. The second coral project we run, targets coral spawning events. WAMSI have found spawning to be concentrated in March/April and October/November. Following deployment of our first 6 recruitment tiles in February, we deployed another 6 tiles for all sites at the end of March. Deployed in time for the March and April spawning window respectively. We look forward to studying the tiles when they are retrieved in June.



Interns Jess and Millie taking photos of the intertidal coral transect for analysis. Photo by: Benjamin Delfs.

Rock oysters

We continue with the spat recruitment and survival project set up for monitoring of *Saccostrea spp.* (Rock Oysters). At the start of May we will be collecting and deploying more tiles. We hope to have a larger dataset to report on in the coming months.

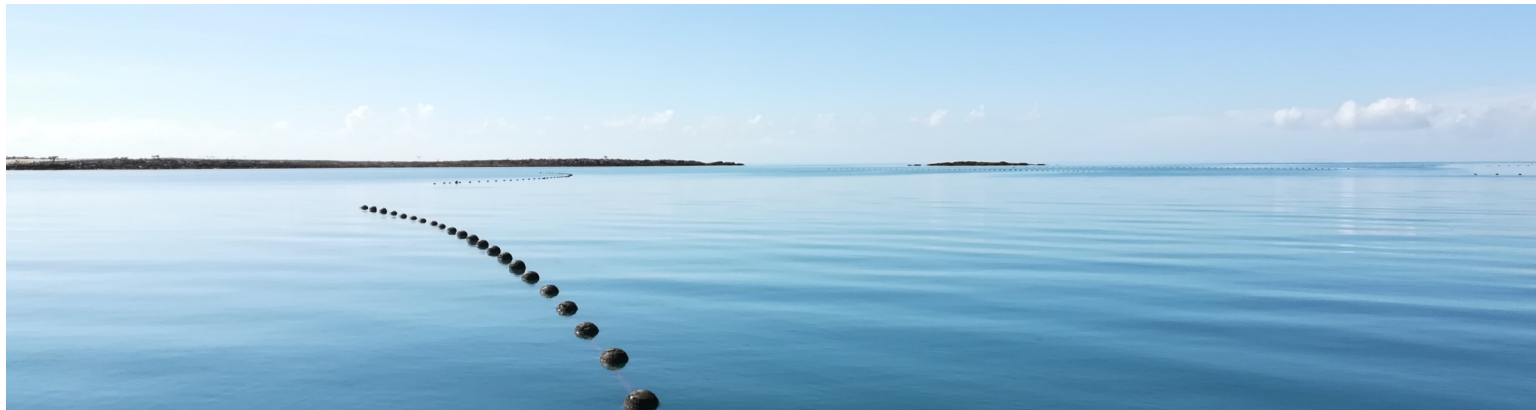


Phytoplankton

Pictured below is a chain of cells identified as *Bacteriastrium sp.* This genus of diatom was found to be relatively abundant in water samples taken during April. The South-West mooring which is the nearest site to shore had the highest number recorded at 84 cells per 100mm³. The algae we culture in the lab is also in the Chaetocerotaceae family.

Photos by: Millie Fasth





Glassy mornings at the pearl farm.

Photo by: Millie Fasth

AROUND THE FARM



Bruce Wiggan with his carving before staining the lines with Pindan. Photo by: Millie Fasth

Harvest

In mid-march we performed a kill harvest. The pearls which have been growing for over 2 years are harvested for their meat and final pearls. Once the oysters are harvested they are opened and the meat (abductor muscle) is separated from the rest of the tissue. This is cleaned and stored in a freezer before use in our restaurant. The pearl sac is then checked for pearls which are all collected before washing and grading them for sale. Shells are then cleaned and are used for a variety of things. Our traditional owner and elder Bruce Wiggan carves Riji into our shells. Nothing is wasted!

De-stocking

The pearlers and the interns have been hard at work, cleaning and prepping lines for new spat. Destocking has involved re-panelling spat which are now over a year old and ready to move into larger pockets. The de-stocked spat are looking very healthy, some of our largest spat were recorded with heights and widths of approximately 100mm each.

Spat delivery

The end of a busy month for the farm saw the arrival of new spat. Pearling manager Gary Firman and Research Officer Liam Rawlins flew to Darwin in order to make sure the young oysters were safely shipped to us. At the Clipper pearls hatchery over 400 ropes were collected with thousands of spat settled to them. The whole Cygnet Bay team were out in force to help in the hatchery, making up the rope panels and hanging them in tanks. A great effort from all involved. Sampling showed the spat survival rates in smaller spat to be significantly lower during shipment than those over 300µm. With the average size smaller than last year we saw a lower number of spat settled on panels but hope to see strong growth from the individuals remaining.



Garata our hatchery technician cleaning lines. Photo by: Jess Waters

AROUND THE FARM

CRC sampling

The Cooperative Research Centres project current sampling period is at 22 weeks. We are happy to report that no sickness events have occurred from the Juvenile oyster mortality syndrome (JOMS) this year. Outbreaks tend to occur as the water cools below 25°C during the dry season. We will continue to collect RNA and histology samples for JCU (James Cook University) as part of the industry wide research effort. We will also continuously monitor our oyster health as part of the research stations monthly sampling.



CRC sampling . Photo by: Benjamin Delfs



New intern Meg Vaisey enjoying a sunset in the bay. Photo by: Millie Fasth

STAFF NEWS

Hello to our new intern!

Meg started her internship with KMRS in early April, as a recent graduate from a Bachelor of Coastal and Marine Science at Curtin University in Perth. Meg is excited to work in, and learn about the unique Kimberley marine environment while developing new practical skills before going back to uni for further study.

Farewell to Jess

Jess has been a great asset to the farm over the past few months, thank you for all your hard work and good luck in your next venture! We know you will *krill* it.

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Kimberley Marine Research Station



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Photo of the Month! Mermaid's hole, revealed on a low tide the reef holds a body of water teeming with life. Some incredible biodiversity, true to the Kimberley wilderness. Photo by: Benjamin Delfs To see more , visit @benjamindelfs on Instagram.