



KIMBERLEY MARINE

RESEARCH STATION • CYGNET BAY

SEPT/OCT '12 BUMPER SHOULDER SEASON EDITION

What's been happening at KMRS lately?

Aug 31 – Sept 9: UWA PhD candidates in the field at KMRS: Sana Dandan from the UWA Ocean's Institute & School of Earth & Environment returned to KMRS for her 5th trip to the station as part of her PhD study on coral growth along with fellow UWA PhD candidate Lucy Georgiou. This was Sana's 2nd trip to the station in 2012 and Lucy's first trip to KMRS. The team spent time working on Sana's existing experiments and scoping local coral habitats for Lucy's studies. Conditions were ideal in and on the water and the team had a highly productive and positive ten days in the field. Thanks to Sana & Lucy for a brilliant trip, we look forward, as always, to seeing you again soon! Click on the link below to read a recent article on Sana's research at KMRS published on the Science Network WA forum entitled "[Kimberley corals evade bleaching](#)". *Photo: Sana & Lucy in the field at KMRS, Sept 2012*



Sept 4 & 5: Fish Health scientists visit: Dr Melanie Crockford, a senior research scientist at the Fish Health Section of WA Department of Fisheries, led a team in the field at KMRS to collect bivalve samples for parasite analysis. Hammer oysters, a common fouling species on pearl oyster panels, were collected and sampled on-site for the presence of parasitic *Perkinsus sp.* Thank you to Mel & the team for visiting and to Cygnet Bay Pearls' Flynn & Cam for their help with shucking the sample shell and diving to collect samples. *Photo: Mel & team sample hammer oysters in the field at KMRS*

Sept 8 – Oct 11: Murdoch University Cetacean Research Unit team returns to KMRS: PhD candidate Alex Brown returned to KMRS with a team of volunteers to continue survey work on Kimberley dolphins. This was Alex's 2nd trip to the station in 2012 following the month-long visit in April/May. The team had a highly successful time in the field onboard the MUCRU research vessel *Blue Steel*, gathering a wealth of data on the 3 species of dolphin frequenting the area, as well as presenting the Cygnet Bay Pearls crew with a highly informative and entertaining update on the project at the end of the trip. The team were joined by MUCRU colleague Dr Simon Allen for the final week of the field trip in early October before moving on to Beagle Bay where they extended their studies onto the west coast of the Dampier Peninsula. Alex's reflections on the trip follow; *"With the shift in wind patterns towards the wet season norm, we had up to 4 hours of near-perfect spotting conditions on most mornings and clocked up 165 hours on the water in just over a month. We encountered 116 groups of dolphins, quite evenly split between the three species of snubfin, humpback and bottlenose dolphins. However, in terms of numbers of dolphins, we saw twice as many snubfins as either of the other two species. We regularly encountered groups of 10 or more socialising snubfins, and the animals were far more approachable than on our previous visit. All of this contributed to us now photographically identifying 53 independent individual snubfins and obtaining tissue samples from more than 20 individual snubfins. This was a dramatic change from our last visit where far fewer snubfins were encountered and no socialising behaviour was observed. Humpback dolphins were also seen frequently, although in smaller numbers, we now have 22*

different individuals photographed and 4 tissue samples. It was a very successful trip. It'll be really interesting to see if we observe a similar pattern over the seasons next year." Thanks Alex & co for a great trip, we wish you all the best for the next leg of fieldwork & look forward to seeing you back at KMRS in April 2013. More info on Alex's research can be found by following this [web link](#).



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Photo of the Month – September

A pod of socialising snubfin dolphins at Cygnet Bay
J Smith for MUCRU, September 2012

STILL TO COME IN THIS EDITION:

*Baited Remote Underwater Videos

*UWA-AIMS-CSIRO post doc sediment study

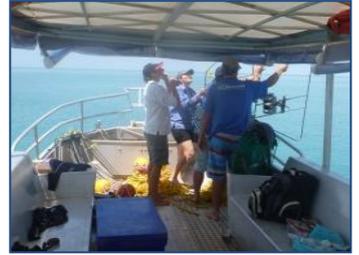
*One Arm Point Bush Rangers program

*AIMS & WA Museum teams visit

*KMRS at the 2012 WA Science Awards

*Field service provision at Cone Bay

Sept 19-21: WA Fisheries research scientists visit KMRS: Led by Mike Travers, a team of WA Department of Fisheries research scientists visited KMRS briefly to scope habitats for fish species abundances. Recently returned from a research voyage to Camden Sound for the proposed Kimberley Marine Parks program, the team used a combination of snorkelling and baited remote underwater video cameras (BRUV's) to make a brief assessment of fish community assemblages in mangrove and coral reef areas at KMRS. Thank you Mike & co for visiting, we look forward to seeing you again soon. *Photo: DoF in action deploying BRUV's at KMRS*



Sept 26-29: Dr Steve Blake's final visit to KMRS as CEO of WAMSI: Dr Steve Blake visited the station as part of his final trip to the region in his capacity as CEO of the WA Marine Science Institution. Steve played an integral role in the establishment of KMRS and has provided much-appreciated guidance and advice over the past 3 years as the venture has grown since its inception in 2009. We are hugely grateful for his many fruitful visits to KMRS and would like to extend our sincere thanks to Steve for his years' of invaluable contribution to KMRS; it has been a pleasure working with you and we wish you the very best for your future pursuits. *Photo: Steve & KMRS Research Officer Ali at Cygnet Bay*



Sept 28 - Oct 5: UWA-AIMS-CSIRO post-doctorate sediment study kicks off: Dr Bonnie Laverock visited KMRS for the first time to commence her study "Preliminary characterisation of the microbial carbon and nitrogen cycling communities in sediments". Bonnie is a combined UWA-AIMS-CSIRO post-doctoral fellow and, along with assistant Andrea Zavala-Perez, spent time collecting sediment cores throughout the intertidal zone at Cygnet Bay. Despite soaring temperatures, the team managed to complete a highly productive session in the field. Thanks for a great week and we look forward to your return!

Oct 18: KMRS joins forces with the One Arm Pt High School Bush Rangers program: KMRS is delighted to commence involvement in the Bush Rangers program, an initiative run through the One Arm Point High School to engage students interested in science and the environment in field-oriented learning experiences. The program kicked off with a hands-on excursion to the intertidal coral reef area off Cygnet Bay's front beach where students learned about the Kimberley's remarkable near-shore reef systems. We are very excited to continue to develop further field trips and camps to contribute to the program and look forward to the next Bush Rangers expedition already! Thank you to the kids and teachers for being such an enthusiastic audience on the day.



Oct 24-26: Australian Institute of Marine Science team visits: AIMS research scientists Dr Martial Depczynski, a coral reef ecologist from AIMS Perth & Alistair Cheal, a tropical fish ecologist from AIMS Townsville, QLD, visited KMRS briefly to scope the station facilities as well as local marine habitats for future WAMSI program field work. Underwater visibility was ideal at the time and the team spent a great day on the water, including a trip across the King Sound to transfer KMRS staff to/from Cone Bay before traversing back through the Buccaneer Archipelago, checking reef fish and coral assemblages en-route. Thanks Martial & Alistair for taking the time to visit, we look forward to seeing you again soon.

Oct 28-31: WA Museum team visits: Following a stint at sea studying the offshore Kimberley reefs, Dr Clay Bryce and Dr Glenn Moore were joined by Dr Jane Fromont before heading up to Cygnet Bay to get a feel for the station and local marine environments. Time was spent observing species assemblages at nearby reef sites as well as on an explorative intertidal walk through Cygnet Bay's front beach reef area (pictured left). The team also visited One Arm Point to meet the Bardi Jawi Rangers and talk about marine science aspirations in the area. Thank you Clay, Glenn & Jane for your visit.



KMRS kicks off field service provision for the proposed Kimberley Aquaculture zone strategic assessment at Cone Bay:

KMRS has been busy providing field services under the direction of consulting firms Oceanica & Denmark Hydraulic Institute (DHI) who are managing the broad-scale environmental assessment of Cone Bay as part of the WA Department of Fisheries strategic appraisal process for the proposed marine finfish Aquaculture Zone. The data will be used in the development of an ecological model which will underpin an ensuing environmental management plan. Field work commenced in late Sept under the direction of Steve Cossington of the Marine & Freshwater Research Lab, Murdoch University, who trained the KMRS staff who will then undertake most of the remaining field trips independently. The KMRS team returned to Cone Bay in early Oct with James Lewis of DHI to deploy ADCP current meters. The first solo field trip followed with KMRS staff taking water quality samples in mid Oct, before a team led by Dr Glenn Shiell of Oceanica accompanied KMRS staff a week later to conduct sediment sampling and habitat mapping. In the last week of Oct the KMRS team returned to continue water sampling and were joined briefly once again by DHI's James Lewis to retrieve current meters. The 5 separate field trips to Cone Bay in Sept/Oct have utilised KMRS vessels including the *Atalanta IV*, *Atalanta IX*, *Escapade* & *Dorado* with KMRS staff involved as skippers, deckhands and field technicians. We will be coordinating a further 3 field trips to Cone Bay in Nov before recommencing in Jan 2013 to sample reciprocal wet season conditions. [Click here](#) for further information on the zone.

STILL AHEAD:

*Photo of the month October

*A special thank you

*Broome jellyfish blooms



KMRS at the 2012 Western Australian Science Awards: Shortlisted as a finalist in the Science Engagement Initiative of the Year category, the KMRS team was thrilled to attend the WA Science Awards in Perth on Oct 10. The evening was a celebration of Western Australian science at its best and, with an incredibly high calibre of finalists across all categories on the night, it was a great privilege for KMRS to be shortlisted. Congratulations to all finalists and winners and a special thanks our nominators and referees for their support. *Photo: KMRS General Manager James Brown & Research Officer Ali McCarthy with the Minister for Science & Innovation, Hon. John Day, at the Science Awards*

THANK YOU to One Arm Point High School student Sharnae Davey for her help on-site in September as part of her year 11 work experience program. Sharnae helped collate footage and information for promotional media and spent time assisting visiting teams in the field. It was an absolute pleasure having Sharnae onboard; thank you for your help & we wish you all the best for your studies. THANK YOU also to Dr Kat Szabo from the University of Wollongong for kindly donating copies of her reports entitled “*Riji held by the Field Museum of Natural History*”. Dr Szabo visited KMRS briefly in July at the end of a field trip to the remote northern Kimberley working on shell middens. Dr Szabo and PhD student Brent Koppel met with senior Bardi man and riji (pearl shell) carver, Bruce Wiggan, and discussed their perspectives on the art of riji. Bruce carves and sells riji through the Gallery at Cygnet Bay, further info can be found via this [link](#).



What's been happening in the water lately?



Blooms of the jellyfish *Crambione mastigophora*, or sea tomato, rolled in by the wave-load and washed up on the shores of Broome's beaches creating quite a spectacle throughout September and October. The first major bloom was documented by KMRS' James Brown and is covered in this [news article](#). Meanwhile, both water and ambient temperatures continue to rise at Cygnet Bay as the wet season fast approaches. With superb shoulder season weather, underwater conditions have been very favourable with visibility up around 8-10m on good days. September in particular was a brilliant month for cetacean activity in the Bay with dolphins galore and the last of the humpback whales and their calves passing through for the year.



Photo of the Month - October

Pair of nudibranchs (Doriprismatica atromarginata)
Shenton Bluff reef, Cygnet Bay
C Adam, October 2012

What's ahead at KMRS?

The KMRS team will be returning to Cone Bay twice more in 2012 before a brief respite over the Christmas season.

For the latest news and happenings at KMRS and along the Kimberley coast, please follow our online news feed
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