

Soundings

EDEN KILLER WHALE MUSEUM

Established 1931

Newsletter, October, 2022

Now To The Opening

Time is closing in fast. The Official Opening of the new \$1,500,000 additions which were so far away, is now upon us..

Scheduled for 10AM on Friday 7th, October, it will be the culmination of a year and a half of constant activity, decision making and cash juggling. And five years of planning prior to that. All this while, coping with pandemic lockdowns, surrounded by roadworks and some unfortunate staff incidents, the Board hung in to see the job through. .

Finished it is and within the avenue of expected costs, harmonious relations with the builder and satisfaction all round.

So all arrows are pointing to the actual opening day. The ceremony needs to commence at 10AM. It should only be one of about an hour's duration.

On Thursday 6th, from about 2PM a working bee will be held to dust off chairs, many of which are showing evidence of the building and more so, some demolition work extending over the previous months. There are other preparations that will need to happen. I will test the P.A. over the weekend 1st/2nd October. On the actual day, a nineish bundy on would be great to cover any last minute hiccups.

Jeff Swane is keento have the sails back in place for the event, undertaking, probably Monday, 3rd. If you have an hour to spare, give Jeff a call. If you can work off a step ladder, you're certain of a start! These dizzy heights of achievements are getting a bit much for the old brigade. It's important to bring your own wages!!

Flying High

The town mast has been under much scrutiny in recent times, mainly with questions as to why the main mast is not featuring the "big" Aussie. That situation arises from the fact that the halyard is in danger of parting. Of

course we have had the usual few who would tell us what we should be doing apropos the mast but have never, in thirty years, offered any of their time or treasure or to ensure its continuity.

For information to those who have joined us recently, the mast is part of our collection. We maintain it and organise the arrays.

We can only recall one all over maintenance programme, which would include a thorough systematic paint job and replacement of pulleys, shackles etc. And of course, the halyard.

Rob Whiter has asked a tradie for a quote to carry out the necessary work. When he receives it he will present it to the Board for resolution.

The history of the mast is well documented. What has fallen past memory is the fact EKWM and its mast was instrumental in having the traffic roundabout built at that intersection.

We have had a fair bit of flag changing recently. The position of "haff mast" can be confusing and is literally, misleading.

A good and acceptable position is to lower the flag to a height which is equal to the vertical measurement of the flag, down from topmast.

Try to have adjoining half mast displays, arrayed at the same height as those on companion poles.



Old Tom's Tour

Old Tom – or at least a small part of him - has recently touched down in Norway where he will play a leading role in ground-breaking killer whale DNA research.

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The project is being undertaken by Australian researcher Isabella Reeves, the only killer whale geneticist in Australasia. Isabella is based at the Cetacean Ecology, Evolution and Behavioural Lab and the Molecular Ecology Lab at Flinders University, supervised by Luciana Moller and Luciano Beheregaray. Her recent work has focussed on using genomics to answer population-level questions about modern-day Australian killer whales, possible due to nation-wide collaboration amongst Australian killer whale researchers. She is currently completing a PhD in evolutionary ecology and conservation genomics using whole genomes (all the genetic information of an organism) to understand the global response of killer whales in the past, present, and future to climate change.

Through her research, she is attempting to unravel the history of Australasian killer whales.

Part of this includes whether the killers of Eden died out, or instead moved to fresh fields where there were greater opportunities and a better supply of prey. As Isabella has noted, the latter scenario would suggest that Old Tom's ancestors may still be found in Australian waters. With recent advancements in genomic and ancient DNA technologies, this question can now be investigated from a modern scientific perspective.

Isabella visited the Eden Killer Whale Museum in July 2022 when she and her research assistant Charlie White extracted DNA samples from one of Old Tom's teeth and his lower mandible (or jawbone), the two samples taken from different parts of his skeleton ensuring the best chance of extracting good quality DNA for sequencing. The exacting process needed almost a full day to secure samples that amounted to approximately one gram of drilled bone powder. Museum visitors were fascinated to see the process and took advantage of the opportunity to chat to Isabella about her work.



During her visit to Eden, Isabella also met with Steven Holmes, Thaua elder, where they discussed and agreed on how together with Isabella's genetic expertise and Steven's insight into the First Nation's deep, age-old relationship between his people and the killer whales (or boewas), they can add to and improve on what is known of the killers of Eden story. Therefore, the pair are collaborating on this upcoming research.

Old Tom's DNA samples travelled from Eden to Flinders University in Adelaide, and from there across the globe to Norway, where it arrived on 5 September.

After undertaking fieldwork in Iceland, Isabella is now working with one of her PhD supervisors, Associate Professor Andrew Foote from the Department of Natural History at the Norwegian University of Science and Technology, and a globally renowned killer whale genomics expert with an ancient DNA background.

Isabella will be undertaking DNA extraction and sequencing preparation under A/Prof Foote's supervision, using the University's specialised ancient DNA facilities. The lab work is scheduled to be completed by the end of October. Ancient DNA methods and its success rate is highly dependent on the specimen preservation, so all parties are hopeful Old Tom's sequencing goes well.

The newly generated genome of Old Tom will be compared with global populations to assess the genetic similarity and ancestry between Old Tom and them, to see how the killers of Eden relate to present-day populations.

Old Tom's genome will then be used to investigate the population history of the killers of Eden, including population size and changes and genetic health including inbreeding. Isabella aims to use the population size estimates combined with whaling records to explore possible relationships and effect prey accessibility may have had on their disappearance from Eden.

This project will provide new information about the killers of Eden and add to the globally unique story about the cooperative hunting between man and these whales.

Museum of Australia's, Great South Land Exhibition

Anticipation for the long awaited Great Southland Exhibition was realised, on the 16th September, 2022.

The crew at the Lake Burley Griffin site must have collectively exhaled when the occasion finally arrived. We at EKWM are also keen to see the finished product, being aware that a part the story shares that of the local scene. Like every aspect of life, the pandemic blew plans and timelines out of the window added to which supply side shortages and delivery delays took their toll.

It must have been, maybe, five years ago when George Main and Jilda? Made the first of their several trips to Eden to research and "taste the flavour" of the town, to enhance the fledgling of the plan to mount a rather ambitious exhibition of Australia with its lands, waters peoples and all contained within over millennia. The relationship between human and sea creature was of particular interest as far as Twofold Bay was concerned.

Including some building demolition and reconstruction, the estimated timeline was about three years, so it was never to be a simple project!



NMA image

The following is some reprint from the web site:

Eden Orca Whales

The three orcas, Old Tom, Humpy and Kincher, are modelled on a life size scale and replicates three real whales

that lived near Eden on the fr south coast of N.S.W. in the early 1900's.

The orca trio lived in a pod that worked with whalers to hunt humpbacks and other large migratory whales.



NMA image shows Old Tom's teeth and jaw-bone. worn down from tugging a rope.

Generations of orcas collaborated with the Yuin people and

later with whalers like the Davidson family to hunt whales, right up to 1930, when Old Tom died.

The whalers hunted whales for the oil which was mainly used to lubricate steam engines and light lamps.

Industrial whaling off Australia coast and throughout the world's oceans, pursued the animals almost to extinction.

However, today tourists flock to Eden, hoping to glimpse of a tail, spout or breach of the now protected spe-

Big Sea Creatures to the Fore

With the National Museum of Australian launching the foregoing exhibition, which is of major interest to us, almost at the same time, the Australian Museum, following an extensive make over, is presenting a very topical exhibition, with the subject being Sharks. I would very much like to take in both, but likelihood is slim. My reading on each, is they are quite spectacular.

Just for those not familiar with these two institutions, The NMA is in Canberra and the AM, which I believe is the oldest in Australia, is in College St, Sydney.

