

# WA Sea Kayaker

August 2019



Photo Nic Duncan [www.nicduncan.com](http://www.nicduncan.com)

## Hinchinbrook Beckons

Les Allen



*Click on the images below to go directly to the story*

## Seakayaking the Calvados Islands

Jo Foley



## Shark Bay 2019

Brenda Subbings



## Lets Talk About Swell

Richard Lailey

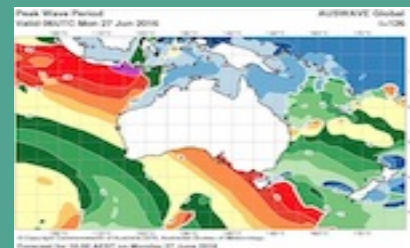


## The Murchison

Ann Smithson



## Ocean Waves



## FRONT COVER

Ann Smithson on the upper Murchison River Wooleen Station  
 Photos by Nic Duncan - Photographer, 0417 925 433  
[www.nicduncan.com](http://www.nicduncan.com)  
[@nic\\_duncan\\_photographer](https://www.instagram.com/nic_duncan_photographer)



## ***Welcome to this August Edition of WA Sea Kayaker magazine***

Thanks to the wonderful members who have contributed articles and stories to this club magazine. I encourage all members to discover the writer within and to tell their stories of their development as a sea kayaker or their adventures in sea kayaking. Perhaps you do other adventure activities, we would love to hear about it!

**J**o Foley has just returned from an amazing kayaking adventure in the Calvados Islands where she experienced wonderful village life. The Calvados you ask?? You'd better read Jo's article to find out where they are and how you might join this wonderful trip.

Les Allen and Jenni Harrison must never have attended one of the Dave Winkworth's talks about kayak adventures in northern Queensland's croc infested waters. Les writes of their water logged adventures around Hinchinbrook Island and some of the wonderful scenery and great paddling to be had in this area.

What would you make of a sea kayak 200km inland? Perhaps a giant tsunami. With the area recently receiving rain, the Murchison River was flowing in the most unlikely of places. Ann Smithson took the opportunity to 'wet the hull' of her Tahe 585 on the rarely flowing Murchison River at Wooleen Station. The photos of this rare event are truly stunning.

It is great to see new members obtain their paddling qualifications and participate in club expeditions. Brenda Stubbings has done just that and joined the Shark Bay 2019 trip. Brenda writes of the joys of the 3 day overnight camping and the thrill of achieving new milestones in her own paddling. Oh, and the wildlife was great, that's wildlife, not the other members on the trip!

Have you ever looked at the Bureau of Meteorology web site and licked your lips as big long period waves approach our coast. All the better if they arrive on a weekend! How do the BoM make these wave predictions? You can thank a person called Walter Munk, who conducted an experiment in the Pacific Ocean and measured the propagation of waves across the ocean from a storm in the Southern Ocean. It's tough doing science experiments, but I reckon this one was a real joy in the Pacific! Read about Walter in an article from 'The Conversation'

*The sky darkened and we luckily missed a storm with winds over 100km/hr which tore through Rockingham causing extensive damage in February 2018 (Andrew Munyard)  
Photo Paul Browne*



To further consolidate your understanding of ocean swell, I have reproduced an article by Richard Lailey which provides some insight into just what is going on when swell rolls into Perth.

Thanks to all those who have contributed articles to this months magazine.

I am always looking for articles for the magazine, please consider contributing a story. The magazine is only as good as member's contributions.



Don't forget the club has a facebook page where members post what paddling they have been doing and and you can be part of a paddle outside the club program by joining the Viber SKCWA group for members to organise peer paddles at short notice. If you want to join, get the Viber app on your phone and let Callan know you want in.



The face book is at  
<https://www.facebook.com/groups/SKCWA/>

Don't forget to visit the web page at  
<http://www.seakayakwa.asn.au> which is regularly updated with photos and details of club events.

This magazine is composed using free open source software called Scribus (<https://www.scribus.net>). It is a desktop publishing program and makes putting the magazine together easier.

I hope you enjoy the magazine

Andrew

#### ***A tip for navigating this magazine***

***I now load the magazine as a 3D Flipbook on the Newsletter page of the club website. Its a really great way to view the magazine. If you want to go back to the contents page, enter the number 2 in the top left corner***

OR if you want to download the PDF

I have used hyperlinks from the Contents page to link to the stories. In Adobe Reader you can get back to the Contents page by using a back function which you can find under VIEW-PAGE NAVIGATION, but if you use windows it is Alt- left arrow and if you use a Mac it is command-left arrow. You may need to strike the key combination a few times if you have read a couple of pages of the magazine. Alternatively, you can use the page thumbnails by clicking on the thing that looks like two pieces of paper in the top left.

I hope you enjoy the magazine .

Andrew



A photograph of a young child with curly hair, wearing a patterned shirt and dark shorts, standing on a sandy beach. The child is looking out towards a sailboat on the water. The background shows a clear blue sky and a calm sea.

# *Seakayaking the Calvados Islands Louisiade Archipelago PNG*

Jo Foley  
Photos Jo Foley

In mid May this year I was lucky enough to set off on a kayak expedition to the Calvados Islands, a chain of atolls in the Coral Sea between Papua New Guinea and the Solomon Islands. Many friends have asked how I heard about it, it was as simple as it kept popping up on my Facebook feed and the more I looked at it the more I knew it was for me. I enjoy travelling in remote places well away from the hustle and bustle of my everyday life in areas of natural beauty, and the thought of arriving by kayaks to the islands seemed like a wonderful quiet way to interact with the local people who I found to be some of the friendliest I've ever met. Another reason I was drawn to the trip was that with the daily paddling distances usually between 10 – 20km this left plenty of time and energy to spend interacting with the islanders, snorkelling and exploring, rather than paddling all day. When I first spotted the ad they had not as yet run any commercial kayaking trips in that area. James from Coral Sea Kayaking and some friends had done a few trips through there themselves as reconnaissance trips over a couple of years. The first trip they lead was November 2018 and I think ours was the 4th trip.

I rounded up 4 friends (Leonie from NZ, Deidre from Melbourne, Trevor and Andrena from Adelaide) initially wanting to book the trip before ours in May, however it then became booked out by a whole group which ended up being fortuitous. We heard that due to a recent cyclone they had to spend a few days in Port Moresby as the flight to Misima Island was unable to depart due to the dirt runway being too wet to land on Misima, and when they finally started the paddle trip they had headwinds the whole way. Sounds like they were a very fit determined group who still loved it, but having had the experience we had I am happy they booked out that trip!

We met the 5 other paddlers of our group in Cairns – awesome people from Tasmania and New South Wales. Surprisingly I was one of the younger paddlers apart from guides Sophie and Ewen who we met up with in PNG. We had a really tight transfer time of less than an hour in Port Moresby from our international flight to our domestic flight to Misima Island, so we sent ahead our friend Deidre who managed to push her way to the front (the domestic airport was heaving with people) and got us checked in just as they were closing the flight. Had we have missed that flight the next one



was in 3 days. We all breathed a sigh of relief and sat back for our scenic flight to Bwagaoia on Misima Island, a mountainous and densely forested volcanic island which is the 3rd largest and most populated island in Louisiade Archipelago. We met our guides Sophie and Ewen who, over the 8 days of paddling, we found to be extremely capable and also to our surprise could create amazing meals out of the limited food we had packed in our kayaks and what we topped up with trading with the islanders (who live a subsistence lifestyle). We stayed the night at the one and only guest house on the island which is owned by the local women's association and next morning packed all the gear (including 170 Litres of water) into the 3 banana boats (small fibreglass boats with outboards) and spent 2.5 rough and wet hours heading out to the east of the Calvados Island chain with the idea of paddling east to west with the predominant trade winds.

Panangarebu Island was our home for the first night and this is where we inflated and had instruction of our double inflatable Incept kayaks and our guides set up their Trak foldable kayaks. We set out on a trial paddle that arvo when the wind was up over 20knots and the current running in the opposite direction, which made for an interesting experience. Everyone was trying to master the rudder system which was quite a bit less





responsive than what we are used to. Leonie (my paddling partner for the trip who had little kayak experience) was sitting in the back as she was the slightly heavier of us (the kayaks performing better with more weight in the back) and I thought it would be a good experience for her seeing as she doesn't often have the opportunity of paddling. Leonie was having a difficult time with the rudder, and due to the strong wind we soon ended up further out than we should have been and paddling into some sizeable surf. Our guides were signalling for us to come to them as they were better placed in a more sheltered area however if we paddled in a straight line this would mean paddling side on to breaking waves in an empty inflatable kayak which had the possibility of flipping. Instead we slowly angled our way safely through the breaking waves which certainly was a baptism of fire for Leonie (who to her credit did not panic and did really well). Some of the others in the group were secretly wondering what they had got themselves in for, thinking they were not keen to paddle in those sort of conditions! They need not have worried as once loaded the kayaks were extremely stable and conditions never as bad as

*Our own deserted tropical paradise for the night*



*Camping with John's family*



*Sailau*

that trial run to the relief of many.

Over our 8 days of paddling there wasn't a particularly fast or slow boat, so we were able to stay together quite well in the variable seas. Our second day was the longest (22 Km) on the most challenging following seas we



experienced when we paddled from Panakuba to Pananiu via Bagaman Island. The Calvados Islands are not far apart, but we needed to cross deep channels between them and the current was strong at times, running either north-south, or south-north which required careful navigation.

The trip was a true expedition in the sense that our plans were very fluid often changing on the day of travel. We visited the most exquisite coral/white sandy islands, some atolls, some hilly and volcanic, one limestone, covered in coconut palms and thick tropical forest. We often stayed on uninhabited islands (usually with small fishing camps on them or a garden for nearby islands), some very small (20 mins to walk around) and at other times with families on their islands. Often when we stayed on the uninhabited islands someone



*Proud of their replica sailau toy*

would turn up in an outrigger and we would organise to trade items we had brought with us such as fishing line, hooks, goggles etc in return for fresh drinking coconuts or

fish. On one of the uninhabited islands where we decided to the camp the night a family was just departing from their fishing camp as we arrived. We noticed the bodies of 3 small sharks minus their fin's, so it seems they had been shark finning. Fortunately, this was only time we came across this. The islanders are unable to eat the sharks due to the risk of ciguatera poisoning, a form of food poisoning caused by eating warm water ocean finfish that carry the ciguatera poison (a toxin) produced by a very tiny organism called a dinoflagellate, which attaches itself



*Shark for dinner*

to algae growing in warm ocean water reef areas. Small plant-eating fish eat this toxic algae, and in turn are eaten by larger predatory fish which if eaten too often by humans leads to the poisoning. Fortunately for us if eaten once or twice it's not a problem, so not wanting the shark to go to waste we ate tons of the most amazing, freshest shark I've ever had cooked perfectly by Ewen and Sophie.

During the expedition we connected with village communities along the way, some known to Sophie and Ewen, some new to them. The people are wonderful, friendly, welcoming and curious. They're also quite



*School on Brooker Island*





*Cat and mouse type game (except it was dog and pig)*

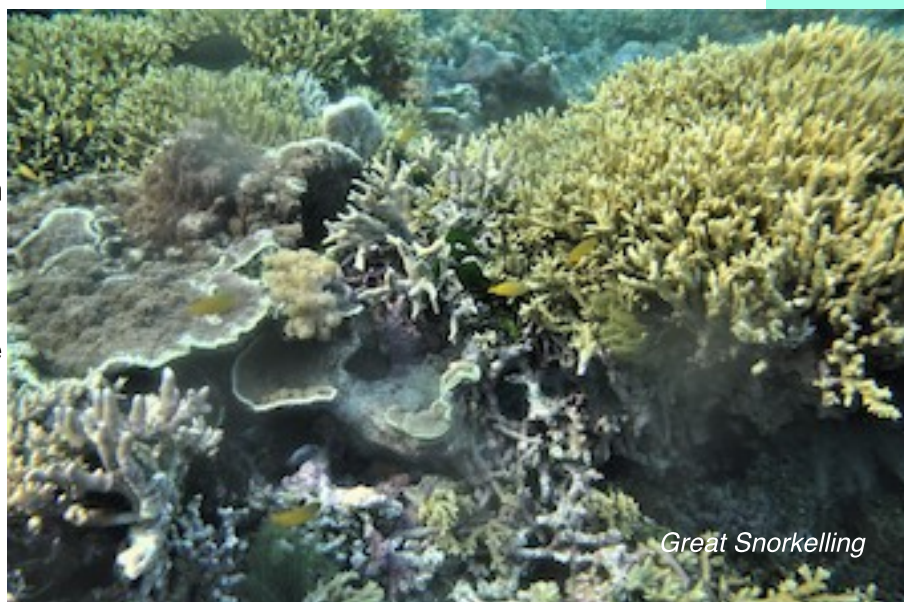
formal and extremely polite. Most people can speak English if they have been to school. This surprised us, along with their names - John, Mary, Joseph, James, Elizabeth, Solomon and also Darren, Warren, Greta, Dorothy, Nixon, Gwen, Alphie, Robinson, etc. and some, but not many, indigenous sounding names. You may have guessed that Christian Missionaries made their way through the entire archipelago in the late 1800s I'm assuming, firmly imparting Christianity and the English language among the island people and setting up a robust system of schools and education that is a legacy today. There are still some 'traditional obligations' that have survived colonisation I'm happy to say. They are very proud and humble people. On one of the first small island villages we visited, where Coral Sea Kayaking had not landed before, I had a very special connection with a young woman called Greta. She took me under her wing showed me all around the



*kids trying out a sea kayak*

village and to meet all her family and her very little brother came along holding my hand the whole way. We all had our "special moments" on the trips.

We visited a school in a sizeable village on Brooker Island that had not been visited before (the school that is, they were known to the village). As we paddled into the bay, the children's voices were loudly singing from one of the school rooms, not knowing that we were approaching at the time. We met the children in the 'Elementary school' (aged 7-8 I think), and Grade 3. Introductions were quite formal, they told us their name and the name of their father. There was some giggling when I said my name was Joanne and shortly afterwards found



*Great Snorkelling*

the other Joanne, who after visiting the class I met up with when we joined the children in some of the traditional games they play. We left school supplies with the teachers for distribution/sharing amongst the kids. A new classroom for Grades 4 and 5 was under construction. Children go to other islands and board with families to attend higher Grades of schooling, returning on weekends, and to Misima Island for High School, staying in dormitories and only going home on holidays.

After visiting the school, we were planning to depart when we noticed one of the kayaks had a puncture. Whilst this was being fixed by our guides, we had a great experience where the kids tried out one of the single kayaks (they were naturals). Next it was our turn when the



kids brought over a dugout and outrigger for us to try. The dugout was extremely tippy but I managed to stay upright and go for a paddle and then my friend Deidre had the kids in hysterics when she had a go and ended up in the water very theatrically. We all enjoyed paddling the outrigger.



*Manpower to reposition sail*

The sea, the coral, lagoons, reefs, drop-offs, fish/marine life and snorkelling were unbelievable. Paddling over shallow coral in crystal clear turquoise water then over a drop off viewing the wall of coral as it dropped into the deeper blue sea was spectacular. Some saw Manta ray at a distance - 2 breaching (sadly I was looking in the wrong direction at the time), a turtle briefly as it swam



*Dancers on Misima Island*

past as we kayaked in opposite direction, and 2 reef sharks while snorkelling. The variation in coral and small fish species was mind-blowing.

Once we had paddled west our final destination by kayak was Panasia Island (The trip was called "Paddle to Panasia"). I felt quite sad as we approached knowing that meant the paddling part of our trip was over. It was, however, the most dramatic stunning island of all that we visited and the first one where we encountered, at a distance, another Dimdim (Misiman for foreigner) who we didn't meet but was moored up on a yacht offshore from the island.

From there we disassembled all the kayaks and packed everything into a big (compared to all other vessels we'd seen) traditional sailing vessel called a 'Sailau', a dugout, open main hull, out rigger and fabulous sail - all hand carved, designed, sewn etc. The design meant that the boat could sail in either direction, the front becoming the back etc. - brilliant, and a complete thrill to be transported this way. We sailed for a few hours to Brooker island which we'd previously been to, the local Women's Association put on a fabulous lunch and some men demonstrated their traditional dancing. Then we loaded everything into 2 banana boats and had a less rough, but just as wet, 2 or so hour trip back to Misima Island.

On our first night back on Misima Island, unbeknown to our guides, we were all treated to a wonderful cultural performance from a newly-formed dance troupe (only their second ever performance) from a nearby village on our last night all together, complete with some traditional face painting, and weaving, and dancing which we joined in on, also the 'financial report' (a previous kayaking trip had made donations, and they reported on expenditure to date, it was so transparent, honest and sweet!). One of the dances was the 'Sago dance' (sago is a staple of their diet). The whole experience was quite wonderful, and we asked them to please continue to practice, learn more of their traditions



from their elders, train the younger ones and to keep performing. Additionally, we had a feast of pumpkin soup and crayfish (which for them is as cheap as fish with chicken being a more expensive



*Pulverizing sago pith with sharpened sticks*

food item) so was a memorable last night all together.

Flights in and out of Misima Island are 3 times a week (rain allowing) and seats are in hot demand

with a renewed interest in gold mining on the island so 5 of us stayed an additional 2 nights at the



*Women carry sago pith to the river*

Misima Guest House as we waited for our flight. After the others departed on their flight, we spent the day pottering around the small food market and looking at the fabric in the tin shed supermarkets. Down at the tiny port we came across some more Dimdims and they were surprised to see us there, asking "what brings you here?" They were volunteers from the Ywam medical ship who were doing eye tests and providing glasses at the small local hospital and some also went to the other villages on the island



*Washing & straining the sago*

giving immunisations. The next day we were treated to a day trip by ute to the North Coast. over some pretty steep countryside and through tropical forest thick with banana, sago, mango, pandanas, mustard and many other trees I couldn't name. The local Women's Association were our guides as we drove through many villages and 'wards' on our way north. Women and children (especially) waved and called out to us along the way, the men are also friendly but a bit more reserved. Two women with us were from villages on the north coast, so their friends and families were excited to see them. They were heading home after working in the Misima Guest house while we were staying there. At one stage of the drive we passed locals panning for gold in the river.

On this day trip, we had an incredible experience by chance. We noticed a group of young people harvesting sago traditionally from the sago palm as we crossed a river. We stopped to see what they were doing and were led into the forest where a huge palm trunk had been felled, cut in half length-ways and the interior was being pulverised by hand by 6 men wielding sharpened wooden tools, chanting as they



*Betel nut with mustard sticks for sale*



went. We recognised the chants from the cultural dance troupe 2 nights before and it turns out a few of the guys had been with the dancing group that performed for us! Women



*The women always so welcoming*

were loading the shredded sago into plastic sacks and carrying them on their heads back to the river where 2 men (the tasks were gender-specific apparently) mixed the shredded sago with fresh water from the river and squeezed it through coconut palm tree bark sieving the liquid into dug out troughs, the water overflowed the troughs, leaving the sago as sediment in the bottom and this is the edible finished product. Interestingly I have since learnt that New Guinea is where Sago originated from.

We stopped a bit further on at the house of Nellie's sister, one of our companions. To our delight her sister Dokas, grated fresh coconut and mixed it with the sago and water and cooked us pancakes over the open fire, which we ate hot off the frying pan, along with mango, green oranges and fresh coconut water straight out of coconuts - lunch doesn't get better than that! We were so lucky to have seen the process from beginning to finished cooked product as none of this had been

planned. We also realised that the sago was precious to them being something to fall back on when they had run out of yams to eat and by their generosity of making the pancakes we had eaten

some of their precious food supply, so we made sure we gave them some money to be able to purchase some more or alternative food. Almost all the adults (and unfortunately some children) chew betel nut with a stick of mustard and slaked lime powder (derived from crushed up Coral) which acts as a stimulant, and I wondered whether this was also a way to stave off hunger? This leaves them with reddened lips and teeth stained bright red. At the local food market there were more

stalls of betel nut than fruit and vegetables!

Sadly our Louisiades trip was over and we stayed one night in Port Moresby at a nice lodge with a shower! (luxurious compared to camping on the beach and washing in the sea). We arrived in the dark and flew out next morning to Cairns so saw very little of the city. For me it really was a trip of a lifetime, the memories of which I will treasure for a long time to come.



*Traditional meets modern paddlecraft*





*Trying to master the dugout*

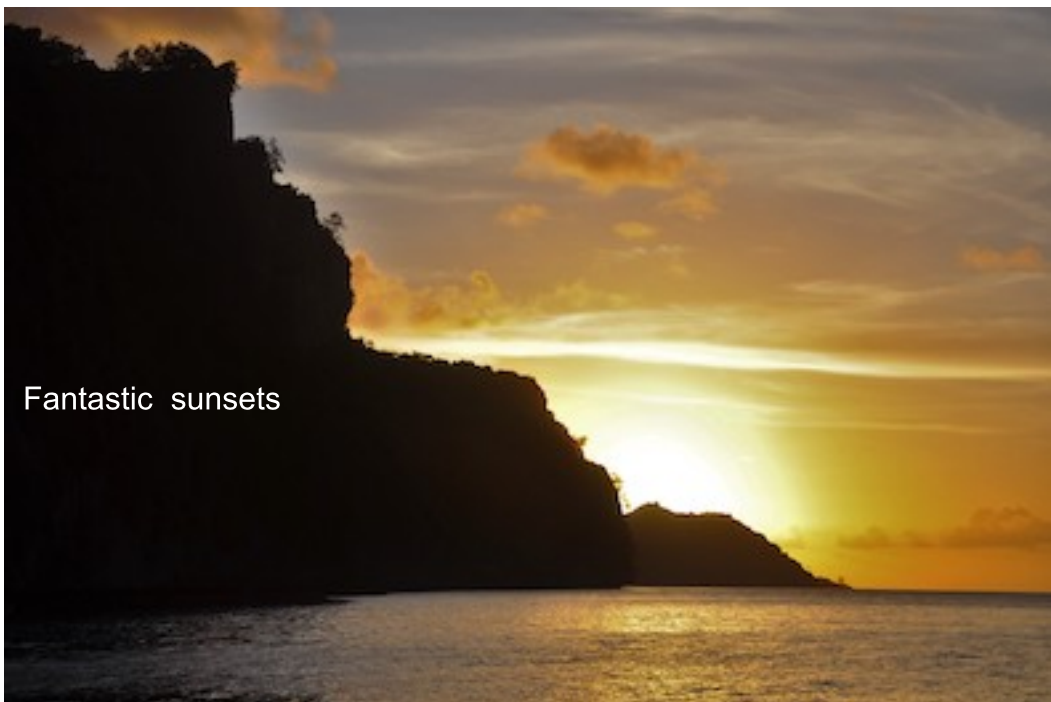


*Stunning Panasia Island*

## ***Calvados Islands***



*Amazing shells*



Fantastic sunsets





# Hinchinbrook Beckons

**Les Allen**

Photos Les Allen

When I plan a trip I've found local knowledge very useful, providing it's from a good source. Historically paddlers, abalone divers and sometimes yachties are good sources, whereas power boaters and non-paddlers not so good. When we arrived at Lucinda and started getting sorted and packed we had 3 different locals offer us advice and it was all the same. When they found out what we were planning they stood shaking their heads and informed us that the prawn trawlers were staying in for at least 3 days as there was a weather event coming. It appeared that BOM was not the source of weather information but the prawn trawlers were. So to head out and ignore the prawn trawler warning was considered very bad. The problem is, to paddle Hinchinbrook you have to book with national parks as they only allow a small number of people on the island at a time and of course we didn't know what the prawn trawlers were doing 6 months ago. So throwing caution to the wind we used the tried and trusted string theory to judge if we could head out. Now if you are wondering what the string theory is, you tie a piece of string to a stick and hold it up. Let's see,

the string was dry so it wasn't raining. The string was pointing in the direction we wanted to paddle so we had a tail wind. The string was not horizontal so it was ok to put up our sails. All good ... for now.

We headed out into a bit of wind wave in murky water with grey skies. Our destination was across the river mouth to Mission beach. Up went the sails as we picked up speed with a 15 knot tail wind and following wind wave. I was a little uncomfortable as I'm very scared of crocodiles. Many years ago I wanted to paddle the Kimberly in WA but was scared of crocodiles so I did some work with Malcolm Douglas catching crocs and working at the croc farm to overcome my fear. Unfortunately after working with them my fear increased as they are very impressive predators and the river we were paddling past has a lot of crocs in it. The fact that I'm writing this story means we didn't see a croc but we did have some fun on zippers and breaking wind wave as we crossed the sand bars. There was a surf landing at Mission beach so I went first. No problem for me but as I looked out I saw Neville go over.





Now Nev is 67 so you don't expect him to be agile but he did a cowboy in surf faster than any 20 year old could do. Amazing what a fear of crocs can do !!!

The beach was soft and silty with wood and rubbish. The rain forest was thick and offered no sheltered camping. If the prawn trawlers were right we would be blown off the beach so we decided to head for day 2's camp site at Zoe Bay, which we knew was sheltered with good camping. The sails made our heavy boats feel light and the rebound and slop around the headlands made the trip fun. As we rounded the last headland and headed in we had a nice push from the waves which were starting to pick up. The vista was amazing. There appeared to be a nice beach with thick green tropical rainforest at the back, with rugged mountain peaks framing the whole bay. Wow, Jurassic Park revisited. We followed the cliff line into the river mouth where we could see people. The camp site was easy to find at the river mouth and we landed right in front of the crocodile warning sign. Now I was not worried about crocs

here, as there are a lot of kayakers that do this trip and I figured if there was much risk then National Parks would not allow us to do this. The back packers camped there came over and I made some flippant remark about tying up to the croc warning sign. One of the back packers was a local who is in the area almost every weekend. She promptly showed me a picture she took 2 weeks prior of a 3 mt croc 100mt from where we landed. She said croc sightings were increasing not decreasing and suggested we maintain good croc smart behaviour. Well she convinced me! Unfortunately the backpackers camped a 100mt away weren't so smart as they were washing dishes at the water's edge at night. Ok, the likelihood is low but the consequence is catastrophic so it's still a high risk in my book. Apparently the weather event happened as the surf in the bay really increased to 2 to 3 metres. I say apparently, as we were under the jungle canopy. In fact, from the beach you could not see our camp and tucked under the canopy surrounded by mountains we didn't see the wind. The rain started to increase leaving everything damp with 100% humidity. This of course is ideal for mosquitoes and sand flies, as they were everywhere 24/7. After putting up with them for 3 weeks coming up the coast we were definitely over them and starting to get a little pissed off. The tarps were invaluable and apart from being bitten it was the ideal camp to wait out the weather. Much to our surprise a 37 foot motor catamaran arrived with some excited passengers. It was a

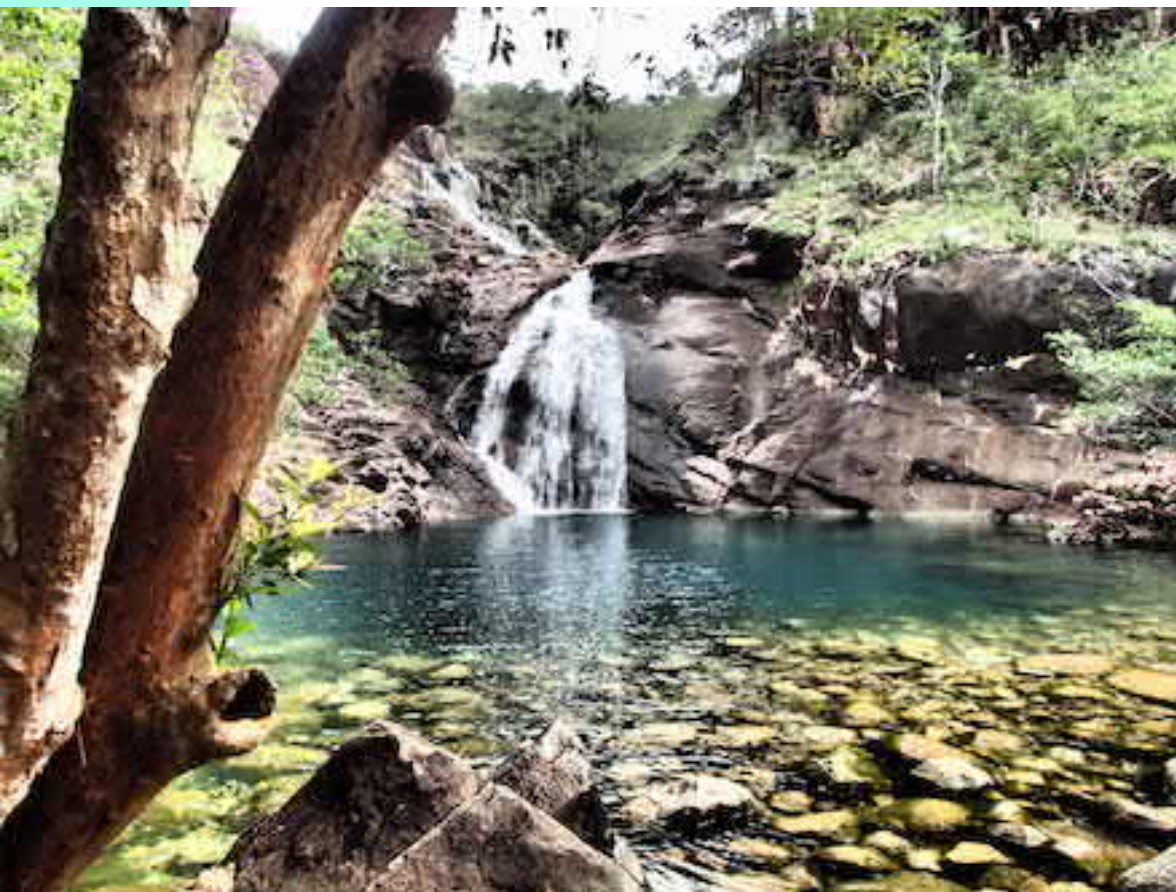




photo journalist doing a feature on a luxury resort about 30km away. He wanted to get pics of Zoe Falls for the article so the captain reluctantly bought them over. Had she known how rough it was coming into the bay she would never have agreed to bring them in. There were no breaking waves in the lee of the cliff but she said the waves were huge and steep at the entrance to the bay. Once she was committed there was nothing she could do but try to keep the boat under control and hope they made it. She was not looking forward to heading back out. The journalist wanted to get some pics of us surfing the waves in the bay as he thought they would be very unique. Of course it would be rude not to comply. We headed out before he got back to see what it was like so we had a handle on the situation before the camera came out. I was a little surprised about how powerful they were. Miss Jenni got suckered out too far and a big set came through and cleaned her up. Hmm maybe we should stay in closer just so he could get better close ups! Hey, I'm writing the story so I get to make the excuse.



Zoe falls looks great in the photo but twice as good in real life. We stayed for 4 days so every day we would head up to the falls for a swim and to hang out. You can swim at the top with magnificent views in an infinity pool or down the bottom where the falls landed on your head and the water was brisk and fresh. When we weren't at the falls we were coconut hunting and eating the crisp white flesh or walking and exploring the beach and interior. Now this has got to be the best place to be weathered in. Even after 4 days I was a bit reluctant to leave



Zoe as I had a great time there and could easily have stayed longer. The seas had calmed down so we decided to head up to Nina Beach for 2 days so we were back on schedule. The trip up was easy as we had a tail wind, some good wind wave and of course some bounce at the headlands to keep us interested. The trip up was also unique as we got to see





which was a little disappointing and we were really looking forward to clear water. Where to next. We decided to head off shore to the Brooker group of islands as we were hoping for clear water and maybe some coral. It was only about 8 or 10 km to the island group and we had a quartering wind wave with a side on swell. Up went the sails and a fun paddle was had by all. We hit the islands near the southern end and turned north close to shore. The water was

Hinchinbrook like few sea kayakers do. The mountains had cloud drifting and flowing around the peaks and the valleys had mist flowing down them. All of a sudden the clouds would part and a gigantic jagged peak would stand out only to be lost again in cloud or rain. The hair on the back of my neck was standing up, the site was spectacular, eerie, and a teradactyl would not have been out of place. Bloody amazing.

Nina greeted us with a surf landing and another great camp site. Up with the tarp and wet tent and of course the mozzies and sand flies came out to greet us. Yeah, yeah I know I'm whinging a bit but enough is enough. I've only got so much blood. The next day Jen and I headed off to explore the north of the island while Nev stood guard over the camp site with his book. Unfortunately the water was always murky



very shallow so we just glided over the spectacular coral with turtles scurrying everywhere. Jen was really looking forward to snorkelling when we landed. The main island was beautiful with rich green jungle and lovely sandy beaches. Unfortunately it is a wildlife reserve so we weren't allowed to land. Fortunately the most southern island is not a reserve and we could camp on that. We were happy with that as wildlife don't get much to themselves now, as humans dominate everywhere else.

As we rounded the northern tip we were hit by a rain squall giving us strong head winds and kept our heads down to avoid stinging rain. It eased as we were getting closer the southern island that we could camp on. Nev and I were out front and a couple of friendly sharks came by. One was quite large and could easily munch a leg off if so desired. They must have been too busy watching us to notice Miss Jenni coming along behind. She of course was not aware of the sharks passing us. The big one got to the front of Jen's boat and got a big fright, turned at 90 degrees and with a big tail slap shot off. Jen of course got a huge fright with the tail slap and gave out a girly scream. Now screaming in NOT Miss Jenni and she hates it when she involuntary lets out a little scream when startled. Of course I promised never to mention it. He He.. This is not fair





satisfaction enough for me now. Even if I whinge a bit! The next day we had a tail wind and 1.5mt seas for a 12km crossing. We started by sailing across the shallow water and coral, scaring the turtles again. The 2 sharks were still there so they must be locals. As we hit the deeper water it was yeeha. I let 2 small waves pass under my boat. The back of the last wave steepened up and the back of my boat started to rise. My paddle cadence picked up as I started to sprint

really as Jen is mentally tougher than me. So how tough am I you say? Very tough.... I put the scream in the story didn't I? Now once again, the likelihood of a shark attack while snorkelling is very low, but we still chose not to go snorkelling that afternoon.

The island we camped on had a spit made up of dead coral and it made it very hard carrying the gear to the end of the spit where the only flat spot to camp was. Still it was a good camp and the tarp kept us dry. The stars that night were perfect. No mozzies but now the constant damp was getting to us. Ok, so I whinge a lot. In actual fact I could not think of another place I would rather be or another thing I would rather do at that point in time. Isn't that close to enlightenment on Maslow's hierarchy, or maybe it's just the fact that I drank the last of the red wine. Sea kayaking is one of those sports that offer a huge range of experiences. When we first started paddling 20 to 30 years ago it was always about the destination and if we planned 1,200 km in 28 days then that's what we did regardless of the weather or if we had to paddle all night to make it. The destination was everything and I loved the feeling of achievement that bought. Now I'm old so the journey is more important than the destination. Just being out here is

forward but the stern of the boat kept riding up the wave till it stopped and suddenly the boat accelerated forward. As I hit the trough, water was flying off my bow. My speed kept increasing so I could punch through a small wave in front. While I had the speed I looked right and left for the next sweet spot. With paddle flying I headed right to slot in behind the first wave of a big set. As I had speed already the boat just accelerated and I was on for a long ride. Backing off the wave I looked behind. Miss Jenni was 20 to 30 mt behind me just picking up a big set. She was flying and catching me rapidly. As she came off the wave







difference. Not to worry though, Nev is the best person to paddle with. He always turns up on time, kitted out perfectly and is normally totally independent. Last year we were at the Whitsundays and there was a weather window so we could go and see the islands farther south. Nev didn't feel like a big hit out so Jen and I headed south for 4 days without him. Not a problem for Nev as he was happy to wander by himself. It is so good to paddle with people who are always flexible and happy. Bad weather, good weather, it's all just weather and Nev stays happy and

and pulled in beside me she had a grin from ear to ear, as sail surfing is Miss Jenni's favourite thing to do.

"Wow," she said, "this is fun, but we are losing Nev." Now this was unusual as Nev is normally right up with us in sail surfing. But it has been a year since we paddled together and although there is only 5 years difference in age we are at an age when that is obviously making a

positive in both. This trip we were sharing food and Nev always did his share of the cooking or dishes. Good mates are valuable people and hard to find so going a bit slower so he could keep up was not a problem.

We headed straight for Combe Island and made a base camp from where we could explore the Friendly Islands. Another great camping spot and finally the sun came out so





we could lay everything out to dry. My clothes bag smelt like it was dead but I couldn't be sure something wasn't growing inside. I gave it a nudge with my toe to make sure it didn't move and making sure I was up wind shook out all my clothes to experience the sun. After 2 hours in the sun they felt dry but still had a very bad smell. Hmm a heavy duty wash with a bit of bleach would be the only way to get these clothes human friendly again. The last two days we had perfect weather and spent our time paddling magnificent islands with clear water, great beaches and nice clean jungle as we had had 9 days of rain, but no coral. Ah well you can't have everything. Hinchinbrook lived up to everything we were expecting from it



and more. The weather, although a little trying at times, gave us a very different view of Hinchinbrook and that we will never forget. Next time we won't do a car shuttle but start and end at Mission Beach. You always know it's a good trip when you finish by saying "Next Time..."





*Far North  
Queensland  
Kayaking*



August 2019



# Tamala '19 My first expedition Shark Bay

Brenda Stubbings



Andrew, Tony, Clive, Bruce, Peter and Brenda head off literally into the sun here we go !

## **D**ay 1

You certainly know you are packed to the hilt

when you cannot find room for a small mandarin, anywhere. Finally shoved it in my water bladder bag . Our briefing turning my



Stretching our legs on a little island off One of the Prongs





Our camp spot as the sun was setting, happy 24.5km personal best day in a kayak !!

space who was struck with illness, and made the right decision to stay at base camp.

At the tip of the Tamala station peninsula we had our first hydration break on the water and a welfare check that everyone was happy with the pace and the trim of their boats, I was easily the smallest volume boat on the journey and moving through the water was amazing to see my own bow waves, it was very calm and I was happy.

The rocky little group of islands were our stretch and snack spot before the crossing which I could see the destination afar this started a guessing game from half way across as to how far in km it actually was, I guesstimated 2km to go it was actually 3.2, my guessing improved a lot happy to say.

We landed safely and on time keeping a 6.1 – 6.5 kmph pace , had an awesome morning tea then headed another 6.5km up the coast for lunch, 18km at this stage the most I have ever paddled in a day and I felt great, as Bruce chimed in 'it will be more than that by the end of today' pumped

and after tasty snacks and more hydration we set off to find our first camp for the night.

nerves into excitement as Andrew designated trip leader laid out the logistics of day 1. The time was now I nosed dived my loaded boat into the bay with a push of encouragement from Pel the magical trip organiser, and cleared the loss of Jill into captive memory

## Day 2

Then there was 5, Clive's recently sewn knee decided to split after camp duties, so after some basic first aid was administered, good enough to get him back to base camp he set off on his own. It was really sad to see him off we all knew it was the best decision.

We broke camp headed out into our own bay no other signs of humans today, feeling great and knowing the boat was getting lighter every hour was a great confidence booster, we were making great pace and all the breaks were

stingrays were our wonderful companions and reminders of how magical this place is that they live in, and the weather was superb!

A total of 21.5km paddled today a real treat tonight some freeze dried ice-cream, oh well one must try these things. The fire was cranking and the stories flowed this is fantastic and I'm soaking it up.

## Day 3

The saddest sound when breaking camp is letting down the air mattress also it's the last

Fisherman's family hut what a great set up, wind protection and a bar fridge too!



timed to perfection.

Then it happened, a sea turtle a great big sea turtle must have been nearly a metre across the shell what a beauty, popped its head up then glided under my boat and darted under Andrews boat as well double whammy !! Absolutely made my day I love Turtles ! Following the successful routine of the day before we stopped regularly stretched ate and hydrated, little shovel nosed sharks and

day of our expedition, quick lets get happy as it's not done yet, the ol faithful wind is supposed to make an appearance right when we do the crossing, thankfully by the time we had traversed up the coast to the sand spit, where Tony and I had a break for an hour while Andrew, Bruce and Peter sailed to the remnants of a salt mine and paddled 6km return, the wind was holding maybe 15kmph,



## 2nd camp spot fire and stories



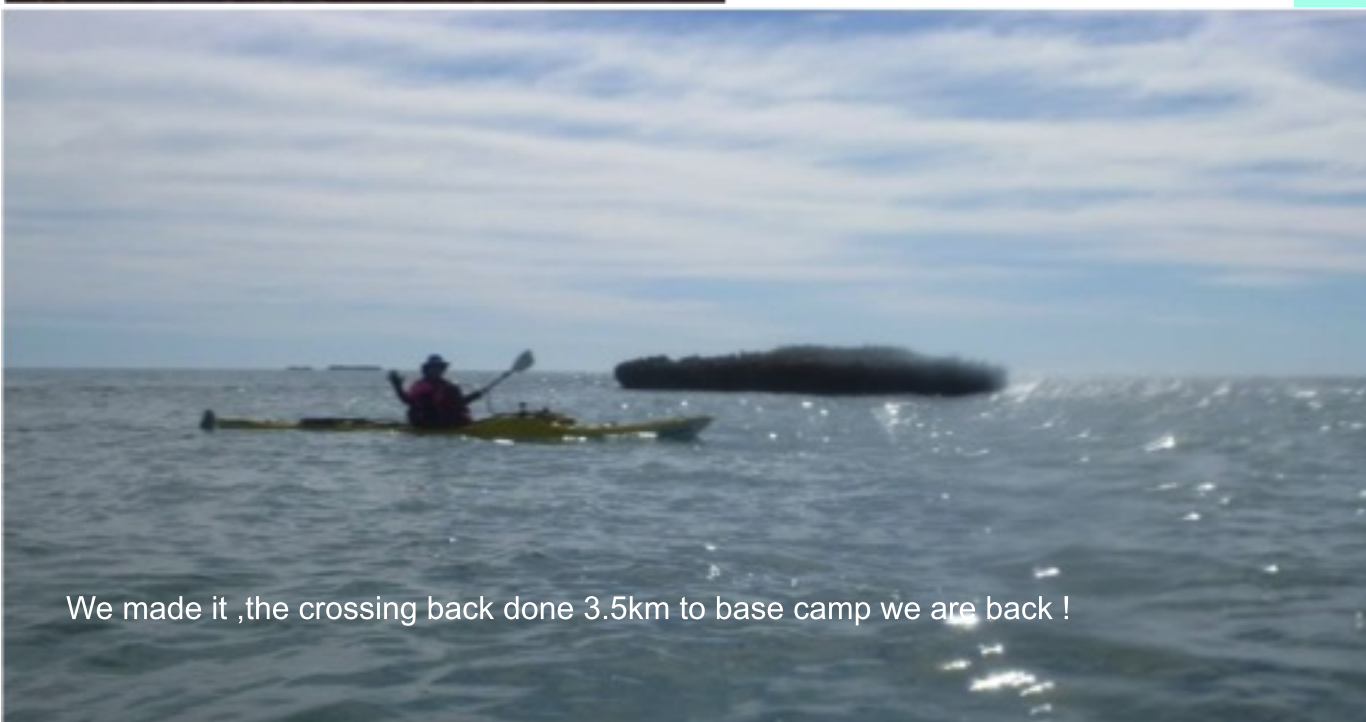
so not much to worry about. All that training at shoalwater against the south westerlies was now coming out to play, many thanks to Tony for being such a consistent paddler quote ' I'm going out and you need the practice' you rock Tony !

After our last lunch break we were ready to head back to base camp after a quick look around a well set up fisherman's family hut, complete with fake grass volley ball/cricket court and a kitchen.

The last part is always the hardest, how do you end the first of many things, first expedition, first trip report, most of all your not wanting it to end at all.

Here goes , The expedition was Amazing, many brilliants to follow they include the team and organisation of boats and gear, the weather and the harmonious camaraderie that will last forever. Thank you to everyone who made this possible and for myself – I am capable of much more than I think , in the wild I thrive.

Peace out Brenda



We made it ,the crossing back done 3.5km to base camp we are back !



*WTF! An ironing board!*  
*Photo Brenda Stubbings*

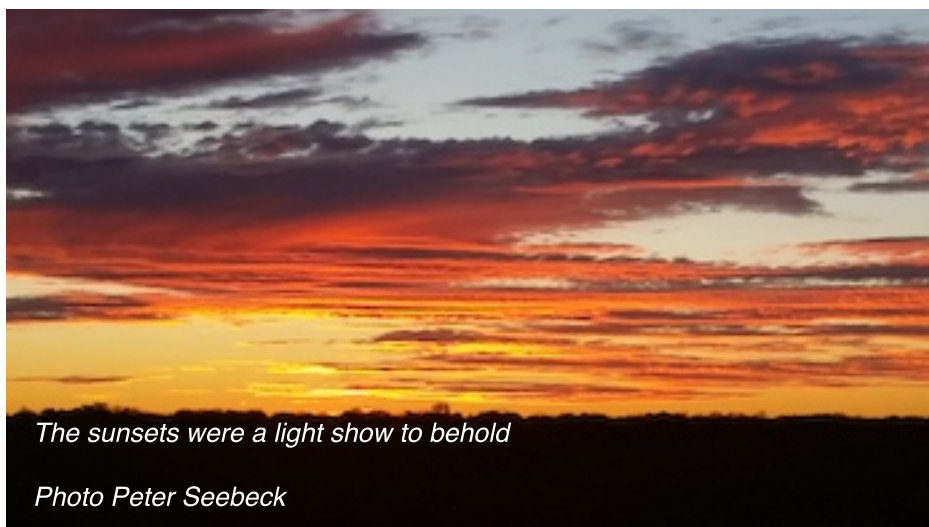


*Campsite panorama*  
*Photo Andrew Munyard*



*The sunsets were a light show to behold*

*Photo Peter Seebeck*



*L-R Jill, Pel, Andrew, Brenda, Tony, Peter, Bruce.*  
*Shark Bay 2019. Thanks Pel.*  
*Photo Brenda Stubbings*





*Jill looking very relaxed sailing in the lagoon.  
Photo Bruce Pilgrim*



*The jokes were sooo good around the  
campfire  
Photo Andrew Munyard*

*Midday siesta  
Photo Bruce Pilgrim*

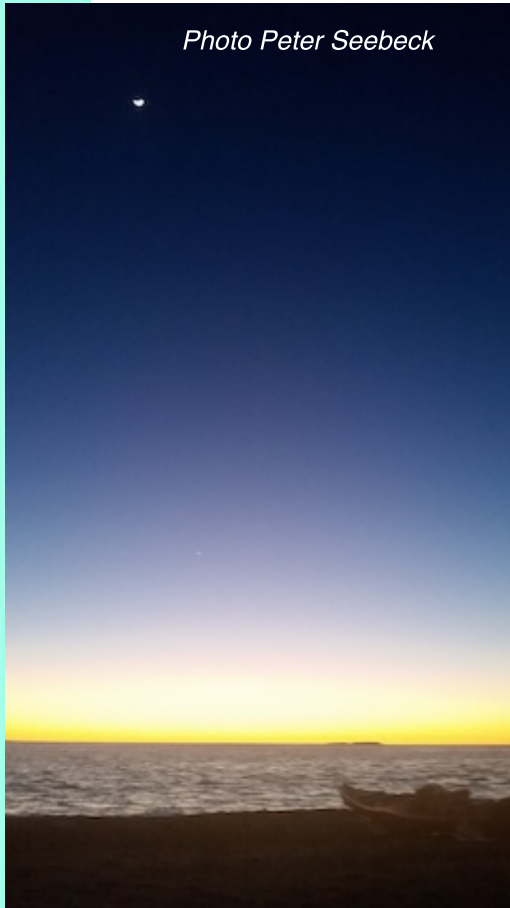


*Pel and Linday triumphantly return from fishing  
Photo Andrew Munyard*





*Photo Peter Seebeck*



*Photo Peter Seebeck*



*Peter, held down by the weight of  
flies*

*Photo Bruce Pilgrim*

*Pel asking Tony where the flush button is?  
Photo Lindsay Joll*



*Brenda and Jill looking forward to dinner  
They're smiling because someone else is  
cooking it!*

*Photo Peter Seebeck*





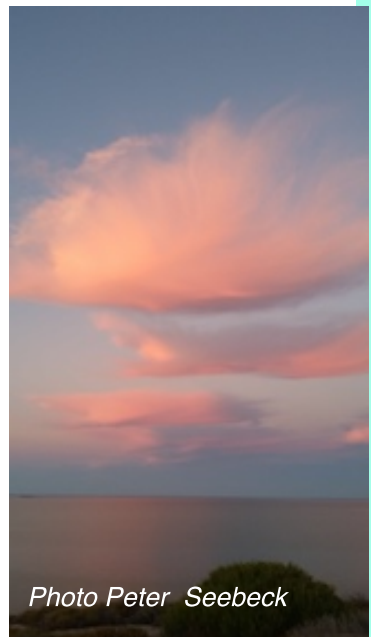
*Tony Hubbard  
Photo Bruce Pilgrim*



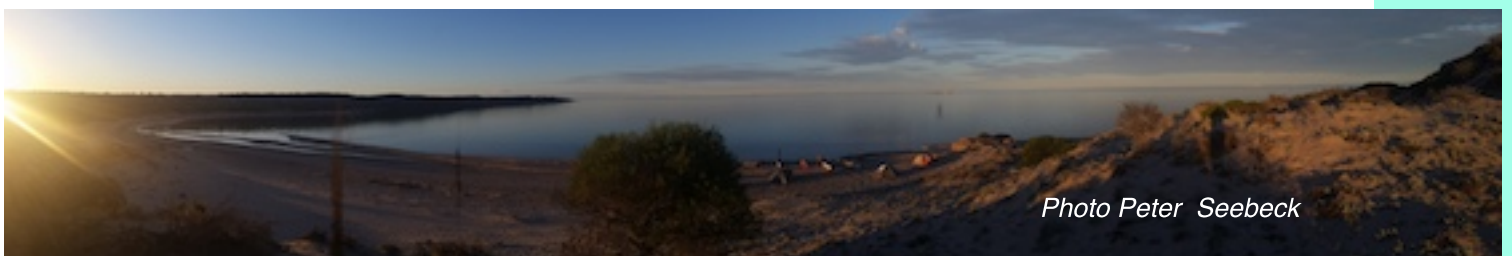
*A novel use for breakdown paddles  
Photo Andrew Munyard*



*Pete was determined to burn the massive tree  
root he brought up from Perth, it certainly  
wasn't going home!  
Photo Peter Seebeck*



*Photo Peter Seebeck*



*Photo Peter Seebeck*



*Sandy heads off to Denham  
taking the scenic route  
Photo Peter Seebeck*



*Photo Peter Seebeck*



*Lunch spot  
Photo Peter Seebeck*



# Thunderstorm Warnings

## Take them seriously

The clouds lowered and the sky looked ominous. It felt like a lightning bolt was imminent.

The storm that ripped through Rockingham in February 2018 with **100km/hr winds** narrowly missed us! We really did duck a bullet.

The intensification of the thunderstorms was not predicted. If the forecast is for thunderstorms, stay at home and read a book! (Andrew Munyard)



The intensifying thunderstorm over Rockingham  
2018  
<https://www.abc.net.au/news/2018-02-25/storm-off-rockingham/9482986>



# Sea Kayaking the Upper Murchison River Paddling the Outback!

Ann Smithson

Photos by Nic Duncan - Photographer, 0417 925 433

[www.nicduncan.com](http://www.nicduncan.com)

@nic\_duncan\_photographer

Easter approached. With daycare closed and clients on holiday, what else could an adventurous outdoor person suggest but a camping trip? Assuming that our eight-month-old and two-and-a-half year old would enjoy the fun, we headed north with our fully stocked Landy, camper trailer, and Tahe Wind 585. Our first stop was at Tamala Station at Shark Bay. The weather was beautifully sunny, the paddling easy, the beach sandy, and the only complaints were from my wonderful partner (insufficient chocolate and alcohol...!).

Heading inland suitably reprovisioned, we headed to Wooleen Station, having read much about its sustainable land rehabilitation practices. The station lies on the banks of the upper Murchison, usually dry here bar a few muddy billabongs, and is also home to the vast 5,500 hectare and infrequently-full Wooleen Lake. Wooleen Station is a decent drive off bitumen from Shark Bay via Murchison Settlement.

Reaching Murchison Settlement at 5pm in the gathering gloom, we headed on to Wooleen, but found the Murchison River crossing unexpectedly in flood due to rainfall up Meekatharra way a week previously. Fortunately, a diversion back to Murchison Settlement camp site allowed us to swim Landy, camper and Tahe over the Murchison the following morning and reach both Wooleen and our riverside camping spot, which I had not anticipated would actually have excellent water views!

That evening I seal-launched the Tahe down a very red-muddy bank into brown Murchison water that proved to be of excellent depth for paddling (over 1m in centre channel) and not requiring too much in the way of moving water skill. The stunning paddle was as scenic and spectacular as it was unexpected. Stately red river gums (*Eucalyptus camaldulensis*) dominated the river banks. Cliffs in outback red and caves were carved into the meanders. Abundant birdlife distracted. How often can you paddle through the outback like this?!

Exploring Wooleen Station with Landy, we found that Wooleen Lake had also filled, a one-in-10-year event. Not only was the lake full of freshwater, but also of birdlife.

Further paddles on the Murchison from our campsite were just as spectacular downstream as up, but also showed that the Murchison drops very fast! When below 30cm at the gauge on the Murchison Settlement road, paddling was more of a challenge, with some braiding, shallows, the odd log, and some gently moving water sections that were just passable with a sea kayak with appropriate technique. We were fortunate that an offroad track runs by the Murchison downstream of the camping sites, so that a take-out point was possible should I not have been able to paddle back upstream.

When the Murchison floods, kayakers think of the Kalbarri area. We encourage you to put Wooleen and the Upper Murchison on your list!





The Murchison in flood. Colours of the Australian outback.

Anne Smithson gets some canoe time on the flooded Murchison River.







August 2019





# Walter Munk Inventor of the Surf Forecast

*This article is reproduced with the kind permission of The Conversation  
(<https://theconversation.com/au>)*

*The article was written by:*

*Paul Spence - Senior Lecturer, Climate Change Research Centre, UNSW and  
Shane Keating - Senior Lecturer in Mathematics and Oceanography, UNSW*

*The original article can be accessed at:*

*<https://theconversation.com/hang-ten-decades-walter-munk-inventor-of-the-surf-forecast-turns-100-85117>*

**A**s dawn washes over Bondi Beach, you can see the surfers beyond the break, gently rising and falling on their boards. They gather like this when the surf forecast tells them a big swell is rolling in, carrying energy from a ferocious Antarctic storm thousands of kilometres away.

From Bondi to Bundoran, Pipeline to Mavericks, surfers around the world depend on the surf forecast to catch the perfect wave. Its inventor, Walter Munk, is 100 today – yet few surfers know his name, despite the debt of gratitude they owe him.

## ***‘Einstein of the ocean’***

Munk might be under-appreciated in surfing

circles, but he’s a big deal in ocean science. He has been described as the “[greatest living oceanographer](#)” and the “[Einstein of the ocean](#)”.

His [list of accolades](#) is astounding. There is a unit of measurement named after him: the “[Munk unit](#)”. There’s a species of ray called [Mobula munkiana](#). There’s even a [Walter Munk Award](#) for outstanding contributions to oceanography, which of course he has won.

Munk has made fundamental contributions to our understanding of ocean circulation, geology and climate change. But perhaps his most influential work is the science of wave prediction, which he developed while still a doctoral student in California.

## ***Wartime expertise***

After graduating from Caltech in 1938, Munk began a PhD with renowned Norwegian oceanographer [Harald Sverdrup](#) in the sleepy seaside town of La Jolla. Distressed by Germany's annexation of his native Austria, Munk became a US citizen and joined the war effort, first as an army private and later with the US Navy Radio and Sound Laboratory.

While observing Allied troops training for an [amphibious invasion](#) of Northwest Africa, Munk noticed that waves were pummeling the

team of scientist studying how swells generated by Antarctic storms travel more than 16,000km across the Pacific Ocean. The team set up stations to measure the waves as they travelled in a [great circle](#) from New Zealand to Alaska. Munk and his family spent more than a month in American Samoa for the experiment, monitoring pressure sensors mounted on the ocean floor and recording data on paper tape punched with holes.

The experiment yielded a surprising discovery. The waves showed very little decay in energy on their



landing craft as they approached the beach. He immediately called Sverdrup, and together they developed techniques for predicting ocean waves and surf conditions for amphibious warfare.

Their methods were so successful that the Allied forces used these to predict wave conditions for the D-Day landings at Normandy. Based on those predictions, General Eisenhower delayed the operation, the largest naval invasion in history, until June 6, 1944. Undoubtedly, Munk's research saved thousands of Allied lives and helped bring about the end of World War II.

**T**hus began a lifelong fascination with ocean waves. In 1963 Munk, then a professor at the Scripps Institution of Oceanography, led a

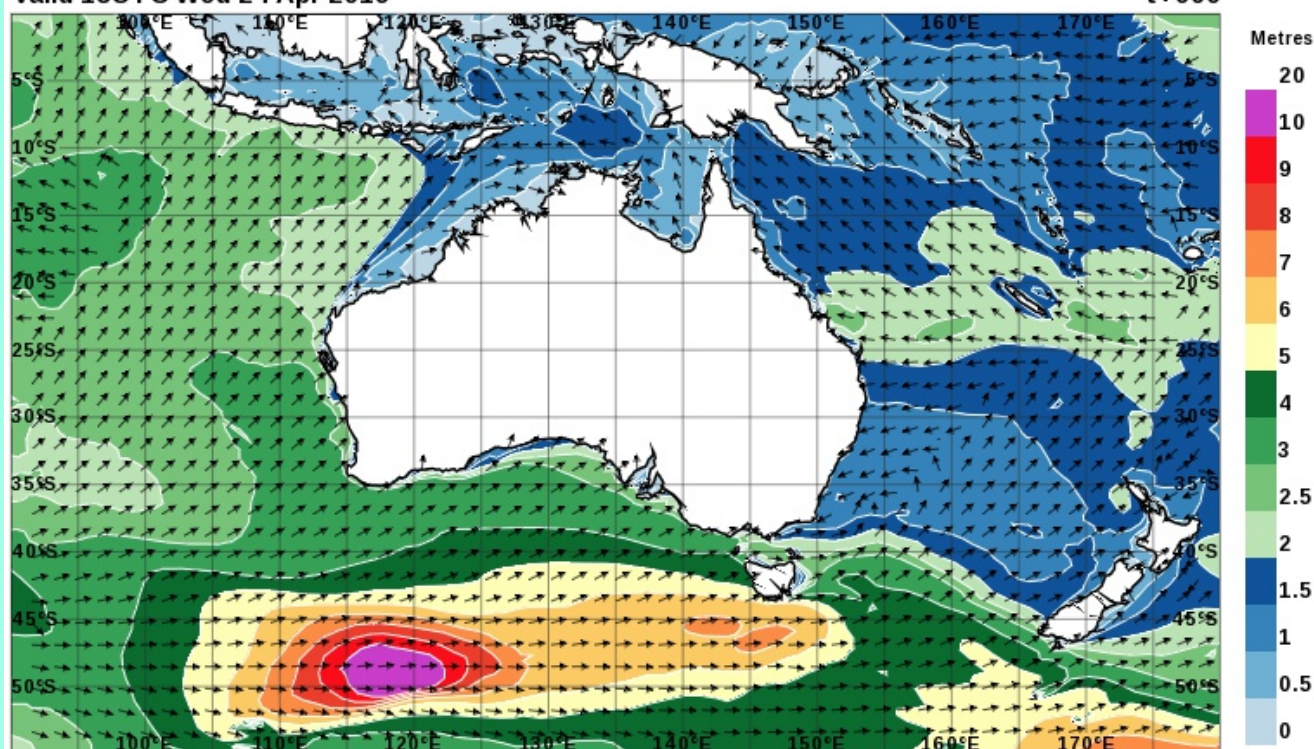
journey across the Pacific. The biggest change was a shift in the observed period of the wave – that is, the time between passing crests. Munk's team found that the period increased as the waves moved northwards.

This happens because ocean waves are [dispersive](#), meaning that the speed of the wave depends on the period. Long-period waves move more rapidly, so they run to the front of the pack, while shorter-period waves lag behind. The phenomenon is well known to surfers, who experience this dispersive ordering as a gradual shortening of the time between sets of waves.



Total Wave Height & Direction  
Valid 18UTC Wed 24 Apr 2019

AUSWAVE Regional  
t+000



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A wave forecast model by the Bureau of Meteorology

<http://www.bom.gov.au/australia/charts/viewer/index.shtml?domain=combinedW&type=sigWaveHgt>

## Order from ‘lovely confusion’

In a 1967 [documentary](#) that Munk made with his wife Judith about the experiment in the Pacific, he describes how an orderly ocean swell can emerge from the chaos of an Antarctic storm. Using the analogy of tossing a handful of pebbles into a pond, Munk describes how the water surface is initially broken up in “lovely confusion”. But eventually a steady procession of ripples can be seen spreading outwards from the point of impact – regular and predictable.

Munk’s pioneering work on ocean swells, together with his wartime research on wave prediction, gave birth to the science of surf forecasting. In 2007 his contribution to surfing was formally recognised by the Groundswell Society, a surfing advocacy group. Munk later recalled:  
*I have been fortunate in receiving the recognitions that are traditional in a scientific career. But none gave me as much unexpected pleasure as this recognition by the Groundswell Society. I was utterly delighted.*

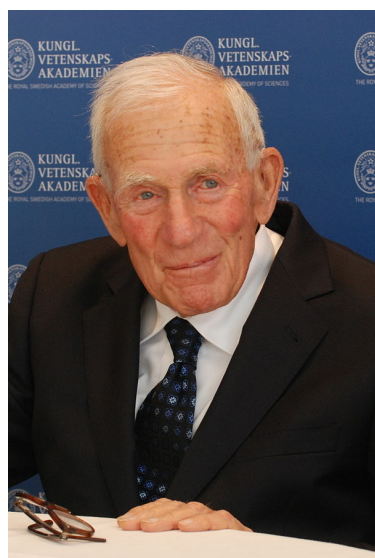
After more than eight decades of ocean science, Munk shows no signs of slowing

down. He is still hard at work, researching and speaking at international conferences. As the worldwide oceanographic community prepares to celebrate his centenary, Munk’s enthusiasm for discovery has not dimmed.

In an [interview this month](#), Munk revealed what keeps him going. “More enthusiasm than knowledge. That’s been the key of my career — to get excited before I understand it.”

Hang loose, Walter.

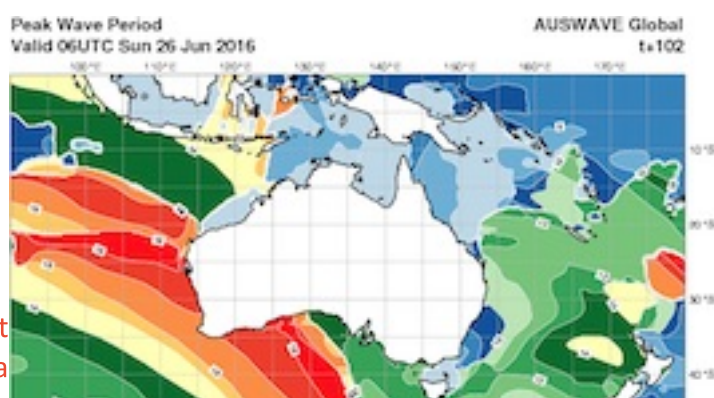
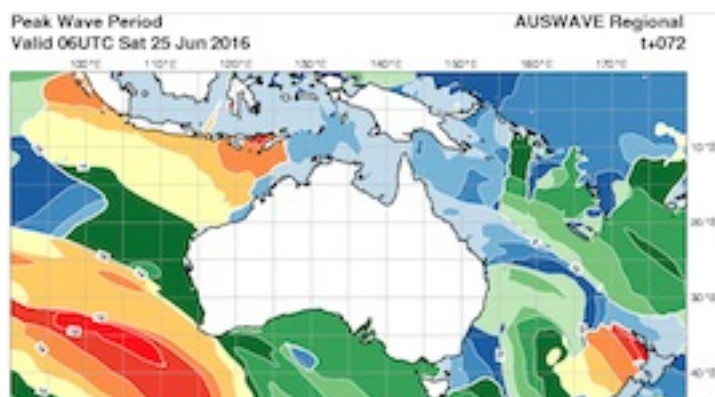
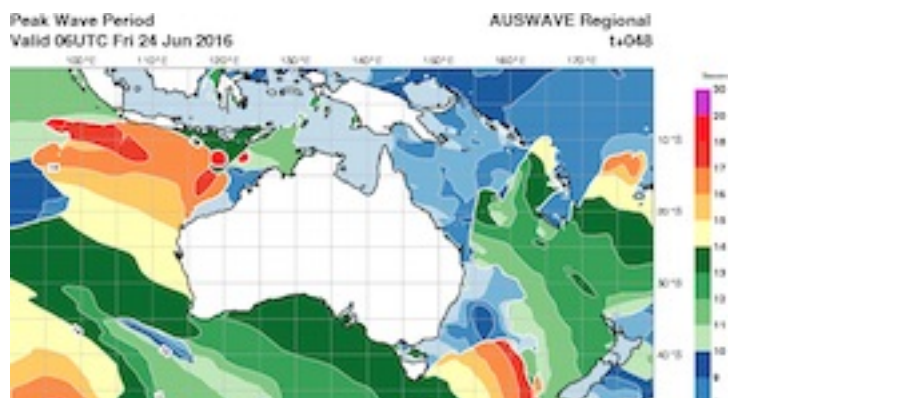
<https://youtu.be/MX5cKoOm6Pk>



Munk in Stockholm in 2010 to accept his Crafoord Prize.

*Photo Credit:*  
Holger Motzkau 2010,  
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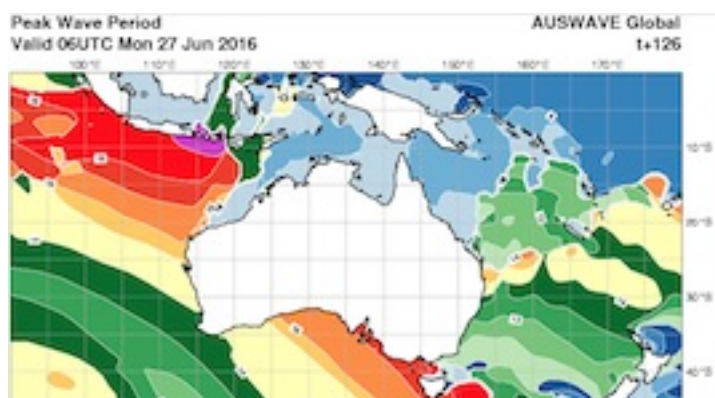


The propagation of waves from a Southern Ocean storm as viewed on the BoM site 2016.

<http://www.bom.gov.au/australia/charts/viewer/index.shtml?type=pPeriod&tz=AEDT&area=Au&model=CG&chartSubmit=Refresh+View>

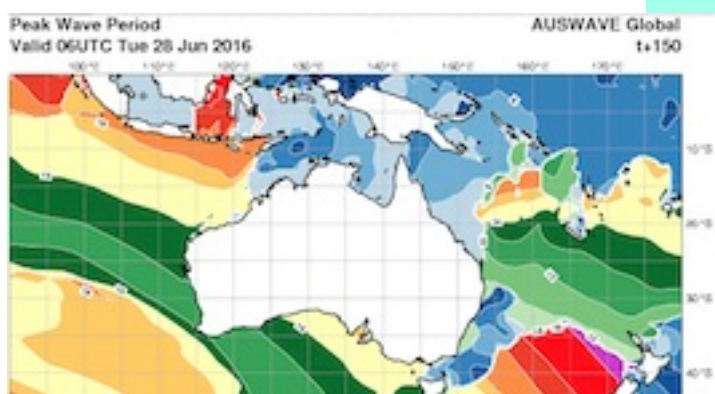
*The website has a 3 hourly progression so you can see how the waves propagate over time*

Purple waves are 30 second period and yellow is 14 sec.



You can see the beautiful filtering that occurs with longer period wavesfronts propagating to the front and arrive first at distant shores.

It was Walter Munk's early work that proved this actually happened over the vast distances of the oceans





# Let's Talk about Swell Waves!

Written by Richard Lailey

Reproduced from Feb2017 Sea Kayaker Magazine

One wet and windy Saturday afternoon in August 2016, I was checking out the upcoming weather on Seabreeze, looking for some sun. A closer look at the weekly wave forecast for Perth showed some 20 second swell waves arriving from the SSW on the Monday evening (see Figure 1). Swell waves of more than 20 seconds are unusual in Perth, and begged the question - where on earth (literally) had they come from?

As it turns out, there is a formula you can use to estimate the distance to a swell generation region based on a wave's change of period at a single arrival site over a nominal period of time - say 24 hours. For the science nerds amongst you (we know you're out there), this formula (in metric units) is:

$$\text{Distance} = g \cdot dT / 4\pi \left( \frac{1}{P_2} - \frac{1}{P_1} \right)$$

where  $g = 9.81 \text{ m s}^{-2}$ ,  $P$  = wave period in seconds and  $dT$  = time period in seconds.

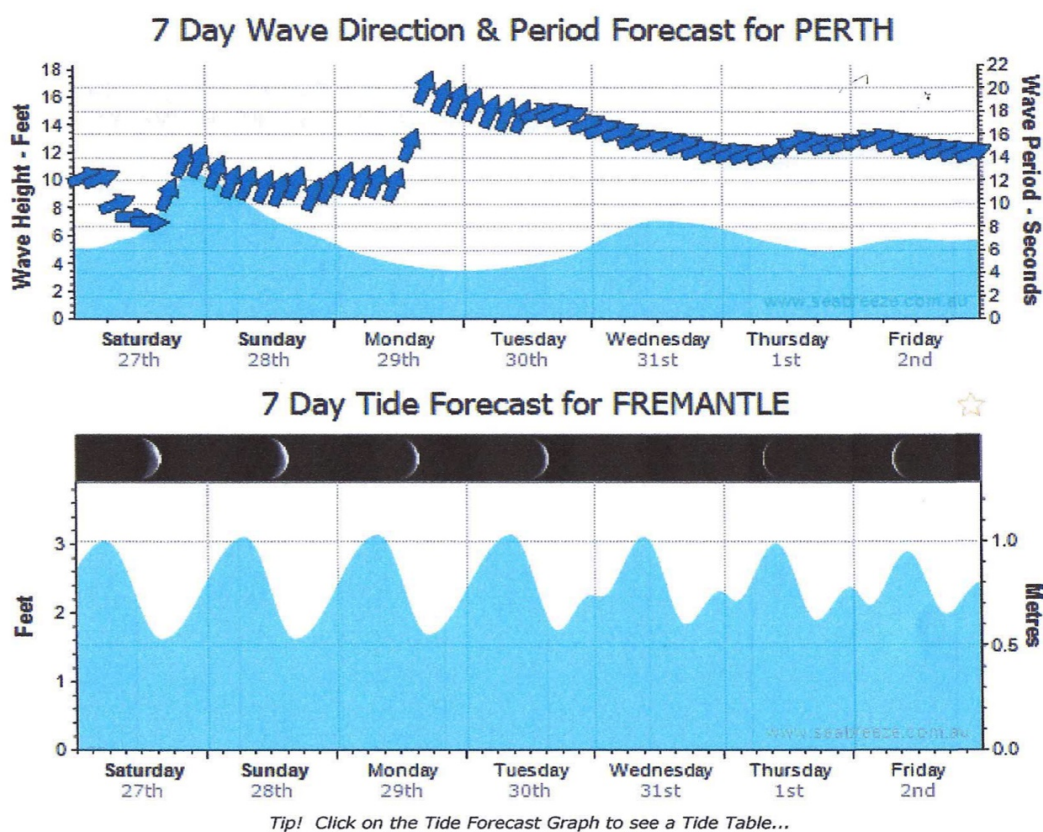


Figure1

Live Weather

Graphs last updated at 10:58 am, (8 minutes ago)

From the Seabreeze graph, Figure 1 the swell period changes from 20.1 seconds to 17.9 seconds between 5pm on Monday and 5pm on Tuesday. From the above formula, using  $P_1 = 20.1$ ,  $P_2 = 17.9$  and  $dT = 24$  hours, the distance works out to be 11,029 km. That's one helluva journey!

On Monday evening I checked the real time data from the WA wave buoys to verify the accuracy of the forecast. As Murphy's Law of the Sea would have it, both the Rottnest and Cottesloe wave buoys were out of action (as were the Albany, Bunbury and Mandurah buoys for that matter!). This was because some of the buoys had been switched off for maintenance, while others had intermittent data transmission problems. To add to the Department of Transport's woes, the Jurien wave buoy had gone adrift!

On Tuesday morning, I went down to Sorrento beach to visually "time" the arriving waves. This is not an easy task at the best of times (there are often waves of different periods mixed together), and that day was no exception. Twenty minutes of observations suggested wave periods in excess of 16 seconds, possibly more, so a forecast period of 17.9 to 20.1 seconds sounded plausible.



Figure 2

Figure 2 shows potential pathways for swell waves arriving in Perth from storms in the Indian, Atlantic and Southern Oceans. Two interesting websites which show the locations of current storms at any time around our planet can be found at:

<https://earth.nullschool.net/#current/wind/surface/level/orthographic=81.51,-28.24,254/loc=58.382,-26.483>

Mean sea level pressure, wind speed at 850 hPa and geopotential 500 hPa, temperature at 850 hPa | ECMWF

Projecting the calculated distance outwards from Perth suggests the late August swell waves most probably originated from a large storm somewhere not too far to the west of the Cape of Good Hope, either in the southern South Atlantic or Southern Ocean. But how can waves travel such vast distances?



First, waves are only patterns of movement - the actual water particles themselves do not travel with the waves! In fact they move in circular orbits in deep water and elliptical orbits in shallow water - forwards under a crest and backwards under a trough. These orbits decrease in size downwards towards the seabed.

Second, swell waves are less confused than wind waves and are more regular, symmetrical and sinusoidal in shape (and therefore less prone to dissipation).

Third, as waves move out of a generation area (or storm region), they tend to form into groups as a result of “interference” between waves of slightly differing lengths and periods.

What is really amazing is that if you were able to observe a group of individual waves travelling across the ocean (in deep water) you would see a wave grow at the rear of the group, and at the same time, the leading wave die out. Then another begins again behind the last, which has grown to full size, while again the leading wave grows less and fades away to nothing. These individual waves, in effect, pass through the wave group and out the front. (Individual wave forms travel twice as fast as the ‘wave group’ in deep water). Therefore individual waves don’t actually travel very far! When waves reach shallow water the individual wave speeds and group speeds become equal!

Swell waves become more visible as they enter shallow water, align themselves with the coast and increase in height until they eventually break as surf. Figure 3 shows swell waves arriving at Pitas Point in Ventura, California – and shows you how lucky some surfers can get! Other amazing photos



Figure 3

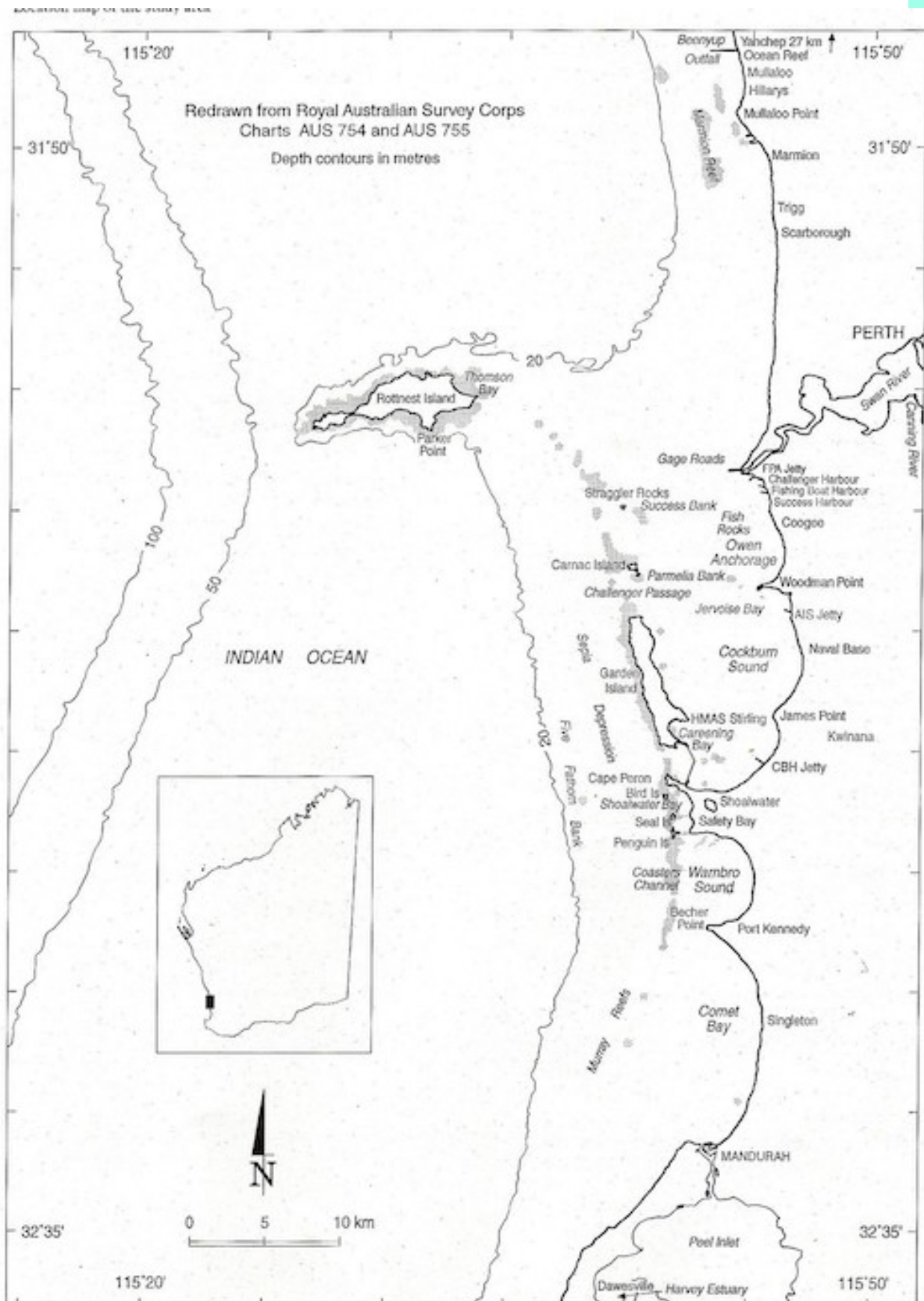
of swell waves can be found at [www.surfer.com/above-it-all/](http://www.surfer.com/above-it-all/).

Moving back to our situation, using wave speed (in deep water) =  $1.56P$  and wave length =  $1.56P^2$  where  $P = 20.1$  seconds, means that the first swell waves to arrive were travelling at about  $31 \text{ m s}^{-1}$ , and their wavelength was about 630 m. **Note:** wavelength is the perpendicular distance between

successive waves - not the distance along a wave crest (that's the crest length!).

Since the group speed is half the speed of individual waves, these swell wave groups were travelling across the ocean at  $15.5 \text{ m s}^{-1}$ , so they took 8.2 days to get here!

Figure 1 indicates the arriving 20.1 second waves were about a metre in height. So how large were





they when they left the original storm? Using wave decay tables such as those found at:

[http://www.stormsurf.com/page2/papers/swell\\_decay.html](http://www.stormsurf.com/page2/papers/swell_decay.html)

shows that for a distance of 11,029 km (or about 6,000 nautical miles) the swell decay factor is 0.11, giving an original wave height on leaving the storm area of about 9 metres (or 30 feet). According to these tables, nearly 50% of the original swell height is lost within the first 400 to 600 km of leaving the storm's fetch area, and a further 50% is lost over the next 2,000 to 3,000 km.

### **Perth's Swell Wave Climate**

So what is Perth's swell wave climate? The following is a brief summary taken from the South Metropolitan Coastal Waters Study: 1991-1994 by the EPA:

**1.** Perth's swell waves have significant wave heights of between 0.5 m and 5 m, with an annual mean of 1.8 m and a mean period of 12 seconds. Note: significant wave height represents the mean of the highest one third of waves (over, say, a half to three hour period) and is the most widely-used method of representing wave height.

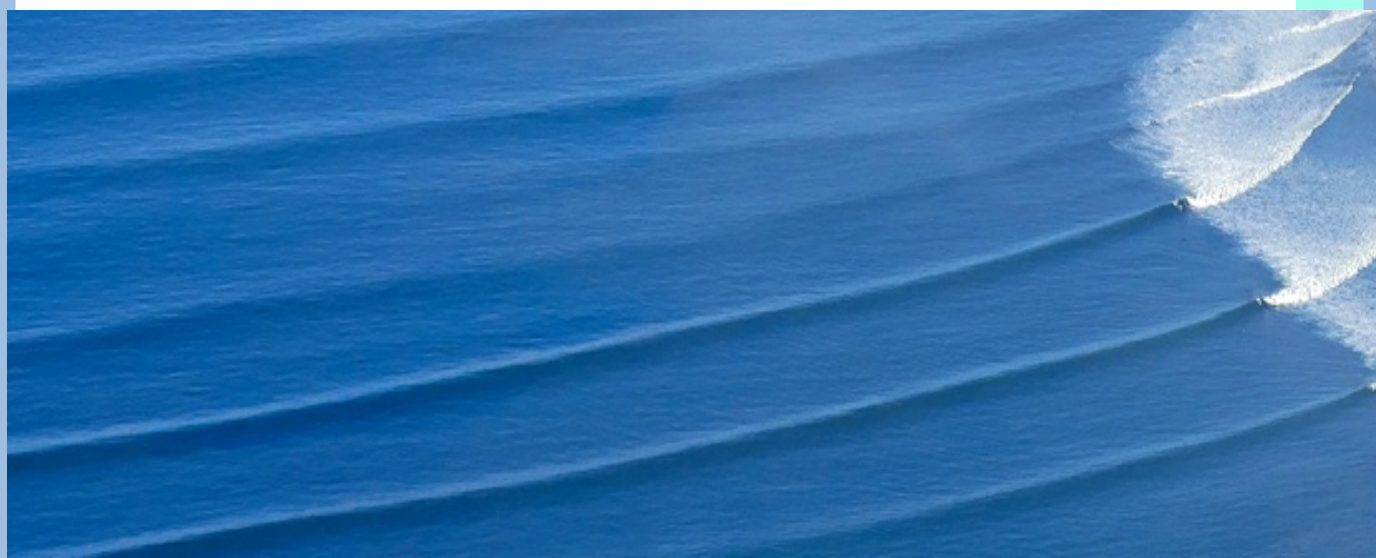
**2.** Swell generally develops in the Southern and South Indian Oceans, is highest in winter and spring, lowest in summer and early autumn, approaches from the SW and strikes our coast predominantly from the WSW.

The above statistics were derived from a year's measurements taken from the Rottnest Waverider buoy (which is moored approximately 7 km SSW of Cape Vlamingh, West End, in a water depth of 48 m).

When swell or locally generated wind waves move into shallower water, coastal processes can take effect such as refraction, diffraction, reflection, shoaling, breaking and reforming, before the waves finally dissipate on our reefs and beaches as surf.

In Perth, swell waves are not that good for surfing as there are reef lines, offshore islands, sand banks and depressions which dissipate them, break them up and generally get in the way. There is a gap in the reef line between Trigg and Fremantle which lets surfable swell through when conditions are right (see Figure 4 from the Southern Metropolitan Coastal Waters Study).

Ocean waves are a fascinating phenomenon, which is why we as sea kayakers never tire of being out there among them. Every day is different and every day the sea is different, always changing and never the same, and mostly because of the waves!



# Not So Funny Photo!



Ann's advice to anyone contemplating this type of training exercise:

"No Tahe's were harmed during this training exercise.

Take away from exercise:

It was determined that driving in paddle shoes when moving the car can result in catching the wrong pedal!"

Wrote off car and house porch, Tahe had 2 minor scratches...

Editors note: I prefer using a hammer and chisel for renovations, but I can see the speed and time advantage of using a kayak.