HOW TO SEE MORE AT NIGHT

Night paddling is something that not a lot of kayakers do, yet there are are some very great rewards for those who do. The enjoyment to be had in a moonlit paddle across a harbour or around the shore of an estuary is so different from a midday paddle that it is as if you are in an entirely different place - it is another way of making greater use of your local waterways. There are many skills that can be developed to make night paddling more enjoyable and safer; skills that will come in very handy if you should ever be caught out after sunset on a trip. Perhaps the most important of all these skills is to develop techniques for better night vision. Very few outdoor people really know how to use their eyes efficiently at night. At the first Sea Kayak Forum in Nelson in 1989. Paul Caffyn demonstrated some of the necessary skills.

Everyone knows that you can see more stars after you have been outside a few minutes. On the other hand, do you know how long it takes for your eyes to adapt to the dark? Do you know what to avoid so as to increase your night vision? Do you know how long it takes your eyes to re-adapt after exposure to light such as when glancing at your compass? The answers to these questions are crucial at night.

Upon going outside into the dark, your eyes will adjust to the dark quite naturally. Within a half hour, your eyes are capable of seeing very dim lights. They have adapted to a level of light millions of times lower than in daytime. This is no small accomplishment, and it required physical and chemical changes in your eyes.

The pupils of your eyes dilate to let in more light, but like a lot of other things, this adjustment is less effective as you grow older. Nevertheless more of the available light enters the eyes, where it falls on the retina. The light-sensitive cells in the retina are of two types, rods and cones. The cones are used in the daytime, or similar bright light. They are sensitive to colours, and are capable of seeing extremely fine detail particularly in the very centre of the visual field. When you concentrate on an object, your eyes move to bring the image into the centre of the visual field, where you can see the finest detail.

As good as cones are, they have one serious drawback. They require a fairly high level of illumination in order to function. So they are nearly useless at night.

It is at night that the rods come into the picture. They are extremely sensitive to light, so sensitive that they can be used in near darkness. However. they are severely overloaded in daylight conditions. Chemical changes occur to protect them from damage. But when it becomes dark, these chemical changes reverse, and the rods slowly become sensitised. The rods can 'see' light 40 times dimmer than the cones.

The key word here is slowly. It takes about 15 minutes for your eyes to become reasonably well acclimatised. And it takes a full half hour for them to reach their maximum sensitivity to light. That is a half hour in the dark when you have very poor vision; if any at all.

Now any bright light will destroy your night vision, so it is vital that when paddling in the dark, if you must use a light, use a very dim one. While night vision builds up very slowly, it is destroyed very quickly, and rebuilds very slowly. A red light is much less damaging to night vision than any other colour, so use a red light to read your compass by, or to read a map/chart. If you have no red light and must use a flashlight. use a small penlight, and cup it in your hand so that only a crack of light shows. You can turn a

flashlight bulb into a red bulb by dipping it in fingernail polish/varnish. Having worked to get your night vision, you must be on your guard to keep it. Light up a cigarette with a lighter, and you destroy your night vision for up to 10-20 minutes. Not just yours either, but the rest of your party around you will also lose their night vision in that one moment of light.

Learn to look either just above, or just below the horizon as night vision is poor in the centre of the visual field.

When using a torch as a spot-light, shine it on whatever you want to see, do not allow it to shine onto the deck of your kayak as the bright reflection will also destroy your vision. Party members should carry dim lights rather than bright lights as 'navigation' lights. Remember that paddle craft should carry a white light showing all round as their navigation lights.

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NEWS FROM PAUL CAFFYN

Paul phoned on July 18 from a settlement called Platinum, Alaska. Paul is now north of Bristol Bay and the Alaskan Peninsula. The 80km wide Bristol Bay was full of the 1500 or so fishing boats gathering for the annual salmon season and Paul was assisted by a spotter plane which gave him a lift into a settlement to have his tent repaired. It had suffered from a bear attack.

The intention is to get to Nome by August 12, and to attend the Sea Kayak Symposium at Seattle on the way home.

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One Tuesday in January, 1989 at 2.15pm I launched my kayak at Carter's Beach just south of the Buller River to kayak from Westport around the outside of Farewell Spit, across to Separation Point and then to Mapua. I had a week's supply of food and with a good forecast there was little stopping me.

From the mouth of the Buller, where I encountered some Hector dolphins, I took a direct line to Granity, when I got close I followed the coast to the Mokihinui River, then on to Gentle Annie Point where I landed in small surf onto a shingle beach. It was 8.30pm and I had covered 42km for the day. I made camp just above the high tide on some flat shingle.

I awoke just on 5am for the morning weather forecast which was for good weather. At 7am I launched through the still small surf and soon came across about eight more Hector Dolphins; getting quite close to them, but they always kept just out of reach. I rounded Old Man Rock at Kongahu Point where I saw a spectacular cliff; the highest on the trip. It rose more than 100m from sea level. At Falls Creek, about 3km south of the Little Wanganui River, I weaved in and around the reef which is in front of the creek, missing the breakers and landed just up the creek on a small beach. One of the residents and his two boys came down from their house to see me. He told me that he had been living there for 10 years. There is no road to this small settlement of 5 homes. I was there for half an hour, then cast off on my long haul past the Karamea River mouth.

Not far from the river I had my first experience with one of the many sharks I was to come across on this trip. It was a blue shark of about 2m in length. He nudged the rudder! At this point I decided to put the power on and left him in a shower of spray, occasionally looking over my shoulder. He did not follow.

Time just slipped away and I was soon approaching the Kohaihai

River; the southern end of the Heaphy Track. I could see people on the beach fishing and the odd car coming along the road. Kohaihai Bluff rises vertically with its many sea caves and small arches. A backswell was bouncing back out to sea, so I kept a safe distance out. About an eight-knot southerly blew up, increasing my speed. I had no desire of becoming stormbound on this very exposed coast so the boost to my speed was welcome.

The scenery was beautiful with sandy beaches, rocky points, sea stacks, cliffs, palm trees, native bush, and windswept scrub. I was close to the Beach without Heaphy when. warning, the sea turned into a mass of white foaming water with tuna and kawhai in a feeding frenzy. There were fish everywhere, but as quickly as it had started, it was all over. The southerly wind had eased off, leaving me with a swell with a lump on top. As I was passing the Heaphy River I could see someone fishing at the river mouth and behind, smoke curling out of the Heaphy Hut chimney. It was very tempting to pull in but conditions were good, so I kept on. This was where the Heaphy Track turns inland away from the shoreline to continue up the Heaphy River.

Under the Heaphy Bluff, on the rocks, I saw the remains of a wrecked Japanese fishing boat, only the bow section was visible. The coast is rugged with very high bluffs. The bushline is just above the high tide mark, with sandy beaches and rocky points. I was able to keep close to the shore, and sometimes be on the inside of the outer sea stacks. As I rounded Wekakura Point it was getting on into the evening, sometime soon I would have to land. Seals were numerous, and with the rocky foreshore and steep points, I knew I was entering the sweeping coast of Big Bay. I landed not far from a stream in about the middle of the Bay. Within minutes I had a fire going with tea cooking. I pitched the tent between two Nikau palms. Very picturesquel It had been a long day, 76km in 14 hours with only a halfhour break.

I was up just after 5am, and with the sea still in a good mood I wasted no time getting a fire going, with all the driftwood about. breakfast I cast off and on my second attempt, I managed to get away with only a faceful of water. I rounded Rocks point, which Captain Cook named on his first voyage to New Zealand. By now the sun had risen and the cicadas were chorusing noisily. I was familiar with this coast, as during December of 1986 four of us had tramped from Turimawiwi River to the southern end of the Heaphy Track. What took us all day to cover on foot took me one hour to paddle. As I was approaching Kahurangi Point a small crayfishing boat was working its pots. The skipper and sole occupant kindly gave me a crayfish. varned for about one minute, then I was on my way again. The day was hot, and this part of the coast seemed to drag on. I had a panoramic view of the northwest mountains with the higher mountains covered in cloud. The water was very clear and I was able to look well down to see the offshore reefs. As I was approaching Sandhills Creek there was a roar from behind. I spun around - it was the crayfisherman; he gave me a wave and within minutes he was a dot on the horizon. He had told me that he fishes out of Whanganui Inlet.

A sea breeze was coming from the north, which slowed my progress. I was getting into farmland and I could see the odd farmhouse up on the hills. It was late into the afternoon before I got off Shark's Head.

I had been going all day, and with the headwind tiring my arms I decided that this little cove was going to be too good to pass by. It was low tide and the bullkelp was slowing the swells down; I sneaked in through a gap in the reef to land on a small shingle beach. There was a small waterfall running over a limestone shelf under which I stood for about five minutes. It was most refreshing. At the head of the cove there was a

small cave into which I got out of the burning sun and cooked the crayfish. The tide had turned, which meant that I would be pushing into the current for the rest of the day.

I headed for Whanganui Inlet, about an hour away. There is a bar going right across the entrance and as the water was so very clear, I could see the sand-bar all the way across. North of the Inlet the coastline is very steep, with many archways and caves. The sea breeze had died away, leaving a round-topped swell. I was off Pilch Point where a cave passed through the point, so I paddled through and could see Archway Island.

I landed close to the island on Wharariki Beach. Soon I had a fire going and cooked my evening meal. Shortly it was dark and I was sitting by a glowing fire and starlit sky. I slipped into the sleeping bag feeling well pleased with the last two and a half days.

I rose at 5.30am and was on the water at 7. Overnight an easterly breeze had come up and it was now slow going around Cape Farewell and the first half of the Spit. I was paddling past Pillar Point when I noticed a shark's fin. A blue shark of around 2m in length, but he seemed unaware of my presence, so I did not disturb him. I saw about fifty sharks along the length of the Spit. They kept their distance so I became tired of looking out for them.

About halfway along the Spit I landed to have a break. The wind was swinging around to the north, which was making it easier for me. I pushed off in a low surf and headed east to the lighthouse, which is at the end of the Spit.

I was about an hour from the lighthouse when I noticed two landrovers and two 4WD buses taking tourists to the lighthouse. It is estimated that there are 3.4 million cubic meters of sand added each year to the Spit, and I quite believe it the way the wind blows around there. There was not a lot of birdlife on the outside of the Spit but there are

believed to be over ninety species which spend most of their time in the shallow waters on the inside of the Spit. Just as I was getting to a point opposite the light, the tour party was about to leave and they watched me surf in. I managed to answer some of their many questions. One of the bus drivers told me that they took out 70 people to the Spit that day. Soon after landing, I pushed off and we went on our separate ways. To the south, dark clouds were getting lower and lower.

After an hour of paddling there was enough depth of water over the sand to cross over the Spit. This is a very shallow piece of water with shoals everywhere. Separation Point was under cloud and not visible. The wind was coming from the north, which is what I wanted as it would be right behind me. By using my compass to keep on course, I headed to the south. This is a 25km Within one and a half crossing. hours the cloud had begun to lift. I was right on target. As I was passing Separation Point the navigation beacon began to flash. I was headed for Mutton Cove. Just on dark I pulled the Nordkapp up on the steep granite beach. Shortly after the tent was pitched it began to rain; I cooked tea in the tent and crawled into the sack.

Saturday: With the kayak packed and ready I sealshid down the beach and into the water. This morning there was a westerly blowing with a sky full of dark clouds and some rain. This was my last day with the intended pullout point to be Mapua. The sea was lifting and the wind increasing.

I paddled on past this beautiful coastline with its many headlands and golden granite beaches. I pulled into Fisherman's Island for lunch; a little island with no fresh water, but with a sheltered landing to the south. After lunch I castoff and headed for Mapua. By now the sea was getting rougher with whitecaps all around. By the time I reached Ruby Bay the tide was well out and I could hear the sea roaring on the Mapua Bar. I weaved my way in and out of the breaking waves until I found a gap to

pass through. I had several waves break on the back deck. With a large wave lifting up behind me, I managed to surf in front of it over the bar and into calmer waters. By now the tide had turned and was coming in and I had a free ride the last 200m.

I had covered 300km in four and a half days, due mainly to the fact that I had had few head winds, early starts, and good conditions.

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THE RESOURCE MANAGEMENT LAW REFORM BILL

The Resource Management Law Reform Bill has been through the Select Committee process and is being drafted in its final form now. We expect the draft to go before the House about August 10. MP's will be debating this Bill probably right up to the election in October; the Labour Government had hoped to have the Bill through and onto the Statute Books by then, but this Bill is very complex and I see no possibility of that. When this Bill comes into the House we will need to examine the draft Bill and to lobby our local MP over any issue that is of concern.

Once the Resource Management Law Reform Bill has been passed, it will set the limits for the future action that we might take to protect a particular piece of coastline, or wetland area from a development proposal, or to have it labelled for special protection.

Marine biologist, Bill Ballantine, has been running public workshops on the marine environment with particular reference to setting up Marine Reserves. If Bill is running one of these workshops in your area, make a point of going, as they have been excellent.

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