

## PORT NOARLUNGA AQUATICS STAFF QUESTIONS AND ANSWERS

**Question:**

*How do you know what schools are in for the day, and what the likely student numbers in each activity are?*

**Answer:**

On the front page of your roster, (bottom half), is the schedule of schools attending the centre for the particular week. Each day is represented by a vertical column, and the times are read horizontally, across the page. Locate the day that you are interested in, then the time of the lesson you are involved in, and you will find a "box" in which are listed all of the schools that will be present at that time, on that day.

To find the "likely" student numbers, you will need to look on the other side of this page. This page contains a list of all the schools that will attend the centre during the week. Locate the column marked "school" and in this column find the school that you are interested in. Once you have found the school, follow the line that the school is on, (across the page to the right), and you will first find the name of the school contact person. Next you will find the start date for that school, followed by the total number of students that will attend the centre. After the total number, will be a series of lesser numbers. These numbers relate to the likely numbers of student in each activity. To determine which activity each number correlates to, you will need to look directly above each number until you see the letters that represent the activities that the centre offers. (SE)

**Question:**

*Describe the rule of twelfths and how that relates to aquatic activities.*

**Answer:**

Tidal movement has a major effect on our operation. From rostering when best to book reef walks, to where trailers are placed each day. It affects where entry and exit points are for boats, guides us in our decision where to snorkel, influences surf and in which direction we kayak and how much water we have to paddle in.

A rule of thumb to help gauge where the tide will be is the Twelfths Rule. It assumes that the time lag between high and low tide is six hours. In the first hour after high or low water the tide rises or falls 1/12 of its range; in the second hour 2/12ths; in the third and fourth hours 6/12ths, in the fifth hour 2/12ths and in the sixth hour 1/12<sup>th</sup>. (JB)

**Question:**

*What is the difference between a New Zealand fur seal and a sea lion?*

**Answer:**

Sea lions have hair, and are larger (up to 400kg). They live in colonies and will stay and breed there e.g. Pages, Pt. Labatt, Seal Bay. When they feed they go out for 3 days then return to their colony for a similar time. On land they are fast over a short distance because of their ability to walk on their flippers.

New Zealand fur seals have fur and are smaller and are transient (they are the ones that visit Pt. Noarlunga). They feed whenever they are hungry. On land they are much slower because they use both flippers at the same time to move. (AH)

**Question:**

*"What's the difference between a canoe and a kayak?"*

**Answer:**

Well the answer depends on whom you ask. A kayak tapers in where the gunwales meet the deck, giving some protection from chop and sun and they are usually paddled using a

**double bladed paddle** whereas a **canoe is open** at the top (doesn't really have a deck, except at bow and stern) allowing for **more storage** and is usually paddled using a **single bladed paddle**. To complicate matters you do get enclosed canoes and you get open kayaks, each that can be paddled with either a single or double bladed paddle.

If you take a boat that was designed as a kayak, remove the seat and replace it with a slalom canoe seat and straps, is it now a canoe? On the other hand, is it a kayak with a canoe seat? Are there other fundamental differences that would mean that the boat is still a canoe?

Essentially for all the real enthusiasts, (like us surfers) the only difference is one was used in a practical way by our surfing fore fathers and the other, as one instructor puts it "surf kayaking, the lowest form of surfing". (SA)

**Question:**

*What are the procedures for an ambulance emergency?*

**Answer:**

- In the event that an ambulance is needed protocols are in place. When an emergency occurs it can be stressful for all. Therefore, set procedures are located on the bulletin boards at the Port Noarlunga Surf Lifesaving club and in the Canoe shed. I suggest that you locate them and familiarize yourself with them in case the spaghetti hits the fan.
- They are as follows:
  - 1<sup>st</sup> dial 000
  - 2<sup>nd</sup> State where the ambulance will meet you.
  - If at BASE, it is the junction of the Esplanade and Saltfleet Street, at Port Noarlunga, adjacent to the jetty.
  - If at SURFING, it is the Southport Surf Lifesaving Club via Weatherald Terrace, Port Noarlunga South and the footbridge.
  - If at the GAP, it is the Esplanade at Port Noarlunga, access from Clarke Street.
  - If at CANOEING, it is the Onkaparinga Canoe Club complex Wearing Street, Port Noarlunga, access from Clarke Street.
  - 3<sup>rd</sup> state how many people are involved.
  - 4<sup>th</sup> explain the nature of the problem (accident). (TK)

**Question:**

*What are the factors to be taken into account when snorkelling on the seaward side of the reef?*

**Answer:**

1. IRB must be present at all times as cover. Remember emergency exit onto reef best option. PRACTICE IT.
2. All students in group confident and competent.
3. Appropriate conditions i.e. glassy, low swell, not too choppy.
4. Tide height will affect crossing points. Remember primary school groups will mostly be in spring suits, therefore, susceptible to scraping knees.
5. It is your call regarding what other groups are doing. If uncomfortable for any reason don't go. (JC)

**Question:**

*When the kids are using fishing rods tangles are one of the biggest problems. How can tangles be reduced?*

**Answer:**

When winding in your lure, winding with the right hand, let the line run through your left hand with light pressure, this will ensure the line is wrapped firmly on the reel and will reduce tangles. Make sure the kids are aware of the use of the bail arm when fishing, and to close the bail arm soon after casting to stop excess line coming off the reel, this is important in windy conditions. Tangles are the biggest challenge while teaching fishing. Always remember to take a spare rod so your student can keep fishing while you fix the line. When untangling, remember to look for the loops and never pull the line tight! Happy fishing!  
(AR)

**Question:**

*What is the history of the Port Noarlunga Jetty?*

**Answer:**

The old Port Noarlunga Jetty and tramway was built in 1855 at a cost of 8,000 pounds, about 40 metres south of the present jetty, and you can still see the remains of the old pylons at low tide. Ships moored on the old chain at north reef and cargo was moved from the jetty in small boats. A petition in 1857 by local traders had the jetty extended into deeper water with the tramway running to the end. The tramway ran from the canoe shed area through a tunnel in the sand hills, produce was carried along the river in barges, transferred to the ships. In those days all labour was done by hand, the cost of this "double handling" combined with unpredictable sea conditions eventually spelt the end of the sea trade, as roads were improved. The new jetty was opened in November 1921 was 1000 feet long and ran all the way to the reef. North reef would be packed with sightseers at low tide and the human impact was enormous. In 1987 a big storm destroyed the end of the jetty and it was restored to its present form, and the reef has responded with the restoration of the muscle bed on the surface. The remains of the end of the jetty can still be seen when snorkelling! (PR)

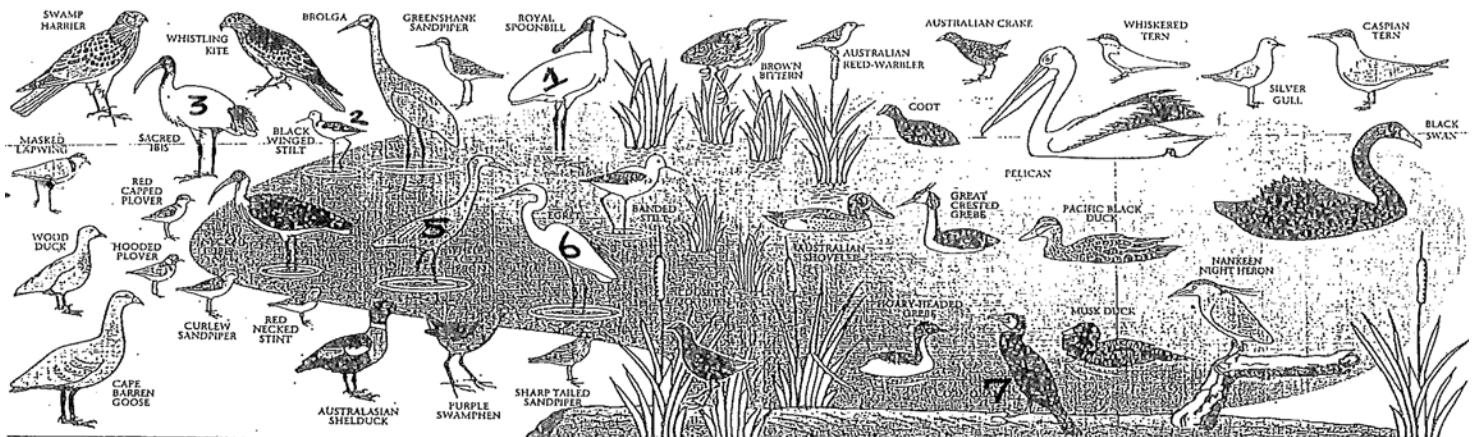
**Question:**

*What types of birds could you see in the Onkaparinga River, apart from pelicans, silver gulls and swans?*

**Answer:**

1. Royal Spoonbill
  - Spoon shaped bill (for sifting through mud);
  - Black long legs/bill;
  - Large white body;
  - White feathers on top of head.
2. Black Winged Stilt
  - Black wings;
  - White smallish body;
  - Red long legs (beak straight, rounded end).
  - Large eyes;
  - Distinctive squeaky noise.
3. Sacred Ibis
  - Long curved black beak/long black legs/black tail;
  - Large white body.
4. Plover (Masked Lapwing)
  - Black head/black stripe across back of neck;
  - Long legs;
  - Short straight yellow beak;
  - Brown wings/smallish size;
  - Territorial due to nest on the ground;
  - Loud continual noise.

5. White faced Heron
  - White face;
  - Straight long beak;
  - Large grey body;
  - Long neck/legs.
6. Egret
  - Large white body;
  - Longer tail feathers;
  - Long straight beak;
  - Long neck/legs.
7. Pyed Cormorant (black/white)
  - Webbed feet;
  - White face/chest;
  - Straight hooked beak;
  - Large/small body shape (non oiled wings – use weather/wind for drying feathers).
8. Dotteral
  - Small body shape;
  - Grey colour;
  - Walk fast;
  - Pretend to be injured (broken wing) if approached, luring away from ground nest. (NB)



**Question:**

*What is the landing procedure for an IRB on the reef?*

**Answer:**

Where to land may vary on a daily or even hourly basis, according to tide, wind, swell and local weather conditions.

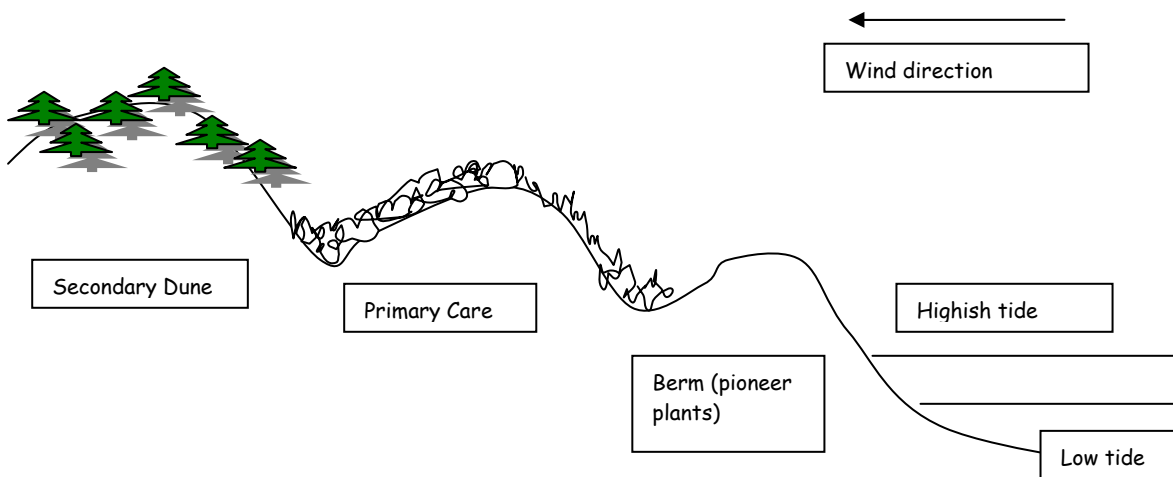
- Usually the eastern (shoreward) side of the reef is the preferred side.
- Extra care is required on low tides to avoid bottoming out on rocks.
- There is an "ideal" location approximately 50m north of the jetty, for reef walkers etc, where there is a flat, easily accessed part of the reef and enough water depth for the boat. There are several other similar "landings" on both the north and south reefs.
- Snorkellers don't always have to exit the water completely on to the reef to board an IRB. They can choose a flat rock which is submerged to stand on and board the IRB from there or, even board the IRB directly from deep water. The snorkel instructor in these cases needs to ensure the suitability of the chosen location, for the safety of all concerned.
- When landing on the reef the instructor of the group should sit near the front of the IRB, on the opposite side of the driver, to disembark onto the reef with rope in hand, and help others off the boat, while keeping the IRB steady and close to the reef. (DD)

**Question:**

The sand dunes and their relationship to the beach a) cut and fill; b) vegetation; c) human impact (too complex to make only a paragraph).

**Answer:**

Sand dunes are formed about the usual maximum reach of waves. They form from wind blown sand initially lodging against an obstruction and as they grow, form rows at right angles to the prevailing wind direction. A dune system is made up of parallel rows. Often on the beach side there is a small rise in front of the dunes called a berm. Behind the berm is the primary (frontal) dune, secondary dune and tertiary dunes depending on how extensive the system is. In the case of beach systems there is often a water course or wetland behind the dune system.



Southport, with the river behind is still a dynamic system. Simplistically, the wind blows the sand across the beach building the dune. The sand at the top of the dunes is blown into the river. After rain the water flow carries the sand out to the sea. Wave and water movements deposit the sand on the beach to be blown back into the dune system.

**(a) Cut and fill:**

Dunes are very vulnerable to erosion either naturally or by human impact. The berm helps to dissipate wave action energy before it reaches the primary dune. During storms this energy is more devastating and the cut into the dunes is more severe. During these times the sand is cut out and deposited further north in the case of Adelaide beaches.

**(b) Vegetation:**

Plants are vital in stabilizing dunes and reducing erosion from wind and wave action. They continually grow new stems and roots making sand traps. They need to be salt tolerant and hardy as they get very little nutrients from the sand. Pioneer plants are found closest to the sea. These plants have strong root systems that grow rapidly. They are low growing and have adaptations to reduce water loss, maximize water collection, reduce erosion and are often unpalatable to animals. Rotting seaweed and calcium carbonate from seashells provide the only source of nutrients for pioneer plants. Some pioneer plants are:

- Sea rocket – succulent. Lilac flowers. Seed pods shaped like rockets.
- Samphire – a glasswort or succulent. Edible. Also found in the river. Very salt tolerant, and can be entirely covered by salt water.
- Pig face – English translation of Greek name “caryoprotus” means edible fruit. Is a succulent.

- Hairy Spinifex – native to Australia. Silver/grey runners spread out over the surface of the sand. Wind and wave action are greatly reduced due to the forming of a low profile slope in front of the primary dune. Comment: Should be used more often in coastal protection in preference to marram grass.
- Marram grass – native to Europe. Grows in clumps and spreads rapidly. Comment: Unfortunately it does not spread out over the sand and during storms the wave action undermines the plant and the result is steep gouged out dunes. Compare the profile of the beach after a storm where there is marram grass and hairy Spinifex.

Plants on Primary dunes include grasses, low bushes and shrubs such as she-oaks (casuarina), wattles (acacia), and banksias. Secondary and more protected dunes have more variety of plant depending on the local circumstances due to now present debris and rotting plant matter. They can include tea tree, tamarix, cotton bush, reeds, grasses etc. In the valleys animal life becomes more evident.

The Tamarix is native to Europe and northern Asia and has roots delving deep into the water table. To reduce competition from other plants it takes up salt from deep ground water, accumulating it in their foliage, and then depositing it in the surface soil where it builds up concentrations temporarily detrimental to other plants. If concentrations build up in the tree it can move the concentration into parts of itself then purge branches leaving a healthy tree. It is a pest as it has totally clogged some river systems not allowing native plants to survive.

**(c) Human Impact:**

Common ways to reduce human impact on sensitive dune areas is by fencing, making walkways, propagating and planting native plants. But in the case of Southport the biggest impact humans have had is in reducing the flow of water in the Onkaparinga River. Due to damming up stream there is virtually no water flow to carry out the sand that is blown into the river. It is almost completely a tidal system now, and because of this the sand is staying in the river and silting it up making the river shallower and wider. This in turn undermines the river side of the dunes resulting in even more sand being deposited in the river. Comment: Without further flows down the river in times of rain we will have an ever widening river which will eventually clog up. (MT)

**Question:**

*For safety reasons 4 is the minimum to go on a kayak trip. Explain.*

**Answer:**

Four is the minimum safe number of paddlers to embark on a paddling trip.

True – if one member of the group is unable to continue, due to sickness, injury, or equipment failure, two kayakers can paddle for assistance, while the other member of the group, remains with the sick, tired, or injured paddler. This person remains with the distressed paddler for first aid, reassurance and company until help arrives. Remember it is never acceptable to do any aquatic activity alone. No exceptions. (RG)

**Question:**

*How do you reduce the numbers of students getting cuts and abrasions during snorkelling lessons?*

**Answer:**

Inform students that the reef is slippery due to the algal growth and sharp due to the various life forms growing on it. When walking on the reef move slowly and carefully with equipment in one hand. Do not walk with fins on. When doing an entry from the reef select a suitable

site, sit down in buddy pairs and put fins on. Push off gently from the reef and float. Do not stand on the rocks near the reef as this causes poor water visibility and is also liable to lead to falls. In shallow water float and place hands carefully. Do not hold onto rocks when duck diving and take more care if you are wearing a spring suit. If cuts and grazes do occur be sure to tell students when they get home to give the area a scrub with a nailbrush to get out any little pieces of reef left on the graze site as this will hinder healing. (JE)

**Question:**

*How does the rip operate at the Hump during a storm?*

**Answer:**

When there are stronger waves coming in around the spit area long shore drift goes substantively to the north near the peak of the spit. Around the location of the path into the dunes or just north of it the drift splits into a rip out to the reef and a middle water drift north. When the rip hits the reef it goes south unbelievably perhaps because of the narrowing of the water channel at this point. To the south of the spit path into the dunes after a southerly long shore drift feeds another rip that usually just goes to the inner wave zone (this is often concealed by waves running over it). On the shore the split is a place that may provide respite from the fierce northerly drift but still can lead quickly to a rip and often moves its location with changing conditions. (JN)



**Question:**

*How does the IRB driver maneuver on to the reef?*

**Answer:**

Starting at the beach, driver selects best spot to pick up. Driver holds boat, instructor helps to load students then, select seat right hand side at **front** of boat by rope. Driver slowly comes alongside reef using wind and drift, driver and instructor get out and hold ropes attached to front and rear handles and assist students out of boat. (JNy)