

SHIP COVE AND MOTUARA ISLAND

FIELD TRIP – Outer Queen Charlotte Sound

Introduction

If you had the choice of the best day trip anywhere in the country, this trip would certainly be one of the top contenders!

When Captain James Cook sailed these waters during his three voyages to New Zealand, he spent more time based in Ship Cove than any other place in the Pacific. It was clearly one of his favourite places and it still is beautiful, with the bush coming down to near the water's edge. Many of the bigger trees probably existed when Cook was here, about 230 years ago. In contrast, Motuara Island, guarding the entrance to the Queen Charlotte Sound, was completely cleared and farmed in the early 1900s. What grows there now is regenerating forest. Since introduced pests were eradicated in 1991, it has become a fantastic wildlife refuge. The contrast, particularly in bird life, between the two locations can be dramatic.

Skills that are developed at this site:

- Protected and unprotected environments.
- Predator-prey relationships.
- Bush studies – plant adaptations.
- History – Captain Cook's favourite place.

Site information

History and natural history

The outer sounds were significant areas for Māori. At the southern tip of Motuara Island is the smaller 'Hippa Island', which was the site of a pre-European Pa.

Ship Cove was where Māori first met Europeans on a sustained basis. The resulting contract would change the Māori way of life forever. In 1770 on Motuara Island, Cook proclaimed British sovereignty over the South Island of New Zealand.

THIS CAIRN WAS ERECTED BY THE CAPTAIN COOK MEMORIAL COMMITTEE TO MARK THE SPOT AT OR NEAR WHICH ON WEDNESDAY, 31ST JANUARY 1770, THE FAMOUS CIRCUMNAVIGATOR, IN THE PRESENCE OF THE NATIVE CHIEF OF THE ISLAND, RAISED THE BRITISH FLAG, TOOK POSSESSION OF THE MAINLAND IN THE NAME OF KING GEORGE III, AND NAMED THE INLET QUEEN CHARLOTTE SOUND AFTER THE KING'S CONSORT.
JANUARY 31, 1920.

For Cook, the easy access to open water, shelter, opportunities for provisioning and a pleasant climate were probably important when choosing this part of the Sound as his base. It was at Ship Cove that Cook and his crew released goats and pigs, and probably unknowingly ship rats. Although the pigs and goats were useful to the subsequent occupiers of the land, these introduced animals cause devastation to the native bush. The Cook expedition also cleared land so they could graze their cattle. Today the forest surrounding Ship Cove is a reserve.

Motuara Island was burned off around the beginning of the 20th Century. It was subsequently used to graze sheep and later it was used as an experimental Angora goat farm. In 1910 a Mr T. Turner was living on the island as a ranger to catch poachers shooting pigeons at Ship Cove. Although no replanting programmes have ever been carried out, the island has regenerated over the last 70 years to the low forest you see today. All introduced pests were removed in the early 1990s and the island is now home to a variety of native species, many of which have struggled to survive, or died out on the mainland. These include saddleback (tīeke), South Island robin (toutouwai), yellow-crowned parakeet (kākāriki), bellbird (korimako), tūī, grey warbler (riroriro), New Zealand wood pigeon (kererū), silvereye (tauhou), fantail (pīwakawaka), Maud Island frog and the Marlborough green gecko.

The Queen Charlotte Sound has a population of about 30 Hector's dolphins. If you have a keen eye, you are almost certain to see little blue penguins (Kororā). Fluttering shearwaters, shags, gannets and New Zealand fur seals (kekeno) also live here.



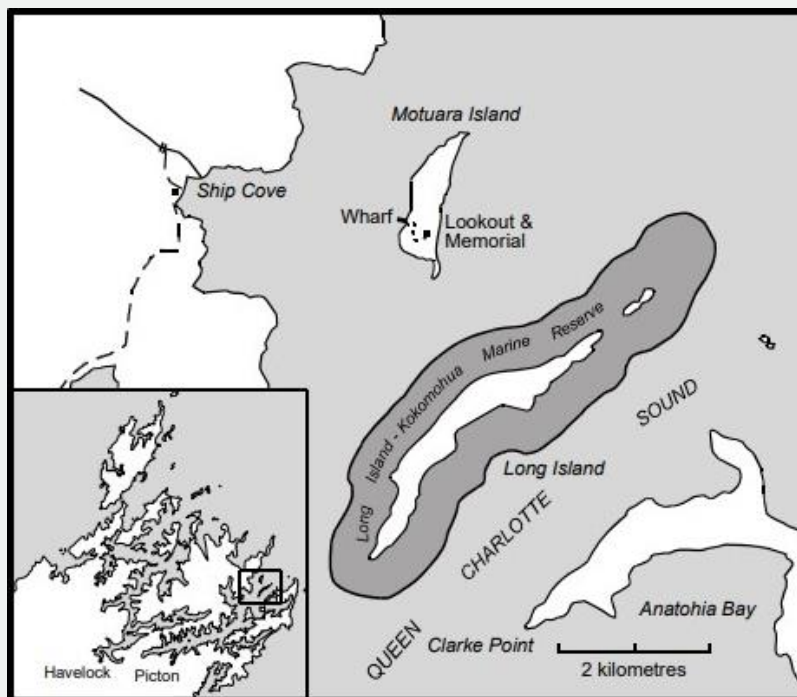
How to get there

The only access to Motuara Island is by boat, and although Ship Cove is accessible via the Queen Charlotte Track, it is not practical for school trips to walk in. Charter boats are available in Picton and take 45-60 minutes to get to the outer Queen Charlotte Sound. Charter boats in Havelock do not service the Queen Charlotte Sound.

Timing is important - a suggested itinerary could be:

09:00 am - 10:00 am	Travel to Motuara
10:00 am - 11:30 pm	Time on Motuara Island
11:30 pm - 12:00 pm	Travel to Ship Cove
12:00 pm - 12:30 pm	Lunch
12:30 pm - 02:30 pm	Time at Ship Cove
02:30 -pm - 03:30 pm	Return to Picton

Site map



Site facilities

- Neither site is well-suited to wheelchairs.
- There are toilets at Ship Cove but none on Motuara Island.
- Water is available at Ship Cove, but boiling or treatment is recommended. Bring drink bottles.

- Picnic tables and large expanses of mown grass are provided at Ship Cove, however there are no rubbish bins so please take out what you bring in.
- There is a shelter at Ship Cove which is a good lunch spot in case of bad weather.
- Motuara Island has no picnic areas or rubbish bins, but there is a good track to a viewing platform at the top of the island (allow 1 hour return walk).
- There are two tracks at Ship Cove. The main track is the northern starting point of the Queen Charlotte Track. The other track is a pleasant 20 - 30 minute walk to a waterfall through some lovely bush.
- There are interpretation panels at both Ship Cove and on Motuara Island.
- Both places have jetties for landing. Follow the instructions given by the skipper of the boat - particularly when it's safe to embark and disembark.
- Please keep to the main track on Motuara Island. The various side trails you may see are used by researchers and rangers.
- Before landing at Motuara Island carefully search all bags for pests (mice, rats, stoats, skinks, ants, seeds, soil etc.). It only takes one pest to threaten the island's wildlife.
- Do not feed the wildlife. Wild birds need wild food. Scrape some leaf litter away to expose some soil and invertebrates and then stand back and watch. —————>
- Wasps may be present - carry antihistamines!
- Medical help is not readily available here. Plan accordingly.



Ship Cove/Meretoto



Motuara Island

Activities

Pre-trip classroom preparation


The class could use this trip as part of a case study of Captain James Cook and his voyages, or as part of a unit on native wildlife and its management. There is a scope for map reading, plotting the trip on a map prior to, or during, the day.

Talk to the children about what it was like for native birds to encounter introduced mammals for the first time. Many New Zealand birds nest close to the ground, and some nest underground. When a pig, cat or dog comes along what happens? Can you blame the introduced animals? Can we teach New Zealand's birds?

Learning to recognise native birds and their song is a good preparation for the trip. Download the "[Common Birds of the Marlborough Sounds](#)" brochure to help you. You can also use our "[Experience birds in your green space](#)" resource.



2. EXPERIENCE BIRDS IN YOUR GREEN SPACE

Explore and investigate birds living in your green space using the  **Experiencing birds** in your green space resource

Things to bring (all activities):

- Paper and pencils.
- Binoculars.
- Plant and bird identification books.
- Some string to mark 1-metre squares for seedling counts.
- Coloured markers.

Starter activity – what can you hear? (from Joseph Cornell, SNWC)

It is easier to concentrate on the sounds around you with your eyes closed. A good way to do this is to get the group to clench their fists then close their eyes. Each time they hear a noise (any sort), ask them to hold one finger up. There are no right or wrong answers. Allow about 30 seconds for this activity, then have the children open their eyes and discuss some of the sounds that were heard.

Try the activity again for another 30 seconds (most people will hear more the second time).



IN THE ENVIRONMENT

(these activities are all best placed at Ship Cove where there is ample space)

Meet the trees (from David Moss)

As the leader for this activity, you will need to know a little about what possums like to eat – they generally like plants with soft leaves (like five-finger, native mistletoes, rātā and supplejack), but not hard leaves (like young lancewood, beech and tree ferns), nor peppery leaves (like pepper tree) or ones with spikes (like bush lawyer).


Ask a group of 5-10 people to stand in a circle. Each person needs to come up with the name of a tree or plant they know. It is best if they can all choose different ones. Once everybody has chosen a plant name, work your way around the group introducing yourself as a possum, e.g., *“Hello there, I’m a possum, what is your name?”*. Suggest what a possum might like to do with the plant in question, e.g. *“Pepperwood, blegh, too hot, no thank you, you are much too peppery”, “Mistletoe, Mmmm, let’s have a party and I’ll invite all my friends to come and eat you.”*.

Try to find some of these trees in the bush and look for signs of possum browsing. Try to remember how the bush looks to compare it with the bush on Motuara Island (where there are no possums).

To learn more about recognising signs of animal pests in the environment, use our [“Investigate animal pests in your green space”](#) resource (particularly page 7).



5. INVESTIGATE ANIMAL PESTS IN YOUR GREEN SPACE

Explore and investigate animal pests in your green space using the  **Investigating animal pests in your green space resource**

Kiwi nest (adapted from Myers)

This activity highlights the problem of predation to nesting birds.

Take the class into the trees just far enough for everyone to find their own tree or bush, and where everyone can be seen. Choose someone towards the centre of the group to be the kiwi on its nest and place something like a



handkerchief at the “kiwi’s” feet to represent the egg. The rest of the class are ferrets, rats, stoats or pigs and they are going to try to steal the egg and get it back to their tree **WITHOUT MAKING A SOUND!**

The “kiwi” stands with their eyes closed or blindfolded, listening. If they hear anything that

sounds like someone sneaking up, they must point to where the sound came from, and that person must immediately return to their tree.

Other undetected predators can keep trying to steal the “egg” and take it back to their own tree. It helps to make it clear that this is an exercise on sneaking up, not a race to see who can grab the egg the fastest. It helps to have a referee who knows the group, so names can be called to bring some of the more enthusiastic players into line! Distracting sounds like rustling is not allowed!

Once the egg has been stolen and taken back to the predator’s ‘home tree’ the kiwi can try and guess who now has the egg.

The possum’s choice (adapted from Myers)

This game is best played on an open patch of grass where all the coloured ‘markers’ will be found.

From this activity we learn about camouflage, selective feeding, plant adaptations and some possum problems. You will need some small coloured ‘markers’ with as wide a variety of colours as possible. Allow about 3 to 4 markers per person.

Spread the makers out on the grass within a defined area (preferably without the students seeing!). Gather the class about 10 metres from this area and explain that there are coloured markers representing food. One at a time they will be asked to run out and return with no more than three markers each.

As they return, place the markers onto a piece of paper in the order in which they were found. As the markers are returned you should see a pattern of predominantly bright colours being found first and the last ones to come in will be the less bright colours.

Possums feed the same way in the bush. They selectively take certain plants and will often eat them exclusively, until there are no more left to eat. Then they will move to a different species and repeat the process. Successive types of plants may be eaten to extinction. The result is that some species are eaten out of the bush while others are not.



ABOUT THE ENVIRONMENT

At both Ship Cove and Motuara Island organise the group to record bird and plant data to be compared between sites. You may want to do the comparison on the day or back in the classroom.

Plants – Ship Cove vs. Motuara Island

Which place has more regenerating plants?

Using metre squares, count the number of plants smaller than 10 cm in height in three different places and record your results.

See pages 16-17 of the “[Experiencing native plants in your green space](#)” resource for an example on how to collect these data and record your findings.



4. EXPERIENCING NATIVE PLANTS IN YOUR GREEN SPACE

Explore and investigate native plants in your green space using the  [Experiencing native plants in your green space resource](#)

Things to think about or discuss: how much does the direction of the sun affect the plants growing in each place? Is the soil damper in one place? Can you see any sign of possums at Ship Cove?

Differences may be due to the forest at Ship Cove being taller and older than on the island. With the older forest comes more shelter, less sunlight, and a damper forest floor. Where forest is regenerating (like it is on Motuara Island), competition is potentially greater, as each plant is trying to grow as fast as possible. Possums prefer to eat the top of trees, so they don't tend to eat very small plants as much.

Choose one plant that you don't know. Identify it and draw a picture of its leaf.

Use the “[Experiencing native plants in your green space](#)” resource to learn more about identifying native species (pages 11-12 focus on describing leaf features).



4. EXPERIENCING NATIVE PLANTS IN YOUR GREEN SPACE

Explore and investigate native plants in your green space using the  [Experiencing native plants in your green space resource](#)



Sensing birds – Ship Cove vs. Motuara Island

Which place has the most bird life?

One of the first things you may notice on Motuara Island is the smell. What is it? (little blue penguins leave a fishy smell at their nesting sites – you will see nesting boxes on the side of the track). Check under the wharf to see if anyone is home!

Divide the group into two. While one group counts the number of birds seen in 5 minutes, the others count the number of birds heard. Swap the roles and repeat the 5-minute bird count. The sounds and sightings need not be identified, although that may be useful if your class has been taught about some birds. Try using the tally sheet on page 21 of the “[experience birds in your green space](#)” resource to record your data. Try and draw some of the birds you see. What sorts of things would these birds feed on? (most native bush birds are insectivorous, some eat nectar when they can get it and some, like pigeons are fruit- and leaf-eaters).

Life on Motuara Island

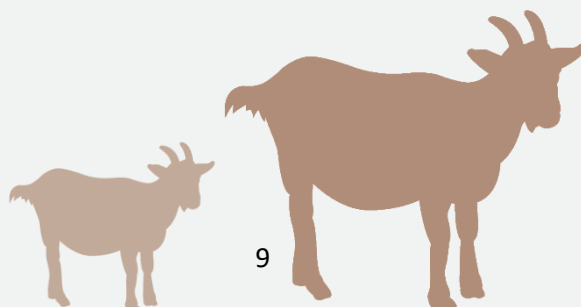
What makes an island a good place for a bird or plant to live? Try and list some of the advantages and disadvantages of island life. Here are some things to think about: food, water, shelter (habitat), other birds or plants of the same type to breed with, predation and disturbance.

FOR THE ENVIRONMENT

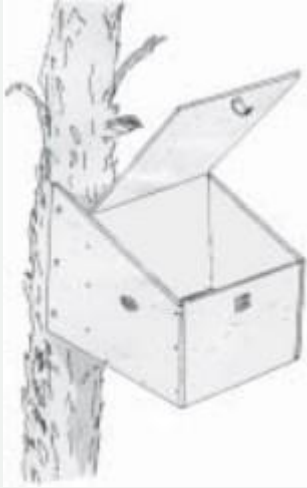
Write a letter to Captain Cook

This activity highlights changes to the environment and impacts humans have had in the last 150 years.

If you could write a letter to Captain James Cook, what would you tell him about his favourite place as it is today? Think about what you would tell him about the animals he left behind to breed. Would he like New Zealand as a place to live? What would he think of the boat you travelled in? Where would he have built his house? Tell him what the best thing about the trip to Motuara and Ship Cove was.



Design your own nesting boxes



On Motuara Island you will have seen the nesting boxes for penguins. Other native bush bird species such as rifleman (tītipounamu), yellow-crowned parakeet (kākāriki) and morepork (ruru) will also use nesting boxes. Try and design a box that these birds might like to use. If you have a patch of bush or park near your school, you could build your own boxes to encourage breeding. One tip to help prevent predators climbing into the hole to eat the birds inside is to make the hole elliptical rather than round. An elliptical entrance can be quite large but still smaller than a predator's head.

Introduced birds such as starlings and sparrows will use boxes, as will possums – if they can get into them!

