

## Activity Title:

# Plants of the local sand dune community

## Focusing questions

What plant species form a part of the local sand dune community?

Where on the dune do these plants grow and why?

## Resources required

- Field activity worksheet – Local dune plant community – page 83
- Pens
- Backyard Buffers – Coast Care Information Booklet Number 9. Ensure you have sufficient copies of the Backyard Buffers booklet (at least one per buddy pair). These can be obtained from Bay of Plenty Regional Council offices or downloaded from the following web address: <http://www.boprc.govt.nz>
- A local dune system (field visit)
- Copying: copy one field activity worksheets for each student.

## Prior learning

1e Beach sketch

2a Native dune plants – who lives where and why?

2b Introduced dune plants and weeds

2d Plant ID

2g Animals and insects – who lives in the dunes?

## Method

- 1 The objective of this activity is to look at local sand dune plant communities to investigate what plants are living on local dunes? Where are they found in the dune system? What are their characteristics?
- 2 Visit a local dune system. Where possible select a location where the dune system represents three or four zones. Contacts from local Coast Care groups will be helpful in finding good locations to conduct this activity (see map of Coast Care group locations over the page). Contact Bay of Plenty Regional Council (0800 884 880) to get a contact name for the appropriate Coast Care group. Instruct students to complete the worksheet activities from the foreshore and designated pathways.

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Plants of the local sand dune community

### Environmental Education Aspect:

About, In and For/With the environment

### Environmental Education Concept:

- Biodiversity
- Sustainability
- Personal and social responsibility for action
- Interdependence

### Curriculum Links:

- Social Science
- Science
- Arts

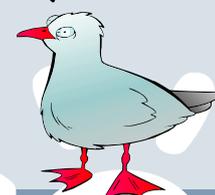
### Suggested Curriculum Level:

Any

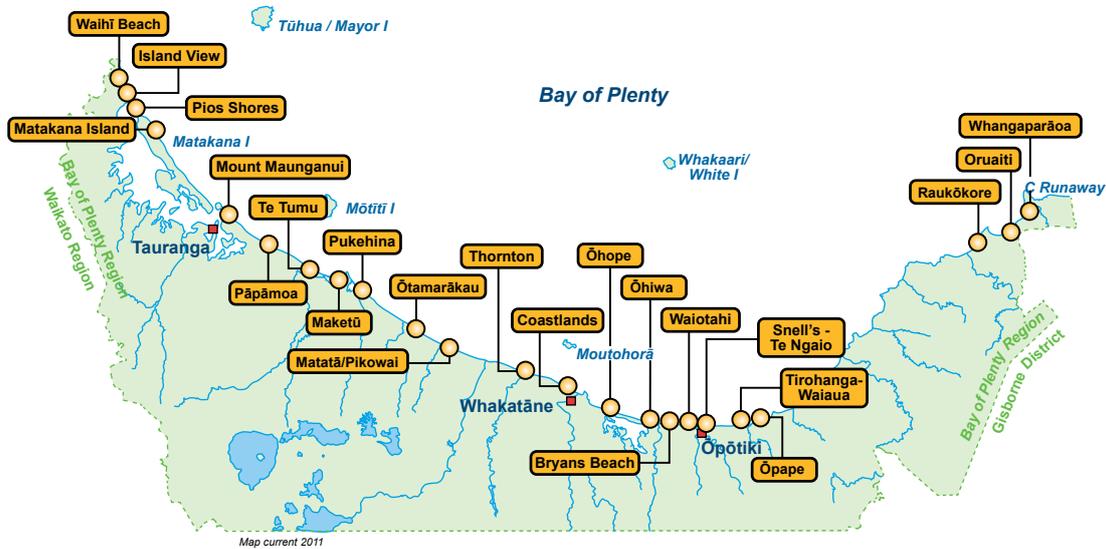
### SUSTAINABILITY TIPS!

Collect Backyard Buffers booklets at the end of the activity and re-use in future years.

Follow the Coast Care code and stick to pathways to avoid trampling dune plants.



## Map of Coast Care group locations



- 3 Review completed field worksheets and discuss the following:
  - Which plants did students draw in activity 1?
  - From activity 2. Where did students find taller plants and trees? Why do you think trees and taller plants are found in these zones? (Consider: environmental conditions such as substrate, salt spray and wind.)
  - From activity 2. In which zones did students find grasses? Why do you think grasses are found in these zones? (Consider: environmental conditions such as substrate, salt spray and wind.)
- 4 Additional discussion questions:
  - Which plants are most abundant in your local dune community?
  - What are the characteristics of plants common to each zone?
  - What would it be like to live in each of the different zones?

### Possible next steps

- Create a collage of student pictures illustrating which plants live where on the dunes.
- 2i Interrelationships – dune animals and plants – an activity investigating some of the relationships between individual animals and plants that live amongst the dunes – like dotterel and pīngao.
- 4f Beach profiling – an activity that builds on the identification skills gained during this activity and takes plant profiling another step to include density.

## Field activity worksheet 1

# Local dune plant community

### Activity 1a:

Draw a sketch of two dune plants that are most common on the foredune (closest to the sea). Describe and label each drawing to show how the two plants are different. (Include labels to show height, leaf type, type of sand they are growing in etc.)

Plant 1:

Plant 2:



## Activity 1b:

Draw a sketch of two dune plants that are most common on the back dune (furthest from the sea). Describe and label each drawing to show how the two plants are different. (Include labels to show height, leaf type, type of sand they are growing in etc.)

Plant 1:

Plant 2:

## Field activity worksheet 2

# Dune plant community

### Activity 2:

Sticking to pathways so that you don't walk on the dunes, make a list of plants that are growing on your local sand dune. You can use the Backyard Buffer booklet to help you to name plants on the dune. Fill in the table below.

What is the plant's name?	Do you think it is a native or not? Why?	Describe what the plant looks like—tree, shrub, leafy, grass, is it flowering...?	Where on the dune is the plant found? Near the sea or far from the sea?

