

ITINERARY



Moreton Bay Studies

Year 11 & 12 Program

Biology - Unit 3 - Biodiversity and the interconnectedness of life

Learning Intentions

Students, in the role of biologists, conduct an ecological survey of sites in Moreton Bay to:

- Classify benthic ecosystems and monitor environmental impacts; and
- Determine how environmental factors limit the distribution and abundance of fish species.

To achieve this the students will:

- Conduct data collection of abiotic and biotic data using a stratified sampling process.
- Classify the benthic ecosystems at two spatially variant sites (EUNIS).
- Determine and compare the species diversity between the two sites using Simpsons Diversity Index.
- Analyse the data to determine the effects of environmental factors on species abundance and distribution using a correlation matrix.
- Test the significance of the effects using t-Tests.
- Appraise the ecological survey techniques used.

“Inspiring Champions for the Bay”

Time	Activity Group 1
8.30	<i>Group 1: Students arrive at Manly Boat Harbour, William Gunn Jetty – Wyvernleigh Close, Manly. Board Inspiration: Vessel safety briefing and outline of the day’s proceedings.</i>
9.00-11.30	<i>Group 1: Data collection on Moreton Bay – At the study site Group 1 work together to:</i> <ul style="list-style-type: none">• Complete research data cards.• Deploy glider and make initial observations of benthos.• Deploy the Baited Remote Underwater Video (BRUV).• Classify benthic ecosystem using EUNIS.• Appraise ecological surveying techniques.• Recover the BRUV and download the video record.
11:30	<i>Group 1: Depart Manly Boat Harbour for Moreton Bay EEC (162 Stradbroke Avenue, Wynnum)</i>
11.45-12.15	<i>Group 1: Lunch</i>
12:15-2:15	<i>Group 1: Data Analysis at Moreton Bay EEC</i> <ul style="list-style-type: none">• Biodiversity (Simpson’s diversity index).• Abiotic effects on abundance and distribution.
2.15	<i>Board bus to collect Group 2 at Manly Boat Harbour.</i>

Students will need:

- Covered footwear
- Sun-safe clothing and hat
- Sunscreen and insect repellent already applied
- Water bottle, morning tea and lunch
- Clipboard and pencil

Litter-free lunch

We encourage students and staff to pack a litter-free lunch. Everything in it can be re-used, composted or recycled. Drinks are brought in refillable bottles.



ITINERARY



Time	Activity Group 2
8:30	<i>Group 2: Stay on bus to travel to Moreton Bay EEC (162 Stradbroke Avenue, Wynnum)</i>
8.45-11.15	<i>Group 2: Data analysis at Moreton Bay EEC</i> <ul style="list-style-type: none"> Biodiversity (Simpson's diversity index). Abiotic effects on abundance and distribution. (includes lunch and toilets)
11.15	<i>Group 2: Depart Moreton Bay EEC for Manly Boat Harbour</i>
11:30-2.15	<i>Group 2: Board Inspiration for data collection on Moreton Bay – At the study site Group 2 work together to:</i> <ul style="list-style-type: none"> Complete research data cards. Deploy glider and make initial observations of benthos. Deploy the Baited Remote Underwater Video (BRUV). Classify benthic ecosystem using EUNIS. Appraise ecological surveying techniques. Recover the BRUV and download the video record.
2.30	<i>Group 2: Return to Manly Boat Harbour and board bus to return to school.</i>

Students will need:

- Covered footwear
- Sun-safe clothing and hat
- Sunscreen and insect repellent already applied
- Water bottle, morning tea and lunch
- Clipboard and pencil

Litter-free lunch

We encourage students and staff to pack a litter-free lunch. Everything in it can be re-used, composted or recycled. Drinks are brought in refillable bottles.

Summary of Bus Movements

Time	Location	Action
8.30am	Fairlead Crescent, Manly	Drop Group 1
8.45am	162 Stradbroke Ave, Wynnum	Drop Group 2
11.15am	162 Stradbroke Ave, Wynnum	Pick up Group 2
11.30am	Fairlead Crescent, Manly	Drop Group 2 Pick up Group 1
11.45am	162 Stradbroke Ave, Wynnum	Drop Group 1
2:15pm	162 Stradbroke Ave, Wynnum	Pick up Group 1
2:30pm	Fairlead Crescent, Manly	Pick up Group 2



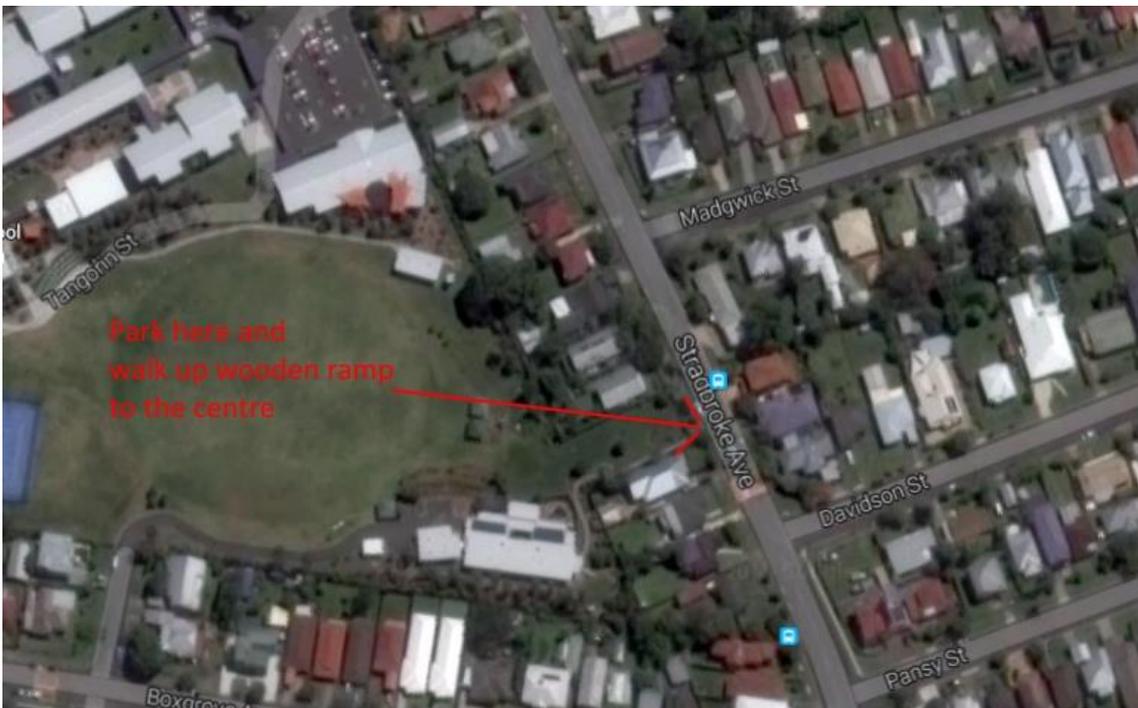
ITINERARY

Location Maps

Manly Boat Harbour - William Gunn Jetty, Manly – Corner Fairlead Cres and Esplanade



Moreton Bay Environmental Education Centre, 162 Stradbroke Ave, Wynnum



Moreton Bay
ENVIRONMENTAL EDUCATION CENTRE
Inspiring Champions for the Bay



**Queensland
Government**

(07) 3906 9111
www.moretoneec.eq.edu.au
admin@moretoneec.eq.edu.au