



Experiencing
Marine Reserves

Te Kura Moana

Experiencing Marine Reserves

Timed Fish Surveys



How it works



- A timed swim fish survey is a method of collecting data about fish diversity and abundance
- A surveyor swims along a pre-defined transect for a set amount of time (e.g. 15 minutes) and identifies and counts all the fish observed.



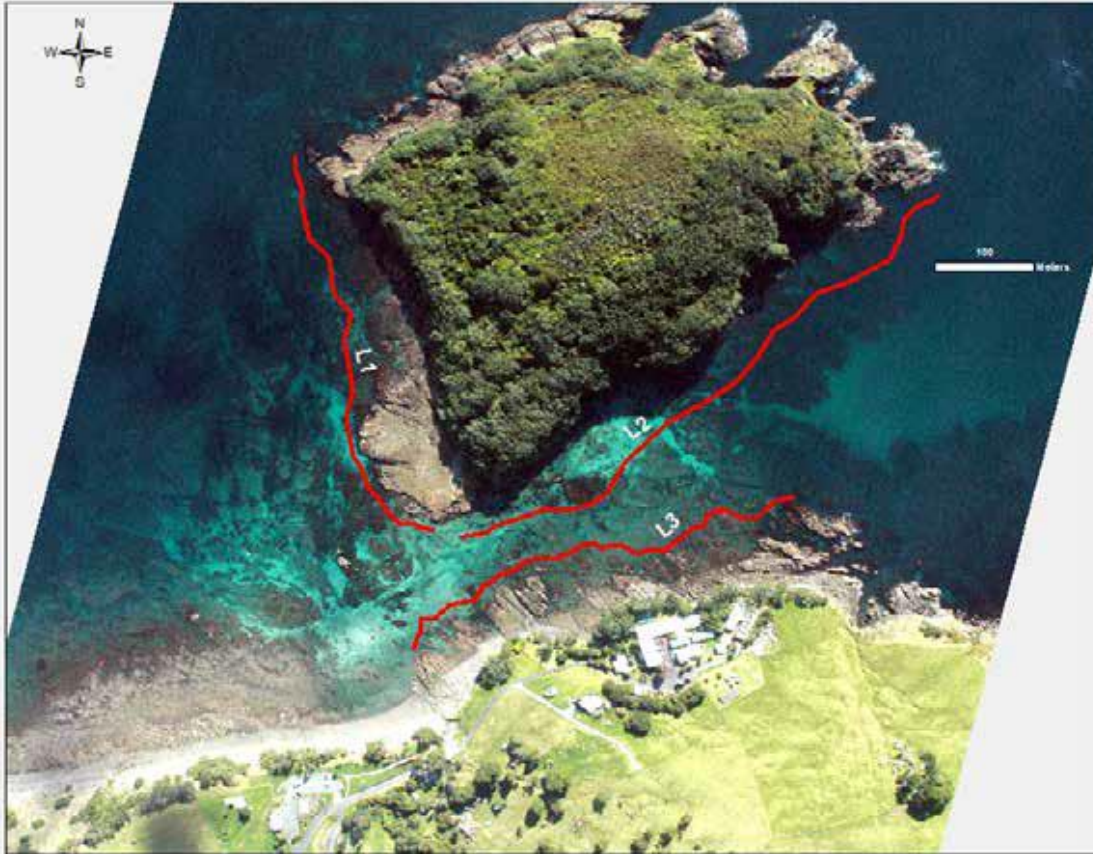
How it works



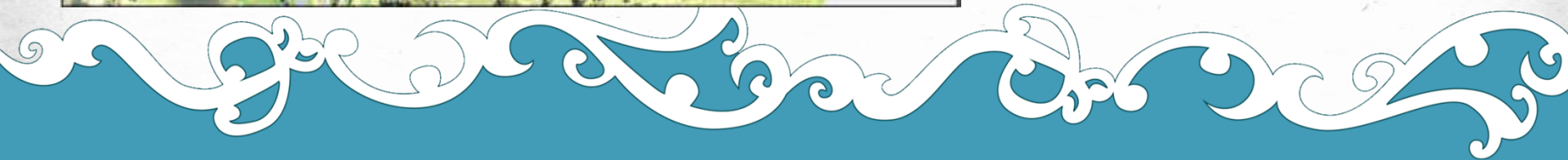
- The transect is measured by time, so does not have to be a straight line or exact distance.
- Aim for a consistent pace.



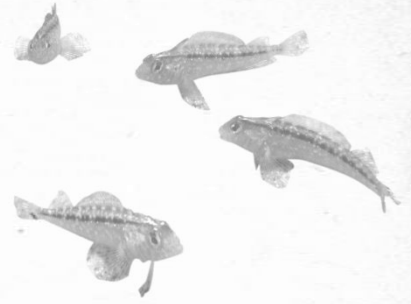
Example Transects at Leigh



- The 3 transects follow the depth contours



Fish Identification



- In order to perform a timed swim fish survey the surveyor must be able to identify the fish they are interested in surveying
- To accurately identify fish it is necessary to be familiar with how the fish look and behave (their unique characteristics)



Fish Identification



- The coastal fish species listed below are relatively easy to identify based on their:
 - Colour and markings
 - Body shape
 - Behaviour
 - Size





Snapper Tamure

- Pinkish body colour with bright blue spots
- Size: can be up to 1m





Red Moki Nanua

- Dark red bands can look brown underwater
- Size: up to 70cm



Butterfish Marari

- Mottled brown colour
- Long dorsal and anal fins
- Size: usually 30-50cm



Leather jacket Koriki

- Colour can range from speckled white, brown or yellow
- Can be seen swimming with dorsal (top) and anal (bottom) fins
- Has a trigger that can point up above eyes





Goatfish Ahuruhuru

- Goatfish can range in colour from red to brown to sand colour
- Distinctive barbels (feelers) on their chin are used to dig in the sand for food
- Often seen close to sandy floor





Grey mullet

- Greyish blue on top, lighter silvery colour on belly
- Size: up to 40cm





Sweep

- Grey colour
- Often seen schooling
- Can look similar to blue maomao
- Size: up to 30cm





Blue maomao

- Blue colour
- Often seen schooling
- Can look similar to sweep when younger
- Size: up to 40cm



Triplefin

- There are 26 species of triplefin in NZ
- All have different colours
- Have no swim bladder so usually seen sitting on rocks
- Size: up to 15cm – usually much smaller



Paul Caiger ©



Practice Video Transects



Test your fish identification skills with these practice video transects

- Transect 1 - <https://vimeo.com/440534384>
- Transect 2 - <https://vimeo.com/455312979>



Fish ID Quiz



Test your fish identification with this quiz

<https://forms.gle/PA5eQFiEzhzNvku57>

