

# A breath of fresh water ?



What is the survivorship of *Austrovenus stutchburyi* to oxygen depletion/anoxia under different environmental conditions and algal bloom return times?

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## Importance of Estuaries

- Provide habitat for juvenile fish, food sources for wading birds and retain sediments and nutrients.
- Bivalves, including *Austrovenus stutchburyi* (NZ cockle/ Tuangi), oysters and mussels filter and clean vast quantities of organic material from the water.
- Increased nutrients and temperature can cause eutrophic events whereby algal blooms occur, thus removing oxygen from the water and sediment, causing animals and plants to die

## Aims

- Determine if a signature of anoxic events is present in cockle shells
- Compare the relationship between conditions in the sediment and how this is recorded in the shells using translocation experiments
- Determine the duration and minimum threshold for dissolved oxygen needed to ensure cockle survival



**Fun fact: NZ has over 300 estuaries and can be classified into one of the 8 different types !**