

Want to snorkel on coral reefs at Lizard Island for an Honours Project?

Honours Project: Call for expressions of interest

Efficacy of drone technology for population assessment of sea cucumbers

Fishery and conservation planning for invertebrates often relies on population surveys of exploited species but these are often costly to perform by divers. Drone technology has advanced in recent years and might offer a cost-effective tool to assess population abundance of shallow-water species.



Drones have been used for assessing sea cucumbers, which are exploited widely on coral reefs worldwide. However, the efficacy of drones in correctly identifying and counting sea cucumbers has not been assessed rigorously across a range of a range of commercially exploited species.



The student will use aerial drones at Lizard Island to assess populations of multiple sea cucumber species in a range of conditions in February 2024. The student will collect demographic data from underwater visual surveys and compare these statistically with data from drones. The study will present a rigorous critique of this method for future population surveys using drones.

The student will need to possess, or be able to quickly obtain, the following:

Academic

- Ability to collect data, manage data and conduct statistical analyses
- Evidence of ability to write the work for publication to an international standard

Diving

- A good level of physical fitness
- Experience in snorkelling at shallow depths (<8 m)

Desirable: Valid Senior First Aid and CPR certificates

The student will need to enrol in the Honours program in Session 1 of 2024. Expressions of interest will be considered until the end of September 2023. For further information, contact Assoc.-Prof. Steven Purcell or Professor Brendan Kelaher, National Marine Science Centre, SCU.