How does connectivity and turbidity influence fish abundance and activity in urban estuaries?

Coastal areas are currently experiencing increased human population growth, with densities along the coast now three times greater than the global average. Impacts such as pollution, habitat alteration and overfishing have been well documented. Many urban estuaries have significantly altered entrances which may restrict connectivity for fish between the marine and estuarine environments. Furthermore, many urban estuaries have high nutrient loads leading to significant phytoplankton growth and reduced visibility for fish. How modified entrances restrict the movement of large bodied fish into estuaries and then how turbidity influences their day and night time activity will be examined using high resolution sonar. This will provide import outcomes in our understanding of the connectivity between estuaries and the coastal zone as well as how fish utilise light as an ecological resource.

Fieldwork will be undertaken at Manly and Narrabeen Lagoons on the northern beaches of Sydney. The student will be involved in extensive field based work, including working late at night. It is hoped $5000 will be provided by Warringah Council to cover research costs.

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