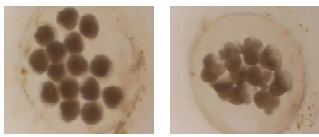


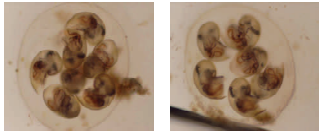
Research Directions

Office of Research Services

CRAB CONDITIONS



Dr Pauline Ross, from the School of Science, Food and Horticulture is conducting research to determine whether salinity and temperature are important factors in the distribution of larvae of estuarine gastropods and crabs.



"We know little about the effect of salinity and temperature on the larval life history of the most common estuarine and commercial species of crabs and gastropods in Australia" said Dr Ross. "These include the semaphore crab, red-nippered saltmarsh crab, red nippered shore crab and blue swimmer crab".

Mollusc Larvae

Gastropods and egg bearing female crabs will be collected from estuarine habitats in the Sydney region. Tanks will be set up in the lab to house the crabs, along with tanks or containers for the subsequent experiments for rearing the crab larvae.

The early larvae will be hatched in separate containers of varying concentrations of salinity ranging from 0% up to 35% representing freshwater and oceanic concentrations of salinity, to investigate the effects of salinity levels on larval growth, development and survival rates.

By performing this study and beginning to establish tolerance levels of larvae to salinity and temperature there will be a start in understanding factors affecting the distribution of estuarine organisms. Optimum breeding conditions for local Australian species will be able to be determined. It will also provide an insight into what might happen to larvae if salinity and temperature change in an estuary after periods of freshwater influx following rainfall or drought conditions.

'The present lack of understanding of the tolerances of larval stages of aquatic organisms could be considered alarming' continued Dr Ross. 'This research will provide crucial information on the potential influence to the distribution and abundance of aquatic populations in response to physical changes in the environment'.

Project title: *The effects of Salinity and Temperature on the Larval Development of Gastropods and Crabs.*

Funding has been set at \$11,256.

Contact Details

pm.ross@uws.edu.au

Web Site

<http://www.uws.edu.au/about/acadorg/cste>