MEDIA RELEASE
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Urchin fishery science - eating our way to a healthy reef

A three year study is underway to determine the effectiveness of commercial fishing to control urchin populations.

Overgrazing by long-spined sea urchins can turn healthy reef ecosystems into unproductive 'barrens' largely devoid of seaweed.

Over the last 30 years the urchins and their barrens have extended their range into Tasmania and can now be found as far south as the Tasman Peninsula.

Since 2009, Tasmanian commercial fishermen have harvested these urchins for their roe, a product sold through domestic and south-east Asian markets. In the last three years more than 200 tonnes, or 600,000 individual urchins, have been caught off north-eastern Tasmania.

The study, led by Dr John Keane from the Institute for Marine and Antarctic Studies (IMAS), a specialist institute of the University of Tasmania, will also examine the overlap between the long-spined sea-urchin and the abalone and rock lobster fisheries, as well as model sites at risk of further urchin invasion.

"If a commercial fishery can lower urchin densities to a level that will prevent further barren formation and even promote habitat restoration, it will significantly benefit Tasmanian coastal ecosystems and the commercial fisheries that rely on them," Dr Keane said.

The effectiveness of the commercial harvest to control urchin populations will be compared to other control measures such as direct culling and predation by large lobsters.

"If this developing fishery can continue to grow and control urchin populations, it will be the most cost-effective method of urchin control as income is generated from the sale of the roe," Dr Keane said.
“However, we will be examining factors that limit the commercial harvest such as diver depth restrictions and minimum urchin processing size and see how they influence potential reef recovery after fishing.”

Control of long-spined sea urchin populations has potential benefits for the lucrative rock lobster and abalone fisheries by sustaining healthy reef ecosystems.

The study has been funded through a grant from the Fisheries Research and Development Corporation on behalf of the Australian Government with support from the Tasmanian Department of Primary Industries, Parks, Water and Environment.