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Media Release

Chiefs of Staff, News Directors

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Shallow, deep ecosystem links in the spotlight

Marine researchers are aiming to shed new light on the relationship between fish communities in Tasmania's shallow and deep reef habitats.

The state's shallow reefs are vital to commercial and recreational fisheries for scalefish and invertebrates and have been studied extensively.

Comparatively less is known about deep reef ecosystems, the Project Leader, Dr Jeremy Lyle, from the University of Tasmania's Institute for Marine and Antarctic Studies (IMAS), said.

The deeper shelf reefs (beyond 40 metres) provide habitat for many fish species found in shallow reef areas but a greater understanding of the broader community and habitat structure is required for future management.

"Tasmania's coastal reef systems support significant fisheries for a range of species that include trumpeters, morwongs, wrasse, rock lobster and abalone," Dr Lyle said.

"The reefs are subject to increasing ecological pressures – from impacts of fishing to the broader consequences of climate change.

"In this study we will be focussing on areas open to fishing over the next year or so to better understand the ecological importance of such deeper reef ecosystems to fisheries production."

"Recent studies of offshore Commonwealth marine protected areas provide some information about deeper areas on the continental shelf, but accessing these deeper reefs is much more of a logistical challenge.

Dr Lyle said the project will use a multi-beam sonar data, in conjunction with underwater video and still imagery, to provide high-resolution habitat maps of reef areas extending from the coast to the shelf edge.

Fish communities in these habitats will be surveyed using technology including baited remote underwater video stations (BRUVS) and remotely operated vehicles (ROV), as well as traditional fishing methods.

“This multi-method approach provides the ability to comprehensively describe fish communities and their associations with habitats,” Dr Lyle said.

“By understanding fish community structure, population characteristics and relationships with habitat features, a more comprehensive assessment of the impacts of fishing and environmental variability on reef ecosystems will be achieved.”

“We expect that this research will assist in the sustainable management of our reef fisheries.”

The study is supported by $237,000 funding from the Australian Government through the Fisheries Research and Development Corporation.

Dr Lyle will be joined by a team of IMAS academics including Doctors Neville Barrett, Nicole Hill and Vanessa Lucieer.

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