

Jacquomo Monk with some of the stereo video systems baited with pilchards. Image: Daniel Ierodiaconou, Deakin University



**'We... have footage taken by stereo video cameras with a bag of pilchards strapped to them.'**



## PROTECTING COASTAL FISH HABITATS

The Victorian coastline is under pressure from commercial and recreational fishing, whale watching, boating, aquaculture, tourism and gas development. But do we know what's really happening under the ocean?

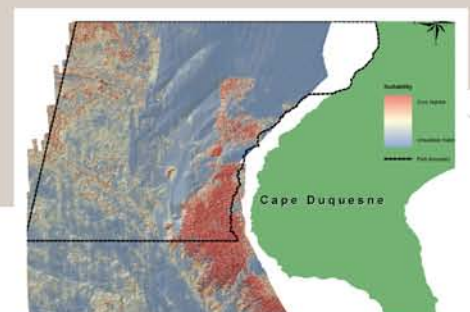
PhD student Jacquomo Monk is contributing to a large study that will reveal Victoria's seafloor habitat and assist coastal planning. His work involves high-resolution sonar data and underwater video to look at the distribution and relative abundance of bottom-feeding fish in southwest Victoria. "I am looking at which fish are living where and what their essential habitat characteristics are," says Jacquomo.

His work is part of a larger collaborative project – the Victorian Marine Habitat Mapping Project – being undertaken by Deakin University, Fugro Survey Australia, Australian Maritime College and Victorian Partnership of Advanced Computing. "This project has allowed us to describe the physical and biological characteristics of more than 12 per cent of Victoria's seafloor habitat with unprecedented accuracy," says Jacquomo.

He is analysing underwater video footage from this project to learn even more from it. "A by-product of looking at the seafloor is that we get to see the fish life," says Jacquomo. He is using predictive modelling techniques that haven't been used extensively for marine work to get a better understanding of the relationship between the seafloor characteristics and the distribution and relative abundance of fish.

"We also have footage taken by stereo video cameras with a bag of pilchards strapped to them. This gives us a lot of interesting information about fish-habitat interactions," he says. "We can also get length measurements so we can see if juvenile fish are using different habitats to adult fish."

This information will help inform decisions on which habitats are high priority for conservation.



Habitat suitability for Blue-throat Wrasse in and around Discovery Bay Marine National Park. Image: Jacquomo Monk, Deakin University

### FURTHER INFORMATION:

School of Life and Environmental Sciences  
Principal supervisor: Dr Daniel Ierodiaconou  
E: [daniel.ierodiaconou@deakin.edu.au](mailto:daniel.ierodiaconou@deakin.edu.au)  
[www.deakin.edu.au/scitech/les](http://www.deakin.edu.au/scitech/les)