

Machine learning dataset creation for Australian fish species from Baited Remote Underwater Videos (BRUV)

In order to make **big** gains in machine learning for ecology we need **big** datasets which are able to be used with state of the art algorithms. Currently Global Archive contributors have put together a dataset which could underpin great advances in automation of fish species detection, but due to the current method of video analysis the resulting data is unsuitable for use in state of the art algorithms and needs to be heavily synthesized and standardised to suit current standards.

This project aims to transform an existing ARDC funded collection from Global Archive, AIMS and University of Western Australia, into a standardised data (image, video and labels) collection for the purposes of rapidly advancing machine learning research into environmental monitoring of Australian fish species.

Start date

3 June 2019

Expected completion date

21 October 2019

Investment by ARDC

\$50,000

Co-investment partners

[Australian Institute of Marine Science](#)

Lead node



AUSTRALIAN INSTITUTE
OF MARINE SCIENCE

2. Completion of project

Project outcomes will be presented at an ARDC Data and Services Summit in October 2019.



1. Dataset of fish crops

Create dataset of fish crops from historical archives of Baited Remote Underwater Video Stations from the North West oceanic shoals of Western Australia.

Core features



Community support and involvement

At the moment there is a lot of BRUV data laying dormant on hard drives in cupboards. This project will seed the spark for a community led data archive, encouraging other groups to contribute in future.



Ignite ideas and discussions

Being an open dataset, we see that this project will enable researchers, tinkerers and big competitions to take place on the dataset we are making public. Often the best innovation happens in the most unlikely of places, and we hope to enable that through an open dataset.

Who is this project for?

- Machine Learning community
- Marine research sector
- Research organisations
- Government (state and commonwealth)



What does this project enable?

This project will ultimately enable advances in automated classification of fish from BRUV video and imagery in Australian waters. Initially we hope to plant a seed for other organisations and the BRUV community to continue to contribute data to an open dataset into the future.



Handy resources

- [FAIR assessment](#) [PDF 61KB]
- [Final Report](#) [PDF 567KB]
- [Presentation](#) [PDF 1.7MB]



Australian Institute of Marine Science

VISIT



Australian Research Data Commons

[HOME](#)

[ABOUT US](#)

[SERVICES](#)

[COLLABORATIONS](#)

[NEWS & EVENTS](#)

[CONTACT US](#)

[PRIVACY POLICY](#)

[TERMS & CONDITIONS](#)

The Australian Research Data Commons is enabled by NCRIS.



Stay up to date with our latest news and events and subscribe to our newsletter.

SUBSCRIBE