RECENT IMPACT

New project examining the impact on the abundance and population dynamics of Queensland fishery species – snapper, pearl perch, and spanner crab

CARM was featured in the UQ News on the 20 January, 2020 with an article titled, “How do environmental factors impact Queensland’s fisheries?” In the article, Professor Filar explained that CARM specialises in undertaking high quality research to inform high quality management of our natural resources. The project is co-funded by the Fisheries Research and Development Corporation, a UQ multi-disciplinary team of scientists, the Department of Agriculture and Fisheries, and the Australian Institute of Marine Science. Read the full story

Samara French’s Thesis used for Assessment

Former CARM honours student Samara French will have her thesis used for the Assessment of Hammerhead Sharks across Northern Australia. Samara is pursuing PhD studies at James Cook University and assisting Tony Courtney from DAF, on a casual basis, with the 2019 scallop data analysis.

CARM 2015 – 2019 Publications Summary Data
Since 2015, CARM authors have produced 122 documents with the year 2019 producing 581 citations to CARM publications. The following graphics show CARM Publications and Citations to CARM publications and Policy documents citing CARM publications and Altmetrics.
CARM publications 2015-2019

- 2015: 16
- 2016: 27
- 2017: 14
- 2018: 31
- 2019: 34

Citations to CARM publications

- 2015: 15
- 2016: 82
- 2017: 169
- 2018: 305
- 2019: 581
- 2020: 64
<table>
<thead>
<tr>
<th>Policy documents citing CARM publications</th>
<th>Year</th>
<th>Country</th>
<th>Number of mentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Barrier Reef outlook report 2019</td>
<td>2019</td>
<td>Australia</td>
<td>3</td>
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<tr>
<td>This is a crisis: facing up to the age of environmental breakdown</td>
<td>2019</td>
<td>Australia</td>
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<td>Mineral resource governance in the 21st century</td>
<td>2020</td>
<td>Australia</td>
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<td>Inheriting the Earth? The unprecedented challenge of environmental breakdown</td>
<td>2019</td>
<td>Australia</td>
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<td>Trade in environmentally sound technologies: implications for developing countries</td>
<td>2019</td>
<td>Australia</td>
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<tr>
<td>The IPBES assessment report on land degradation and restoration</td>
<td>2019</td>
<td>Australia</td>
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<td>Lethal consequences: climate change impacts on the Great Barrier Reef 2018</td>
<td>2018</td>
<td>Australia</td>
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<tr>
<td>The state of world fisheries and aquaculture 2018</td>
<td>2018</td>
<td>Australia</td>
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<tr>
<td>CME Pacific Marine Climate Change Report Card 2018 Scientific Review: Seagrass</td>
<td>2018</td>
<td>United Kingdom</td>
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<tr>
<td>CME Pacific Marine Climate Change Report Card 2018 Scientific Review: Climate Change Overview</td>
<td>2018</td>
<td>United Kingdom</td>
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<tr>
<td>UK Fisheries Management</td>
<td>2018</td>
<td>United Kingdom</td>
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<tr>
<td>Adapting to climate change in New Zealand: Stocktake report from the Climate Change Adaptation Technical Working Group</td>
<td>2017</td>
<td>Australia</td>
<td>1</td>
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<tr>
<td>Australia state of the environment 2016: overview</td>
<td>2017</td>
<td>Australia</td>
<td>1</td>
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</tbody>
</table>

The number of mentions from each source that Altmetric has tracked for CARM research outputs for the 2015 -2019 period

The University Of Queensland
Australia
WELCOME TO CARM
CARM welcomes our 2020 Honours students
Erin Medland
Improving the stability of a system of non-linear PDEs
Nick Outram
Maximum economic versus sustainable yield in multiplicative harvest models
Bryce Stansfield
Numerical solutions of a system of non-linear PDEs
Thomas Graham
Stochastic games with incompetent players

CARM welcomes Manuela Mendiolar as our newest PhD scholar who was awarded an UQ International Scholarship. Manuela comes to CARM with a degree in Mathematics from Universidad Nacional de Mar del Plata, Argentina and five years’ experience from the in the National Institute of Fishing Research and Development – INIDEF - Mar del Plata, Argentina.

CARM welcomes Zhihao Qiao as a PhD scholar after spending time at CARM as an Occupational Training Student. Zhihao graduated from the Australia National University in 2016, with a first honour degree in Mathematics. Zhihao is working in the field of stochastic modelling and numerical optimisation.

CARM welcomes Associate Professor Roger Cropp as an Adjunct Professor in the Centre. Roger’s most recent publication acknowledging CARM;

CONGRATULATIONS TO GRADUATING STUDENTS
Congratulations to Matthew Holden’s Honours students Jakeb Lockyer and Samuel Nolan for graduating in the 2019 cohort.
CARM NEWS March 2020

VISITORS TO CARM

Distinguished Professor Noel Cressie, University of Wollongong visited CARM as the SMP invited colloquium speaker and presented his talk titled, “Atmospheric carbon and the statistical science of measuring, mapping, and uncertainty quantification”, at the Maths Colloquium on Monday 18th November, 2019.

Dr John Norbury, emeritus member of Mathematical Institute, University of Oxford joined Roger Cropp from 24/2/202 to 28/2/2020, in our new UQ, School of Mathematical offices and enjoyed the availability of writing surfaces to explore their research.

Associate Professor Vladimir Ejov flew to Brisbane from Flinders University, Adelaide, Australia to work with PhD student Zhihao Qiao and Professor Jerzy Filar on the ARC Discovery Grant, “Time consistency, risk-mitigation and partially observable system”. Vlad visited Brisbane from 8/3/2020 – 14/3/2020.

NEW PROJECTS

The FRDC project titled,” Modelling environmental changes and effects on wild-caught species in Queensland” was a successful application and is now up and running. This is a joint project with Jerzy Filar, Tony Courtney, Susannah Leahy, Julie Robins, Wen-Hsi Yang, Nan Ye, Barbara Robson, Matthew Campbell and Craig Steinberg.

The 2020-2022 $365,000 ARC Discovery grant titled, “Partially observable MDP’s, Monte Carlo methods, and sustainable fisheries’ with Chief Investigators Kroese, D., Filar, J., Ye, N., Kurniawati, H., Bohner, M. research is now underway.

The 2020 FRDC Recreational Fishing Project will develop methods to estimate annual Queensland recreational harvest from existing Fisheries Queensland data in years when no statewide recreational surveys are conducted. The team consists of Jerzy Filar, , Matt Holden, Manuela Mendiolar from CARM; Sue Helmke, Malcolm Pearce James Webley, Tyson Martin and Michael O’Neill or George Leigh all from Fisheries Queensland.
FEBRUARY 2020 R WORKSHOPS
Thanks again to Anthony Richardson, Chris Brown and Dave Schoeman for conducting the R Workshops from 11-14 February 2020. A special thank you to Bill Venables for conducting the Advanced R Workshop over 3 days and on his 76th birthday. We thank St Leo’s again for providing healthy and sustainable catering for the morning and afternoon teas for the dedicated workshoppers.

The 2021 workshops will run again in February at the St Lucia campus. Watch the CARM events page https://smp.uq.edu.au/research/centres/carm/events for dates and registration.
Some of the Advanced R Workshop participants enjoying a discussion at the conclusion of the workshop.

Simon McDonald, Bill Venables and Rhetta Chappell, The Advanced R Workshop

St Leo’s Catering, Vasili Exarhos and Chris Gill
PUBLICATIONS 2020

JOURNALS


CONFERENCE PAPER


TECHNICAL REPORTS WITH INDUSTRY PARTNERS