

# South East Australia Integrated Marine Observing System



## Research Projects

Spatial management of reef fisheries and ecosystems: understanding the importance of movement, University of Tasmania, Colin Buxton, 2004-2010, Partner Institution(s): DPIPWE, NT Fisheries

Rebuilding ecosystem resilience: Assessment of management options to minimise formation of 'Barrens' habitat by the long-spined sea urchin (*Centrostephanus rodgersii*) in Tasmania, University of Tasmania, Craig Johnson, 2007-2010, Partner Institution(s): DPIPWE

Towards integrated multi-species management of Australia's SE reef fisheries: a Tasmanian example, University of Tasmania, Commonwealth Scientific Industrial Research Organisation, Stewart Frusher, 2007-2010, Partner Institution(s): DPIPWE

Understanding movement patterns in key recreational species, University of Tasmania, Jeremy Lyle, 2008-2010, Partner Institution(s): Inland Fisheries Service

Understanding the vulnerability of key inshore and estuarine fish species: new opportunities with accelerometer telemetry, University of Tasmania, Jayson Semmens, 2008-2010, Partner Institution(s): Vemco

The impact of Fish Aggregating Devices (FADs) on the movement and behaviour of tropical tuna (*Thunnus obesus*, *Katsuwonus pelamis* and *Thunnus albacares*), University of Tasmania, Jayson Semmens, Stewart Frusher, Kilian Stehfest, 2010-2013, Funding: Holsworth Wildlife Research Endowment

Assessing the effectiveness of shark nursery area closures for the protection and conservation of soastal shark species, University of Tasmania, Jayson Semmens, Stewart Frusher, Adam Barnett, 2010-2014, Funding: Winifred Violet Scott Charitable Trust

Effects of climate change on temperate benthic assemblages on the continental shelf in eastern Australia, University of Tasmania, Craig Johnson, Neil Holbrook, Neville Barrett, Peter Steinberg, 2011-2014, Partner Institution(s): University of New South Wales, Funding: ARC Super Science Fellowship

Using animal-borne cameras to quantify prey field, habitat characteristics and foraging success in a marine top predator, Deakin University, John Arnould, Mark Hindell, Jayson Semmens, 2011-2013, Partner Institution(s): University of Tasmania, Funding: ARC

Issues in marine science: developing sustainable strategies for rang-shifting species, University of Tasmania, Stewart Frusher, Funding: ANNIMS Springboard

Image-based automated macrobenthic species identification, counting and sizing, University of Sydney, Commonwealth Scientific Industrial Research Organisation, University of Tasmania, Stefan Williams, Oscar Pizarro, Russ Babcock, Matthew Dunbabin, Neville Barrett, 2011-2014, Funding: SIEF Fellowship

Ocean carbon and acidification, Bronte Tilbrook, Andrew Lenton, Partner Institution(s): AIMS, UQ, USyd, UNSW, UWA, NOAA(USA) NIES(Japan), IPSL(France), Funding: Australian Climate Change Science Program (ACCSP), CSIRO

Ocean-shelf exchange with an emphasis on the role of waves, tides, eddies and cross-shelf flows on carbon exchange, University of Western Australia, University of Tasmania, James Cook University, Charitha Pattiaratchi, Roger Proctor, Peter Ridd, 2011-2012, Partner Institution(s): UWA, JCU, AIMS, UTas, CSIRO, UNSW, UTS, SARDI/Flinders, IOC, Proudman Oceanographic Laboratory, University of Southern Mississippi, University of Maryland, Baltic Sea Research Institute, Funding: ANNIMS

NERP Flinders Island and CMR survey, University of Tasmania, Neville Barrett, Partner Institution(s): USyd

Continued monitoring of chondrichthyan species in coastal areas of SE Australia: assessing the effectiveness of shark nursery area closures for the protection and conservation of coastal shark species, University of Tasmania, Jayson Semmens, Jeremy Lyle, Adam Barnett, Colin Buxton, Stewart Frusher, 2011-2013, Funding: Save Our Seas Foundation

Snapper migratory dynamics and habitat use, Fisheries Victoria, Paul Hamer, 2011-2014, Funding: Victorian Recreational Fishing Licence Trust

Understanding climate drivers and predicting the future for coastal Australian ecosystems, University of Tasmania, Peter Strutton, Jayson Semmens, Caleb Gardner, Gary Griffith, 2011-2013, Partner Institution(s): UWA, JCU, Funding: ANNIMS

Scientific support for managing Australia's marine biodiversity - a national marine biodiversity hub, University of Tasmania, Nicholas Bax, Chris Austin, Russ Babcock, Neville Barrett, Mark Bravington, Brendan Brooke, Julian Michael Caley, Piers Dunstan, Karen Edyvane, Peter Harris, Sarah Jennings, Gary Kendrick, Tim O'Hara, Sean Pascoe, Bob Pressey, Wendy Proctor, Tony Smith, Chris Wilcox, 2011-2015, Partner Institution(s): AIMS, CDU, CSIRO, GA, Museum Victoria, JCU, UTas, UWA, Funding: National Environmental Research Program (NERP)

Southern rock lobster thrive in Tasman Fracture CMR, University of Tasmania, Neville Barrett, 2011-2015, Funding: National Environmental Research Program (NERP)

White shark population and abundance trends, Bary Bruce, 2011-2015, Funding: National Environmental Research Program (NERP)

Sand and granite reef communities revealed at Freycinet CMR, University of Tasmania, Neville Barrett, 2011-2015, Funding: National Environmental Research Program (NERP)

Jigging for Science - Defining the spawning needs of calamari, Fisheries Victoria, Corey Green, 2012-2015, Funding: Victorian Recreational Fishing Licence Trust

Long-term changes in Vibrio bacteria, Luigi Vezzulli, 2012-2013, Funding: CSIRO

The IMOS plankton ecosystem assessment report, Commonwealth Scientific Industrial Research Organisation, Anthony Richardson, 2012-2013, Funding: CSIRO

Zooplankton atlas of Australia, University of Tasmania, Kerrie Swadling, 2012-2012, Funding: University of Tasmania, Integrated Marine Observing System (IMOS), CSIRO

Phytoplankton atlas of Australia, University of Tasmania, Gustaaf Hallegraeff, 2012-2015, Funding: University of Tasmania, Integrated Marine Observing System (IMOS), CSIRO

Ocean-shelf exchange with an emphasis on the roles of waves, tides, eddies and cross-shelf flows on carbon exchange, University of Tasmania, University of Western Australia, James Cook University, Roger Proctor, Charitha Pattiaratchi, Peter Ridd, 2012-2014, Funding: ANNIMS

NERP Solitary Island survey, Department of Primary Industries, NSW, Alan Jordan, Partner Institution(s): USyd, UTAS

Australian marine microbial biodiversity initiative, Commonwealth Scientific Industrial Research Organisation, Lev Bodrossy, Partner Institution(s): CSIRO, UNSW, UTS, AIMS, SIMS

Near real-time modelling of Bass Strait for EPA Victoria, John Andrewartha, 2013-2014

Autonomous benthic observing system, University of Western Australia, University of Tasmania, Commonwealth Scientific Industrial Research Organisation, Australian Institute of Marine Science, Department of Primary Industries, NSW, Stefan Williams, Oscar Pizarro, Gary Kendrick, Neville Barrett, Russ Babcock, Andrew Heyward, Alan Jordan, Partner Institution(s): University of Sydney, Funding: ARC LIEF

A transportable containerised laboratory for rapid cell sorting and high-resolution bioimaging of living aquatic microbes in field locations, University of New South Wales, Macquarie University, University of Western Australia, University of Tasmania, M Doblin, Justin Seymour, Peter Ralph, Saravanamuthu Vigneswaran, Cynthia Whitchurch, Partner Institution(s): University of Technology, Sydney, Funding: ARC LIEF

International phytoplankton functional type intercomparison working group, Commonwealth Scientific Industrial Research Organisation, Nick Hardman-Mountford, 2014-2015, Partner Institution(s): NASA, ESA, NOAA, EUMETSAT, JAXA, KIOST, AWI, CNRS/LOV, CSIR, PML, U. Maine, U. Hokkaido, U. Lisboa, U. Sao Paulo, IRD, U. Richmond, Pixalytics, Michigan Tech., WHOI, Funding: IOCCG

NRS regional WQM fluorescence characterisation, Commonwealth Scientific Industrial Research Organisation, L Clementson, Tim Lynch, 2014-2016, Funding: CSIRO

Predicting marine currents, nutrients and plankton in the coastal waters of South Eastern Tasmania in response to changing weather patterns, Christine Crawford, Stewart Frusher, Kerrie Swadling, 2014-2017, Funding: Fisheries Research and Development Corporation

Improved understanding of Tasmanian harmful algal blooms and biotoxin events to support seafood risk management, University of Tasmania, Gustaaf Hallegraeff, 2014-2017, Funding: Fisheries Research and Development Corporation

Australian national shelf reanalysis, Emlyn Jones, Moninya Roughan, Tim Moltmann, Andreas Schiller, Peter May, 2014-2014, Funding: Integrated Marine Observing System (IMOS)

Project D3: evaluating and monitoring the status of marine biodiversity assets on the continental shelf, University of Tasmania, Neville Barrett, Vanessa Lucieer, 2015-2021, Funding: National Environmental Science Program (NESP)

Australian marine microbial biodiversity initiative, Lev Bodrossy, Mark Brown, Tim Moltmann, 2015-2017, Funding: Integrated Marine Observing System (IMOS), Bioplatforms Australia (BPA)

Patterns of interaction between habitat and oceanographic variables affecting the connectivity and productivity of invertebrate fisheries, Deakin University, University of Melbourne, Latrobe University, Fisheries Victoria, Daniel Ierodiaconou, Eric Treml, Steve Swearer, Nick Murphy, Mary Young, Adam Miller, Jan Strugnell, Harry Gorfine, Craig Sherman, Bridget Green, 2015-2017, Funding: Fisheries Research and Development Corporation

Sensing Macquarie Harbour, University of Tasmania, Commonwealth Scientific Industrial Research Organisation, Jayson Semmens, Adam Main, John McCulloch, 2015-2016, Partner Institution(s): Tasmanian Salmonoid Growers Association, Funding: Sense-T Stage 2

Managing ecosystem interactions across differing environments: building flexibility and risk assurance into environmental management strategies, University of Tasmania, Commonwealth Scientific Industrial Research Organisation, C MacLeod, Neville Barrett, Karen Wild-Allen, 2015-2018, Funding: Fisheries Research and Development Corporation

Southern ocean carbon cycle postdoctoral fellow, University of Tasmania, Paula Conde-Pardo, 2015-2018, Funding: ACECRC

Ichthyoplankton long-term monitoring at National Reference Stations, University of Tasmania, Iain Suthers, Ana Lara-Lopez, Anthony Richardson, Kerrie Swadling, Tim Ward, 2015-2016, Funding: AFMA - Australian Fisheries Management Authority

Linking phytoplankton to fisheries using zooplankton size spectra, University of New South Wales, Iain Suthers, Laura Richardson, Mark Baird, Sagulenko Evgeny, 2015-2018, Partner Institution(s): ARC Discovery Project, Funding: University of New South Wales, ARC Discovery Project

Project D2: analysis methods and software to support standard operating procedures for survey design, condition assessment and trend detection, University of Tasmania, Scott Foster, Neville Barrett, 2015-2021, Funding: National Environmental Science Program (NESP)

AUV-based monitoring of benthic habitats in the SE CMR Network, University of Tasmania, Neville Barrett, Jacquomo Monk, 2016-2016, Funding: Department of the Environment

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## Postgraduate Research Projects

Doctor of Philosophy (PhD), The role of higher trophic level predators on inshore ecosystems and their interactions with fisheries: A case study examining sevengill sharks (*Notorynchus cepedianus*), University of Tasmania, Commonwealth Scientific Industrial Research Organisation; Adam Barnett, 2006-2011, Supervisor(s): Jayson Semmens, John Stevens, Stewart Frusher

Doctor of Philosophy (PhD), Non-extractive monitoring of biodiversity on temperate Australian deepwater reefs: Using advanced vision-processing techniques to develop and test reliable biodiversity metrics, University of Tasmania, Commonwealth Scientific Industrial Research Organisation; Jan Seiler, 2008-2011, Supervisor(s): Neville Barrett, Alan Williams, Neil Holbrook

Doctor of Philosophy (PhD), The impact of Fish Aggregating Devices (FADs) on the movement of two tropical tuna species (*Katsuwonus pelamis* and *Thunnus albacares*), University of Tasmania, Commonwealth Scientific Industrial Research Organisation; Kilian Stehfest, 2009-2013, Supervisor(s): Jayson Semmens, Mark Hindell, Toby Patterson, Laurent Dagorn

Doctor of Philosophy (PhD), Processes and patterns of colonisation of artificial reefs by fish, Deakin University; Kade Mills, 2010-2016, Supervisor(s): Paul Hamer, Daniel Ierodiaconou, Gerry Quinn; Funding: Victorian Recreational Fishing Licence Trust

Doctor of Philosophy (PhD), Examining the role of area closures for the protection and conservation of an overexploited coastal shark species, University of Tasmania, Institute of Marine and Antarctic Studies; Jaime McAllister, 2010-2014, Supervisor(s): Jeremy Lyle, Jayson Semmens, Colin Buxton; Funding: University of Tasmania, IMAS

Doctor of Philosophy (PhD), Developing conservation management strategies for vulnerable deep water sharks off Southeast Australia, Commonwealth Scientific Industrial Research Organisation, University of Tasmania; Ross Daley, 2011-2017, Supervisor(s): Jayson Semmens, Alastair Hobday; Funding: CSIRO, University of Tasmania

Doctor of Philosophy (PhD), The implications for environmental change on the relative importance of salps, copepods and krill in the Storm Bay (Tasmania) ecosystem, Institute of Marine and Antarctic Studies; Nurul Huda Binti Ahmad Ishak, 2011-2014, Supervisor(s): Kerrie Swadling, So Kawaguchi, Guy Williams, Steve Nicol; Funding: Government of Malaysia

Honours degree, Zooplankton in Recherche Bay and relationship to oceanographic drivers, University of Tasmania; Lucy Quayle, 2012-2012, Supervisor(s): Kerrie Swadling

Degree - Other, 3rd year project - Seasonal and inter-annual variation in profiling CTD/FLNTU castes at the Maria Island National Reference Station, University of Tasmania; Anne Ford, 2012-2012, Supervisor(s): Tim Lynch, Kerrie Swadling; Partner Institution(s): UTas; Funding: CSIRO

Honours degree, Seasonal and latitudinal changes in the zooplankton community composition along the East Australia Current: The AusCPR survey, Institute of Marine and Antarctic Studies; Kate Picone, 2012-2012, Supervisor(s): Kerrie Swadling, Anthony Richardson; Funding: University of Tasmania

Doctor of Philosophy (PhD), Benthic habitat modelling using AUV imagery, University of Tasmania; Nicholas Perkins, 2012-2015, Supervisor(s): Neville Barrett

Honours degree, Can size be used to characterise community structure?, University of Queensland; Amelia Armstrong, 2013-2013, Supervisor(s): Anthony Richardson, Scarla Weeks; Partner Institution(s): CSIRO; Funding: University of Queensland

Honours degree, Drivers of Eastern Australia zooplankton community composition: emphasis on the distribution patterns at Maria Island, University of Tasmania; Paige Kelly, 2013-2014, Supervisor(s): L Clementson, Kerrie Swadling

Honours degree, CO2 System variability at the Maria Island National Reference Station, University of Tasmania; Jane Moran, Supervisor(s): Zanna Chase, Katherine Jones, Bronte Tilbrook

Doctor of Philosophy (PhD), Stock structure and critical habitats for a key apex predator: the sevengill shark, University of Tasmania, James Cook University, Deakin University; Alicia Schmidt-Roach, 2013-2017, Supervisor(s): Jayson Semmens, Adam Barnett, Craig Sherman, Paul Hamer

Doctor of Philosophy (PhD), Biology of the White Spotted Dogfish (*Squalus acanthias*) in South-East Australia, University of Tasmania; David Iturria, 2013-2017, Supervisor(s): Jeremy Lyle, Justin Bell, Jayson Semmens

Masters degree, Environmental drivers of residency patterns in three batoid species; *Dasyatis brevicaudata*, *Myliobatis tenuicaudatus* and *Spiniraja whitleyi*, University of Tasmania; Kali Hubbert, 2015-2016, Supervisor(s): Jayson Semmens, Kilian Stehfest

Doctor of Philosophy (PhD), Uncoupling oceanographic and life-history drivers to alternate foraging strategies in long-nosed fur seals, University of Tasmania, South Australian Research and Development Institute; Dahlia Foo, 2015-2018, Supervisor(s): Mark Hindell, Simon Goldsworthy, Jayson Semmens, Clive McMahon

Doctor of Philosophy (PhD), Autonomous underwater vehicles: a platform for investigating biophysical relationships in cross self-benthic communities, University of Tasmania; Lainey James, 2015-2019, Supervisor(s): Neville Barrett, Jacquomo Monk, Vanessa Lucieer, Martin Marzloff

Doctor of Philosophy (PhD), Evaluating the role of inertial and tidal internal wave dynamics on a narrow continental shelf: an assessment of the dominant physical dynamics influencing the nutrient energy budget, University of Western Australia; Tamara Schlosser, 2015-2019, Supervisor(s): Nicole Jones, Cynthia Bluteau, Gregory Ivey, Andrew Lucas

Masters degree, Behaviour of a unique temperate elasmobranch assemblage, University of Tasmania; Evan Leonard, 2016-2017, Supervisor(s): Jayson Semmens, Kilian Stehfest

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## Book

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## Book Chapters

Lucieer, V, Barrett, N, Hill, N 2010, Characterisation of shallow inshore coastal reefs on the Tasman Peninsula, South Eastern Tasmania, Australia, in P Harris, E Baker, SL Nichol (eds.), *Seafloor Geomorphology as Benthic Habitat: GeoHab atlas of seafloor geomorphic features and benthic habitats*, Elsevier

Williams, S, Pizarro, O, Jakuba, M, Barrett, N 2010, AUV benthic habitat mapping in South Eastern Tasmania, in A Howard, K Lagnemma (eds.), *AUV benthic habitat mapping in South Eastern Tasmania*, Springer, Berlin, pp.275-284

Steven, A, Brando, V, Clementson, L, Dekker, AG, Hardman-Mountford, NJ, Hodge, J, Jones, EM, King, E, Schroeder, T 2014, Coastal ocean colour of Australian waters: progress and outlook, in S Djavidnia, V Cheung, M Ott, S Seeyave (eds.), *Oceans and Society: Blue Planet*, Cambridge Scholars Publishing, pp.122-129

Roughan, M, Schaeffer, A, Suthers, I 2015, Sustained ocean observing along the coast of southeastern Australia: NSW-IMOS 2007-2015, in Y Liu, H Kerkering, R Weisberg (eds.), *Coastal Ocean Observing Systems*, Elsevier, pp.76-98

**Book Chapters 4**

## Conference Proceedings

Williams, S, Pizarro, O, Jakuba, M, Barrett, N 2009, AUV benthic habitat mapping in south eastern Tasmania, Proceedings of Field and Service Robotics, Results of the 7th International Conference, Cambridge

Williams, S, Pizarro, O, Jakuba, M, Mahon, I, Ling, S, Johnson, C 2010, Repeated AUV surveying of urchin barrens in North Eastern Tasmania, Proceedings of the IEEE 2010 International Conference on Robotics and Automation Anchorage, USA, May 2010, Anchorage

Barrett, N, Seiler, J, Anderson, T, Williams, S, Nicol, S, Hill, N 2010, Using an autonomous underwater vehicle to inform management of biodiversity in shelf waters, Proceedings of Oceans 2010 IEEE, Sydney, Australia, May, 2010, Sydney

Rao, D, Bender, A, Williams, S, Pizarro, O 2016, Multimodal information-theoretic measures for autonomous exploration, Proceedings of the IEEE 2016 International Conference on Robotics and Automation Stockholm, Sweden, May, 2016, Stockholm

Hallegraef, GM, Bolch, C, Condie, SA, et, al. 2016, Unprecedented Alexandrium blooms in a previously low biotoxin risk area of Tasmania, Australia, Proceedings of the 17th International Conference on Harmful Algae (ICHA), Florianopolis

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## In Press

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## Journals

Ling, S, Johnson, C, Frusher, SD, Ridgway, K 2009, Overfishing reduces resilience of kelp beds to climate-driven catastrophic phase shift, Proceedings of the National Academy of Sciences of the United States of America, vol. 106, no. 52, pp. 22341-22345, doi:10.1073/pnas.0907529106

Thompson, P, Baird, ME, Ingleton, T, Doblin, MA 2009, Long-term changes in temperate Australian coastal waters: implications for phytoplankton, Marine Ecology Progress Series, vol. 394, pp. 1-19, doi:10.3354/meps08297

Barnett, A, Abrantes, K, Stevens, JD, Yick, JL, Frusher, SD, Semmens, J 2010, Inferring predator-prey relationships and foraging ecology of a marine apex predator with a wide temperate distribution, Marine Ecology Progress Series, vol. 416, pp. 189-200, doi:10.3354/meps08778

Barnett, A, Stevens, JD, Frusher, SD, Semmens, J 2010, Seasonal occurrence and population structure of the broadnose sevengill shark (*Notorynchus cepedianus*) in coastal habitats of south east Tasmania, Journal of Fish Biology, vol. 77, no. 7, pp. 1688-1701, doi:10.1111/j.1095-8649.2010.02810

Semmens, J, Buxton, C, Forbes, E, Phelan, MJ 2010, Spatial and temporal use of spawning aggregation sites by the tropical sciaenid *Protonibea diacanthus*, Marine Ecology Progress Series, vol. 403, pp. 193-203, doi:10.3354/meps08469

Barnett, A, Abrantes, K, Stevens, JD, Bruce, B, Semmens, J 2010, Fine-scale movements of the broadnose sevengill shark, and its main prey, the gummy shark, PLoS One, vol. 5, no. 12, doi:10.1371/journal.pone.0015464

Abrantes, K, Barnett, A 2011, Intrapopulation variations in diet and habitat use in a marine apex predator, the broadnose sevengill shark *Notorynchus cepedianus*, Marine Ecology Progress Series, vol. 442, pp. 133-148, doi:10.3354/meps09395

Barnett, A, Abrantes, K, Stevens, JD, Semmens, J 2011, Site fidelity and sex-specific migrations in a mobile apex predator: implications for conservation and ecosystem dynamics, Animal Behaviour, vol. 81, no. 5, pp. 1039-1048, doi:10.1016/j.anbehav.2011.02.011

Johnson, C, Banks, S, Barrett, N, Cazzasus, F, Dunstan, P, Edgar, G, Frusher, SD, Gardner, C, Helidoniotis, F, Hill, K, Holbrook, N, Hosie, G, Last, P, Ling, S, Melbourne-Thomas, J, Miller, K, Pecl, G, Richardson, A, Ridgway, K, Rintoul, S, Ritz, D, Ross, J, Sanderson, C, Shephard, S, Slotwinski, A, Swadling, K, Taw, N 2011, Climate change cascades: shifts in oceanography, species' ranges and marine community dynamics in eastern Tasmania, *Journal of Experimental Marine Biology and Ecology*, vol. 400, no. 1-2, pp. 17-32, doi:10.1016/j.jembe.2011.02.032

Neuheimer, AB, Thresher, RE, Lyle, J, Semmens, J 2011, Tolerance limit for fish growth exceeded by warming waters, *Nature Climate Change*, vol. 1, pp. 110-113, doi:10.1038/nclimate1084

Williams, S, Pizarro, O, Jakuba, M, Johnson, C, Barrett, N, Babcock, R, Kendrick, G, Steinberg, C, Heyward, A, Doherty, P, Mahon, I, Johnson-Robertson, M, Steinberg, D, Friedman, A 2012, Monitoring of benthic reference sites: using an Autonomous Underwater Vehicle, *IEEE Robotics & Automation Magazine*, vol. 19, no. 1, pp. 73-84, doi:10.1109/MRA.2011.2181772

Baird, ME, Ridgway, K 2012, The southward transport of sub-mesoscale lenses of Bass Strait Water in the centre of anti-cyclonic mesoscale eddies, *Geophysical Research Letters*, vol. 39, doi:10.1029/2011GL050643

Jones, EM, Oke, PR, Rizwi, F, Murray, LM 2012, Assimilation of glider and mooring data into a coastal ocean model, *Ocean Modelling*, vol. 47, pp. 1-13, doi:10.1016/j.ocemod.2011.12.009

Seiler, J, Friedman, A, Steinberg, C, Barrett, N, Williams, A, Holbrook, N 2012, Image-based continental shelf habitat mapping using novel automated data extraction techniques, *Continental Shelf Research*, vol. 45, pp. 87-97, doi:10.1016/j.csr.2012.06.003

Barnett, A, Semmens, J 2012, Sequential movement into coastal habitats and high spatial overlap of predator and prey suggest high predation pressure in protected areas, *OIKOS - Synthesising Ecology*, vol. 121, no. 6, pp. 882-890, doi:10.1111/j.1600-0706-2011.20000.x

Barnett, A, Braccini, M, Awruch, CA, Ebert, DA 2012, An overview on the role of Hexanchiformes in marine ecosystems: biology, ecology and conservation status of a primitive order of modern sharks, *Journal of Fish Biology*, vol. 80, no. 5, pp. 966-990, doi:10.1111/j.1095-8649.2012.03242.x

Seiler, J, Williams, A, Barrett, N 2012, Assessing size, abundance and habitat preferences of the Ocean Perch *Helicolenus percoides* using a AUV-borne stereo camera system, *Fisheries Research*, vol. 129, pp. 64-72, doi:10.1016/j.fishres.2012.06.011

Everett, JD, Baird, ME, Oke, PR, Suthers, I 2012, An avenue of eddies: quantifying the biophysical properties of mesoscale eddies in the Tasman Sea, *Geophysical Research Letters*, vol. 39, no. 16, L16608, doi:10.1029/2012GL053091

Semmens, J, Payne, N, Huveneers, C, Sims, DW, Bruce, B 2013, Feeding requirements of white sharks may be higher than originally thought, *Scientific Reports*, vol. 3, doi:10.1038/srep01471

Stehfest, K, Patterson, T, Dagorn, L, Holland, K, Itano, D, Semmens, J 2013, Network analysis of acoustic tracking data reveals the structure and stability of fish aggregations in the open ocean, *Animal Behaviour*, vol. 85, pp. 839-848, doi:10.1016/j.anbehav.2013.02.003

Lucieer, V, Hill, N, Barrett, N, Nichol, SL 2013, Do marine substrates 'look' and 'sound' the same? Supervised classification of multibeam acoustic data using autonomous underwater vehicle images, *Estuarine, Coastal and Shelf Science*, vol. 117, pp. 94-106, doi:10.1016/j.ecss.2012.11.001

Rigby, P, Steinberg, C, Williams, DK, Brinkman, R, Tonin, H, Hughes, D 2014, Real-time marine observing systems: challenges, benefits and opportunities in Australian coastal waters, *Australian Journal of Civil Engineering*, vol. 12, no. 1, pp. 83-99

Lynch, T, Morello, E, Evans, K, Richardson, A, Steinberg, C, Roughan, M, Thompson, P, Middleton, J, Feng, M, Brando, V, Tilbrook, B, Ridgway, K, Allen, S, Doherty, P, Hill, K, Moltmann, T 2014, IMOS National Reference Stations: a continental scaled physical, chemical and biological coastal observing system, *PLoS One*, vol. 9, no. 12, e113652, doi:10.1371/journal.pone.0113652

- Tripovich, J, Klinck, H, Nieukirk, S, Adams, T, Mellinger, D, Balcazar, N, Klinck, K, Hall, E, Rogers, T 2014, Temporal segregation of the Australian and Antarctic blue whale call types (*Balaenoptera musculus* spp.), *Journal of Mammalogy*, vol. 96, no. 3, pp. 603-610, doi:10.1092/jmammal/gyv065
- Perkins, N, Hill, N, Foster, SD, Barrett, N 2014, Altered niche of an ecologically significant urchin species, *Centrostephanus rodgersii*, in its extended range revealed using an Autonomous Underwater Vehicle, *Estuarine, Coastal and Shelf Science*, vol. 155, pp. 56-65, doi:10.1016/j.ecss.2015.01.014
- Buchanan, PJ, Swadling, K, Eriksen, C, Wild-Allen, K 2014, New evidence links changing shelf phytoplankton communities to boundary currents in Southeast Tasmania, *Reviews in Fish Biology and Fisheries*, vol. 24, pp. 427-442, doi:10.1007/s11160-013-9312-z
- White, N, Haigh, ID, Church, JA, Koen, T, Watson, C, Pritchard, T, Watson, PJ, Burgette, R, McInnes, KL, You, Z-J, Zhang, X, Tregoning, P 2014, Australian sea levels-trends, regional variability and influencing factors, *Earth-Science Reviews*, vol. 136, pp. 155-174, doi:10.1016/j.earscirev.2014.05.011
- Stehfest, K, Patterson, T, Barnett, A, Semmens, J 2014, Markov models and network analysis reveal sex-specific differences in the space-use of a coastal apex predator, *OIKOS - Synthesising Ecology*, doi:10.1111/oik.01429
- Hill, N, Lucieer, V, Barrett, N, Anderson, T, Williams, S 2014, Filling the gaps: predicting the distribution of temperate reef biota using high resolution biological and acoustic data, *Estuarine, Coastal and Shelf Science*, vol. 147, pp. 137-147, doi:10.1016/j.ecss.2014.05.019
- Foster, SD, Hosack, GR, Hill, N, Barrett, N, Lucieer, V 2014, Choosing between strategies for designing surveys: autonomous underwater vehicles, *Methods in Ecology and Evolution*, vol. 5, pp. 287-297, doi:10.1111/2041-210X.12156
- Foster, SD, Griffin, DA, Dunstan, P 2014, Twenty years of high-resolution sea surface temperature imagery around Australia: inter-annual and annual variability, *PLoS One*, vol. 9, no. 7, e100762, doi:10.1371/journal.pone.0100762
- Davies, C, Armstrong, A, Baird, ME, Coman, F, Gaughan, D, Greenwood, J, Gusmao, LFM, et, al. 2014, Over 75 years of zooplankton data in Australia, *Ecology*, vol. 95, no. 11, pp. 3229-3229, doi:10.1890/14-0697.1
- Balcazar, N, Tripovich, J, Klinck, H, Nieukirk, S, Mellinger, D, Dziak, R, Rogers, T 2015, Calls reveal population structure of blue whales across the southeast Indian Ocean and southwest Pacific Ocean, *Journal of Mammalogy*, doi:10.1093/jmammal/gyv126
- Thompson, P, Bonham, P, Thomson, P, Rochester, W, Doblin, MA, Waite, A, Richardson, A, Rousseaux, C 2015, Climate variability drives plankton community composition changes: the 2010 -2011 El Nino to La Nina transition around Australia, *Journal of Plankton Research*, vol. 37, no. 5, pp. 966-985, doi:10.1093/plankt/fbv069
- Lenton, A, Tilbrook, B, Matear, R, Sasse, T, Nojiri, Y 2015, Historical reconstruction of ocean acidification in the Australian region, *Biogeosciences*, vol. 13, pp. 1753-1765, doi:10.5194/bg-13-1753-2016
- Boettger, D, Robertson, R, Rainville, L 2015, Characterizing the semi diurnal internal tide off Tasmania using glider data, *Journal of Geophysical Research - Oceans*, doi:10.1002/2015JC010711
- Sloyan, B, O'Kane, TJ 2015, Drivers of decadal variability in the Tasman Sea, *Journal of Geophysical Research - Oceans*, vol. 120, no. 5, pp. 3193-3210, doi:10.1002/2014JC010550
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## Reports

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## Thesis

Barnett, A 2011, The role of apex predators in coastal ecosystems: a case study examining the broadnose sevengill Shark *Notorchnus cepedianus*, Doctor of Philosophy (PhD), University of Tasmania, Hobart

Stehfest, K 2013, Novel methods for quantifying movement behaviour of free-ranging fish from telemetry data, Doctor of Philosophy (PhD), University of Tasmania, Hobart

Coughlan, A 2013, Effects of climate change on phytoplankton phenology, distribution and community composition off Australia's East Coast, Honours degree, University of Queensland, Brisbane

Seiler, J 2013, Non-extractive monitoring of biodiversity on temperate Australian deepwater reefs: using advanced vision-processing techniques to develop and test reliable biodiversity metrics, Doctor of Philosophy (PhD), University of Tasmania, Hobart

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McAllister, J 2016, Examining the role of area closures for the protection and conservation of an overexploited coastal shark species, Doctor of Philosophy (PhD), University of Tasmania, Hobart

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## Data Product

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**Data Product Count 7**

## Public Seminars

Watson, C; Geodesy at UTAS and the IMOS Satellite Altimetry Sub-Facility; Seminar of the 40th Anniversary of Spatial Science at UTAS, 04/05/2012 - 04/05/2012, University of Tasmania, Hobart, Presenter(s): Chris Watson

Rossi, V, Schaeffer, A, Feng, M, Pattiaratchi, C, Galibert, G, Wood, JE, Sudre, J, Roughan, M, Waite, A; Sporadic physical processes driving temperature and nutrient variability in the Coastal ocean: a comparative study over the East and West Australian continental shelves; CCRC/UNSW Seminar, 12/12/2012 - 12/12/2012, University of New South Wales, Sydney, Presenter(s): Vincent Rossi

Watson, C, White, N, Church, JA, King, M, Burgette, R, Legresy, B; Refining satellite era estimates of global mean sea level rise; Research School of Earth Science (RSES) Seminar, 12/02/2015 - 12/02/2015, Canberra, Presenter(s): Chris Watson

Marzinelli, EM; The ecology of SE Australian underwater forests: declines and potential solutions; SIMS Seminar Series & Topics in Australian Marine Science Seminar Program, 31/05/2016 - 31/05/2016, Sydney, Presenter(s): Ezequiel Marzinelli

**Public Seminars 4**

## Conferences, Symposia or Workshops

### Conference Oral Presentation

Allen, S, Pender, L, Steinberg, C, Middleton, J, Brando, V, Roughan, M; The Australian National Moorings Network. In situ observations for Australian marine research; Australian Meteorological and Oceanographic Society (AMOS) Conference, 29/01/2008 - 01/02/2008, Geelong

Lynch, T, Steinberg, C, Brando, V, Roughan, M, Middleton, J, Hughes, D, Feng, M, McCauley, R, Wiltshire, M, Hill, K, Proctor, R, Allen, S, Meyers, G, Moltmann, T; The Australian National Mooring Network; OceanObs'09 Conference, 21/09/2009 - 25/09/2009, Venice

Barnett, A; Movement of broadnose sevengill sharks *Notorynchus cepedianus* in coastal areas of southeast Tasmania; Sharks International, 06/06/2010 - 11/06/2010, Cairns, Presenter(s): Adam Barnett

Semmens, J, Webber, D, Frappell, PB, Hagg, J, Lyle, J, Buxton, C; Movement patterns, swimming speed and metabolic rate of a vulnerable temperate rocky-reef fish, *Cheilodactylus spectabilis* during the spawning season; Society of Experimental Biology Conference, 30/06/2010 - 03/07/2010, Prague, Presenter(s): Jayson Semmens

Wild-Allen, K; Trends in remotely sensed chlorophyll concentration in Tasmanian coastal waters; Australian Marine Science Association Conference, 05/07/2010 - 08/07/2010, Woolongong, Presenter(s): Karen Wild-Allen

Semmens, J, Webber, D, Forbes, E, Lyle, J, Buxton, C; New technology developments for understanding spatial and temporal activity patterns of fish in nature; 63rd Canadian Conference for Fisheries Research, 07/01/2011 - 09/01/2011, Winnipeg, Presenter(s): Jayson Semmens

Semmens, J; Beyond presence/absence: Estimating field metabolic rates and swimming speeds with acoustic arrays; Ocean Tracking Network (OTN) Conference, 12/06/2011 - 18/06/2011, Halifax, Presenter(s): Jayson Semmens

Lynch, T, Morello, E, Hughes, D, Steinberg, C, Feng, M, Richardson, A, Thompson, P, Bonham, P, Howell, B, Slawinski, D, James, C, Middleton, J, Davies, C, Rigby, P; Quality control and preliminary results from the IMOS Australian National Reference Stations; Australian Marine Science Association Conference, 03/07/2011 - 07/07/2011, Fremantle

Hill, N, Lucieer, V, Barrett, N, Anderson, T; Predicting temperate deep-reef benthos with high-resolution multibeam data; World Conference on Marine Biodiversity, 26/09/2011 - 30/09/2011, Aberdeen

Frusher, SD, Pecl, G, Hobday, A, Bates, A, Jennings, S, van Putten, I, Watson, R; Insights from SE Australian marine global hotspot; 6th World Fisheries Congress, 07/05/2012 - 11/05/2012, Edinburgh International Conference Centre, Edinburgh, Presenter(s): Stewart Frusher

Frusher, SD, Pecl, G, Hobday, A, Bates, A, Gardner, C, Jennings, S, Swadling, K, van Putten, I, Watson, R; From physics to... communities: An interdisciplinary approach to understanding the impacts of climate change in SE Australia; 2nd International Symposium: Effects of Climate Change on the World's Oceans, 15/05/2012 - 19/05/2012, Yeosu, Presenter(s): Stewart Frusher

Crawford, C, Swadling, K, Frusher, SD; Productivity and water quality changes in coastal waters in southeastern Tasmania, Australia, a climate change hotspot.; 50th ECSA Conference: Today's science for tomorrow's Management, 03/06/2012 - 07/06/2012, Venice, Presenter(s): Christine Crawford

Quayle, L; Zooplankton in Recherche Bay and relationship to oceanographic drivers; Australian Marine Science Association Conference, 07/07/2013 - 11/07/2013, Gold Coast, Presenter(s): Lucy Quayle

Balcazar, N, Tripovich, J, Dziak, R, Mellinger, D, Nieu Kirk, S, Klinck, H, Rogers, T; Calls reveal population structure of two pygmy blue whales in the Indo-Pacific; Australian Mammal Society 59th Scientific meeting, 08/07/2013 - 10/07/2013, University of New South Wales, Sydney, Presenter(s): Naysa Balcazar

Semmens, J; Examining Chondrichthyan activity patterns within an estuary; International Conference on Fish Telemetry, 15/07/2013 - 19/07/2013, Grahamstown, Presenter(s): Jayson Semmens

Messer, L, Jeffries, TC, Mahaffey, C, Doubell, M, Doblin, MA, Brown, MV, Seymour, JR; Diazotroph dynamics across Australia's oligotrophic oceans; Australian Society for Microbiology Conference, 06/07/2014 - 09/07/2014, Melbourne, Presenter(s): Lauren Messer

Messer, L, Jeffries, TC, Mahaffey, C, Doubell, M, Doblin, MA, Brown, MV, Seymour, JR; Diazotroph dynamics across Australia's oligotrophic oceans; 15th International Symposium on Microbial Ecology, 24/08/2014 - 29/08/2014, Seoul, Presenter(s): Lauren Messer

Skerratt, J, Baird, ME, Mongin, M, Rizwi, F, Wild-Allen, K; Application of catchment load scenarios for management of coastal ecosystems; Australian Coastal Ocean Modelling and Observations (ACOMO), 07/10/2014 - 08/10/2014, Canberra, Presenter(s): Jenny Skerratt

Watson, C, White, N, Church, JA, Beardsley, J, Legresy, B, King, M; Update results from the Australian in-situ calibration sites: Bass Strait and Storm Bay; Ocean Surface Topography Science Team (OSTST) Meeting, 27/10/2014 - 31/10/2014, Lake Constance, Presenter(s): Chris Watson

Watson, C, White, N, Church, JA, King, M, Burgette, R; Refining satellite era estimates of global mean sea level rise; Geography and Spatial Sciences Conference, 25/11/2014 - 26/11/2014, Hobart, Presenter(s): Chris Watson

Pattiaratchi, C; Dense shelf water cascades around Australia: dynamics and water column processes; International Union of Geophysics and Geology (IUGG) General Assembly, 22/06/2015 - 02/07/2015, Prague, Presenter(s): Charitha Pattiaratchi

Wijeratne, S, Pattiaratchi, C, Proctor, R; Simulation of boundary currents around Australia; International Union of Geophysics and Geology (IUGG) General Assembly, 22/06/2015 - 02/07/2015, Prague, Presenter(s): Charitha Pattiaratchi

Clementson, L, Lynch, T, Kelly, P, Moore, D, Kay, R; A systematic approach to providing high quality bio-optical data streams from moored observing systems over broad spatial and temporal scales - part II; Australian Marine Science Association Conference, 05/07/2015 - 09/07/2015, Geelong, Presenter(s): L Clementson

Clementson, L, Lynch, T; Providing high quality chlorophyll-a data streams from moored observing systems over broad spatial and temporal scales - part II; Australian Marine Science Association Conference, 05/07/2015 - 09/07/2015, Geelong, Presenter(s): L Clementson

Eriksen, R, Bonham, P, Coman, F, et, al.; Using plankton data from National Reference Stations in the Australian Integrated Marine Observing System; Australian Marine Science Association Conference, 05/07/2015 - 09/07/2015, Geelong, Presenter(s): Ruth Eriksen

Lee, R, Baird, ME, Andrewartha, J, Mancini, S; Transforming environmental protection with integrated model observing systems; Australian Marine Science Association Conference, 05/07/2015 - 09/07/2015, Geelong, Presenter(s): Randall Lee

Richardson, A, Rochester, W, Eriksen, R; Plankton 2015: as assessment of Australia's oceans using plankton as ecosystem indicators; Australian Marine Science Association Conference, 05/07/2015 - 09/07/2015, Geelong, Presenter(s): Anthony Richardson

Wild-Allen, K, Rayner, M, Baird, ME; Fine-scale nutrient observations confirm simulated biogeochemical variability in estuarine, coastal and shelf systems; Australian Marine Science Association Conference, 05/07/2015 - 09/07/2015, Geelong, Presenter(s): Karen Wild-Allen

Church, JA; Sea-level change: a scientific and social challenge for the 21st century; Australian Meteorological & Oceanographic Society (AMOS) Conference, 15/07/2015 - 17/07/2015, Brisbane, Presenter(s): John Church

Roughan, M, Jones, EM, Oke, PR, Moltmann, T, May, P, Schiller, A; A National Shelf Re-analysis (ANSR) project for Australia; Australian Forum for Operational Oceanography, 21/07/2015 - 23/07/2015, Fremantle, Presenter(s): Moninya Roughan

McCauley, R; Definition of the blue whale species complex and their movements in Australian and Southern Ocean waters; 12th International Congress on Theoretical and Computational Acoustics, 11/10/2015 - 16/10/2015, Hangzhou, Presenter(s): Rob McCauley

Steckenreuter, A, Peddemors, V, Simpfendorfer, C, Hoenner, X, Tattersall, K, Babcock, R, Huveneers, C, Heupel, M, Meekan, MG, Harcourt, R; Optimising the integrity of a national network of acoustic telemetry research infrastructure in Australia ; Australian Society for Fish Biology Conference, 11/10/2015 - 14/10/2015, Sydney, Presenter(s): Andre Steckenreuter

Williams, S; High-resolution marine survey: applications in engineering science, ecology, archaeology and geology; IEEE International Conference on Robotics and Automation , 16/05/2016 - 21/05/2016, Stockholm, Presenter(s): Stefan Williams

Perkins, N; Detecting change in benthic ecosystems with digital imagery: monitoring design in a challenging environment; International Statistical Ecological Conference, 28/06/2016 - 01/07/2016, Seattle

Spillman, CM, Hobday, A, Eveson, P, Hartog, JR; Seasonal forecasting for decision support in marine fisheries and aquaculture; NZMSS and AMSA Sharing Ocean Resources - Now and in the future, 04/07/2016 - 07/07/2016, Wellington, Presenter(s): Claire Spillman

Barrett, N; Baited underwater video for an integrated monitoring network: developing indicators and an appropriate national framework; Australian Society for Fish Biology (ASFB) and Oceania Chondrichthyan Society (OCS) 2016, 04/09/2016 - 07/09/2016, Hobart, Presenter(s): Neville Barrett

Smith, JA; An evaluation of long-term monitoring of larval fish in eastern Australia; Australian Society for Fish Biology (ASFB) and Oceania Chondrichthyan Society (OCS) 2016, 04/09/2016 - 07/09/2016, Hobart, Presenter(s): James Smith

Adams, K; The soft sediment impediment: can marine reserves protect elasmobranch species in sandy habitats? ; 4th International Conference on Fish Telemetry, 19/06/2017 - 23/06/2017, Cairns, Presenter(s): Kye Adams

Braccini, M; Acoustic monitoring reveals the broad-scale movements of commercially important sharks; 4th International Conference on Fish Telemetry, 19/06/2017 - 23/06/2017, Cairns, Presenter(s): J. Matias Braccini

Knott, N; Are open coastal sediment fishes always highly mobile? An assessment of the movement patterns of the bluespotted flathead; 4th International Conference on Fish Telemetry, 19/06/2017 - 23/06/2017, Cairns, Presenter(s): Nathan Knott

Patterson, T, et, al.; Estimating juvenile white shark mortality from a continental scale array; 4th International Conference on Fish Telemetry, 19/06/2017 - 23/06/2017, Cairns, Presenter(s): Toby Patterson

Antoine, D, Schroeder, T, et, al.; The Australian Integrated Marine Observing System (IMOS) radiometry task team: a community effort towards improved field ocean colour measurements; Australian Marine Science Association Conference, 02/07/2017 - 06/07/2017, Darwin, Presenter(s): David Antoine

Govekar, P; Use of ACSPO VIIRS L3U SST in the Australian Bureau of Meteorology; Australian Marine Science Association Conference, 02/07/2017 - 06/07/2017, Darwin, Presenter(s): Pallavi Govekar

Harcourt, R; IMOS Animal Tracking, 10 years of age and going strong; Australian Marine Science Association Conference, 02/07/2017 - 06/07/2017, Darwin, Presenter(s): Rob Harcourt

Richardson, A; A decade of IMOS Plankton Observations; Australian Marine Science Association Conference, 02/07/2017 - 06/07/2017, Darwin, Presenter(s): Anthony Richardson

### Conference Poster

Seuront, L, Leterme, S, Middleton, J, Ridgway, K, Doherty, P, Bainbridge, S, Steinberg, C, Suthers, I, Roughan, M, Pattiaratchi, C, Thresher, A, Trull, T, Schulz, E, Wijffels, S, Williams, S, Allen, S, Heron, M, Harcourt, R, Proctor, R, Turner, P, Critchley, G, Richardson, A, Coman, F, Bonham, P, Terhell, D, Thompson, P, Tilbrook, B, Berry, K, Clementson, L, Robert, S, Lynch, T, Furnas, M, Roberts, K, Magierowski, R, Meyers, G; IMOS, an Integrated Marine Observing System for Australia; European Geosciences Union (EGU) General Assembly, 19/04/2009 - 24/04/2009, Vienna

Lynch, T, Steinberg, C, Brando, V, Roughan, M, Middleton, J, Hughes, D, Feng, M, McCauley, R, Wiltshire, M, Hill, K, Proctor, R, Allen, S, Meyers, G, Moltmann, T; The Australian National Mooring Network; OceanObs'09 Conference, 21/09/2009 - 25/09/2009, Venice

Boomer, A, Huveneers, C, Goldsworthy, S, Hindell, MA, Semmens, J, Tattersall, K, Field, IC, Harcourt, R; Australian Animal Tagging and Monitoring System (AATAMS): higher predators providing sustained observations of the marine environment; Australian Marine Science Association Conference, 05/07/2010 - 08/07/2010, Woolongong

McLeod, DJ; Noctiluca; AMSA-NZMSS (Australian Marine Sciences Association and New Zealand Marine Science Society) Conference, 01/07/2012 - 07/07/2012, Hobart

Picone, MS, Swadling, K, Richardson, A, Coman, F, Slotwinski, A, Davies, C, Tonks, M, Gusmao, LFM, Rochester, W; Seasonal and latitudinal changes in the zooplankton community composition along the East Australia Current: The AusCPR survey; AMSA-NZMSS (Australian Marine Sciences Association and New Zealand Marine Science Society) Conference, 01/07/2012 - 07/07/2012, Hobart

Buchanan, PJ, Swadling, K, Eriksen, C, Wild-Allen, K; New evidence links changing shelf phytoplankton communities to boundary currents in southeast Tasmania; Australian Marine Science Association Conference, 07/07/2013 - 11/07/2013, Gold Coast, Presenter(s): P Buchanan

Kelly, P, Clementson, L, Swadling, K; Drivers of Eastern Australia zooplankton community composition: emphasis on the distribution patterns at Maria Island; Australian Marine Science Association Conference, 07/07/2014 - 11/07/2014, Canberra, Presenter(s): Paige Kelly

Bodrossy, L, Van De Kamp, J, Abell, GJC, Brown, MV, Seymour, JR, Moltmann, T, Frampton, DM, Coman, F, Davies, C; From Queensland to Tasmania - a one-year pilot project in microbial oceanography; 15th International Symposium on Microbial Ecology, 24/08/2014 - 29/08/2014, Seoul, Presenter(s): Lev Bodrossy

Wijeratne, S, Pattiaratchi, C, Proctor, R; Estimates of alongshore and cross-shelf transports around Australia; Australian Coastal Ocean Modelling and Observations (ACOMO), 07/10/2014 - 08/10/2014, Canberra, Presenter(s): Sarath Wijeratne

Zhang, H, Beggs, H, Majewski, L, Huang, X, Kiss, A; Investigating sea surface temperature diurnal variation over the tropical warm pool using MTSAT-1R data; 16th GHRSSST Science Team Meeting, 20/07/2015 - 24/07/2015, Noordwyk, Presenter(s): Helen Beggs

Balcazar, N, Klinck, H, Nieukirk, S, Mellinger, D, Tripovich, J, Dziak, R; Acoustics reveals the population structure of the elusive blue whale; 2015 Ecological Society of America (ESA) Annual Meeting, 09/08/2015 - 14/08/2015, Baltimore, Presenter(s): Naysa Balcazar

Everett, JD, Richardson, A, Baird, ME, et, al.; Bridging the zooplankton gap between models and observations: the IMOS Zooplankton Ocean Observations and Modelling Task Team (ZOOM); Australian Coastal and Oceans Modelling and Observations (ACOMO) Workshop, 11/10/2016 - 12/10/2016, Canberra

Yeung, V, Everett, JD, Richardson, A, Suthers, I; Quantifying the oceanographic and seasonal patterns of zooplankton size-structure at the IMOS National Reference Stations; Australian Coastal and Oceans Modelling and Observations (ACOMO) Workshop, 11/10/2016 - 12/10/2016, Canberra

Antoine, D, Schroeder, T, Botha, N, et, al.; The Australian Integrated Marine Observing System (IMOS) radiometry task team: a community effort towards improved field ocean colour measurements; International Ocean Colour Science Meeting, 15/05/2017 - 18/05/2017, Lisbon, Presenter(s): David Antoine

Ishak, NHBA; The summer of salps: Do warmer seas promote Thaliacea blooms in Storm Bay, Tasmania? ; Graduate Research Conference: Sharing Excellence in Research, University of Tasmania, Hobart, Presenter(s): Nurul Huda Binti Ahmad Ishak

### **Course Presentation**

Williams, S; Robotic vision for marine survey: applications in engineering science, ecology, archaeology and geology; Robot Vision Summer School (RVSS), 18/04/2016 - 22/04/2016, Kioloa, Presenter(s): Stefan Williams

### **Meeting Presentation**

Watson, C, White, N, Church, JA, King, M, Burgette, R; Refining satellite era estimates of global mean sea level rise; Australian Geodesy Meeting, 01/07/2014 - 02/07/2014, Canberra, Presenter(s): Chris Watson

Harcourt, R; White Sharks, Australian Animal Tracking and global links through the Ocean Tracking Network; Shark Mitigation Strategies and Alternatives Briefing, 16/07/2014 - 16/07/2014, Canberra, Presenter(s): Rob Harcourt

Bodrossy, L, Van De Kamp, J, Abell, GJC, Brown, MV, Seymour, JR, Moltmann, T, Frampton, DM, Coman, F, Davies, C; From Queensland to Tasmania - a one-year pilot project in microbial oceanography; Singapore Interactive Meeting on Microbial Ecology Research, 22/08/2014 - 23/08/2014, Singapore, Presenter(s): Lev Bodrossy

McMahon, C, Harcourt, R, Hindell, MA; The Southern Ocean animal-borne sensor program of the Integrated Marine Observing System (AATAMS\*); SCAR Open Science Meeting, 23/08/2014 - 27/08/2014, Auckland, Presenter(s): Clive McMahon

Watson, C, White, N, Church, JA, King, M, Burgette, R; Sea level rise; Surveying & Spatial Sciences Institute State Congress, 24/07/2015 - 24/07/2015, Hobart, Presenter(s): Chris Watson

Extracting wave parameters from HF radar installations around Australia; Wave buoy user group meeting, 15/06/2016 - 16/06/2016, Fremantle

### **Session Chair**

Trebaul, J-P; Satellite altimetry Cal/Val at the Australian Bass Strait site in the context of the new missions Jason-3 and Sentinel-3; CSIRO Public Seminar, 16/07/2015 - 16/07/2015, Commonwealth Scientific Industrial Research Organisation, Hobart, Presenter(s): J-P Trebaul

### **Symposium Presentation**

Barrett, N; Developing a non-intrusive monitoring approach for describing deep water habitats and biodiversity within Australia's new commonwealth MPA network and collecting the information necessary for optimal on-reserve and off-reserve management; AMSA-NZMSS (Australian Marine Sciences Association and New Zealand Marine Science Society) Conference, 01/07/2012 - 07/07/2012, Hobart, Presenter(s): Neville Barrett



Clementson, L, Schroeder, T, Cherukuru, N, Brando, V, Daniel, P, Dekker, AG; Bio-optical parameters measured in southern Tasmanian waters: their importance in the accurate satellite retrieval of estimates of phytoplankton biomass in this region; AMSA-NZMSS (Australian Marine Sciences Association and New Zealand Marine Science Society) Conference, 01/07/2012 - 07/07/2012, Hobart, Presenter(s): L Clementson

Lynch, T, Clementson, L, Kay, R, Roughan, M, Galibert, G, Brando, V, Doblin, MA; Systematic approach to reducing uncertainties in bio-optical data streams in a sustained observing system; AMSA-NZMSS (Australian Marine Sciences Association and New Zealand Marine Science Society) Conference, 01/07/2012 - 07/07/2012, Hobart, Presenter(s): Tim Lynch

McLeod, DJ, Hallegraef, GM, Hosie, G, Richardson, A; Climate-driven range expansion of the red-tide dinoflagellate *Noctiluca scintillans* into the Southern Ocean; AMSA-NZMSS (Australian Marine Sciences Association and New Zealand Marine Science Society) Conference, 01/07/2012 - 07/07/2012, Hobart, Presenter(s): David McLeod

Escobar Flores, P, O'Driscoll, R, Montgomery, J; Bridging the gap between fisheries and oceanography: using fisheries acoustics to monitor pelagic ecosystems in the Southern Ocean; ICES Symposium on Marine Ecosystem Acoustics (SOME Acoustics), 25/05/2015 - 28/05/2015, Nantes, Presenter(s): Pablo Escobar Flores

Thomas, J, Fielding, S, Kloser, R, Ryan, T, Brehmer, P, Behagle, N; A circumpolar database of mid-trophic organisms in the Southern Ocean? The Southern Ocean network acoustics; ICES Symposium on Marine Ecosystem Acoustics (SOME Acoustics), 25/05/2015 - 28/05/2015, Nantes, Presenter(s): Jenny Thomas

Brown, MV, Ostrowski, M, Seymour, JR, Van De Kamp, J, Kahlke, T, Craw, P, Moltmann, T, Bodrossy, L; A continental scale genomic ocean monitoring network: the Australian Marine Microbiology Biodiversity Initiative; Blue Planet Symposium, 27/05/2015 - 29/05/2015, Cairns, Presenter(s): Mark Brown

Baldry, K, Hardman-Mountford, NJ, Greenwood, J, Tilbrook, B; Remotely-sensed estimation of alkalinity in coastal waters around Australia; 4th Oceans in a high CO<sub>2</sub> World Symposium, 03/05/2016 - 06/05/2016, Hobart, Presenter(s): K Baldry

Hardman-Mountford, NJ, Greenwood, N, Tilbrook, B; Relative potential impacts of local and global CO<sub>2</sub> release: comparison of natural variability and trends to carbon capture and storage; 4th Oceans in a high CO<sub>2</sub> World Symposium, 03/05/2016 - 06/05/2016, Hobart, Presenter(s): Nick Hardman-Mountford

### **Workshop Presentation**

Marzloff, M, Oliver, ECJ, Barrett, N, Holbrook, N, James, L, Wotherspoon, S, Johnson, C; Differential vulnerability of deep-reef habitat-forming organisms to climate change; Australian Coastal Ocean Modelling and Observations - ACOMO, 03/10/2012 - 04/10/2012, Canberra, Presenter(s): Craig Johnson

Harcourt, R; Oceans of opportunity, an Australian perspective on continental scale observing; An Ocean of Opportunity: Mutual Goals, shared resources, effective outcomes, 06/06/2014 - 06/06/2014, Ocean Tracking Network, Ottawa, Presenter(s): Rob Harcourt

Proctor, R; Your research in the cloud: The NeCTAR research cloud; NeCTAR/RDSI facility - IMAS Tasmanian node launch, 29/07/2014 - 29/07/2014, Hobart, Presenter(s): Roger Proctor

Legresy, B, Church, JA, White, N, Monselesan, D, Slangen, A; Sensitivity of sea-level rise reconstruction from tide gauges; Workshop on Global and Regional Sea Level Variability and Change, 10/06/2015 - 12/06/2015, Majorca, Presenter(s): Benoit Legresy

Oliver, ECJ, Lago, V, Hobday, A, Holbrook, N, Ling, S, Mundy, C; Identifying historical marine heatwaves off eastern Tasmania with a regional ocean model; Australian Coastal and Oceans Modelling and Observations (ACOMO) Workshop, 11/10/2016 - 12/10/2016, Canberra, Presenter(s): Eric Oliver

Suthers, I, Smith, JA, Everett, JD, Miskewic, AG, Richardson, A, Lara-Lopez, A; Long-term observations of weighted temperature-salinity habitats of larval fish in the western Tasman Front: seasonal, species and family level patterns; Australian Coastal and Oceans Modelling and Observations (ACOMO) Workshop, 11/10/2016 - 12/10/2016, Canberra, Presenter(s): Iain Suthers

Sandery, PA; Aspects of sub-mesoscale ocean analysis and forecasting; Bureau of Meteorology Annual R&D Workshop: Data Assimilation, 05/12/2016 - 09/12/2016, Melbourne, Presenter(s): Paul Sandery

Antoine, D, Schroeder, T, Botha, N, Cherukuru, N, Dekker, AG, Doblin, MA, Fearn, PRCS, Hardman-Mountford, NJ, Johnson, R, King, E, et, al.; The Australian Integrated Marine Observing System (IMOS) radiometry task team: a community effort towards improved field ocean colour measurement; ESA Workshop on Vicarious Infrastructure, 21/02/2017 - 23/02/2017, Frascati, Presenter(s): David Antoine

Antoine, D, Schroeder, T, et, al.; Update on the Radiometry Task Team; ESA Workshop on Vicarious Infrastructure, 21/02/2017 - 23/02/2017, Frascati, Presenter(s): David Antoine

Heupel, M; IMOS ATF Task Team: updates on national scale analyses; 7th National IMOS Acoustic Tracking Workshop, 17/06/2017 - 17/06/2017, Cairns, Presenter(s): Michelle Heupel

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