

The Australian National Network in Marine Science is collaboration between James Cook University, The University of Tasmania and The University of Western Australia. ANNIMS has recently funded five synthesis teams to address issues in marine science of national and international importance. Three of these teams are seeking research fellows as described below.



Biological/Fisheries Oceanographer



Understanding climate drivers and predicting the future for coastal Australian ecosystems: We seek to develop a unified approach to understanding temporal and spatial variability in higher trophic level dynamics. The research goals are to identify the modes of seasonal, interannual and decadal variability that drive fluctuations in fisheries and other higher trophic levels, such as sharks and marine mammals. We seek an outstanding Research Fellow to contribute to this work. The successful candidate will work with a team of scientists from the university sector, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), state fisheries and the Australian Institute of Marine Science. The Fellow will perform research in conjunction with the collaborative team. For further information contact Pete Strutton (peter.strutton@utas.edu.au) or visit <http://jobs.admin.utas.edu.au/positions/>



Physical-biogeochemical Modeller



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The roles of waves, tides, eddies and cross-shelf flows in carbon exchange: Improved understanding of exchanges between continental shelf seas and the deep ocean is required by models that study climate, the carbon cycle, sedimentation and marine ecosystem function. The aim of this project is to investigate ocean-shelf exchange on Australian continental shelves, which encompass tropical, sub-tropical and temperate regions, with an emphasis on the roles of waves, tides, eddies and cross-shelf flows in carbon exchange. Using data streams obtained by the Integrated Marine Observing System (IMOS) and application of coupled physical-biogeochemical models forced by global models such as Bluelink, the project aims to define carbon fluxes between the Australian continental shelves and surrounding ocean. A highly qualified and experienced research team, which includes Australian and international partners, with a proven record of high quality outputs have been assembled to undertake this study. We seek a recent PhD in physical oceanography and/or oceanic biogeochemistry or a related field with experience in numerical modelling. For further information contact Prof C Pattiaratchi (chari.pattiaratchi@uwa.edu.au).



Biochronologist



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Triangulating climate records from fish, marine invertebrates and trees to understand ocean warming: Warming oceans are likely leading to changes in fish growth rates, fisheries productivity and resiliency. At present we lack the long-term (multi-decadal) biological data sets necessary to develop accurate predictive models that might enable us to quantify and mitigate the effects of climate change on fisheries, biodiversity and ecosystem function. The postdoctoral fellow, with support from an international team of experts, will bring together innovative techniques in sclerochronology, tree-ring science, species/climate modelling, oceanography, ecophysiology and fisheries science to address this issue, developing accurate and reliable biochronologies of fish growth that, in combination with data sets from corals and trees, can be used to predict fisheries productivity under modelled climate change scenarios. We seek a recent PhD in biochronology with a strong quantitative background. For further information contact Jessica Meeuwig (jessica.meeuwig@uwa.edu.au).