
Dr Nathan A. Knott

Research Scientist - Marine Ecologist, Fisheries NSW, NSW Dept. of Primary Industries
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Education

PhD - Marine Biology 1997- 2002 PhD thesis “Epibiotia on natural reefs and on artificial structures”
Centre for Research on Ecological Impacts of Coastal Cities, University of Sydney. Supervisors: Prof. AJ Underwood, Dr MG Chapman and Dr TM Glasby.

Bachelor of Science (Biology) Honours Class I 1992-1996 University of Wollongong (Thesis title: Evidence of orientation and external morphology inducing passive flow through the intertidal ascidian, *Pyura stolonifera*) Department of Biological Sciences, University of Wollongong. Supervisors: Assoc. Prof. AR Davis and Assoc. Prof. W Buttemer.

Grants, Contracts, Scholarships and Awards

2014 Australian Research Council Linkage Grant *Movement, migration and social networks in wild shark populations.* \$267,000.

2011 The National Climate Change Adaptation Research Facility Grant (NCCARF) *Adaptive management of temperate reefs to minimise effects of climate change: Developing new effective approaches for ecological monitoring and predictive modelling.* \$330,000.

2009 Australian Research Council Linkage Grant Assessing the ecological health of Australian estuaries and ports. University of NSW (UNSW) \$690,000.

2008 BlueScope Steel Contract Research Port Kembla Harbour Study. UNSW \$480,000.

2008 Sydney Water Contract Research Marine Environment Monitoring Program – Sydney’s Desalination Plant. UNSW \$469,135.

2007 Port Kembla Port Corporation Contract Research Assessing the ecological effects of dredging activities in Port Kembla Harbour. UNSW \$75,000.

2006 Australian Research Council Linkage Grant Ecological effects of resuspending contaminated sediments on marine invertebrates within Port Kembla Harbour. UNSW \$240,000.

2006 BlueScope Steel Contract Research Assessment of the ecological impacts associated with the cooling water intake and discharge from the BlueScope Steel Co-generation Plant and its proposed salt water cooling. UNSW \$25,000.

2005 Parks Victoria Contract Research Ecological performance measures for Victorian Marine Protected Areas: Review of the existing biological sampling program. University of Melbourne \$45,000.

1997 Special Research Centre on the Ecological Impacts of Coastal Cities PhD Scholarship
University of Sydney \$63,000.

Summary of Employment

2009 Research Scientist, Fisheries NSW

2006 – 2009 Research Fellow School of Biological, Earth and Environmental Sciences, University of NSW.

2002 – 2005 Research Fellow Department of Zoology, University of Melbourne.

2001 – 2002 Marine Ecology Consultant, The Ecology Lab Pty Ltd.

1997– 2002 PhD Student, University of Sydney

1996 – 1997 Research Assistant, Biological Sciences, University of Wollongong.

Publications

- Dafforn, KA, BP Kelaher, SL Simpson, MA Coleman, PA Hutchings, GF Clark, NA Knott, MA Doblin and EL Johnston (2014) Polychaete richness and abundance enhanced in anthropogenically modified estuaries despite high concentrations of toxic contaminants *PLoS ONE* 8: e77018.
- Ricardo, GF, AR Davis, NA Knott and TE Minchinton (2014). Diel and Tidal Cycles Regulate Larval Dynamics in Saltmarshes and Mangrove Forests. *Marine Biology* 161:769–784
- Ferguson, AM, ES Harvey, MD Taylor and NA Knott (2013) A Herbivore Knows Its Patch: Luderick, *Girella tricuspidata*, Exhibit Strong Site Fidelity on Shallow Subtidal Reefs in a Temperate Marine Park. *PLoS ONE* 8:e65838.
- Demers, MCA, AR Davis and NA Knott (2013) A comparison of the impact of "seagrass-friendly" boat mooring systems on *Posidonia australis*. *Marine Environmental Research* 83:54-62.
- Coleman MA, J Chambers, NA Knott, H Malcolm, D Harasti, AJ Jordan and BP Kelaher (2011) Connectivity within and among a network of temperate marine reserves. *PLoS One* 6(5):e20168. doi:10.1371/journal.pone.0020168

- McKinley, AC, L Ryan, MA Coleman, NA Knott, G Clark, MD Taylor and EL Johnston (2011) Putting marine sanctuaries into context: a comparison of estuary fish assemblages over multiple levels of protection and modification. *Aquatic Conservation: Marine and Freshwater Ecosystems* 21:636-648.
- Roberts, DA, EL Johnston and NA Knott (2010) Impacts of desalination plant discharges on the marine environment: A critical review of published studies. *Water Research* 44:5117-5128.
- Broad, A, NA Knott, X Turon and AR Davis (2010) Effects of a shark repulsion device on rocky reef fishes: no shocking outcomes. *Marine Ecology Progress Series* 408:295-298.
- Knott, NA, J Aulbury, T Brown and EL Johnston (2009) Contemporary ecological threats from historical pollution sources: impacts of large-scale resuspension of contaminated sediments on sessile invertebrate recruitment. *Journal of Applied Ecology* 46:770-781.
- Hedge, LH, NA Knott and EL Johnston (2009) Dredging related metal bioaccumulation in oysters. *Marine Pollution Bulletin* 58:832-840.
- Addison, PFE, NA Knott and MJ Keough (2008) Spatially variable effects of copper over small scales across a marina: correlations with dispersive flow. *Journal of Experimental Marine Biology and Ecology*.
- Ropert-Coudert, Y, NA Knott, A Chiaradia and A Kato (2007) How do different data logger sizes and attachment positions affect the diving behaviour of little penguins. *Deep-Sea Research II* 54:415-423.
- Ross, DJ, MJ Keough, AR Longmore and NA Knott (2007) Impact of two introduced suspension-feeders in Port Phillip Bay, Australia. *Marine Ecology Progress Series* 340:41-53.
- Knott, NA., AJ Underwood, MG Chapman and TM Glasby (2006) Growth of the encrusting sponge *Tedania anhelans* (Lieberkuhn) on vertical and on horizontal surfaces of temperate subtidal reefs. *Marine and Freshwater Research* 57(1): 95-104.
- Chiaradia, A, Y Ropert-Coudert, M Healy and NA Knott (2005) Finding the balance: the effect of positioning of external devices on little penguins. *Memoirs of the National Institute of Polar Research Research* 58:181-184.
- Knott, NA, AJ Underwood, MG Chapman and TM Glasby (2004) Epibiota on natural reefs and artificial structures. *Journal of the Marine Biological Association of the United Kingdom* 84:1-14.
- Knott, NA, AR Davis and WA Buttemer (2004) Passive flow through an unstalked intertidal ascidian: Orientation and morphology enhance suspension-feeding in *Pyura stolonifera*. *Biological Bulletin* 207:1-10.

Technical Reports

- Knott, NA, I Osterloh, M Fackerell and P Davies (2014) Jervis Bay Catchment Study: Background on drift algae and algal blooms and an assessment of the possible causes of the 2009 bloom. Report for Shoalhaven City Council.
- Knott, NA and E Johnston (2008) Ecological assessment of the long-term effects of dredging activities in Port Kembla Harbour. UNSW Global report prepared for Port Kembla Port Corporation.
- Roberts, D, NA Knott and EL Johnston (2008) Conceptual models of potential ecological impacts of plankton entrainment in the Port Kembla Steelworks Cogeneration Plant. UNSW Global report prepared for BlueScope Steel, Port Kembla.
- Knott, NA and EL Johnston (2007) Ecological assessment of the immediate effects of dredging activities in Port Kembla Harbour. UNSW Global report prepared for Port Kembla Port Corporation.
- Knott, NA and EL Johnston (2007) Assessment of the effects of desalination discharge on the recruitment of subtidal reef sessile invertebrates: sampling methodology, design and analysis. Prepared for Sydney Water Corporation.
- Keough, MJ, NA Knott and DJ Ross (2006) Ecological performance measures for Victorian Marine Protected Areas: Review of the existing biological sampling program. Parks Victoria Technical Series.
- Johnston, EL, J Carey and NA Knott (2006) Ecological issues in relation to BlueScope Steel SCP proposed salt water cooling. NewSouth Global Report prepared for BlueScope Steel, Port Kembla.
- Knott, NA and EL Johnston (2006) Effects of BlueScope Steel SCP proposed salt water cooling on plankton of Port Kembla Harbour. NewSouth Global Report prepared for BlueScope Steel, Port Kembla.
- The Ecology Lab (2003) Twofold Bay Study. Prepared for the Department of Defence. (Associate author)
- The Ecology Lab (2002) Review of the ecological effects of the upgrade of the Swansea-Belmont waste water treatment works. Prepared for the Hunter Water Corporation. (Primary author)
- The Ecology Lab (2002) Manly Lagoon fish kill. Prepared for the Manly Council. (Joint Primary author)
- The Ecology Lab (2002) Spatial variation in macroinvertebrate assemblages in sediments on the drop-overs of sandy shoals in Port Hacking. Prepared for the Department of Land and Water Conservation. (Primary author)
- The Ecology Lab (2001) Effects of environmental flows on macroinvertebrate assemblages in freshwater streams. Prepared for Sydney Water. (Primary author)
- The Ecology Lab (2001) Hunter Estuary Process Study: Review of Aquatic Ecology. Prepared for Newcastle Council. (Second author)
- The Ecology Lab (2001) Ecological effects of dumping dredged material: Newcastle Port. Prepared for Newcastle Port Corporation. (Primary author)
- The Ecology Lab (2001) Oxleyan Pygmy Perch Study Stage 1: Yelgun to Chinderah Pacific Highway Upgrade. Prepared for the Roads and Traffic Authority. (Primary author)

Membership of Associations

1997 – current Member of the Australian Marine Science Association & the Ecological Society of Australia