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Supplementary material

Sydney Harbour: a review of anthropogenic impacts on the biodiversity and ecosystem function of one of the world's largest natural harbours

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Habitat	Threats	Field	Reference
Beach	Contamination	Chemistry	Jones, A. (2003). Ecological recovery of amphipods on sandy beaches following oil pollution: an interim assessment. *Journal of Coastal Research* **19**, 66–73.
		Biology	Keats, M. (1997). A cautionary tale: a study of the macro bivalve and gastropod molluscan fauna of Spectacle Island, Sydney Harbour. *Wetlands Australia* **16**, 72–82.
		Ecology	Dexter, D. M. (1983). A guide to the sandy beach fauna of New South Wales. *Wetlands* **3**, 94–104.
		Ecology	Dexter, D. M. (1984). Community structure of intertidal sandy beaches in New South Wales, Australia. *Australian Journal of Marine and Freshwater Research* **35**, 663–672. doi:10.1071/MF9840663
Freshwater		Ecology	Williams, R., and Thiebaud, I. (2009). Occurrence of freshwater macrophytes in the catchments of the Parramatta River, Lane Cove River and Middle Harbour Creek, 2007–2008. Fisheries Final Report Series 109. NSW Department of Primary Industries, Sydney, NSW.
Mangrove–saltmarsh	Climate change	Ecology	Rogers, K., Saintilan, N., and Cahoon, D. (2005). Surface elevation dynamics in a regenerating mangrove forest at Homebush Bay, Australia. *Wetlands Ecology and Management* **13**, 587–598. doi:10.1007/s11273-004-0003-3
	Contamination	Ecology	Mayer-Pinto, M., Coleman, R. A., Underwood, A. J., and Tolhurst, T. (2011). Effects of zinc on microalgal biofilms in intertidal and subtidal habitats. *Biofouling* **27**, 721–727. doi:10.1080/08927014.2011.600448
	Contamination	Ecology	Melville, F., and Pulkownik, A. (2006). Investigation of mangrove macroalgae as bioindicators of estuarine contamination. *Marine Pollution Bulletin* **52**, 1260–1269. doi:10.1016/j.marpolbul.2006.02.021
	Habitat alteration	Ecology	Clynick, B., and Chapman, M. (2002). Assemblages of small fish in patchy mangrove forests in Sydney Harbour. *Marine and Freshwater Research* **53**, 669–677. doi:10.1071/MF00147
	Habitat alteration	Ecology	Kelaher, B., Underwood, A., and Chapman, M. (1998). Effect of boardwalks on the semaphore crab *Heloecius cordiformis* in temperate urban mangrove forests. *Journal of Experimental Marine Biology and Ecology* **227**, 281–300. doi:10.1016/S0022-0981(97)00276-1
	Habitat alteration	Ecology	McManus, P. (2006). Mangrove battlelines: culture/nature and ecological restoration. *Australian Geographer* **37**, 57–71. doi:10.1080/00049180500511970
	NIS	Ecology	Paul, S., and Young, R. (2006). Experimental control of exotic spiny rush, *Juncus acutus* from Sydney Olympic Park: I. *Juncus* mortality and re-growth. *Wetlands Australia* **23**, 1–13.
	NIS	Ecology	Paul, S., Young, R., and MacKay, A. (2007). Experimental control of exotic spiny rush, *Juncus acutus* from Sydney Olympic Park: II Effects of treatments on other vegetation. *Wetlands Australia* **24**, 90–104.
		Ecology	Chapman, M. (1998). Relationships between spatial patterns of benthic assemblages in a mangrove forest using different levels of taxonomic resolution. *Marine Ecology Progress Series* **162**, 71–78. doi:10.3354/meps162071

Habitat	Threats	Field	Reference
		Ecology	Chapman, M., Michie, K., and Lasiak, T. (2005). Responses of gastropods to changes in amounts of leaf litter and algae in mangrove forests. *Journal of the Marine Biological Association of the United Kingdom* **85**, 1481–1488. doi:10.1017/S0025315405012671
		Ecology	Goulter, P., and Allaway, W. (1979). Litter fall and decomposition in a mangrove stand, *Avicennia marina* (Forsk) Vierh in Middle Harbor, Sydney. *Australian Journal of Marine and Freshwater Research* **30**, 541–546. doi:10.1071/MF9790541
		Ecology	Kessler, M. (2006). Development of a non-destructive rapid assessment methodology for saltmarsh in urban areas, as tested in Sydney Harbour, NSW, Australia. *Wetlands Australia* **24**, 1–25.
		Ecology	Mazumder, D., Saintilan, N., and Williams, R. (2006). Fish assemblages in three tidal saltmarsh and mangrove flats in temperate NSW, Australia: a comparison based on species diversity and abundance. *Wetlands Ecology and Management* **14**, 201–209. doi:10.1007/s11273-005-7887-4
		Ecology	Mcloughlin, L. (1987). Mangroves and grass swamps: changes in the shoreline vegetation of the Middle Lane Cove River, Sydney, 1780s–1880s. *Wetlands Australia* **7**, 13–24.
		Ecology	Melville, F., Pulkownik, A., and Burchett, M. (2005). Zonal and seasonal variation in the distribution and abundance of mangrove macroalgae in the Parramatta River, Australia. *Estuarine, Coastal and Shelf Science* **64**, 267–276. doi:10.1016/j.ecss.2005.02.020
		Ecology	Ross, P. (2001). Larval supply, settlement and survival of barnacles in a temperate mangrove forest. *Marine Ecology Progress Series* **215**, 237–249. doi:10.3354/meps215237
		Ecology	Ross, P., and Underwood, A. (1997). The distribution and abundance of barnacles in a mangrove forest. *Australian Journal of Ecology* **22**, 37–47. doi:10.1111/j.1442-9993.1997.tb00639.x
		Ecology	Saintilan, N., and Williams, R. (1999). Mangrove transgression into saltmarsh environments in south-east Australia. *Global Ecology and Biogeography* **8**, 117–124. doi:10.1046/j.1365-2699.1999.00133.x
		Ecology	Thorogood, C. A. (1985). Changes in the distribution of mangroves in the Port Jackson–Parramatta River Estuary from 1930 to 1985. *Wetlands Australia* **5**, 91–96.
		Ecology	Tolhurst, T. (2009). Weak diurnal changes in the biochemical properties and benthic macrofauna of urbanised mangrove forests and mudflats. *Hydrobiologia* **636**, 101–117. doi:10.1007/s10750-009-9940-4
		Ecology	Tolhurst, T., and Chapman, M. (2007). Patterns in biogeochemical properties of sediments and benthic animals among different habitats in mangrove forests. *Austral Ecology* **32**, 775–788. doi:10.1111/j.1442-9993.2007.01764.x
		Ecology	Kelleway, J., Williams, R., and Allen, C. (2007). An assessment of the saltmarsh of the Parramatta River & Sydney Harbour. Fisheries Final Report Series 90. NSW Department of Primary Industries, Sydney, NSW.

Habitat	Threats	Field	Reference
		Geology	Tolhurst, T., and Chapman, M. (2005). Spatial and temporal variation in the sediment properties of an intertidal mangrove forest: implications for sampling. *Journal of Experimental Marine Biology and Ecology* **317**, 213–222. doi:10.1016/j.jembe.2004.11.026
		Management	Fairweather, P. G. (1999). Determining the 'health' of estuaries: priorities for ecological research. *Australian Journal of Ecology* **24**, 441–451. doi:10.1046/j.1442-9993.1999.00976.x
			Melville, F., and Burchett, M. (2002). Genetic variation in *Avicennia marina* in three estuaries of Sydney (Australia) and implications for rehabilitation and management. *Marine Pollution Bulletin* **44**, 469–479. doi:10.1016/S0025-326X(01)00259-4
Open Water	Contamination	Biology	McKinley, A., Taylor, M., and Johnston, E. (2012). Relationships between body burdens of trace metals (As, Cu, Fe, Hg, Mn, Se, and Zn) and the relative body size of small tooth flounder (*Pseudorhombus jenynsii*). *The Science of the Total Environment* **423**, 84–94. doi:10.1016/j.scitotenv.2012.02.007
	Contamination	Biology	McLean, C., Miskiewicz, A., and Roberts, E. (1991). Effect of 3 primary-treatment sewage outfalls on metal concentrations in the fish *Cheilodactylus fuscus* collected along the coast of Sydney, Australia. *Marine Pollution Bulletin* **22**, 134–140. doi:10.1016/0025-326X(91)90182-R
	Contamination	Biology	Muller, J., Muller, R., Goudkamp, K., Mortimer, M., Shaw, M., Haynes, D., Paxman, C., Hyne, R., Mctaggart, A., Burniston, D., Symons, R., and Moore, M. 2004. Dioxins in aquatic environments in Australia. National Dioxins Program Technical Report 6. Australian Government Department of Environment and Heritage, Canberra, ACT.
	Contamination	Biology	Rawson, C., Tremblay, L., Warne, M., Ying, G., Kookana, R., Laginestra, E., Chapman, J., and Lim, R. (2009). Bioactivity of pops and their effects in mosquitofish in Sydney Olympic Park, Australia. *The Science of the Total Environment* **407**, 3721–3730. doi:10.1016/j.scitotenv.2009.02.015
	Contamination	Biology	Roach, A., and Runcie, J. (1998). Levels of selected chlorinated hydrocarbons in edible fish tissues from polluted areas in the Georges/Cooks Rivers and Sydney Harbour, New South Wales, Australia. *Marine Pollution Bulletin* **36**, 323–344. doi:10.1016/S0025-326X(97)00186-0
	Contamination	Chemistry	Davis, B., and Birch, G. (2010). Comparison of heavy metal loads in stormwater runoff from major and minor urban roads using pollutant yield rating curves. *Environmental Pollution* **158**, 2541–2545. doi:10.1016/j.envpol.2010.05.021
	Contamination	Chemistry	Davis, B., and Birch, G. (2011). Spatial distribution of bulk atmospheric deposition of heavy metals in metropolitan Sydney, Australia. *Water, Air, and Soil Pollution* **214**, 147–162. doi:10.1007/s11270-010-0411-3
	Contamination	Chemistry	Forster, B., Sha, X., and Xu, B. (1993). Remote-sensing of sea-water quality parameters using Landsat-TM. *International Journal of Remote Sensing* **14**, 2759–2771. doi:10.1080/01431169308904307
	Contamination	Chemistry	Wolanski, E. (1977). The fate of storm water and stormwater pollution in the Parramatta Estuary, Sydney. *Australian Journal of Marine and Freshwater Research* **28**, 67–75. doi:10.1071/MF9770067

Habitat	Threats	Field	Reference
	Contamination	Ecology	McKinley, A., Dafforn, K., Taylor, M., and Johnston, E. (2011). High levels of sediment contamination have little influence on estuarine beach fish communities. *PLoS One* **6**, e26353. doi:10.1371/journal.pone.0026353
	Contamination	Ecology	McKinley, A., Miskiewicz, A., Taylor, M., and Johnston, E. (2011). Strong links between metal contamination, habitat modification and estuarine larval fish distributions. *Environmental Pollution* **159**, 1499–1509. doi:10.1016/j.envpol.2011.03.008
	Contamination	Oceanography	Birch, G., and Rochford, L. (2010). Stormwater metal loading to a well-mixed/stratified estuary (Sydney Estuary, Australia) and management implications. *Environmental Monitoring and Assessment* **169**, 531–551. doi:10.1007/s10661-009-1195-z
	Fisheries	Fisheries	Dannevig, H. C. (1904). Preliminary report upon the prawning industry in Port Jackson. NSW Department of Primary Industries Fisheries, Sydney.
	Fisheries	Fisheries	Henry, G. W. (1984). Commercial and recreational fishing in Sydney Estuary. New South Wales Department of Agriculture, Sydney.
	Fisheries	Fisheries	Saintilan, N. (2004). Relationships between estuarine geomorphology, wetland extent and fish landings in New South Wales Estuaries. *Estuarine, Coastal and Shelf Science* **61**, 591–601. doi:10.1016/j.ecss.2004.07.002
	Fisheries	Fisheries	Ghosn, D., Steffe, A., and Murphy, J. (2010). An assessment of the effort and catch of shore-based and boat-based recreational fishers in the Sydney Harbour Estuary over the 2007/08 summer period. Final report to the NSW Recreational Fishing Trust Fund. Fisheries final report series 122. Industry & Investment NSW, Sydney, NSW.
	Fisheries	Fisheries	Liggins, G., Kennelly, S., and Broadhurst, M. (1996). Observer-based survey of by-catch from prawn trawling in Botany Bay and Port Jackson, New South Wales. *Marine and Freshwater Research* **47**, 877–888. doi:10.1071/MF9960877
	Fisheries	Fisheries	McKinley, A., Ryan, L., Coleman, M., Knott, N., Clark, G., Taylor, M., and Johnston, E. (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. doi:10.1002/aqc.1223
	Fisheries	Fisheries	Roberts, L., Butcher, P., Broadhurst, M., and Cullis, B. (2011). Using a multi-experimental approach to assess the fate of angled-and-released yellowtail kingfish (*Seriola lalandi*). *ICES Journal of Marine Science* **68**, 67–75. doi:10.1093/icesjms/fsq152
	Fisheries	Fisheries	Steffe, A., and Murphy, J. (2011). Recreational fishing surveys in the Greater Sydney Region. Fisheries Final Report Series number 131. NSW Department of Primary Industries, Sydney, NSW.
	Habitat alteration	Ecology	National Parks and Wildlife Service, NSW (2000). Endangered Population of Little Penguins (*Eudyptula minor*) at Manly Recovery Plan. (NSW National Parks and Wildlife Service: Sydney, NSW.)

Habitat	Threats	Field	Reference
	Nutrient addition	Chemistry	Bickford, G., Toll, J., Hansen, J., Baker, E., and Keessen, R. (1999). Aquatic ecological and human health risk assessment of chemicals in wet weather discharges in the Sydney Region, New South Wales, Australia. *Marine Pollution Bulletin* **39**, 335–345. doi:10.1016/S0025-326X(99)00057-0
	Nutrient addition	Oceanography	Lee, S., Birch, G., and Lemckert, C. (2011). Field and modelling investigations of fresh-water plume behaviour in response to infrequent high-precipitation events, Sydney Estuary, Australia. *Estuarine, Coastal and Shelf Science* **92**, 389–402. doi:10.1016/j.ecss.2011.01.013
	Other	Management	Sant, M. (1990). Accommodating recreational demand – boating in Sydney Harbor, Australia. *Geoforum* **21**, 97–109. doi:10.1016/0016-7185(90)90008-T
		Biology	Buckle, E., and Booth, D. (2009). Ontogeny of space use and diet of two temperate damselfish species, *Parma microlepis* and *Parma unifasciata*. *Marine Biology* **156**, 1497–1505. doi:10.1007/s00227-009-1189-y
		Biology	Murray, S., Wiese, M., Stuken, A., Brett, S., Kellmann, R., Hallegraeff, G., and Neilan, B. (2011). A quantitative molecular assay based on the gene *Sxta* to identify saxitoxin-producing harmful algal blooms in marine waters. *Applied and Environmental Microbiology* **77**, 7050–7057. doi:10.1128/AEM.05308-11
		Biology	Weatherby, K., Murray, S., Carter, D., and Slapeta, J. (2011). Surface and flagella morphology of the motile form of *Chromera velia* revealed by field-emission scanning electron microscopy. *Protist* **162**, 142–153. doi:10.1016/j.protis.2010.02.003
		Ecology	Ajani, P., Hallegraeff, G. M., and Pritchard, T. (2001). Historic overview of algal blooms in marine and estuarine waters of New South Wales, Australia. *Proceedings of the Linnean Society of New South Wales* **123**, 1–22.
		Ecology	Bennet, G. (1860). Gatherings of a Naturalist in Australasia: Being Observations Principally on the Animal and Vegetable Productions of New South Wales, New Zealand and some of the Austral Islands.' (Annals and Magazine of Natural History: London.)
		Ecology	Gregson, M., and Booth, D. (2005). Zooplankton patchiness and the associated shoaling response of the temperate reef fish *Trachinops taeniatus*. *Marine Ecology Progress Series* **299**, 269–275. doi:10.3354/meps299269
		Ecology	Priddel, D., Carlile, N., and Wheeler, R. (2008). Population size, breeding success and provenance of a mainland colony of little penguins (*Eudyptula minor*). *Emu* **108**, 35–41. doi:10.1071/MU07038
		Ecology	Revelante, G. (1978). Characteristics of the microplankton and nanoplankton communities of an Australian coastal plain estuary. *Australian Journal of Marine and Freshwater Research* **29**, 9–18. doi:10.1071/MF9780009
Rocky Shore	Contamination	Ecology	Borowitzka, M. A. (1972). Intertidal algal species diversity and the effect of pollution. *Marine and Freshwater Research* **23**, 73–84. doi:10.1071/MF9720073

Habitat	Threats	Field	Reference
	Contamination	Ecology	Courtenay, G., Gladstone, W., Scammell, M., Kidson, R., and Wood, J. (2011). The influence of estuarine water quality on cover of barnacles and *Enteromorpha* spp. *Environmental Monitoring and Assessment* **175**, 685–697. doi:10.1007/s10661-010-1561-x
	Contamination	Ecology	Courtenay, G., Gladstone, W., and Schreider, M. (2005). Assessing the response of estuarine intertidal assemblages to urbanised catchment discharge. *Environmental Monitoring and Assessment* **107**, 375–398. doi:10.1007/s10661-005-3545-9
	Contamination	Ecology	Fairweather, P. G. (1990). Sewage and the biota on seashores: assessment of impact in relation to natural viability. *Environmental Monitoring and Assessment* **14**, 197–210. doi:10.1007/BF00677916
	Contamination	Ecology	Honkoop, P., Bayne, B., Underwood, A., and Svensson, S. (2003). Appropriate experimental design for transplanting mussels (*Mytilus* sp.) in analyses of environmental stress: an example in Sydney Harbour (Australia). *Journal of Experimental Marine Biology and Ecology* **297**, 253–268. doi:10.1016/j.jembe.2003.08.001
	Contamination	Ecology	Birch, G. F., Scammell, M. S., and Besley, C. H. (2014). The recovery of oyster (*Saccostrea glomerata*) populations in Sydney estuary (Australia). *Environmental Science and Pollution Research International* **21**, 766–773. doi:10.1007/s11356-013-2168-x.
	Habitat alteration	Ecology	Blockley, D. (2007). Effect of wharves on intertidal assemblages on seawalls in Sydney Harbour, Australia. *Marine Environmental Research* **63**, 409–427. doi:10.1016/j.marenvres.2006.10.007
	Habitat alteration	Ecology	Blockley, D., and Chapman, M. (2006). Recruitment determines differences between assemblages on shaded or unshaded seawalls. *Marine Ecology Progress Series* **327**, 27–36. doi:10.3354/meps327027
	Habitat alteration	Ecology	Blockley, D., and Chapman, M. (2008). Exposure of seawalls to waves within an urban estuary: effects on intertidal assemblages. *Austral Ecology* **33**, 168–183. doi:10.1111/j.1442-9993.2007.01805.x
	Habitat alteration	Ecology	Bulleri, F., Chapman, M., and Underwood, A. (2004). Patterns of movement of the limpet *Cellana tramoserica* on rocky shores and retaining seawalls. *Marine Ecology Progress Series* **281**, 121–129. doi:10.3354/meps281121
	Habitat alteration	Ecology	Bulleri, F. (2005). Role of recruitment in causing differences between intertidal assemblages on seawalls and rocky shores. *Marine Ecology Progress Series* **287**, 53–65. doi:10.3354/meps287053
	Habitat alteration	Ecology	Bulleri, F. (2005). Experimental evaluation of early patterns of colonisation of space on rocky shores and seawalls. *Marine Environmental Research* **60**, 355–374. doi:10.1016/j.marenvres.2004.12.002
	Habitat alteration	Ecology	Bulleri, F., Chapman, M., and Underwood, A. (2005). Intertidal assemblages on seawalls and vertical rocky shores in Sydney Harbour, Australia. *Austral Ecology* **30**, 655–667. doi:10.1111/j.1442-9993.2005.01507.x
	Habitat alteration	Ecology	Chapman, M. (2003). Paucity of mobile species on constructed seawalls: effects of urbanization on biodiversity. *Marine Ecology Progress Series* **264**, 21–29. doi:10.3354/meps264021

Habitat	Threats	Field	Reference
	Habitat alteration	Ecology	Chapman, M. (2006). Intertidal seawalls as habitats for molluscs. *The Journal of Molluscan Studies* **72**, 247–257. doi:10.1093/mollus/eyi069
	Habitat alteration	Ecology	Chapman, M., and Blockley, D. (2009). Engineering novel habitats on urban infrastructure to increase intertidal biodiversity. *Oecologia* **161**, 625–635. doi:10.1007/s00442-009-1393-y
	Habitat alteration	Ecology	Chapman, M., and Bulleri, F. (2003). Intertidal seawalls – new features of landscape in intertidal environments. *Landscape and Urban Planning* **62**, 159–172. doi:10.1016/S0169-2046(02)00148-2
	Habitat alteration	Ecology	Chapman, M., and Underwood, A. (2011). Evaluation of ecological engineering of 'armoured' shorelines to improve their value as habitat. *Journal of Experimental Marine Biology and Ecology* **400**, 302–313. doi:10.1016/j.jembe.2011.02.025
	Habitat alteration	Ecology	Cole, V. (2009). Densities of polychaetes in habitat fragments depend on the surrounding matrix but not the complexity of the remaining fragment. *Austral Ecology* **34**, 469–477.
	Habitat alteration	Ecology	Cole, V., Chapman, M., and Underwood, A. (2007). Landscapes and life-histories influence colonisation of polychaetes to intertidal biogenic habitats. *Journal of Experimental Marine Biology and Ecology* **348**, 191–199. doi:10.1016/j.jembe.2007.05.001
	Habitat alteration	Ecology	Goodsell, P. (2009). Diversity in fragments of artificial and natural marine habitats. *Marine Ecology Progress Series* **384**, 23–31. doi:10.3354/meps08037
	Habitat alteration	Ecology	Goodsell, P., Chapman, M., and Underwood, A. (2007). Differences between biota in anthropogenically fragmented habitats and in naturally patchy habitats. *Marine Ecology Progress Series* **351**, 15–23. doi:10.3354/meps07144
	Habitat alteration	Ecology	Ivesa, L., Chapman, M., Underwood, A., and Murphy, R. (2010). Differential patterns of distribution of limpets on intertidal seawalls: experimental investigation of the roles of recruitment, survival and competition. *Marine Ecology Progress Series* **407**, 55–69. doi:10.3354/meps08539
	Habitat alteration	Ecology	Jackson, A. (2009). Biogenic habitat on artificial structures: consequences for an intertidal predator. *Marine and Freshwater Research* **60**, 519–528. doi:10.1071/MF08203
	Habitat alteration	Ecology	Jackson, A., Chapman, M., and Underwood, A. (2008). Ecological interactions in the provision of habitat by urban development: whelks and engineering by oysters on artificial seawalls. *Austral Ecology* **33**, 307–316. doi:10.1111/j.1442-9993.2007.01818.x
	Habitat alteration	Ecology	Klein, J., Underwood, A., and Chapman, M. (2011). Urban structures provide new insights into interactions among grazers and habitat. *Ecological Applications* **21**, 427–438. doi:10.1890/09-1940.1
	Habitat alteration	Ecology	Moreira, J., Chapman, M., and Underwood, A. (2006). Seawalls do not sustain viable populations of limpets. *Marine Ecology Progress Series* **322**, 179–188. doi:10.3354/meps322179
	Habitat alteration	Ecology	People, J. (2006). Mussel beds on different types of structures support different macroinvertebrate assemblages. *Austral Ecology* **31**, 271–281. doi:10.1111/j.1442-9993.2006.01585.x

Habitat	Threats	Field	Reference
	NIS	Ecology	Andrews, V., Middlefart, P., Creese, R., Broad, A., and Davis, A. (2010). Distribution and abundance of the introduced gastropod *Zeacumantus subcarinatus*. *Molluscan Research* **30**, 131–137.
	NIS	Ecology	Chapman, M., People, J., and Blockley, D. (2005). Intertidal assemblages associated with natural corallina turf and invasive mussel beds. *Biodiversity and Conservation* **14**, 1761–1776. doi:10.1007/s10531-004-0698-8
	Nutrient addition	Ecology	Archambault, P., Banwell, K., and Underwood, A. J. (2001). Temporal variation in the structure of intertidal assemblages following the removal of sewage. *Marine Ecology Progress Series* **222**, 51–62. doi:10.3354/meps222051
		Ecology	Hutchings, P. (1996). The ecology and management of shorebirds (Aves; Charadrii). Homebush Bay Ecological Studies 1993–1995. *CSIRO* **1**, 55–142.
		Ecology	Hutchings, P. (2004). 'Ecology and Management of the Little Penguin *Eudyptula minor* in Sydney Harbour.' pp. 131–137. (Royal Zoological Society of NSW, Sydney.)
		Ecology	Matias, M., Underwood, A., and Coleman, R. (2010). Effects of structural diversity and identity of patches of habitat on diversity of benthic assemblages. *Austral Ecology* **35**, 743–751. doi:10.1111/j.1442-9993.2009.02081.x
		Ecology	Matias, M., Underwood, A., and Coleman, R. (2007). Interactions of components of habitats alter composition and variability of assemblages. *Journal of Animal Ecology* **76**, 986–994. doi:10.1111/j.1365-2656.2007.01277.x
		Ecology	Palomo, M., People, J., Chapman, M., and Underwood, A. (2007). Separating the effects of physical and biological aspects of mussel beds on their associated assemblages. *Marine Ecology Progress Series* **344**, 131–142. doi:10.3354/meps07002
		Ecology	Smith, G., and Carlile, N. (1992). Silver gull breeding at 2 colonies in the Sydney–Wollongong region. *Australian Wildlife Research* **19**, 429–441. doi:10.1071/WR9920429
		Ecology	Underwood, A., Chapman, M., Cole, V., and Palomo, M. (2008). Numbers and density of species as measures of biodiversity on rocky shores along the coast of New South Wales. *Journal of Experimental Marine Biology and Ecology* **366**, 175–183. doi:10.1016/j.jembe.2008.07.022
Seagrass	Habitat alteration	Ecology	West, R. J. (2011). Impacts of recreational boating activities on the seagrass *Posidonia* in SE Australia. *Wetlands Australia* **26**, 1–13.
	Habitat alteration	Management	Gladstone, W. (2010). Seagrass friendly moorings in Manly Cove: report of 2010 monitoring. Report to Sydney Metro Catchment Management Authority. Sydney Metropolitan Catchment Management Authority, Sydney, NSW.
	Habitat alteration	Management	Gladstone, W. (2011). Monitoring of seagrass friendly moorings in Manly Cove East 2011. Report to Sydney Metro Catchment Management Authority. Sydney Metropolitan Catchment Management Authority, Parramatta, NSW.

Habitat	Threats	Field	Reference
	Habitat alteration	Management	Widmer, W. (2006). Using the precautionary principle to measure recovery of coastal habitats: the case of a seagrass bed. *Journal of Coastal Research* **39**, 962–965.
		Ecology	Creese, R., Glasby, T., West, G., and Gallen, C. (2009). Mapping the estuarine habitats of NSW. Final Report Series 113. NSW Fisheries, Sydney, NSW.
		Ecology	West, G., and Williams, R. (2008). Preliminary assessment of the historical, current and future cover of seagrass in the estuary of the Parramatta River. Fisheries Final Report Series 98. NSW Department of Primary Industries, Sydney, NSW.
		Ecology	West, G., Williams, R., and Laird, R. (2004). Distribution of estuarine vegetation in the Parramatta River and Sydney Harbour. Final Report to NSW Maritime and the Australian Maritime Safety Authority. Fisheries Final Report Series 70. NSW Department of Primary Industries, Sydney, NSW.
Sediment	Contamination	Biology	Birch, G., and Taylor, S. (2002). Possible biological significance of contaminated sediments in Port Jackson, Sydney, Australia. *Environmental Monitoring and Assessment* **77**, 179–190. doi:10.1023/A:1015875903475
	Contamination	Biology	Birch, G., and Taylor, S. (2002). Assessment of possible sediment toxicity of contaminated sediments in Port Jackson, Sydney, Australia. *Hydrobiologia* **472**, 19–27. doi:10.1023/A:1016300629297
	Contamination	Biology	MacFarlane, G., Booth, D., and Brown, K. (2000). The semaphore crab, *Heloecius cordiformis*: bio-indication potential for heavy metals in estuarine systems. *Aquatic Toxicology (Amsterdam, Netherlands)* **50**, 153–166. doi:10.1016/S0166-445X(00)00083-7
	Contamination	Biology	McCready, S., Birch, G., Long, E., Spyrakis, G., and Greely, C. (2006). Relationships between toxicity and concentrations of chemical contaminants in sediments from Sydney Harbour, Australia, and vicinity. *Environmental Monitoring and Assessment* **120**, 187–220. doi:10.1007/s10661-005-9057-9
	Contamination	Chemistry	Batley, G., Mann, K., Brockbank, C., and Maltz, A. (1989). Tributyltin in Sydney Harbor and Georges River waters. *Australian Journal of Marine and Freshwater Research* **40**, 39–48. doi:10.1071/MF9890039
	Contamination	Chemistry	Beck, H., and Birch, G. (2012). Metals, nutrients and total suspended solids discharged during different flow conditions in highly urbanised catchments. *Environmental Monitoring and Assessment* **184**, 637–653. doi:10.1007/s10661-011-1992-z
	Contamination	Chemistry	Beck, H., and Birch, G. (2012). Spatial and temporal variance of metal and suspended solids relationships in urban stormwater and implications for monitoring. *Water, Air, and Soil Pollution* **223**, 1005–1015. doi:10.1007/s11270-011-0919-1
	Contamination	Chemistry	Birch, G. (2011). Contaminated soil and sediments in a highly developed catchment-estuary system (Sydney Estuary, Australia): an innovative stormwater remediation strategy. *Journal of Soils and Sediments* **11**, 194–208. doi:10.1007/s11368-010-0304-5
	Contamination	Chemistry	Birch, G. (1996). Sediment-bound metallic contaminants in Sydney's estuaries and adjacent offshore, Australia. *Estuarine, Coastal and Shelf Science* **42**, 31–44. doi:10.1006/ecss.1996.0003

Habitat	Threats	Field	Reference
	Contamination	Chemistry	Birch, G., Cruickshank, B., and Davis, B. (2010). Modelling nutrient loads to Sydney Estuary (Australia). *Environmental Monitoring and Assessment* **167**, 333–348. doi:10.1007/s10661-009-1053-z
	Contamination	Chemistry	Birch, G., Harrington, C., Symons, R., and Hunt, J. W. (2007). The source and distribution of polychlorinated dibenzo-P-dioxin and polychlorinated dibenzofurans in sediments of Port Jackson, Australia. *Marine Pollution Bulletin* **54**, 295–308. doi:10.1016/j.marpolbul.2006.10.009
	Contamination	Chemistry	Birch, G., and McCready, S. (2009). Catchment condition as a major control on the quality of receiving basin sediments (Sydney Harbour, Australia). *The Science of the Total Environment* **407**, 2820–2835. doi:10.1016/j.scitotenv.2008.12.051
	Contamination	Chemistry	Birch, G., and O'Hea, L. (2007). The chemistry of suspended particulate material in a highly contaminated embayment of Port Jackson (Australia) under quiescent, high-wind and heavy-rainfall conditions. *Environmental Geology* **53**, 501–516. doi:10.1007/s00254-007-0662-5
	Contamination	Chemistry	Birch, G., Robertson, E., Taylor, S., and McConchie, D. (2000). The use of sediments to detect human impact on the fluvial system. *Environmental Geology* **39**, 1015–1028. doi:10.1007/s002549900075
	Contamination	Chemistry	Birch, G., and Scollen, A. (2003). Heavy metals in road dust, gully pots and parkland soils in a highly urbanised sub-catchment of Port Jackson, Australia. *Australian Journal of Soil Research* **41**, 1329–1342. doi:10.1071/SR02147
	Contamination	Chemistry	Birch, G., and Snowdon, R. (2004). The use of size-normalisation techniques in interpretation of soil contaminant distributions. *Water, Air, and Soil Pollution* **157**, 1–12. doi:10.1023/B:WATE.0000038854.02927.1f
	Contamination	Chemistry	Birch, G., and Taylor, S. (1999). Source of heavy metals in sediments of the Port Jackson Estuary, Australia. *The Science of the Total Environment* **227**, 123–138. doi:10.1016/S0048-9697(99)00007-8
	Contamination	Chemistry	Birch, G., and Taylor, S. (2000). The use of size-normalised procedures in the analysis of organic contaminants in estuarine sediments. *Hydrobiologia* **431**, 129–133. doi:10.1023/A:1004032328596
	Contamination	Chemistry	Birch, G., and Taylor, S. (2000). Distribution and possible sources of organochlorine residues in sediments of a large urban estuary, Port Jackson, Sydney. *Australian Journal of Earth Sciences* **47**, 749–756. doi:10.1046/j.1440-0952.2000.00806.x
	Contamination	Chemistry	Birch, G., and Taylor, S. (2000). Distribution and possible sources of organochlorine residues in sediments of a large urban estuary, Port Jackson, Sydney. *Australian Journal of Earth Sciences* **47**, 749–756. doi:10.1046/j.1440-0952.2000.00806.x
	Contamination	Chemistry	Birch, G., Vanderhayden, M., and Olmos, M. (2011). The nature and distribution of metals in soils of the Sydney Estuary Catchment, Australia. *Water, Air, and Soil Pollution* **216**, 581–604. doi:10.1007/s11270-010-0555-1
	Contamination	Chemistry	Birch, G., McCready, S., Long, E., Taylor, S., and Spyrakis, G. (2008). Contaminant chemistry and toxicity of sediments in Sydney Harbour, Australia: spatial extent and chemistry-toxicity relationships. *Marine Ecology Progress Series* **363**, 71–88. doi:10.3354/meps07445

Habitat	Threats	Field	Reference
	Contamination	Chemistry	Crane, A., and Holden, P. (1999). Leaching of harbour sediments by estuarine iron-oxidising bacteria. *Process Metallurgy* **9**, 347–356. doi:10.1016/S1572-4409(99)80035-2
	Contamination	Chemistry	Hatje, V., Apte, S., Hales, L., and Birch, G. (2003). Dissolved trace metal distributions in Port Jackson Estuary (Sydney Harbour), Australia. *Marine Pollution Bulletin* **46**, 719–730. doi:10.1016/S0025-326X(03)00061-4
	Contamination	Chemistry	Hatje, V., Birch, G., and Hill, D. (2001). Spatial and temporal variability of particulate trace metals in Port Jackson Estuary, Australia. *Estuarine, Coastal and Shelf Science* **53**, 63–77. doi:10.1006/ecss.2001.0792
	Contamination	Chemistry	Hatje, V., Payne, T., Hill, D., Mcorist, G., Birch, G., and Szymczak, R. (2003). Kinetics of trace element uptake and release by particles in estuarine waters: effects of pH, salinity, and particle loading. *Environment International* **29**, 619–629. doi:10.1016/S0160-4120(03)00049-7
	Contamination	Chemistry	Hatje, V., Rae, K., and Birch, G. (2001). Trace metal and total suspended solids concentrations in freshwater: the importance of small-scale temporal variation. *Journal of Environmental Monitoring* **3**, 251–256. doi:10.1039/b008457n
	Contamination	Chemistry	Hill, N., Johnston, E., King, C., and Simpson, S. (2011). Physico-chemical changes in metal-spiked sediments deployed in the field: implications for the interpretation of in situ studies. *Chemosphere* **83**, 400–408. doi:10.1016/j.chemosphere.2010.12.089
	Contamination	Chemistry	Irvine, I., and Birch, G. (1998). Distribution of heavy metals in surficial sediments of Port Jackson, Sydney, New South Wales. *Australian Journal of Earth Sciences* **45**, 297–304. doi:10.1080/08120099808728388
	Contamination	Chemistry	Marvin, C., Tessaro, M., McCarry, B., and Bryant, D. (1994). A bioassay-directed investigation of Sydney Harbor Sediment. *The Science of the Total Environment* **156**, 119–131. doi:10.1016/0048-9697(94)90348-4
	Contamination	Chemistry	McCready, S., Birch, G., and Long, E. (2006). Metallic and organic contaminants in sediments of Sydney Harbour, Australia and vicinity – a chemical dataset for evaluating sediment quality guidelines. *Environment International* **32**, 455–465. doi:10.1016/j.envint.2005.10.006
	Contamination	Chemistry	McCready, S., Slee, D., Birch, G., and Taylor, S. (2000). The distribution of polycyclic aromatic hydrocarbons in surficial sediments of Sydney Harbour, Australia. *Marine Pollution Bulletin* **40**, 999–1006. doi:10.1016/S0025-326X(00)00044-8
	Contamination	Chemistry	McCready, S., Spyrakis, G., Greely, C., Birch, G., and Long, E. (2004). Toxicity of surficial sediments from Sydney Harbour and vicinity, Australia. *Environmental Monitoring and Assessment* **96**, 53–83. doi:10.1023/B:EMAS.0000031716.34645.71
	Contamination	Chemistry	McCready, S., Spyrakis, G., Greely, C., Birch, G., and Long, E. (2005). Erratum. *Environmental Monitoring and Assessment* **100**, 297–298. [Original article: Toxicity of surficial sediments from Sydney Harbour and vicinity. *Environmental Monitoring and Assessment* **96**, 53.] doi:10.1007/s10661-005-5655-9

Habitat	Threats	Field	Reference
	Contamination	Chemistry	Radke, L., Prosser, I., Robb, M., Brooke, B., Fredericks, D., Douglas, G., and Skemstad, J. (2004). The relationship between sediment and water quality, and riverine sediment loads in the wave-dominated estuaries of south-west Western Australia. *Marine and Freshwater Research* **55**, 581–596. doi:10.1071/MF04044
	Contamination	Chemistry	Roach, A., Muller, R., Komarova, T., Symons, R., Stevenson, G., and Mueller, J. (2009). Using SPMDs to monitor water column concentrations of PCDDs, PCDFs and dioxin-like PCBs in Port Jackson (Sydney Harbour), Australia. *Chemosphere* **75**, 1243–1251. doi:10.1016/j.chemosphere.2009.01.071
	Contamination	Chemistry	Roach, A., Symons, R., and Stevenson, G. (2009). Contrasting patterns of spatial autocorrelation of PCDD/Fs, dioxin-like PCDs and PBDEs in sediments in Sydney Harbour, Australia. *Organohalogen Compounds* **71**, 366–371.
	Contamination	Chemistry	Simpson, S., Rochford, L., and Birch, G. (2002). Geochemical influences on metal partitioning in contaminated estuarine sediments. *Marine and Freshwater Research* **53**, 9. doi:10.1071/MF01058
	Contamination	Chemistry	Suh, J., and Birch, G. (2005). Use of grain-size and elemental normalization in the interpretation of trace metal concentrations in soils of the reclaimed area adjoining Port Jackson, Sydney, Australia. *Water, Air, and Soil Pollution* **160**, 357–371. doi:10.1007/s11270-005-2884-z
	Contamination	Chemistry	Suh, J., Birch, G., and Hughes, K. (2004). Hydrochemistry in reclaimed lands of the 2000 Olympic Games site, Sydney, Australia. *Journal of Coastal Research* **20**, 709–721. doi:10.2112/1551-5036(2004)20[709:HIRLOT]2.0.CO;2
	Contamination	Chemistry	Suh, J., Brown, P., and Birch, G. (2003). Geochemical factors affecting leachate composition derived from soils in reclaimed lands using laboratory fresh and saline water column experiments. *Marine and Freshwater Research* **54**, 885–893. doi:10.1071/MF02118
	Contamination	Chemistry	Suh, J., Brown, P., and Virch, G. (2003). Hydrogeochemical characteristics and importance of natural and anthropogenic influences on soil and groundwater in reclaimed land adjacent to Port Jackson, Sydney, Australia. *Marine and Freshwater Research* **54**, 767–779. doi:10.1071/MF02075
	Contamination	Chemistry	Taylor, S., and Birch, G. (1999). The environmental implications of readily resuspendable contaminated estuarine sediments. *Australian Geological Survey Organisation. Jubilee Edition* **17**, 233–237.
	Contamination	Chemistry	Thompson, J., Eaglesham, G., Roach, A., Bartkow, M., and Mueller, J. (2009). Perfluorinated carboxylates and sulfonates in sediments from Homebush Bay, Sydney, Australia. *Organohalogen Compounds* **71**, 2418–2423.
	Contamination	Chemistry	Ying, G., Rawson, C., Kookana, R., Peng, P., Warne, M., Tremblay, L., Laginestra, E., Chapman, J., and Lim, R. (2009). Contamination and screening level toxicity of sediments from remediated and unremediated wetlands Near Sydney, Australia. *Environmental Toxicology and Chemistry* **28**, 2052–2060. doi:10.1897/09-027.1

Habitat	Threats	Field	Reference
	Contamination	Chemistry	Ying, G., Rawson, C., Kookana, R., Warne, M., Peng, P., Li, X., Laginestra, E., Tremblay, L., Chapman, J., and Lim, R. (2009). Distribution of inorganic and organic contaminants in sediments from Sydney Olympic Park and the surrounding Sydney metropolitan area. *Journal of Environmental Monitoring* **11**, 1687–1696. doi:10.1039/b910524g
	Contamination	Chemistry	Suh, J., Birch, G. F., Matthai, C., and Hughes, K. (2004). Spatial distribution and sources of heavy metals in reclaimed lands of Homebush Bay; the venue of the 2000 Olympic Games, Sydney, New South Wales of the 2000 Olympic Games, Sydney, New South Wales. *Australian Journal of Earth Sciences* **51**, 53–67. doi:10.1046/j.1400-0952.2003.01043.x
	Contamination	Chemistry	Birch, G. F. and Taylor, S. E. (2004). 'Sydney Harbour and Catchment: Contaminant Status of Sydney Harbour Sediments: A Handbook for the Public and Professionals.' (Geological Society of Australia, Environmental, Engineering and Hydrogeology Specialist Group, Canberra, ACT.)
	Contamination	Chemistry	Birch, G. F. (2007). 'Water, Wind, Art and Debate: How Environmental Concerns Impact on Disciplinary Research.' (Sydney University Press: Sydney, NSW.)
	Contamination	Chemistry	G. Birch (2011). Management of estuaries and coasts in indicators of anthropogenic change and biological risk in coastal aquatic environments. In 'Treatise on Estuarine and Coastal Science'. (Ed. E. Wolenski and D. D. McLusky.) pp. 786–801. (Elsevier: Waltham, MA, USA.)
	Contamination	Chemistry	G. Birch (2012). Treatise on geomorphology. In 'Use of Sedimentary-Metal Indicators in Assessment of Estuarine System'. (Ed. J. Shroder Jr, A. Switzer, and D. Kennedy.) pp. 282–291. (Elsevier: San Diego, CA.)
	Contamination	Chemistry	Lee, S. B., and Birch, G. F. (2012). Utilising monitoring and modelling of estuarine environments to investigate catchment conditions responsible for stratification events in a typically well-mixed urbanised estuary. *Water, Air, and Soil Pollution* **223**, 637–653.
	Contamination	Chemistry	Beck, H., and Birch, G. F. (2013). The magnitude of variability produced by methods used to estimate annual stormwater contaminant loads for highly urbanised catchments. *Environmental Monitoring and Assessment* **185**, 5209–5220. doi: 10.1007/s10661-012-2937-x.
	Contamination	Chemistry	Birch, G. F., Chang, C.-H., Lee, J.-H., and Churchill, L. J. (2013). The use of vintage surficial sediment data and sedimentary cores to determine past and future trends in estuarine metal contamination (Sydney estuary, Australia). *The Science of the Total Environment* **454–455**, 542–561. doi:10.1016/j.scitotenv.2013.02.072
	Contamination	Ecology	Chapman, M., and Tolhurst, T. (2007). Relationships between benthic macrofauna and biogeochemical properties of sediments at different spatial scales and among different habitats in mangrove forests. *Journal of Experimental Marine Biology and Ecology* **343**, 96–109. doi:10.1016/j.jembe.2006.12.001
	Contamination	Ecology	Chariton, A. A., Court, L. N., Hartley, D. M., Colloff, M. J., and Hardy, C. M. (2010). Ecological assessment of estuarine sediments by pyrosequencing eukaryotic ribosomal DNA. *Frontiers in Ecology and the Environment* **8**, 233–238. doi:10.1890/090115

Habitat	Threats	Field	Reference
	Contamination	Ecology	Chariton, A. A., Roach, A. C., Simpson, S. L., and Batley, G. E. (2010). Influence of the choice of physical and chemistry variables on interpreting patterns of sediment contaminants and their relationships with estuarine macrobenthic communities. *Marine and Freshwater Research* **61**, 1109–1122. doi:10.1071/MF09263
	Contamination	Ecology	Jones, A. R., and Frances, J. (1988). Sublittoral zoobenthic communities of Homebush, Ermington and Brays Bays, Parramatta River, NSW. *Wetlands Australia* **8**, 16–20.
	Contamination	Ecology	Snowdon, R., and Birch, G. (2004). The nature and distribution of copper, lead, and zinc in soils of a highly urbanised sub-catchment (Iron Cove) of Port Jackson, Sydney. *Australian Journal of Soil Research* **42**, 329–338. doi:10.1071/SR03017
	Contamination	Ecology	Stark, J. (1998). Heavy metal pollution and macrobenthic assemblages in soft sediments in two Sydney estuaries, Australia. *Marine and Freshwater Research* **49**, 533–540. doi:10.1071/MF97188
	Contamination	Ecology	Sun, M., Dafforn, K., Brown, M., and Johnston, E. (2012). Bacterial communities are sensitive indicators of contaminant stress. *Marine Pollution Bulletin* **64**, 1029–1038. doi:10.1016/j.marpolbul.2012.01.035
	Contamination	Management	Birch, G. (2000). Marine pollution in Australia, with special emphasis on Central New South Wales estuaries and adjacent continental margin. *International Journal of Environment and Pollution* **13**, 573–607. doi:10.1504/IJEP.2000.002334
	Contamination	Management	Birch, G., and Hutson, P. (2009). Use of sediment risk and ecological/conservation value for strategic management of estuarine environments: Sydney Estuary, Australia. *Environmental Management* **44**, 836–850. doi:10.1007/s00267-009-9362-0
	Contamination	Management	Birch, G., Matthai, C., Fazeli, M., and Suh, J. (2004). Efficiency of a constructed wetland in removing contaminants from urban stormwater. *Wetlands* **24**, 459–466. doi:10.1672/0277-5212(2004)024[0459:EOACWI]2.0.CO;2
	Contamination	Management	Birch, G., and Taylor, S. (2002). Application of sediment quality guidelines in the assessment and management of contaminated surficial sediments in Port Jackson (Sydney Harbour), Australia. *Environmental Management* **29**, 860–870. doi:10.1007/s00267-001-2620-4
	Contamination	Management	Davis, B., and Birch, G. (2009). Catchment-wide assessment of the cost-effectiveness of stormwater remediation measures in urban areas. *Environmental Science & Policy* **12**, 84–91. doi:10.1016/j.envsci.2008.09.004
	Contamination	Management	McCready, S., Birch, G., Long, E., Spyrakis, G., and Greely, C. (2006). An evaluation of Australian sediment quality guidelines. *Archives of Environmental Contamination and Toxicology* **50**, 306–315. doi:10.1007/s00244-004-0233-7
	Contamination	Management	McCready, S., Birch, G., Long, E., Spyrakis, G., and Greely, C. (2006). Predictive abilities of numerical sediment quality guidelines in Sydney Harbour, Australia, and vicinity. *Environment International* **32**, 638–649. doi:10.1016/j.envint.2006.02.004

Habitat	Threats	Field	Reference
	Contamination	Management	McCready, S., Birch, G., and Taylor, S. (2003). Extraction of heavy metals in Sydney Harbour sediments using 1 M HCL and 0.05 M EDTA and implications for sediment-quality guidelines. *Australian Journal of Earth Sciences* **50**, 249–255. doi:10.1046/j.1440-0952.2003.00994.x
	Contamination	Management	Birch, G. F., and Apostolatos, C. (2013). Use of sedimentary metals to predict metal concentrations in black mussel (*Mytilus galloprovincialis*) tissue and risk to human health (Sydney estuary, Australia). *Environmental Science and Pollution Research International* **20**, 5481–5491. doi:10.1007/s11356-013-1538-8.
	Habitat alteration	Ecology	Lindegarth, M. (2001). Assemblages of animals around urban structures: testing hypotheses of patterns in sediments under boat-mooring pontoons. *Marine Environmental Research* **51**, 289–300. doi:10.1016/S0141-1136(00)00030-1
	Habitat alteration	Geology	Matthai, C., and Birch, G. (2000). Effect of coastal cities on surficial sediments mantling an adjacent high-energy continental margin – Central New South Wales, Australia. *Marine and Freshwater Research* **51**, 565–576. doi:10.1071/MF99183
	Nutrient addition	Chemistry	Birch, G., Eyre, B., and Taylor, S. (1999). The distribution of nutrients in bottom sediments of Port Jackson (Sydney Harbour), Australia. *Marine Pollution Bulletin* **38**, 1247–1251. doi:10.1016/S0025-326X(99)00184-8
	Other	Ecology	Bishop, M. (2005). Artificial sampling units: a tool for increasing the sensitivity of tests for impact in soft sediments. *Environmental Monitoring and Assessment* **107**, 203–220. doi:10.1007/s10661-005-5311-4
	Other	Management	Bishop, M. (2003). Olympics make waves over ferry wakes. *Australasian Science* **24**, 30–31.
	Other	Management	Bishop, M. (2007). Impacts of boat-generated waves on macroinfauna: towards a mechanistic understanding. *Journal of Experimental Marine Biology and Ecology* **343**, 187–196. doi:10.1016/j.jembe.2006.11.014
	Other	Management	Bishop, M. (2004). A posteriori evaluation of strategies of management: the effectiveness of no-wash zones in minimizing the impacts of boat-wash on macrobenthic infauna. *Environmental Management* **34**, 140–149. doi:10.1007/s00267-004-0135-5
	Other	Management	Bishop, M., and Chapman, M. (2004). Managerial decisions as experiments: an opportunity to determine the ecological impact of boat-generated waves on macrobenthic infauna. *Estuarine, Coastal and Shelf Science* **61**, 613–622. doi:10.1016/j.ecss.2004.06.023
		Chemistry	Murphy, R., Tolhurst, T., Chapman, M., and Underwood, A. (2008). Spatial variation of chlorophyll on estuarine mudflats determined by field-based remote sensing. *Marine Ecology Progress Series* **365**, 45–55. doi:10.3354/meps07456
		Chemistry	Murphy, R., Tolhurst, T., Chapman, M., and Underwood, A. (2009). Seasonal distribution of chlorophyll on mudflats in New South Wales, Australia, measured by field spectrometry and pam fluorometry. *Estuarine, Coastal and Shelf Science* **84**, 108–118. doi:10.1016/j.ecss.2009.06.003

Habitat	Threats	Field	Reference
		Chemistry	Murphy, R., Tolhurst, T., Chapman, M., and Underwood, A. (2004). Estimation of surface chlorophyll on an exposed mudflat using digital colour-infrared (CIR) photography. *Estuarine, Coastal and Shelf Science* **59**, 625–638. doi:10.1016/j.ecss.2003.11.006
		Chemistry	Murphy, R., Tolhurst, T., Chapman, M., and Underwood, A. (2005). Remote-sensing of benthic chlorophyll: should ground-truth data be expressed in units of area or mass? *Journal of Experimental Marine Biology and Ecology* **316**, 69–77. doi:10.1016/j.jembe.2004.10.006
		Chemistry	Negrello Filho, O., Underwood, A., and Chapman, M. (2006). Recolonization of infauna on a tidal flat: an experimental analysis of modes of dispersal. *Journal of Experimental Marine Biology and Ecology* **328**, 240–250. doi:10.1016/j.jembe.2005.07.008
		Chemistry	Taylor, S., Birch, G., and Links, F. (2004). Historical catchment changes and temporal impact on sediment of the receiving basin, Port Jackson, New South Wales. *Australian Journal of Earth Sciences* **51**, 233–246. doi:10.1111/j.1400-0952.2004.01054.x
		Ecology	Chapman, M., and Tolhurst, T. (2004). The relationship between invertebrate assemblages and bio-dependant properties of sediment in urbanized temperate mangrove forests. *Journal of Experimental Marine Biology and Ecology* **304**, 51–73. doi:10.1016/j.jembe.2003.11.019
		Ecology	Cruz-Motta, J. (2005). Diel and tidal variations of benthic assemblages in sediments associated with boulder fields. *Marine Ecology Progress Series* **290**, 97–107. doi:10.3354/meps290097
		Ecology	Cruz-Motta, J., Underwood, A., Chapman, M., and Rossi, F. (2003). Benthic assemblages in sediments associated with intertidal boulder-fields. *Journal of Experimental Marine Biology and Ecology* **285–286**, 383–401. doi:10.1016/S0022-0981(02)00539-7
		Ecology	Robinson, K. I. M., Van Der Velde, J., and Gibbs, P. J. (1983). A survey of the estuarine benthic fauna of Homebush Bay, Parramatta River, NSW. *Wetlands Australia* **3**, 81–84.
		Ecology	Hutchings, P., Ahyong, S. T., Ashcroft, M. B., McGrouther, M. A., and Reid, A. L. (2013). Sydney Harbour: its diverse biodiversity. *Australian Zoologist* **36**, 255–320. doi:10.7882/AZ.2012.031
		Geology	Birch, G., Murray, O., Johnson, I., and Wilson, A. (2009). Reclamation in Sydney Estuary, 1788–2002. *Australian Geographer* **40**, 347–368. doi:10.1080/00049180903127788
		Geology	Rossi, F., and Chapman, M. (2003). Influence of sediment on burrowing by the soldier crab *Mictyris longicarpus* Latreille. *Journal of Experimental Marine Biology and Ecology* **289**, 181–195. doi:10.1016/S0022-0981(03)00044-3
		Geology	Tolhurst, T., Defew, E., and Dye, A. (2010). Lack of correlation between surface macrofauna, meiofauna, erosion threshold and biogeochemical properties of sediments within an intertidal mudflat and mangrove forest. *Hydrobiologia* **652**, 1–13. doi:10.1007/s10750-010-0311-y
Sub tidal reef	Climate change	Ecology	Byrne, M., Selvakumaraswamy, M., Woolsey, H., and Nguyen, H. (2011). Sea urchin development in aglobal change hotspot, potential for southerly migration of thermo tolerant propagules. *Deep Sea Research II* **58**, 712–719. doi:10.1016/j.dsr2.2010.06.010

Habitat	Threats	Field	Reference
	Contamination	Biology	Alquezar, R., Markich, S. J., and Booth, D. J. (2006). Metal accumulation in the smooth toadfish, *Tetractenos glaber*, in estuaries around Sydney, Australia. *Environmental Pollution* **142**, 123–131. doi:10.1016/j.envpol.2005.09.010
	Contamination	Biology	Chung, P., Hyne, R., Mann, R., and Ballard, J. (2008). Genetic and life-history trait variation of the amphipod *Melita plumulosa* from polluted and unpolluted waterways in eastern Australia. *The Science of the Total Environment* **403**, 222–229. doi:10.1016/j.scitotenv.2008.05.038
	Contamination	Biology	Chung, P., Hyne, R., Mann, R., and Ballard, J. (2011). Temporal and geographical genetic variation in the amphipod *Melita plumulosa* (Crustacea: Melitidae): link of a localized change in haplotype frequencies to a chemical spill. *Chemosphere* **82**, 1050–1055. doi:10.1016/j.chemosphere.2010.10.043
	Contamination	Biology	Gibson, C., and Wilson, S. (2003). Imposex still evident in eastern Australia 10 years after Tributyltin restrictions. *Marine Environmental Research* **55**, 101–112. doi:10.1016/S0141-1136(02)00097-1
	Contamination	Biology	Larsen, M., Strand, J., Christensen, J., Vorkamp, K., Hansen, A., and Andersen, O. (2011). Metals and organotins in multiple bivalve species in a one-off global survey. *Journal of Environmental Monitoring* **13**, 1793–1802. doi:10.1039/c0em00698j
	Contamination	Biology	Losada, S., Roach, A., Roosens, L., Santos, F., Galceran, M., Vetter, W., and Neels, H. (2008). Naturally occurring and anthropogenic organobrominated compounds in marine species from Sydney Harbour, Australia. *Organohalogen Compounds* **70**, 321–324.
	Contamination	Biology	Losada, S., Roach, A., Roosens, L., Santos, F., Galceran, M., Vetter, W., Neels, H., and Covaci, A. (2009). Biomagnification of anthropogenic and naturally produced organobrominated compounds in a marine food web from Sydney Harbour, Australia. *Environment International* **35**, 1142–1149. doi:10.1016/j.envint.2009.07.008
	Contamination	Biology	McCready, S., Greely, C., Hyne, R., Birch, G., and Long, E. (2005). Sensitivity of an indigenous amphipod (*Corophium colo*) to chemical contaminants in laboratory toxicity tests conducted with sediments from Sydney Harbor, Australia, and vicinity. *Environmental Toxicology and Chemistry* **24**, 2545–2552. doi:10.1897/04-457.1
	Contamination	Chemistry	Ghedini, G., Klein, J., and Coleman, R. (2011). Potential effects of storm-water run-off on assemblages of mobile invertebrates. *Marine Ecology Progress Series* **439**, 169–180. doi:10.3354/meps09307
	Contamination	Chemistry	Lewtas, K. M., Birch, G. F., and Foster-Thorpe, C. (2014). Metal accumulation in the greentail prawn, *Metapenaeus bennettae*, in Sydney estuary and Port Hacking estuaries, Australia. *Environmental Science and Pollution Research International* **21**, 704–716. doi:10.1007/s11356-013-1961-x
	Contamination	Ecology	Pease, C., Johnston, E., and Poore, A. (2010). Genetic variability in tolerance to copper contamination in a herbivorous marine invertebrate. *Aquatic Toxicology (Amsterdam, Netherlands)* **99**, 10–16. doi:10.1016/j.aquatox.2010.03.014

Habitat	Threats	Field	Reference
	Contamination	Ecology	Perrett, L., Johnston, E., and Poore, A. (2006). Impact by association: direct and indirect effects of copper exposure on mobile invertebrate fauna. *Marine Ecology Progress Series* **326**, 195–205. doi:10.3354/meps326195
	Contamination	Ecology	Roberts, D., Johnston, E., and Poore, A. (2008). Biomonitors and the assessment of ecological impacts: distribution of herbivorous epifauna in contaminated macroalgal beds. *Environmental Pollution* **156**, 489–503. doi:10.1016/j.envpol.2008.01.012
	Contamination	Ecology	Roberts, D., Poore, A., and Johnston, E. (2006). Ecological consequences of copper contamination in macroalgae: effects on epifauna and associated herbivores. *Environmental Toxicology and Chemistry* **25**, 2470–2479. doi:10.1897/05-661R.1
	Contamination	Ecology	Roberts, D., Poore, A., and Johnston, E. (2007). Mbaci sampling of an episodic disturbance: stormwater effects on algal epifauna. *Marine Environmental Research* **64**, 514–523. doi:10.1016/j.marenvres.2007.04.005
	Contamination	Ecology	Birch, G. F., Apostolatos, C., and Taylor, S. E. (2013). A remarkable recovery in the Sydney rock oyster (*Saccostrea glomerata*) population in a highly urbanised estuary (Sydney Estuary, Australia). *Journal of Coastal Research* **29**, 1009–1015. doi:10.2112/JCOASTRES-D-12-00197.1.
	Contamination	Management	Dafforn, K., Simpson, S., Kelaher, B. P., Clark, G., Komyakova, V., Wong, C., and Johnston, E. (2012). The challenge of choosing environmental indicators of anthropogenic impacts in estuaries. *Environmental Pollution* **163**, 207–217. doi:10.1016/j.envpol.2011.12.029
	Contamination	Management	Underwood, A., and Chapman, M. (1996). Subtidal assemblages on rocky reefs at a cliff-face sewage outfall (North head, Sydney, Australia): what happened when the outfall was turned off? *Marine Pollution Bulletin* **33**, 293–302. doi:10.1016/S0025-326X(96)00125-7
	Habitat alteration	Ecology	Clynick, B. (2008). Harbour swimming nets: a novel habitat for seahorses. *Aquatic Conservation – Marine and Freshwater Ecosystems* **18**, 483–492. doi:10.1002/aqc.856
	Habitat alteration	Ecology	Clynick, B. (2008). Characteristics of an urban fish assemblage: distribution of fish associated with coastal marinas. *Marine Environmental Research* **65**, 18–33. doi:10.1016/j.marenvres.2007.07.005
	Habitat alteration	Ecology	Clynick, B., Chapman, M., and Underwood, A. (2007). Effects of epibiota on assemblages of fish associated with urban structures. *Marine Ecology Progress Series* **332**, 201–210. doi:10.3354/meps332201
	Habitat alteration	Ecology	Clynick, B., Chapman, M., and Underwood, A. (2008). Fish assemblages associated with urban structures and natural reefs in Sydney, Australia. *Austral Ecology* **33**, 140–150. doi:10.1111/j.1442-9993.2007.01802.x
	Habitat alteration	Ecology	Clynick, B., Chapman, M., and Underwood, A. (2007). Effects of epibiota on assemblages of fish associated with urban structures. *Marine Ecology Progress Series* **332**, 201–210. doi:10.3354/meps332201
	Habitat alteration	Ecology	Clynick, B., Chapman, M., and Underwood, A. (2008). Fish assemblages associated with urban structures and natural reefs in Sydney, Australia. *Austral Ecology* **33**, 140–150. doi:10.1111/j.1442-9993.2007.01802.x

Habitat	Threats	Field	Reference
	Habitat alteration	Ecology	Coleman, M., and Connell, S. (2001). Weak effects of epibiota on the abundances of fishes associated with pier pilings in Sydney Harbour. *Environmental Biology of Fishes* **61**, 231–239. doi:10.1023/A:1011088631442
	Habitat alteration	Ecology	Connell, S. (1999). Effects of surface orientation on the cover of epibiota. *Biofouling* **14**, 219–226. doi:10.1080/08927019909378413
	Habitat alteration	Ecology	Connell, S. (2000). Floating pontoons create novel habitats for subtidal epibiota. *Journal of Experimental Marine Biology and Ecology* **247**, 183–194. doi:10.1016/S0022-0981(00)00147-7
	Habitat alteration	Ecology	Connell, S. (2001). Urban structures as marine habitats: an experimental comparison of the composition and abundance of subtidal epibiota among pilings, pontoons and rocky reefs. *Marine Environmental Research* **52**, 115–125. doi:10.1016/S0141-1136(00)00266-X
	Habitat alteration	Ecology	Connell, S., and Glasby, T. (1999). Do urban structures influence local abundance and diversity of subtidal epibiota? A case study from Sydney Harbour, Australia. *Marine Environmental Research* **47**, 373–387. doi:10.1016/S0141-1136(98)00126-3
	Habitat alteration	Ecology	Glasby, T. (1999). Differences between subtidal epibiota on pier pilings and rocky reefs at marinas in Sydney, Australia. *Estuarine, Coastal and Shelf Science* **48**, 281–290. doi:10.1006/ecss.1998.0417
	Habitat alteration	Ecology	Glasby, T. (1999). Effects of shading on subtidal epibiotic assemblages. *Journal of Experimental Marine Biology and Ecology* **234**, 275–290. doi:10.1016/S0022-0981(98)00156-7
	Habitat alteration	Ecology	Glasby, T. (1999). Interactive effects of shading and proximity to the seafloor on the development of subtidal epibiotic assemblages. *Marine Ecology Progress Series* **190**, 113–124. doi:10.3354/meps190113
	Habitat alteration	Ecology	Glasby, T. (2000). Surface composition and orientation interact to affect subtidal epibiota. *Journal of Experimental Marine Biology and Ecology* **248**, 177–190. doi:10.1016/S0022-0981(00)00169-6
	Habitat alteration	Ecology	Glasby, T. (2001). Development of sessile marine assemblages on fixed versus moving substrata. *Marine Ecology Progress Series* **215**, 37–47. doi:10.3354/meps215037
	Habitat alteration	Ecology	Glasby, T., and Connell, S. (2001). Orientation and position of substrata have large effects on epibiotic assemblages. *Marine Ecology Progress Series* **214**, 127–135. doi:10.3354/meps214127
	Habitat alteration	Ecology	Glasby, T., Connell, S., Holloway, M., and Hewitt, C. (2007). Nonindigenous biota on artificial structures: could habitat creation facilitate biological invasions? *Marine Biology* **151**, 887–895. doi:10.1007/s00227-006-0552-5
	Habitat alteration	Ecology	Harasti, D., Glasby, T., and Martin-Smith, K. (2010). Striking a balance between retaining populations of protected seahorses and maintenance of swimming nets. *Aquatic Conservation – Marine and Freshwater Ecosystems* **20**, 159–166. doi:10.1002/aqc.1066
	Habitat alteration	Ecology	Hellyer, C., Harasti, D., and Poore, A. (2011). Manipulating artificial habitats to benefit seahorses in Sydney Harbour, Australia. *Aquatic Conservation – Marine and Freshwater Ecosystems.* **21**, 582–589. doi:10.1002/aqc.1217

Habitat	Threats	Field	Reference
	Habitat alteration	Ecology	Marzinelli, E. (2012). Artificial marine structures influence fouling on habitat-forming kelps. *Biofouling* **28**, 339–349. doi:10.1080/08927014.2012.674518
	Habitat alteration	Ecology	Marzinelli, E., Underwood, A., and Coleman, R. (2012). Modified habitats change ecological processes affecting a non-indigenous epibiont. *Marine Ecology Progress Series* **446**, 119–129. doi:10.3354/meps09472
	Habitat alteration	Ecology	Marzinelli, E., Underwood, A., and Coleman, R. (2011). Modified habitats influence kelp epibiota via direct and indirect effects. *PLoS One* **6**, e21936. doi:10.1371/journal.pone.0021936
	Habitat alteration	Ecology	Marzinelli, E., Zagal, C., Chapman, M., and Underwood, A. (2009). Do modified habitats have direct or indirect effects on epifauna? *Ecology* **90**, 2948–2955. doi:10.1890/08-1893.1
	Habitat alteration	Ecology	Roberts, D., and Poore, A. (2006). Habitat configuration affects colonisation of epifauna in a marine algal bed. *Biological Conservation* **127**, 18–26. doi:10.1016/j.biocon.2005.07.010
	Habitat alteration	Management	Chapman, M., and Clynick, B. (2006). Experiments testing the use of waste material in estuaries as habitat for subtidal organisms. *Journal of Experimental Marine Biology and Ecology* **338**, 164–178. doi:10.1016/j.jembe.2006.06.018
	NIS	Biology	Figueira, W., Biro, P., Booth, D., and Valenzuela, V. (2009). Performance of tropical fish recruiting to temperate habitats: role of ambient temperature and implications of climate change. *Marine Ecology Progress Series* **384**, 231–239. doi:10.3354/meps08057
	NIS	Biology	Figueira, W. F., and Booth, D. J. (2010). Increasing ocean temperatures allow tropical fishes to survive overwinter in temperate waters. *Global Change Biology* **16**, 506–516. doi:10.1111/j.1365-2486.2009.01934.x
	NIS	Chemistry	Dafforn, K., Glasby, T., and Johnston, E. (2008). Differential effects of tributyltin and copper antifoulants on recruitment of non-indigenous species. *Biofouling* **24**, 23–33. doi:10.1080/08927010701730329
	NIS	Ecology	Australian Museum Business Services (2002). Port surveys for introduced marine species – Sydney Harbour Final Report 146. Australian Museum Business Services, Sydney, NSW.
	NIS	Ecology	Booth, D., Figueira, W., Gregson, M., Brown, L., and Beretta, G. (2007). Occurrence of tropical fishes in temperate southeastern Australia: role of the East Australian Current. *Estuarine, Coastal and Shelf Science* **72**, 102–114. doi:10.1016/j.ecss.2006.10.003
	NIS	Ecology	Creese, R., Davis, A., and Glasby, T. (2004). Eradicating and preventing the spread of the invasive alga *Caulerpa taxifolia* in NSW. Final Report Series 64. NSW Fisheries, Sydney, NSW.
	NIS	Ecology	Glasby, T., and Lobb, H. (2008). Assessing likelihoods of marine pest introductions in Sydney estuaries: a transport vector approach. Fisheries Final Report Series 105. NSW Department of Primary Industries, Nelson Bay, NSW.

Habitat	Threats	Field	Reference
		Biology	Edgar, G. (2012). New Leptocheliidae (Crustacea: Tanaidacea: Tanaidomorpha) from Australian seagrass and macro-algal habitats, and a redescription of the poorly known *Leptochelia ignota* from Sydney Harbour. *Zootaxa* **3276**, 1–37.
		Biology	Keable, S. (2006). Taxonomic revision of *Natatolana* (Crustacea: Isopoda: Cirolanidae). *Records of the Australian Museum* **58**, 133–244. doi:10.3853/j.0067-1975.58.2006.1469
		Biology	Lowry, M. (2003). Age and growth of *Cheilodactylus fuscus*, a temperate rocky reef fish. *New Zealand Journal of Marine and Freshwater Research* **37**, 159–170. doi:10.1080/00288330.2003.9517154
		Biology	O'Gower, A. K. (1995). Speculations on a spatial memory for the Port Jackson shark (*Heterodontus portusjacksoni*) (Meyer) (Heterodontidae). *Marine and Freshwater Research* **46**, 861–871. doi:10.1071/MF9950861
		Ecology	Birdsey, E., Johnston, E., and Poore, A. (2012). Diversity and cover of a sessile animal assemblage does not predict its associated mobile fauna. *Marine Biology* **159**, 551–560. doi:10.1007/s00227-011-1834-0
		Ecology	Clements, K. (1991). Endosymbiotic communities of 2 herbivorous labroid fishes, *Odax cyanomelas* and *O. pullus*. *Marine Biology* **109**, 223–229. doi:10.1007/BF01319390
		Ecology	Coleman, M. (2002). Small-scale spatial variability in intertidal and subtidal turfing algal assemblages and the temporal generality of these patterns. *Journal of Experimental Marine Biology and Ecology* **267**, 53–74. doi:10.1016/S0022-0981(01)00358-6
		Ecology	Coleman, M., Kelaher, B., Steinberg, P., and Millar, A. (2008). Absence of a large brown macroalga on urbanized rocky reefs around Sydney, Australia, and evidence for historical decline. *Journal of Phycology* **44**, 897–901. doi:10.1111/j.1529-8817.2008.00541.x
		Ecology	Connell, S. (2001). Predatory fish do not always affect the early development of epibiotic assemblages. *Journal of Experimental Marine Biology and Ecology* **260**, 1. doi:10.1016/S0022-0981(01)00246-5
		Ecology	Farrant, K., and King, R. J. (1982). The subtidal seaweed communities of the Sydney Region. *Wetlands* **2**, 51–60.
		Ecology	Ferguson, B., and Cleary, J. (2001). In situ source level and source position estimates of biological transient signals produced by snapping shrimp in an underwater environment. *The Journal of the Acoustical Society of America* **109**, 3031–3037. doi:10.1121/1.1339823
		Ecology	Gillanders, B., and Kingsford, M. (1998). Influence of habitat on abundance and size structure of a large temperate reef fish, *Achoerodus viridis* (Pisces: Labridae). *Marine Biology* **132**, 503–514. doi:10.1007/s002270050416
		Ecology	Harasti, D., Martin-Smith, K., and Gladstone, W. (2012). Population dynamics and life history of a geographically restricted seahorse, *Hippocampus whitei*. *Journal of Fish Biology* **81**, 1297–1314. doi:10.1111/j.1095-8649.2012.03406.x

Habitat	Threats	Field	Reference
		Ecology	Jennings, J., and Steinberg, P. (1994). In situ exudation of phlorotannins by the sublittoral kelp *Ecklonia radiata*. *Marine Biology* **121**, 349–354. doi:10.1007/BF00346744
		Ecology	Jennings, J., and Steinberg, P. (1997). Phlorotannins versus other factors affecting epiphyte abundance on the kelp *Ecklonia radiata*. *Oecologia* **109**, 461–473. doi:10.1007/s004420050106
		Ecology	Kennelly, S. (1987). Inhibition of kelp recruitment by turfing algae and consequences for an Australian kelp community. *Journal of Experimental Marine Biology and Ecology* **112**, 49–60.
		Ecology	Kennelly, S. (1987). Physical disturbances in an Australian kelp community. 1. Temporal effects. *Marine Ecology Progress Series* **40**, 145–153. doi:10.3354/meps040145
		Ecology	Kennelly, S. (1987). Physical disturbances in an Australian kelp community. 2. Effects on understorey species due to differences in kelp cover. *Marine Ecology Progress Series* **40**, 155–165. doi:10.3354/meps040155
		Ecology	Kennelly, S. (1983). An experimental approach to the study of factors affecting algal colonization in a sublittoral kelp forest. *Journal of Experimental Marine Biology and Ecology* **68**, 257–276.
		Ecology	Kennelly, S. (1989). Effects of kelp canopies on understorey species due to shade and scour. *Marine Ecology Progress Series* **50**, 215. doi:10.3354/meps050215
		Ecology	Kennelly, S. (1991). Caging experiments to examine the effects of fishes on understorey species in a sublittoral kelp community. *Journal of Experimental Marine Biology and Ecology* **147**, 207. doi:10.1016/0022-0981(91)90183-W
		Ecology	Kennelly, S., and Larkum, A. (1983). A preliminary study of temporal variation in the colonization of subtidal algae in an *Ecklonia radiata* community. *Aquatic Botany* **17**, 275–282. doi:10.1016/0304-3770(83)90062-1
		Ecology	Kennelly, S., and Underwood, A. (1984). Underwater microscopic sampling of a sublittoral kelp community. *Journal of Experimental Marine Biology and Ecology* **76**, 67–78. doi:10.1016/0022-0981(84)90017-0
		Ecology	Kennelly, S., and Underwood, A. (1985). Sampling of small invertebrates on natural hard substrata in a sublittoral kelp forest. *Journal of Experimental Marine Biology and Ecology* **89**, 55–67. doi:10.1016/0022-0981(85)90081-4
		Ecology	Kennelly, S., and Underwood, A. (1992). Fluctuations in the distributions and abundances of species in sublittoral kelp forests in New South Wales. *Australian Journal of Ecology* **17**, 367–382. doi:10.1111/j.1442-9993.1992.tb00820.x
		Ecology	King, R., and Farrant, P. (1987). The phenology of the dictyotales (Phaeophyceae) at a sheltered locality in Sydney Harbor, New South Wales, Australia. *Botanica Marina* **30**, 341–350. doi:10.1515/botm.1987.30.4.341

Habitat	Threats	Field	Reference
		Ecology	Larkum, A. (1986). A study of growth and primary production in *Ecklonia radiata* (C-Ag) J-Agardh (Laminariales) at a sheltered site in Port Jackson, New South Wales. *Journal of Experimental Marine Biology and Ecology* **96**, 177–190. doi:10.1016/0022-0981(86)90241-8
		Ecology	Motomura, H. (2004). *Scorpaenopsis insperatus*: a new species of scorpionfish from Sydney Harbour, New South Wales, Australia (Scorpaeniformes: Scorpaenidae). *Copeia* **2004**, 546–550. doi:10.1643/CI-03-298R
		Ecology	Poore, A. (2004). Spatial associations among algae affect host use in a herbivorous marine amphipod. *Oecologia* **140**, 104–112. doi:10.1007/s00442-004-1557-8
		Ecology	Poore, A. (2005). Scales of dispersal among hosts in a herbivorous marine amphipod. *Austral Ecology* **30**, 219–228. doi:10.1111/j.1442-9993.2005.01439.x
		Ecology	Poore, A., Campbell, A., and Steinberg, P. (2009). Natural densities of mesograzers fail to limit growth of macroalgae or their epiphytes in a temperate algal bed. *Journal of Ecology* **97**, 164–175. doi:10.1111/j.1365-2745.2008.01457.x
		Ecology	Poore, A., and Hill, N. (2005). Spatial associations among palatable and unpalatable macroalgae: a test of associational resistance with a herbivorous amphipod. *Journal of Experimental Marine Biology and Ecology* **326**, 207–216. doi:10.1016/j.jembe.2005.06.002
		Ecology	Poore, A., and Hill, N. (2006). Sources of variation in herbivore preference: among-individual and past diet effects on amphipod host choice. *Marine Biology* **149**, 1403–1410. doi:10.1007/s00227-006-0307-3
		Ecology	Poore, A., Hill, N., and Sotka, E. (2008). Phylogenetic and geographic variation in host breadth and composition by herbivorous amphipods in the family Ampithoidae. *Evolution* **62**, 21–38.
		Ecology	Poore, A., and Lowry, J. (1997). New ampithoid amphipods from Port Jackson, New South Wales, Australia (Crustacea: Amphipoda: Ampithoidae). *Invertebrate Taxonomy* **11**, 897–941. doi:10.1071/IT95045
		Ecology	Roberts, D., Cummins, S., Davis, A., and Chapman, M. (2006). Structure and dynamics of sponge-dominated assemblages on exposed and sheltered temperate reefs. *Marine Ecology Progress Series* **321**, 19–30. doi:10.3354/meps321019
		Ecology	Saito, N., and Cunneen, D. (1994). Sydney Harbor Tunnel – review of environmental factors. *TRANSPORT* **105**(3), 173–178.
		Ecology	Vincent, A., Evans, K., and Marsden, A. (2005). Home range behaviour of the monogamous Australian seahorse, *Hippocampus whitei*. *Environmental Biology of Fishes* **72**, 1–12. doi:10.1007/s10641-004-4192-7
		Ecology	Wilson, G., Raftos, D., Corrigan, S., and Nair, S. (2010). Diversity and antimicrobial activities of surface-attached marine bacteria from Sydney Harbour, Australia. *Microbiological Research* **165**, 300–311. doi:10.1016/j.micres.2009.05.007

Habitat	Threats	Field	Reference
		Ecology	Wilson, G., Raftos, D., Gillings, M., and Nair, S. (2010). Heterogeneity of surface attached microbial communities from Sydney Harbour, Australia. *Marine Genomics* **3**, 99–105. doi:10.1016/j.margen.2010.08.001
--	Contamination	Management	Wolanski, E. (2013). Estuaries of Australia in 2050 and beyond. In 'Sydney Estuary, Australia: Geology, Anthropogenic Development and Hydrodynamic Processes/Attributes'. (Eds S. B. Lee and G. F. Birch.). (Springer: Dordrecht, Netherlands.)
	NIS	Management	Harris, P., Obrien, P. (1998). Australian ports: environmental data and risk analysis. Phase one, literature review. Report for Australian Quarantine and Inspection Service. Australian Geological Survey Organisation, Canberra, ACT.
	Other	Management	Widmer, W., and Underwood, A. (2004). Factors affecting traffic and anchoring patterns of recreational boats in Sydney Harbour, Australia. *Landscape and Urban Planning* **66**, 173–183. doi:10.1016/S0169-2046(03)00099-9
		Geology	Hamilton, L. (2011). Acoustic seabed segmentation for echosounders through direct statistical clustering of seabed echoes. *Continental Shelf Research* **31**, 2000–2011. doi:10.1016/j.csr.2011.10.004
		Geology	Kennedy, D. (2010). Geological control on the morphology of estuarine shore platforms: Middle Harbour, Sydney, Australia. *Geomorphology* **114**, 71–77. doi:10.1016/j.geomorph.2009.02.012
		Geology	McLoughlin, L. (2000). Shaping Sydney Harbour: sedimentation, dredging and reclamation 1788–1990s. *Australian Geographer* **31**, 183–208.
		Geology	Mulhearn, P. (2003). Influences of penetrometer tip geometry on bearing strength estimates. *International Journal of Offshore and Polar Engineering* **13**, 73–78.
		Geology	Roy, P., Williams, R., Jones, A., Yassini, I., Gibbs, P., Coates, B., West, R., Scanes, P., Hudson, J., and Nichol, S. (2001). Structure and function of south-east Australian estuaries. *Estuarine, Coastal and Shelf Science* **53**, 351–384. doi:10.1006/ecss.2001.0796
		Geology	Roy, P. S. (1981). Quaternary geology. In 'Geology of the Sydney Basin, 1:1000000 sheet 9130'. (Ed. C. Herbert.). pp. 41–91. (Geological Survey of New South Wales: Sydney.)
		Oceanography	Middleton, J. H., Cox, D. R., and Tate, P. M. (1996). The oceanography of the Sydney region. *Marine Pollution Bulletin* **33**, 124–131. doi:10.1016/S0025-326X(96)00170-1
		Oceanography	Connor, G., Spark, E., and Dunsmuir, W. (2003). Statistical forecasting techniques to describe the surface winds in Sydney Harbour. *Australian Meteorological Magazine* **52**, 101–115.
		Oceanography	Cripps, E., and Dunsmuir, W. (2003). Modeling the variability of Sydney Harbor wind measurements. *Journal of Applied Meteorology* **42**, 1131–1138. doi:10.1175/1520-0450(2003)042<1131:MTVOSH>2.0.CO;2
		Oceanography	Das, P., Marchesiello, P., and Middleton, J. (2000). Numerical modelling of tide-induced residual circulation in Sydney Harbour. *Marine and Freshwater Research* **51**, 97–112. doi:10.1071/MF97177

Habitat	Threats	Field	Reference
		Oceanography	Dunsmuir, W., Spark, E., Kim, S., and Chen, S. (2003). Statistical prediction of sea breezes in Sydney Harbour. *Australian Meteorological Magazine* **52**, 117–126.
		Oceanography	Gergis, J., Karoly, D., and Allan, R. (2009). A climate reconstruction of Sydney Cove, New South Wales, using weather journal and documentary data, 1788-1791. *Australian Meteorological and Oceanographic Journal* **58**, 83–98.
		Oceanography	Hamon, B. (1962). Spectrums of mean sea level at Sydney, Coffs Harbour, and Lord Howe Island. *Journal of Geophysical Research* **67**, 5147. doi:10.1029/JZ067i013p05147
		Oceanography	Holbrook, N., Goodwin, I., McGregor, S., Molina, E., and Power, S. (2011). Enso to multi-decadal time scale changes in East Australian Current transports and Fort Denison sea level: oceanic Rossby waves as the connecting mechanism. *Deep-sea Research. Part II, Topical Studies in Oceanography* **58**, 547–558. doi:10.1016/j.dsr2.2010.06.007
		Oceanography	McInnes, K., and Hubbert, G. (2001). The impact of eastern Australian cut-off lows on coastal sea levels. *Meteorological Applications* **8**, 229–244. doi:10.1017/S1350482701002110
		Oceanography	Thomson, R. (1983). Set-up of Sydney Harbor by waves, wind and atmospheric-pressure. *Australian Journal of Marine and Freshwater Research* **34**, 97–103. doi:10.1071/MF9830097
		Oceanography	Wood, J., Roughan, M., and Tate, P. (2012). Finding a proxy for wind stress over the coastal ocean. *Marine and Freshwater Research* **63**, 528–544. doi:10.1071/MF11250