

Curriculum Vitae

Name: Chris Wilcox

Present position: Principal Research Scientist

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<http://www.advancedconservation.org>

Education

1996 – 2002 Ph.D. Conservation Biology, University of California, Santa Cruz
Dissertation: Conservation of endangered systems: using modeling and empirical investigations to assess the dynamics of species and their threats. M.S. Mangel advisor

1992 – 1996 M.S. Ecology and Conservation Biology, University of California, Davis
Thesis: Predator prey interactions and indirect effects. S.P. Harrison advisor

1986 – 1990 B.G.S. Environmental Studies and B.S. Ecology, University of Kansas
Graduated with Academic Honors

Competitive External Funding

2017 Quantifying flows of plastic from land to the sea. \$2,400,000. Oak Foundation. Co-Principal Investigator

2016 Policy and practices to reduce littering, Phase II. \$129,000. Australian Packaging Covenant Industry Association. Co-Principal Investigator

2015 Modelling and monitoring marine litter movement, transport and accumulation, United Nations Environment Programme Co-Investigator, \$247,000

2015 Policy and practices analysis to reduce littering and identify point source losses. National Packaging Covenant Industry Association, . Co-Principal Investigator. \$336,000

2015 Quantifying coastal debris, identifying hotspots and making recommendations to fill marine debris data gaps, Ocean Conservancy Co-Principal Investigator, \$280,000

2014 Stopping Illegal Fishing In Indonesia: Enabling Enforcement Through Improved Surveillance. Allen foundation. Principal Investigator. \$3,750,000

2012 Integrating indigenous knowledge, aerial surveys, and electronic tagging to understand the distribution, abundance and movement of dugong in the Kimberley region of Australia. Western Australian Government. Principal Investigator. \$600,000.

2011 Understanding the effects of marine debris on wildlife. Shell Australia. Principal Investigator. \$2,400,000

2011 Identifying the risks and assessing the impacts of marine debris on sea turtles in Australian waters. Australian Research Council. Partner Investigator. \$540,000

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- 2010 Developing hidden markov models for understanding animal movement and environment interactions. National Oceanographic and Atmospheric Administration, Principal Investigator. \$194,000
- 2010 Tracking marine debris in Australian waters. Commonwealth Department of Environment and Heritage, Co-Investigator \$140,000
- 2009 Exploring sources, impacts and methods for amelioration of ghost nets as a threat to marine species. Gulf Natural Resources Management Board, Co-Principal Investigator \$460,000
- 2008 Predicting the impact of hook decrements on the distribution of fishing effort in the ETBF: integrating pattern and process-based approaches. Fisheries Research and Development Corporation. Principal Investigator. \$262,000.
- 2008 Broadbill Swordfish Movement Patterns in the Eastern Indian Ocean: Stock Structure, Mixing, and Australia's Area of Relevance. Australian Fisheries Management Authority, Principal Investigator. \$30,000.
- 2007 Movement patterns of yellowfin tuna in the Coral Sea region: defining connectivity with stocks in the western Pacific Ocean region. Australian Fisheries Research and Development Corporation. Co-Investigator. \$200,000.
- 2006 Adaptive allocation of fisheries observers under certainty. University of Tasmania. Principal Investigator. \$150,000.
- 2006 Predicting and Management of Australia's Marine Biodiversity, a Commonwealth Environmental Research Facility. Department of Environment and Heritage. Co-Investigator. \$16,000,000.
- 2006 Prioritization of Conservation Efforts in the Context of Socio-Political Constraints: Application to Eradication of Invasive Species on Pacific Islands. Island Conservation. Principal Investigator. \$167,000.
- 2006 Predicting the distribution and rate of fishery-seabird encounters. Department of Environment and Heritage. Principal Investigator. \$159,000.
- 2006 Exploring Compensatory Mitigation as a Mechanism for Generating Ecologically Sustainable and Economically Efficient Fisheries. National Centre for Ecological Analysis and Synthesis. Principal Investigator. \$140,000.
- 2006 Investigation of local movement and regional migration behaviour of broadbill swordfish targeted by the Eastern Tuna and Billfish Fishery. Australian Fisheries Management Authority. Principal Investigator. \$717,000.
- 2006 Market-influenced strategies for marine conservation. Switzer Foundation. Co-Investigator. \$40,000.
- 2004 A Bayesian framework for metapopulation dynamics of species in endangered communities: integrating demographic, environmental and genetic data. Australian Research Council Linkage Grant. Principal Investigator. \$328,860.
- 2002 Predicting metapopulation dynamics in systems with multiple patch states. Australian Research Council Linkage Grant. Postdoctoral Fellow. \$250,000.
- 2001 Spatially explicit population modeling and investigation of metapopulation structure for the Alabama Beach Mouse. US Fish and Wildlife Service. Principal Investigator. \$63,000.
- 2000 Population viability analysis review for the Alabama beach mouse. US Fish and Wildlife Service. Principal Investigator. \$21,000.
- 1996 Metapopulation dynamics and environmental variation in fairy shrimp population dynamics: empirical and theoretical information for reserve design. Switzer Foundation Environmental Leadership Grant. Principal Investigator. \$15,000.
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Fellowships and Awards

2017	Invited Fellow in Residence, Institute of Global Innovation Research, Tokyo University of Agriculture and Technology
2016	Eureka Award, Environmental Research
2016	Highlight Article of 2015, Environmental Research Letters
2015	Queensland Government Minister's Award for Leadership in Sustainability Finalist
2015	Eureka Award Finalist, Environmental Research (top 3 of 500)
2015	Highly Commended Research Award, Australian Coastal Councils
2014	CSIRO Performance Cash Award, Marine Debris Team
2010	CSIRO Performance Recognition Award
2010	Gates Foundation/World Bank award for best ideas in innovative finance (top 20 of 800)
2009	CSIRO Senior Career Development Award
2004	Australian Research Council Postdoctoral Fellowship
2000	University of California Regents Fellowship
1999	University of California Regents Fellowship
1996	University of California Regents Fellowship
1993	Switzer Foundation Environmental Fellowship
1986	Kansas State Board of Regents Scholar

Publications

Publications (last 10 years): **73*** **Times Cited***: **3239** **5 Year h Index**: **26** **5 Year i10 Index** **54***
 Research publications in Peer-reviewed journals only

Median Journal Impact for C. Wilcox/Median Journal Impact for discipline: 3.45 times median value
 Source: Web of Science/Journal Citation Reports

Web presence

Research Gate: RG Score 37.23, top 5% of members, top 5% CSIRO members
 Google scholar: 2257 citations last 5 years
 Researcher Id (A-3585-2010): 22.21 citations/article

Publication Highlights

- Jambeck et al. 2016 (publication 15) [Altametric](#) ranked in top 5% of 7,000,000 papers, top 1% of papers in Science
- Wilcox et al. 2015 (publication 11) [Altametric](#) ranked in top 5% of 7,000,000 papers, top 1% of papers in PNAS
- Elsevier publisher feature papers for world oceans day 2016 (publications 9, 14)
- Environmental Research letters [highlight paper](#) of 2015 (publication 11)
- Top 3 cited papers in Conservation Biology in 2014 (publication 27)

Example of Public Reach

Hardesty et al. 2016 (publication 7): Mainstream media reach: 2,252,451 people, Media stories: 47

Peer-reviewed Journal Publications

1. **Wilcox C.**, M. Puckridge, Q. Schuyler, K. Townsend, B.D. Hardesty *accepted*. How much plastic does it take to kill a turtle? Scientific Reports.
2. Fayakun Satria, F., L. Sadiyah, A.A. Widodo, **C. Wilcox**, J. Ford and B.D. Hardesty. *accepted*. Characterizing transshipment at-sea activities by longline and purse seine fisheries in response to recent policy changes in Indonesia. Marine Policy
3. Arlidge, WNS, JW Bull, P Addison, MJ Burgass, D Gianuca, T Gorham, C Jacob, S Lloyd, N Shumway, J Watson, **C Wilcox**, E.J. Milner-Gulland. *accepted*. A global mitigation hierarchy for nature conservation. Bioscience.
4. Richardson, K. B.D. Hardesty, Gunn, R. and **C. Wilcox**. *accepted*. Understanding causes of gear loss provides a sound basis for fisheries management. Marine Policy
5. Schuyler, Q., B.D. Hardesty, TJ Lawson, K. Opie and **C. Wilcox**. *accepted*. Increasing the value of plastic reduces pollution: an analysis of container deposit programs. Marine Policy.
6. Milner-Gulland, E.J., S. Garcia, W. Arlidge, I. Bull, T. Charles, L. Dagorn, S. Fordham, J. Graf Zivin, M. Hall, J. Schrader, N. Vestergaard, D. Squires, **C. Wilcox**. 2018. Translating the terrestrial mitigation hierarchy to marine megafauna bycatch. Fish and Fisheries. DOI: 10.1111/faf.12273
7. Willis, K., B.D. Hardesty, **C. Wilcox**. *accepted*. Microplastic distribution at different sediment depths. Frontiers in Marine Science.
8. Willis, K. C. Maureaud, **C. Wilcox**, B.D. Hardesty. *accepted*. How successful are waste abatement campaigns and government policies at reducing plastic waste into the marine environment? Marine Policy. DOI: 10.1016/j.marpol.2017.11.037
9. Jambeck, J. Hardesty, B.D., J. Francis, J. Knox, Y. Beaudoin, A. Bamba, A Ribbink, T. Friend, H. Bouwman, T. Baleta, A.L. Brooks, **C. Wilcox**, K. Teleki. J. Fabres. 2017. Challenges and emerging solutions to the land-based plastic waste issue in Africa. Marine Policy. DOI: 10.1016/j.marpol.2017.10.041
10. Worm, B. HK Lotze, I Jubinville, **C. Wilcox**, J. Jambeck *accepted*. Plastic as a persistent marine pollutant. Annual Review of Environment and Resources
11. Michael, PE, R. Thomson, C. Barbraud, K. Delord, S. De Grissac, AJ Hobday, PG Strutton, G Tuck, H. Weimerskirch, **C. Wilcox**. 2017 Illegal fishing bycatch overshadows climate as a driver of albatross population decline. Marine Ecology Progress Series 579:185–199. DOI: 10.3354/meps12248
12. Hardesty, B.D., J. Harari, A. Isobe, L. Lebreton, N. Maximenko, J.T. Potemra, E. van Sebille, D. Vethaak, **C. Wilcox**. 2017. Using numerical model simulations to improve the understanding of micro-plastic distribution and pathways in the marine environment. Frontiers in Marine Science. DOI: 10.3389/fmars.2017.00030
13. Donlan, J, G Luque, **C Wilcox**, S Gelcich, G Koch, B Hungate *accepted* Research on seafood fraud deserves better. Conservation Letters. DOI: 10.1111/conl.12356
14. Hardesty, B.D., **C. Wilcox**. 2017. A risk framework for tackling marine debris. Analytical Methods. DOI: 10.1039/c6ay02934e
15. Willis, K., B.D. Hardesty, L. Kriwoken, and **C. Wilcox**. 2017. Differentiating littering, urban runoff and marine litter transport as sources of marine debris in coastal and estuarine environments. Scientific Reports 7:44479. Doi:10.1038/srep44479
16. Michael, P., **C. Wilcox**, G. Tuck, A. Hobday, P.G. Strutton. 2017. Japanese and Taiwanese pelagic longline fleet dynamics and the impacts of climate change in the southern Indian Ocean. Deep-Sea Research II: Tropical Studies 140:242-250. DOI: 10.1016/j.dsr2.2016.12.003
17. van der Velde, T., D.A. Milton, T.J. Lawson, B.D. Hardesty, **C. Wilcox**, M. Lansdell, G. Davis and G. Perkins 2017. Comparison of marine debris data collected by researchers and citizen scientists: Is citizen science data worth the effort? Biological Conservation. 208:127-138. DOI: 10.1016/j.biocon.2016.05.025
18. **Wilcox, C.**, B.D. Hardesty. 2016. Biodegradable nets are not a panacea, but can contribute to addressing the ghost fishing problem. Animal Conservation 19:322-323. DOI: 10.1111/acv.12300
19. Hardesty, B.D., T.J. Lawson, T. van der Velde, M. Lansdell, **C. Wilcox**, 2016. Estimating quantities and sources of marine debris at a continental scale. Frontiers in Ecology and the Environment. DOI: 10.1002/fee.1447

20. McCreless, E., D.D. Huff, D. Croll, B. Tershy, D. Spatz, N. Holmes, S. Butchart, **C. Wilcox**. 2016. Past and estimated future impact of invasive alien mammals on insular threatened vertebrate populations. *Nature Communications* 7. DOI: 10.1038/ncomms12488
21. **Wilcox, C.** N. Mallos, G.H. Leonard, A. Rodriguez, B.D. Hardesty. 2016. Using expert elicitation to estimate the impacts of marine debris on marine wildlife. *Marine Policy* 65:107-114. DOI: 10.1016/j.marpol.2015.10.014
22. Schuyler, Q., **C. Wilcox**, K. Townsend, K. Wedemeyer-Strombel, G. Balazs, E. van Sebille, B.D. Hardesty. 2015. Risk analysis reveals global hotspots for marine debris ingestion by sea turtles. *Global Change Biology* 22(2):567-576. DOI: 10.1111/gcb.13078.
23. van Sebille, E., **C. Wilcox**, L. Lebreton, N. Maximenko, B.D. Hardesty, J. van Franeker, M. Eriksen, D. Siegel, F. Galgani, and K. Lavender Law. 2015. Global Inventory of Floating Microplastic Debris. *Environmental Research Letters* 10(12):124006. DOI:10.1088/1748-9326/10/12/124006
24. **Wilcox, C.**, E. van Sebille, B.D. Hardesty. 2015. Threat of plastic pollution to seabirds is global, pervasive, and increasing. *Proceedings of the National Academy of Sciences* 112(38):11899–11904. DOI: 10.1073/pnas.1502108112
25. Lawson, T.J., K. Johns; **C. Wilcox**; P. Dann; B.D. Hardesty. 2015. Characteristics of marine debris that entangle Australian Fur seals (*Arctocephalus pusillus doriferus*) in southern Australia. *Marine Pollution Bulletin* 98:354-357. DOI: 10.1016/j.marpolbul.2015.05.053
26. Hardesty, B.D., T.P. Good, **C. Wilcox** 2015. Novel methods, new results and science-based solutions to tackle marine debris impacts on wildlife. *Ocean and Coastal Management* 115:4-9. DOI: 10.1016/j.ocecoaman.2015.04.004
27. Innes, J. S.Pascoe, **C. Wilcox**, S.Jennings, and S. Paredes. 2015. Mitigating undesirable impacts in the marine environment: a review of market-based management measures. *Frontiers in Marine Science* 2:76. DOI: 10.3389/fmars.2015.00076.
28. Jambeck, J. A. Andrady, R. Geyer, R. Marayan, M. Perryman, T. Siegler, **C. Wilcox**. 2015. Plastic waste input from land into the ocean. *Science*. 347(62230):768-771. DOI: 10.1126/science.1260352
29. Sommerfeld, J., A. Kato, Y. Ropert-Coudert, S. Garthe, **C. Wilcox** and M.A. Hindell. 2015. Flexible foraging behaviour in a marine predator according to foraging locations and changing environmental conditions. *Journal of Experimental Marine Biology and Ecology*. 469:79-86.
30. Gordon, A. J.W. Bull, **C. Wilcox**, M. Maron. 2015. Perverse incentives risk undermining biodiversity offset policies. *Journal of Applied Ecology* 52(2):532-537. doi: 10.1111/1365-2664.12398
31. Hardesty BD, D Holdsworth, A Revill and **C Wilcox**. 2015. A biochemical approach for identifying plastics exposure in live wildlife. *Methods in Ecology and Evolution*. 6: 92–98. doi: 10.1111/2041-210X.12277
32. Chambers, L.E., T. Patterson, A.J. Hobday, J.P.Y. Arnould, G.N. Tuck, **C. Wilcox**, P. Dann. 2015. Determining trends and environmental drivers from long-term marine mammal and seabird data: examples from Southern Australia. *Regional Environmental Change*. 15:197-209. DOI 10.1007/s10113-014-0634-8
33. **Wilcox, C.** G. Heathcote, J. Goldberg, R. Gunn, D. Peel, BD Hardesty. 2015. Understanding the sources and effects of abandoned, lost and discarded fishing gear on marine turtles in northern Australia. *Conservation Biology*. 29: 198–206. doi: 10.1111/cobi.12355
34. Donlan, C.J, G.L. Luque, **C. Wilcox**. 2014. Maximizing return on investment for island restoration and species conservation. *Conservation Letters* 8(3):171-179. doi: 10.1111/conl.12126
35. Vegter A, M Barletta, C Beck, J Borrero, H Burton, M Campbell, M Eriksen, C Eriksson, A Estrades, K Gilardi, BD Hardesty, J Assunção I do Sul, J Lavers, B Lazar, L Lebreton, WJ Nichols, E Ramirez Llodra, C Ribic, PG Ryan, Q Schuyler, SDA Smith, H Takada, K Townsend, C Wabnitz, **C Wilcox**, L Young, M Hamann. 2014. Global research priorities for the management and mitigation of plastic pollution on marine wildlife. *Endangered Species Research*. 25:225-247
36. Schuyler, Q., **C. Wilcox**, B.D. Hardesty. K. Townsend. 2014. Global analysis of anthropogenic debris ingestion by sea turtles. *Conservation Biology* 28(1):129-139.
37. James T. Dell, J.T, **C. Wilcox**, R.J. Matear, M.A. Chamberlain, A.J. Hobday. 2014. Potential impacts of climate change on the distribution of longline catches of yellowfin tuna (*Thunnus albacares*) in the Tasman sea. *Deep Sea Research Part II: Topical Studies in Oceanography*. doi:10.1016/j.dsr2.2014.07.002
38. Reisser J, J Shaw, G Hallegraeff, M Proietti, D Barnes, M Thums, **C Wilcox**, BD Hardesty and C Pattiaratchi. 2014. The inhabsits of millimeter-sized pelagic plastics: a scanning electron microscopy study. *PLOS One*. 9(6):e100289. DOI: 10.1371/journal.pone.0100289
39. Schuyler, Q, K Townsend, C Wilcox, **BD Hardesty** and J Marshall. 2014. Mistaken identity? Visual similarities of marine debris to natural prey items of sea turtles. *BMC Ecology*. <http://www.biomedcentral.com/1472-6785/14/14>
40. Dowling, N.A., **C. Wilcox**, M.S. Mangel. 2013. Risk Sensitivity and the behavior of fishing vessels. *Fish and Fisheries* 16(3):399-425. doi: 10.1111/faf.12064

41. Reid, T., G. Tuck, M. Hindell, S. Thalmann, R.A. Phillips, **C. Wilcox**. 2013. Nonbreeding distribution of flesh-footed shearwaters and the potential for overlap with north Pacific fisheries. *Biological Conservation* 166:3-10
42. Reid, T., M. Hindell, J. L. Lavers and C. Wilcox. 2013. Re-Examining Mortality Sources and Population Trends in a Declining Seabird: Using Bayesian Methods to Incorporate Existing Information and New Data. *PLOS One*. 8(4): e58230. doi: [10.1371/journal.pone.0058230](https://doi.org/10.1371/journal.pone.0058230)
43. Reisser, J., J. Shaw, **C. Wilcox**, D. Hardesty, M. Proietti, M. Thums, C. Pattiatichi. 2013. Marine plastic pollution in wastewaters around Australia: characteristics, concentrations, and pathways. *PLOS One*. DOI: 10.1371/journal.pone.0080466
44. Butler, J.R.A., R. Gunn, H.L. Berry, G.A. Wagey, B.D. Hardesty, **C. Wilcox**. 2013. Value chain analysis of ghost nets in the Arafura Sea: identifying transboundary stakeholders, intervention points and livelihood trade-offs. *Journal of Environmental Management*. 123:14e25
45. McCreless, E., P. Visconti, J. Carwardine, **C. Wilcox**, and R.J. Smith. 2013. Cheap and nasty? The potential pitfalls of using management costs to identify global conservation priorities. *PLoS ONE* 8(11): e80893. doi:10.1371/journal.pone.0080893
46. Schuyler, Q., B.D. Hardesty, **C. Wilcox** and K. Townsend. 2013. Global analysis of anthropogenic debris ingestion by sea turtles. *Conservation Biology* 28(1):129-139. doi: 10.1111/cobi.12126.
47. Moore, J.L., Rout, T.M., Hauser, C.E., Moro, D., Jones, M., **Wilcox, C.** and Possingham, H.P. 2013. Protecting islands from pest invasion: Response to Greenslade et al. *Biological Conservation* 157:435-436.
48. **Wilcox, C.**, Hardesty, B.D., Sharples, R., Griffin, D.A., Lawson, T.J. and Gunn, R. 2013. Ghostnet impacts on globally threatened turtles, a spatial risk analysis for northern Australia. *Conservation Letters*. 6(4):247-254.
49. Pascoe, S., J. Innes, A. Norman-López, **C. Wilcox** & N. Dowling. 2013. Economic and conservation implications of a variable effort penalty system in effort-controlled fisheries, *Applied Economics*, 45(27):3880-3890
50. Hardesty, B.D., S.S. Metcalf, **C. Wilcox**. 2013. Genetic variability and population diversity as revealed by microsatellites for Flesh-footed shearwaters (*Puffinus carneipes*) in the southern hemisphere. *Conservation Genetics Resources*: 5(1):27-29
51. Dowling, N.A., **C. Wilcox**, M.S. Mangel, S. Pascoe. 2012. Assessing opportunity and relocation costs of marine protected areas using a behavioural model of longline fleet dynamics. *Fish and Fisheries* 13(2):139-157.
52. Schuyler Q, Hardesty BD, **Wilcox C**, Townsend K. 2012 To Eat or Not to Eat? Debris Selectivity by Marine Turtles. *PLoS One*: 7(7): e40884.
53. Reid, T., M.A. Hindell, and **C. Wilcox** 2012. Environmental determinants of the at-sea distribution of encounters between flesh-footed shearwaters *Puffinus carneipes* and fishing vessels. *Marine Ecology Progress Series* 447:231-242
54. Evans, K., H. Baer, E. Bryant, M. Holland, T. Rupley, and **C. Wilcox**. 2011. Resolving estimation of movement in a diurnally migrating pelagic fish: does GPS provide a solution? *Journal of Experimental Marine Biology and Ecology*
55. Worthington Wilmer, J., L. Murray, C. Elkin, **C. Wilcox**, D. Niejalke, H. Possingham. 2011. Catastrophic floods pave the way for increased genetic diversity in endemic artesian spring snail populations. *PLOS One*: 6(12):e28645.
56. Pascoe, S. **C. Wilcox**, C.J. Donlan. 2011. Biodiversity offsets: a cost-effective interim solution to seabird bycatch in fisheries? *PloS one*: 6(10):e25762
57. Dell, J. **C. Wilcox**, A.J. Hobday. 2011. Estimation of yellowfin tuna habitat in waters adjacent to Australia's East Coast: making the most of commercial catch data. *Fisheries Oceanography* 20(5):383-396.
58. Donlan, C.J. D.K. Wingfield, L.B. Crowder, and **C. Wilcox**. 2010. Using expert opinion surveys to rank threats to endangered species: a case study with sea turtles. *Conservation Biology* 24(6):1586-95
59. Pascoe, S. J. Innes, D. Holland, M. Fina, O. Thébaud, R. Townsend, J. Sanchirico, R. Arnason, **C. Wilcox**, T. Hutton 2010 Use of incentive based management systems to limit bycatch and discarding. *International Review of Environmental and Resource Economics* 4:123-161.
60. Lavers, J.L., **C. Wilcox**, C.J. Donlan. 2010. Are the demographic benefits resulting from predator removal sufficient to restore declining bird populations? *Biological Invasions* 12:3839-3859
61. Moore, J.L., Rout, T.M., Hauser, C.E., Moro, D., Jones, M., **Wilcox, C.**, Possingham, H.P., 2010. Protecting islands from pest invasion: optimal allocation of biosecurity resources between quarantine and surveillance. *Biological Conservation* 143, 1068-1078.
62. Mandel, J. C.J. Donlan, **C. Wilcox**, R. Cudney-Bueno, S. Pascoe, and D. Tulchin. 2009. Debt investment as a tool for value transfer in biodiversity conservation. *Conservation Letters* 2(5): 233-239.
63. Pascoe, W., W. Proctor, **C. Wilcox**, J. Innes, W. Rochester and N. Dowling. 2009. Stakeholder objective

- preferences in Australian Commonwealth managed fisheries. *Marine Policy* 33:750-758.
64. **Wilcox, C.** and C.J. Donlan. 2009. Need for a clear and fair evaluation of biodiversity offsets for fisheries bycatch. *Conservation Biology* 23:770-772.
 65. Pascoe, S., R. Bustamante, **C. Wilcox** and M. Gibbs. 2009. Spatial fisheries management: a framework for multi-objective qualitative assessment. *Ocean and Coastal Management* 52:130-138.
 66. Steele, K., Y. Carmel, J. Cross, and **C. Wilcox** 2009. Uses and Misuses of Multi-Criteria Decision Analysis (MCDA) in Environmental Decision-Making. *Risk Analysis* 29:26-33.
 67. Donlan C.J. and **C. Wilcox**. 2008. Integrating invasive mammal eradications and biodiversity offsets for fisheries bycatch: conservation opportunities and challenges for seabirds and sea turtles. *Biological Invasions*. 10:1053-1060.
 68. Worthington Wilmer J., C. Elkin, **C. Wilcox**, L. Kunkle, D. Niejalke, and H.P. Possingham 2008. The influence of multiple dispersal mechanisms and landscape structure on population clustering and connectivity in fragmented mound spring snail populations. *Molecular Ecology*. 17:3733-3651.
 69. Donlan, C.J. and **C. Wilcox**. 2008. Diversity, invasive species, and extinctions in insular ecosystems. *Ecology Letters* 45:1114-1123.
 70. Patterson, T.A., Thomas, L., **Wilcox, C.**, Ovaskainen, O. and Matthiopoulos, J. 2008. State-space models of individual animal movement. *Trends in Ecology and Evolution*. 23:87-94.
 71. Baxter, P.W.J., J.L. Sabo, **C. Wilcox**, M.A. McCarthy, and H.P. Possingham. 2008. Cost-effective suppression and eradication of invasive predators. *Conservation Biology*: 22:89-98.
 72. Kodric-Brown, A., **C. Wilcox**, J.G. Bragg, and J.H. Brown. 2007. Dynamics of fish in Australian desert springs: role of large-mammal disturbance. *Diversity and Distributions*. 13:789-798.
 73. Donlan, C.J. and **C. Wilcox**. 2007. Offsets for bycatch: practical suggestions not panaceas. *Frontiers in Ecology and the Environment*. 5:325-331
 74. **Wilcox, C.** and C.J. Donlan 2007. Compensatory mitigation: the authors reply. *Frontiers in Ecology and the Environment*. 5:521-522
 75. **Wilcox, C.** and C.J. Donlan. 2007. Compensatory mitigation as a solution to fisheries bycatch – biodiversity conservation conflicts. *Frontiers in Ecology and the Environment*. 5:325-331
 76. Donlan, C.J. and **C. Wilcox**. 2007. The complexities in costing eradications. *Animal Conservation*. 10:154-156
 77. Vuilleumier, S., **C. Wilcox**, B.J. Cairns, and H.P. Possingham. 2007. How patch configuration affects the impact of disturbances on metapopulation persistence. *Theoretical Population Biology* 72:77-85.
 78. Worthington Wilmer, J. and **C. Wilcox**. 2007. Fine scale patterns of migration and gene flow in the endangered mound spring snail, *Fonscochlea accepta* (Mollusca:Hydrobiidae) in arid Australia. *Conservation Genetics* 8:617-628.
 79. Joseph, L.N., S.A. Field, **C. Wilcox**, and H.P. Possingham. 2007. Presence-absence versus abundance data for monitoring threatened species. *Conservation Biology* 20:1679-1687.
 80. **Wilcox, C.**, B. Cairns, and H.P. Possingham. 2006. The role of habitat disturbance and recovery in metapopulation persistence. *Ecology* 87:855-863.
 81. Worthington Wilmer, J., J.M. Hughes, J. Ma, and **C. Wilcox**. 2005. Characterisation of microsatellite loci in the endemic mound spring snail *Fonscochlea accepta* and cross species amplification. *Molecular Ecology Notes* 5:205-207.
 82. **Wilcox, C.**, and M. Los Huertos 2005. A simple, rapid method for mapping wetland basins. *Journal of Hydrology* 301:29-36
 83. Jonzen, N., **C. Wilcox**, and H.P. Possingham 2004. Habitat selection and population regulation in temporally fluctuating environments. *American Naturalist* 164:103-114.
 84. **Wilcox, C.** and B. Elderd. 2003. The endangered species act petitioning process: Successes and failures. *Society and Natural Resources* 16:551-559.
 85. **Wilcox, C.** and B. Elderd. 2003. The effect of density dependent catastrophes on population persistence time. *Journal of Applied Ecology* 40:859-871.
 86. **Wilcox, C.** and C. Pomeroy. 2003. Do commercial fishermen aggregate around marine reserves? Evidence from Big Creek Reserve, Central California. *North American Journal of Fisheries Management* 23:241-250.
 87. Giske, J., M. Mangel, P. Jokobsen, G. Huse, and **C. Wilcox**. 2003. Explicit trade-off rules in proximate adaptive agents. *Evolutionary Ecology Research*. 5:835-865
 88. **Wilcox, C.** 2002. Habitat size and isolation affect colonization of season wetlands by aquatic insects. *Israel Journal of Ecology, special feature on seasonal wetland ecology* 47:459-476.
 89. **Wilcox, C.** and H. Possingham. 2002. Do life history traits affect the accuracy of diffusion approximations for mean time to extinction? *Ecological Applications* 12:1163-1179
 90. Ellner, S.P., J. Fieberg, D. Ludwig, and **C. Wilcox**. 2002. Precision in population viability analysis. *Conservation Biology* 16:258-261.

91. Keitt, B.S., **C. Wilcox**, B.R. Tershy, D. Croll, and C.J. Donlan. 2002. The effect of feral cats on the population viability of black-vented shearwaters (*puffinus opisthomelas*) on Natividad Island, Mexico. *Animal Conservation* 5:217-223.
92. Harding, E.K., E.E. Crone, B.D. Elder, J.M. Hoekstra, A.J. McKerrow, J.D. Perrine, J. Regetz, L.J. Rissler, A.G. Stanley, E. L. Walters, **C. Wilcox** and the NCEAS Habitat Conservation Plan Working Group. 2001. The Scientific Foundations of Habitat Conservation Plans: a Quantitative Assessment. *Conservation Biology* 15:488-500.
93. Milner-Gulland, E.J., K. Shea, H. Possingham, T. Coulson, and **C. Wilcox**. 2001. Competing harvesting strategies in a simulated population under uncertainty. *Animal Conservation* 4:157-167.
94. Parma, A.M., P. Amarasekare, M. Mangel, J. Moore, W.W. Murdoch, E. Noonburg, M.A. Pascual, H.P. Possingham, K. Shea, **C. Wilcox**, and D. Yu. 1998. What can adaptive management do for our fish, forests, food, and biodiversity? *Integrative Biology* 1:16-26
95. Shea, K., P. Amarasekare, M.S. Mangel, J. Moore, W.W. Murdoch, E. Noonburg, A. Parma, M.A. Pascual, H.P. Possingham, **C. Wilcox**, and D. Yu. 1998. Management of populations in conservation, harvesting, and control. *Trends in Ecology and Evolution* 13:371-375.
96. Brodman P., **C. Wilcox**, and S. Harrison 1997. Mobile parasitoids may restrict the spatial spread of an insect outbreak. *Journal of Animal Ecology* 66:65-72.
97. Wilcox, C. 1996. Ant response to insect herbivory, and the potential for community-wide indirect effects. *Bulletin of the Ecological Society of America*. 77:481
98. Harrison S. and **C. Wilcox** 1995. Evidence that predator satiation may restrict the spatial spread of a tussock moth (*Orgyia vetusta*) outbreak. *Oecologia* 7:23-34.

Proceedings, Book Chapters, Discussion Papers, Reports and Other Publications

1. Hardesty, BD, P Sobral, S Barry and **C Wilcox**. Ocean Pollution: risks, costs and consequences. *In press*, Oceans (book chapter).
2. Hardesty, BD, **CV Wilcox**, Q Schuyler, TJ Lawson and K Opie. 2016. Developing a baseline estimate of amounts, types, sources and distribution of coastal litter – an analysis of US marine debris data. A final report to the Ocean Conservancy and NOAA.
3. Hardesty, B.D., Q. Schuyler, TJ Lawson, K. Opie and **C. Wilcox**. 2016. Understanding debris sources and transport from the coastal margin to the ocean. Final Report to the Australian Packaging Covenant Organisation Ltd.
4. Kershaw, P.J. et al. 2016. UNEP (2016) Marine plastic debris and microplastics – Global lessons and research to inspire action and guide policy change. United Nations Environment Programme, Nairobi.
5. Woodley, S., B.D. Hardesty, **C. Wilcox**, K. Brown, S. Owens. 2016. Report of the Litter Workshop Organised by CSIRO and NSW EPA. CSIRO and New South Wales Environmental Protection Agency. 49 pp.
6. Hardesty, B.D. and **C. Wilcox**. 2016. State and trends of pressures on the marine environment associated with marine debris. Australian State of the Environment Report. Department of Environment, Canberra Australia.
7. Maximenko, N., L. Centurioni, Y. Chao, K. Dohan, F. Galgani, B. D. Hardesty, K. L. Law, D. Moller, E. van Sebille, **C. Wilcox**. 2015. Remote sensing of marine debris. White paper, submitted to the Decadal Survey for Earth Science and Applications from Space, National Academy of Sciences, USA.
8. **Wilcox, C.**, B.D. Hardesty. 2015. Eight million tonnes of plastic are going into the ocean each year . The Conversation. 13 February. <https://theconversation.com/eight-million-tonnes-of-plastic-are-going-into-the-ocean-each-year-37521>
9. Hardesty BD and **C Wilcox**, 2015. Modelling and monitoring of marine litter. A final report to the United Nations Environment Program.
10. Hardesty BD and **C Wilcox**, 2015. Modelling workshop summary report. A final report to the United Nations Environment Program.
11. Hardesty BD, L Lebreton and **C Wilcox**, 2015. Plastics accumulation and monitoring efforts around the globe. A final report to the United Nations Environment Program.
12. Hardesty BD and **C Wilcox**, 2015. Modelling and monitoring marine litter movement, transport and accumulation. State of knowledge on litter in the marine environment. A final report to the United Nations Environment Program.
13. Hobday, A. J., L. E. Chambers, J. P. Y. Arnould, T. A. Patterson, **C. Wilcox**, G. N. Tuck and R. B. Thomson (2014). Developing adaptation options for seabirds and marine mammals impacted by climate change. Final Report. FRDC-DCCEE Marine National Adaptation Research Project 2010/0533.

14. Jackson, M., Bayliss, P., Waina, N., Adams, J., Cheinmora, R., Cheinmora, L. Warren, R., Vigilante T., **Wilcox, C.**, Stevens, A., Hodge, J., Kennett, R. 'Mangguru (marine turtles) and Balguja (dugong) Monitoring Project: Field Trip Report, Wunambal Gaambera country, WA, 21-28 August 2013'. NAILSMA Knowledge Series 023/2015. North Australian Indigenous Land and Sea Management Alliance Ltd Darwin.
15. Hardesty, B.D. and **C. Wilcox**. 2014. The oceans are full of our plastic – here's what we can do about it. *The Conversation*. 15 September. <https://theconversation.com/the-oceans-are-full-of-our-plastic-heres-what-we-can-do-about-it-31460>
16. Hardesty, BD, **C Wilcox**, TJ Lawson, M Lansdell and T van der Velde. 2014. Understanding the effects of marine debris on wildlife. CSIRO Wealth from Oceans Flagship. 364 pp.
17. Reisser J, Shaw J, **Wilcox C**, Hardesty BD, Proietti M, Thums M, Pattiaratchi *C accepted* Marine plastic pollution in waters around Australia: characteristics, concentrations, and pathways. *Dryad*
18. Hobday, A. J., Chambers, L. E., Arnould, J. P. Y., Patterson, T. A., **Wilcox, C.**, Tuck, G. N. & Thomson, R. B. 2013 Developing adaptation options for seabirds and marine mammals impacted by climate change. Final Report. FRDC-DCCEE Marine National Adaptation Research Project 2011/0533.
19. Hardesty BD, **C Wilcox**, J Butler and R Gunn. 2013. Exploring sources, impacts and methods for amelioration of ghost nets as a threat to marine species. A final report of the CSIRO and GhostNets Australia Partnership: 2009-2013.
20. Hardesty BD and **C Wilcox** 31 Jan 2013. Ghostnets fish on: marine rubbish threatens northern Australian turtles. *The Conversation* <http://theconversation.edu.au/ghostnets-fish-on-marine-rubbish-threatens-northern-australian-turtles-11585>.
21. Hardesty, B.D. and **C. Wilcox**. 2013. Understanding the effects of marine debris on wildlife: Year 2 progress report to Earthwatch Australia
22. **Wilcox, C.** 2012. A state space model for animal movement: A project to develop methods for integrating light, gps, and other data types into analyses of habitat preference and movement. Report to U.S. National Marine Fisheries Service. La Jolla, CA. 34pp.
23. **Wilcox, C.** 2012. Defining regional connections in southwestern Pacific broadbill swordfish. Fisheries Research and Development Corporation, Canberra, Australia. 56pp.
24. Mangel, M., C. Wilcox, N. Dowling, S. Kawaguchi, 2012. Behavioural bioeconomics, with application to the Eastern Australian Tuna and Billfish Fishery, and beyond. In: Colin Clark 80th Birthday Meeting; 20 June 2012; Santa Cruz, California. University of California, Santa Cruz; 2012. 109 p.
25. Hardesty, B.D. and **C. Wilcox**. 2012. Understanding the effects of marine debris on wildlife: A progress report to Earthwatch Australia CSIRO. Hobart, Australia
26. Towns, D.R., Byrd, G.V., Jones, H.P., Rauzon, M.J., Russell, J.C. and **Wilcox C.** 2011. Impacts of introduced predators on seabirds. In Mulder, C.P.H., Anderson, W.B., Towns D.R. and Bellingham P.J. *Seabird islands: ecology, invasion, and restoration*. Oxford University Press.
27. Hardesty BD and **C Wilcox**. 2011. Marine debris: biodiversity impacts and potential solutions. *The Conversation* <http://theconversation.edu.au/marine-debris-biodiversity-impacts-and-potential-solutions-2131>.
28. **Wilcox, C** and BD Hardesty. 2011. Cluster Analysis: a novel approach to identify types of derelict nets that comprise ghost nets. Final Report to GhostNets Australia and the Northern Gulf Resource Management Group.
29. Hardesty, BD, J Reisser, R Sharples and **C Wilcox**. 2011. Understanding the types, sources and at-sea distribution of marine debris in Australian Waters. Proceedings of the 5th International Marine Debris Conference, Honolulu, HI, USA, 2011.
30. **Wilcox, C**, BD Hardesty, R Sharples, D Griffin and R. Gunn. 2011. A risk analysis based approach to understanding ghostnet impacts on marine biodiversity. Proceedings of the 5th International Marine Debris Conference, Honolulu, HI, USA, 2011.
31. Hardesty, BD, R Sharples and **C Wilcox**. 2010. Understanding the types, sources, and at-sea distribution of marine debris in Australian waters. Report to the Department of Water, Heritage and the Arts.
32. **Wilcox, C**, BD Hardesty and R. Sharples 2010. Estimating the distribution and impact of ghost nets in the Gulf of Carpentaria. Final report to the Northern Gulf Resource Management Group.
33. **Wilcox, C.**, N. Dowling, S. Pascoe. 2010. Predicting the impact of hook decrements on the distribution of fishing effort in the ETBF. Report to the Fisheries Research and Development Corporation. Canberra, Australia. 75pp.
34. Pascoe, S., C.J. Donlan, and **C. Wilcox**. 2010. Compensatory mitigation: an interim solution to fisheries bycatch? Paper presented at the International Institute of Fisheries Economics and Trade Conference, Montpellier, France, 13-16 July, 2010.
35. Pascoe, S., **C. Wilcox**, N. Dowling and T. Taranto 2010. Can incentive-based spatial management work in the Eastern tuna and billfish fishery? Paper presented at the *53rd Annual AARES National Conference, Adelaide, February 10-12, 2010*.

36. Innes, J., S. Pascoe and C. **Wilcox** 2010. Reducing Undesirable Environmental Impacts in the Marine Environment: A Review of Market-Based Incentive Management Measures. Paper presented at the *53rd Annual AARES National Conference, Adelaide, February 10-12, 2010*.
37. Innes, J., S. Pascoe, C. **Wilcox**. 2009. Reducing Undesirable Environmental Impacts in the Marine Environment: A Review of Incentive Based Management Measures. Report to the Department of Environment, Heritage and the Arts. 42 p.
38. Donlan, C. J., C. **Wilcox**, J. Mandel, L. Rodriguez. 2009. Opportunities For using debt investment to link livelihood improvement and environmental conservation initiatives: A case study examining the tropical Pacific. Working Paper for CSIRO. Advanced Conservation Strategies. Midway, Utah.
39. Bustamante, R.H., S. Pascoe, M. Gibbs, P. Bayliss, W.A. Rochester, A.D.M. Smith, C. **Wilcox**, K. Read, R. Kenyon, T. Taranto and C. Stewardson. 2009. Assessing Needs, Options and Costs for Spatial Management Approaches for the Commonwealth Fisheries. CSIRO Marine and Atmospheric Research, Cleveland and Australian Fisheries Management Authority, Canberra. 111 p.
40. Donlan, C.J. and C. **Wilcox**. 2009. Maximizing return on investment for island restoration and seabird conservation in Southeast Alaska, USA and British Columbia, Canada. Report to Island Conservation. 32 pp.
41. Tuck, G.N. and C. **Wilcox**. Assessing the impacts of fishing and habitat loss on the Lord Howe Island population
42. of flesh-footed shearwaters. Proceedings of the 18th World IMACS / MODSIM Congress, Cairns, Australia 13-17 July 2009 <http://mssanz.org.au/modsim09>
43. Pascoe, S., W. Proctor, C. **Wilcox**, J. Innes, W. Rochester¹ and N. Dowling. *in press*. Stakeholder objective preferences in Australian Commonwealth managed fisheries. Socio-Economics and the Environment in Discussion working paper series. <http://www.csiro.au/resources/SEED.html>
44. Donlan, C.J., J. Mandel, and C. **Wilcox**. 2009. Why Environmentalism Needs High Finance. SEED Magazine. http://seedmagazine.com/content/article/why_environmentalism_needs_high_finance/
45. Tuck, G. and C. **Wilcox**. 2008. Assessing the potential impacts of fishing on the Lord Howe Island population of Flesh-Footed Shearwaters. Australian Fisheries Management Authority, Canberra. 81pp.
46. **Wilcox, C.** 2008. A Discussion Paper on Biodiversity Offsets for Incidental Capture of Marine Species by
47. Commercial Fisheries, With Application to Pelagic Longline Capture of Marine Turtles. Australian Fisheries Management Authority and the Department of Environment, Heritage, and the Arts, Canberra. 13pp.
48. Donlan, C. J. and C. **Wilcox**. 2008. A path to a return on investment framework for island restoration with a focus on seabirds. A report prepared for the Commonwealth Ocean Policy Program. 10pp.
49. **Wilcox, C.** and C.J. Donlan 2007. Reaching the zero bycatch goal – integrating avoidance, mitigation, and offsets. Bycatch Action Network Newsletter. World Wildlife Fund. 7:12-14.
50. **Wilcox, C.**, J. Dell, and B. Baker. 2007. A preliminary investigation on the relationship between variation in oceanography and seabird abundance in Coringa Herald National Nature Reserve. Report to the Australian Department of Environment, Heritage, and the Arts. 81pp.
51. Baxter, P.W.J., **Wilcox C.**, McCarthy M.A. and Possingham H.P. 2007. Optimal Management of an Annual Weed: a stochastic dynamic programming approach.. In Oxley, L and D Kulasiri (eds) *MODSIM 2007 International Congress on Modelling and Simulation*. Modelling and Simulation Society of Australia and New Zealand, December 2007, pp. 2223-2229.
52. **Wilcox, C.**, M. Bravington, and D. Peel. 2006. Application of continuous time Markov chains to modeling animal movement: estimation of movement rates and retention times for Patagonian Toothfish. *CCAMLR WG-FSA-SAM-06/16*. Australian Antarctic Division, Canberra. 5pp 27 pp.
53. **Wilcox, C.** 2006 Review of Trend Monitoring Methods as applied to Seabird Populations. Paper submitted to the Working Group on Status and Trends, Agreement on the Conservation of Albatross and Petrels Annual Meeting. Australian Antarctic Division, Canberra. 5pp
54. **Wilcox, C.** 2005. A method for inferring movement rates of fish from mark–recapture data. *CCAMLR WG-FSA-05/66*. Australian Antarctic Division, Canberra. 5pp.
55. **Wilcox, C.** and J. Hartog. 2005. A Preliminary Analysis of Effort Allocation Under Spatial Management in the Eastern Tuna and Billfish Fishery. Report to Australian Fisheries Management Agency. 10 pp.
56. **Wilcox, C.** and R. Campbell. 2005. Use of depletion curve to estimate catch required to stabilise swordfish CPUE on the Mooloolaba Grounds. Report to Australian Fisheries Management Agency. 5 pp.

57. **Wilcox, C.**, D. Kolody, and M. Bravington. 2005. An Update on the Use of depletion curve to estimate catch required to stabilise swordfish CPUE on the Mooloolaba Grounds. Report to Australian Fisheries Management Agency. 14 pp.
58. **Wilcox, C.** and J. Diffendorfer. 2003. Review of the current extinction models for the endangered Alabama beach mouse (*Peromyscus polionotus ammobates*). Report to United States Fish and Wildlife Service. 22 pp.
59. Karieva, P., S. Andelman, D. Doak, B. Elderd, M. Groom, J. Hoekstra, L. Hood, F. James, J. Lamoreux, G. LeBuhn, C. McCulloch, J. Regetz, L. Savage, M. Ruckelshaus, D. Skelly, H. Wilbur, **C. Wilcox**, K. Zamudio, and the NCEAS HCP working group. 1998. Using science in Habitat Conservation Plans. National Center for Ecological Analysis and Synthesis, Santa Barbara, CA.
60. Hoopes M., **C. Wilcox**, P. Trenham, and E. Sandoval 1996. Biological Inventory and GIS database of the Great Valley Grassland State Park, Merced Co., CA with projections of the impacts of proposed changes to flooding regimes. Report to California State Parks and Recreation Department.

Manuscripts in review

1. Ford, J., **C. Wilcox**. *in review*. Shedding light on the nature of maritime trade – a new tool for identifying and ranking countries as Flags of Convenience. Marine Policy.
2. **Wilcox, C.**, A.J. Hobday, and L. E. Chambers. *accepted*. Using elicitation to rank ecological indicators for detecting climate impacts on Australian seabirds and pinnipeds. Ecological Indicators.
3. **Wilcox, C.**, B.D. Hardesty, K.L. Law. *in review*. Plastic pollution in the ocean is persistent and increasing. Science
4. Ford, J, D. Peel, B.D. Hardesty, U. Rosebrock, **C. Wilcox**. *in review*. Loitering with intent – catching the outlier vessels at sea. Fish and Fisheries.
5. Ford, J., D. Peel, D. Kroodsmma, B.D. Hardesty, U. Rosebrock, **C. Wilcox**. *in review*. Detecting suspicious activities at sea based on anomalies in Automatic Identification Systems transmissions. Scientific Advances.
1. Reid, T., M. Hindell, M. Bravington, **C. Wilcox**. *In review*. Using quasi-mechanistic models to predict species distributions as a solution for overdispersion in observation data. Methods in Ecology and Evolution.
2. McCreless, E., **C. Wilcox**. *in review*. Prioritizing islands for invasive mammal eradications to protect globally threatened vertebrates. Global Change Biology
3. Tuck, G., **C. Wilcox**, B. Baker, S. Cooper, and S. Thalman. *in review*; Assessing the potential impacts of fishing and nesting habitat loss on a highly migratory seabird: the Lord Howe Island flesh-footed shearwater. Journal of Applied Ecology.
4. Peckham, S.H., C.J. Donlan, L.B. Crowder, R. Cudney-Bueno, **C. Wilcox**. *in review*. Reducing bycatch of marine megafauna through interfishery conservation resource transfers. Conservation Letters
5. **Wilcox, C.**, C.J. Donlan, and S. Pascoe. *in review*. The potential role for Compensatory mitigation to seabird and turtle bycatch in fisheries. Ecological Economics.

Manuscripts in advance stages of preparation

1. Compa, M., C. Alomar, L. Lebreton, E. van Sebille, C. Wilcox, S. Deudero. *in preparation*. Risk assessment of plastic pollution on the marine diversity in the Mediterranean Sea. Scientific Reports.
2. Michael, PE, R. Thomson, C. Wilcox, C. Barbraud, K. Delord, S. De Grissac, AJ Hobday, PG Strutton, G Tuck, H. Weimerskirch. *in preparation* Incorporating distribution shifts in albatross and fleet dynamics to quantify climate change impacts. Marine Ecology Progress Series
3. Reid, T. M. Hindell, **C. Wilcox**. *in prep*. Relative importance of experience and environment in determining large scale foraging patterns in a pelagic seabird, the flesh-footed shearwater *Puffinus carneipes*. Ecology and Evolution.
4. **Wilcox, C.**, R. Ohmsen and B.D. Hardesty. A framework for understanding and modelling plastic flows from land into the ocean. *In preparation* for Nature Scientific Reports.
5. Hardesty B.D., C. Davoust, D. Holdsworth, A. Revill and **C. Wilcox**. Phthalates detected in live seabirds: the ubiquity of plasticizers in Australian seabirds. *In preparation for* Environmental Toxicology and Chemistry.
6. Hardesty B.D. and **C. Wilcox**. Using biogeochemical and genetic markers to assign source populations; an example linking at-sea mortality of Flesh-footed Shearwaters (*Puffinus carneipes*) to breeding colonies of origin. *In preparation for* Methods in Ecology and Evolution.

Invited Papers, Plenaries, and Seminars

- 2017 Plenary Speaker, U.S.-ASEAN Conference on Marine Environmental Issues , Bangkok, Thailand
- 2017 Invited Speaker, ASEAN East Asian Summit on Combatting Marine Debris, Bali, Indonesia
- 2017 Invited Expert, Africa Marine Waste Conference, South Africa
- 2017 Invited Speaker, CBD Side Event on Marine Debris, UN Oceans Meeting
- 2017 Invited Speaker, G20 High level meeting on Marine Debris, Bremen, Germany
- 2017 Invited Speaker, Indian Ocean Rim Association, Jakarta, Indonesia
- 2017 Keynote Speaker, Waste 2017, Coffs Harbour, Australia
- 2017 Invited Speaker, Center for Fisheries Research and Development, Bali, Indonesia
- 2017 Invited Speaker, US EPA, Washington DC.
- 2017 Plenary Speaker, Society of Toxicology and Environmental Chemistry, Quy Nhon, Vietnam
- 2017 Invited Speaker, African Marine Waste Conference, Port Elizabeth, South Africa
- 2016 Invited Speaker, American Geophysical Union, San Francisco, CA
- 2016 Invited Speaker, National Marine Fisheries Service, San Diego, USA
- 2016 Invited Speaker, Australian Maritime Safety Authority, Canberra
- 2016 Invited Speaker, Australian Department of Environment, Canberra
- 2016 Invited Speaker, National Oceanographic and Atmospheric Administration, Seattle, WA
- 2016 Invited Speaker, Newcastle Marine Discovery Series , Newcastle, Australia
- 2015 Invited Symposium Speaker, World Seabird Congress, Capetown, South Africa
- 2015 Invited Speaker, Coastal Forum, Sunshine Coast Council, Brisbane, Australia
- 2014 Invited Speaker, International Whaling Commission, Marine Debris Working Group, Honolulu HI
- 2014 Invited Speaker, International Marine Conservation Congress, Glasgow, UK
- 2014 Invited Speaker, Ocean Sciences Meeting, Honolulu, HI
- 2013 Invited Speaker, International Whaling Commission, Woods Hole, MD, USA
- 2013 Prime Minister Science Briefing on marine debris, Department of the Prime Minister and Cabinet, Canberra, Australia
- 2013 Invited Speaker, Department of Forestry, Fisheries, and Agriculture, Canberra, Australia
- 2012 Invited Speaker, US National Marine Fisheries Service, La Jolla, CA, USA
- 2012 Invited Speaker, Royal Society of Southern Highlands, Mittagong, Australia
- 2011 Invited Speaker, 5th International Marine Debris Conference, Honolulu, HI, USA
- 2011 Invited Speaker, International Tuna Conference, Lake Arrowhead, CA, USA
- 2010 Invited Symposia Speaker, World Oceans Summit, Belfast, Ireland
- 2010 Invited Speaker, Commonwealth Department of Environment, Canberra, AU
- 2009 Invited Symposia, Market-based Conservation, International Congress of Ecology, Brisbane.
- 2009 Seminar, International Tuna Conference, Lake Arrowhead, CA, USA
- 2009 Seminar, International Sea Turtle Meetings, Brisbane, Australia
- 2008 Invited Seminar, Javeriana University, Bogota, Columbia.
- 2008 Symposia Speaker and Panel Member, International Union for the Cons. of Nature.
- 2008 Invited Speaker, Ecology of Invasives, Atherton, Australia
- 2008 Invited Speaker, Bayesian spatial models of species distributions. CSIRO Maths and Statistics, Australia.
- 2007 Invited Speaker, Market-based Solutions Group, Department of Science and Environment, Victoria.
- 2007 Invited Speaker, Duke University, USA
- 2007 Seminar, International Tuna Conference, Lake Arrowhead, CA, USA
- 2007 Symposia Speaker, Society for Conservation Biology.
- 2006 Symposia Speaker, Society for Conservation Biology.
- 2006 Seminar, International Billfish Symposium.
- 2006 Invited Speaker, Quantitative Marine Sciences Program, University of Tasmania, Australia.
- 2005 Symposia Speaker, Society for Conservation Biology.
- 2005 Invited Speaker, Center for Complex Systems, University of New Mexico.
- 2004 Invited Speaker, Optimal Monitoring for Biodiversity Conservation, University of Queensland, Australia.
- 2004 Invited Speaker, Centre for Riverine Landscapes, Griffith University, Brisbane, Australia.
- 2004 Invited Speaker, Biology of Extinction Conference, National Institute for Basic Biology, Okazaki, Japan.

- 2001 Invited Speaker, Quantitative and Evolutionary Approaches to Environmental Problem Solving.
 2001 Symposia Speaker, Ecological Society of America Annual Meetings.
 2001 Seminar, American Fisheries Society, California Nevada Section Meetings.
 2000 Seminar, Western Groundfish Meetings.
 1998 Invited Speaker, Population Viability Analysis Workshop, San Diego, California.
 1998 Invited Speaker, San Francisco Bay Delta Modeling Forum.
 1998 Seminar, Wildlife Society, Western Section Annual Meetings.
 1997 Seminar, Society for Conservation Biology Annual Meetings.
 1997 Seminar, Ecological Society of America Annual Meetings.
 1996 Seminar, Ecological Society of America Annual Meetings.

Popular Press Interviews and Articles

- Ghostnets fish on: marine rubbish threatens northern Australian turtles, *The Conversation*, 31/1/2013
 Marine debris a global problem, *The Conversation*, 23/8/2011
 Triple bottom line accounting, *Bush Telegraph*, ABC Radio, 25/3/2009
 Going bycatch neutral, *Smithsonian Magazine Online*, 24/9/2007
 Biodiversity offsets for fisheries, *Fishing News International*, September 2007
 Environmental offsets for fisheries, *Bush Telegraph*, ABC Radio, 24/7/2007
 Isle of devastation, *Sunday Tasmanian*, 22/10/ 2006
 Apathy alarms experts, *Sunday Tasmanian*, 10/10/2006
 Expert slams survival plan, *Sunday Tasmanian*, Edition 1/10/2006

Professional Employment

- 2005 – Current Principal Research Scientist, CSIRO Marine and Atmospheric Research, Australia.
 Currently leading a team of 10-15 scientists and staff working on various aspects of applied spatial ecology, statistics, and dynamic modeling. Since 2005, initiating and directing research projects studying a wide range of natural resource management topics, touching on linked natural-social systems, economics, statistics, population dynamics, management of harvesting and biodiversity, decision theory and support, and risk assessment. Senior leadership roles including grant-making for an \$8M/24 FTE internal funding pool, line management of a team of 17 staff, and high level science leadership. Scientific participant in national and international resource management negotiations. Appointed as a Senior Research Scientist (CSOF 7) 3 years post Ph.D.
- 2002 – 2005 Research Fellow, University of Queensland, Australia
 Developed population and metapopulation models to predict dynamics and extinction for 7 snail species endemic to artesian springs in the Great Artesian Basin. Used frequentist and Bayesian approaches for model estimation and prediction.
- 2000 – 2002 Ecological Modeler, contracted to the US Fish and Wildlife Service
 Created population and metapopulation models for the Alabama beach mouse, a highly endangered mouse endemic to coastal sand dunes in the southeastern United States, as a basis for the development of US FWS management policies.
- 1997 – 2002 Wildlife Biologist, contracted to The Nature Conservancy
 Developed a population viability analysis for a suite of endangered crustaceans endemic to seasonal wetlands. The primary factors under investigation were the roles of metapopulation structure, dormancy, competition, predation, and environmental variability.

- 1996 – 2002 Wildlife Biologist, KEA Environmental, San Diego, CA
Conducted biotic surveys and monitoring for special status species, including a wide variety state and federally listed plants and animals, in the southern coastal California.
- 1994 – 1995 Postgraduate Researcher, Great Valley Grasslands State Park, Merced Co., CA
Contracted with the California Parks and Recreation Department to conduct a biological inventory of temporary pond biota, including several endangered species, and evaluate the impacts of altering the park flooding regime.
- 1992 – 1994 Postgraduate Researcher, Bodega Marine Laboratory, Bodega Bay, CA
Investigated the potential for widespread indirect effects resulting from a tritrophic interaction among the western tussock moth (*Orgyia vetusta*), its host plant (*Luinus arboreus*), and a formicine ant (*Formica lasioides*). Also investigated density dependence in parasitism on tussock moth eggs by *Telenomus californicus* (Serphoidea: Scelionidae) at varying spatial scales.
- 1991 – 1992 Wildlife Biologist, Western Ecological Services, Novato, CA
Conducted investigations and monitoring surveys relevant to state and federal environmental regulations, including CEQA, Section 404 permits, NEPA, and the Endangered Species Act.
- 1990 Wildlife Biology Technician, Wildlife International, Modes Lake, WA
Conducted wildlife studies mandated for EPA re-registration of pesticides for wildlife safety.
- 1988 – 1989 Research Assistant, University of Kansas, Lawrence, KS
Participated in population studies on small mammals and pronghorn antelope (*Antilocapra Americana*). Conducted an undergraduate research project on bedding site choice by antelope fawns.

Administrative Positions

- 2006 – Current Director, Advanced Conservation Strategies
- 2008 – 2011 Program leader, Marine Biodiversity Commonwealth Environmental Research Facility (7 FTEs)
- 2007 – 2010 Stream Leader, Conservation Assessment and Management (24 FTEs), CSIRO
- 2006 – 2011 Team Leader, Spatial Dynamics and Analysis (~11 FTEs), CSIRO
- 2003 – 2004 School of Life Sciences Research Committee, University of Queensland
- 2003 – 2004 School of Life Sciences Seminar Chairperson, University of Queensland
- 1998 – 2000 Environmental Studies Seminar Series Co-Chair 1998-2000
- 1994 – 1995 Graduate Curriculum Committee, UC Davis Ecology Graduate Group

Professional Activities

Internal CSIRO Service

- Ongoing Invited Internal Reviewer for submissions to: Ecology, Nature, ICES Journal of Marine Science
- 2006 – 2010 Pelagic Fisheries and Ecosystems Spatial Analysis Team Research Leader
- 2006 Model-Data Fusion Workshop Organizer, Divisional Science Council
- 2006-2009 Stream leader, Wealth from Oceans National Flagship
- 2006 – 2009 NPF Spatial Management Steering Committee
- 2005 – 2009 Electronic Tagging Science Committee

Meeting/Symposium Convenor

- 2014 International Marine Conservation Congress, Novel methods, new results and science-based solutions to tackle marine debris impacts on wildlife
- 2011 Development of market based instruments for managing marine resources and industries, Commonwealth Department of Sustainability, Environment, Water, Population, and Climate, Canberra

- 2010 Spatial management of marine industries, World Oceans Summit
 2009 Microfinance for environmental conservation and poverty alleviation in Asia Pacific, organized by CSIRO Sustainable Ecosystems.
 2007 Quantitative Tools for Eradication of Invasive Species, Symposium Society for Conservation Biology Annual Meetings.
 2007-2009 Exploring Compensatory Mitigation as a Mechanism for Generating Ecologically Sustainable and Economically Efficient Fisheries, National Center for Ecological Analysis and Synthesis Working Group.

Selected Panel Membership

- 2018 Expert working group on Transshipment and IUU fishing, FAO, Rome, invited expert
 2017 High Level meeting on marine debris, G20, invited expert
 2017 Combatting marine plastic debris, Indian Ocean Rim Association, invited expert
 2017 Management of Small and Midscale Tuna Fisheries in the Indonesian EEZ, focusing on Juvenile Tuna and FAD Management, TNC and MMAF, Indonesia, invited expert
 2016 Southeast Asian Illegal Fishing Funders meeting, invited expert
 2015 UNEP Advisory Panel, Marine plastic debris and microplastics, panel member
 2015 Australian Antarctic Research Assessment Committee, panel member
 2014 Australian Antarctic Research Assessment Committee, panel member
 2013 Australian Antarctic Research Assessment Committee, panel member
 2012 Australian Antarctic Research Assessment Committee, panel member
 2011 Australian Antarctic Research Assessment Committee, panel member
 2011 Arafura and Timor Sea Ecosystem Action Project, invited expert
 2010 Marine Stewardship Council, Assessment of Patagonian Icefish, invited expert
 2010 Arafura and Timor Sea Action Plan, Global Environment Fund, invited expert
 2010 Convention on Migratory Species, Dugong Conservation MOU, invited expert
 2010 Australian Delegation, Coral Triangle Initiative Meeting of Parties, invited expert
 2009 National Threat Abatement Plan for Marine Debris Working Group, scientific representative
 2009 Prioritizing Marine Mammal Research in Australia, Dept. of Environment, invited expert
 2007 Threat Abatement Plan Workshop for Exotic Rodents on Australia's Islands, invited expert
 2007 Discard Policy Working Group, Australian Fisheries Management Authority, chair
 2005 Eastern Tuna and Billfish Fishery Resource Assessment Group, science representative
 2005 Pacific Fisheries Research Program Priority Setting Workshop, invited expert
 2005 Australian delegation, Fish Stock Assessment Working Group, Committee on the Conservation of Antarctic Living Marine Resources, invited expert

Invited Policy Comments

- 2017 Australia Whole of Government Brief on Marine Debris, Department of Environment, Australia
 2016 Threat Abatement Plan for Marine Debris, Department of Environment, Australia
 2015 National Recovery Plan for Albatrosses and Giant Petrels, Department of Environment, Australia
 2015 Threat Abatement Plan for Marine Debris, Department of Environment, Australia
 2015 Australian Senate inquiry into threat of marine plastic pollution in Australia. Senate Standing Committee on Environment and Communications. Australia
 2014 Threat Abatement Plan for Marine Debris, Department of Environment, Australia
 2009 Development of the Commonwealth Turtle Bycatch Management Strategy, Australian Fisheries Management Authority
 2008 National Plan of Action for Seabirds, Department of Environment and Heritage, Australia.
 2006 Threat Abatement Plan for Fisheries Bycatch, Department of Environment and Heritage, Australia.
 2006 Nomination for vulnerable status for the Flesh Foot Shearwater under the EPBC Act, Department of Environment and Heritage, Australia.

Invited Collaborations and Working Groups

- 2017 Workshop to develop a strategy for marking of fishing gear. FAO. Indonesia.
 2015 Workshop to define a methodology for making a global estimate of illegal fishing. FAO. Rome. Invited Expert.
 2014 Global ghost gear initiative. UNEP/WAP. Slovenia. Invited Expert.
 2014 Marine debris threats to cetaceans, IWC working group on Marine Debris, Invited Expert
 2014 Expert Workshop to Prepare Practical Guidance on Preventing and Mitigating the Significant Adverse Impacts of Marine Debris on Marine and Coastal Biodiversity and Habitats, Invited Expert
 2013 Marine debris threats to cetaceans, IWC working group on Marine Debris, Invited Expert

- 2013 Dugong Technical Group, MoU on the Conservation of Dugong, invited expert, Convention on Migratory Species
- 2013 Understanding and managing the global threat from marine debris, invited expert, National Center for Ecological Analysis and Synthesis, Santa Barbara, USA.
- 2012 Invited expert, Australian Delegation, Regional Scientific Committee, Arafura and Timor Sea Ecosystem Action, World Bank Global Environment Fund
- 2011 Change and Uncertainty in Biodiversity Offsets Workshop, invited expert, Center for Excellence in Environmental Decisions, Melbourne, Australia
- 2010 CMS Secretariat invited expert, Convention on Migratory Species/United Nations Environment Program Meeting of the Parties for the Memorandum of Understanding on Dugong Conservation, Abu Dhabi, UAE
- 2009 Movement ecology in CSIRO, comparison of research and unification of methods. CSIRO Sustainable Ecosystems Division.
- 2008 Market-based conservation tools. Applied Environmental Decision Analysis Hub, Melbourne University.
- 2007 Surveillance and Uncertainty in Biosecurity, Australian Center for Excellence in Risk Assessment.
- 2007 Protected Areas: How Successful Are They In A Changing World? Nicholas Institute for Environmental Policy Solutions, Duke University.
- 2007 Compensatory Mitigation of Bycatch and Sustainable Fisheries, National Center for Ecological Analysis and Synthesis.
- 2006 Structure and characteristics of the Indian Ocean Swordfish Stock, IFREMER, La Reunion.
- 2006 Optimal Monitoring and Control of Invasive Species Working Group, University of Queensland.
- 2005 Environment Futures Australian Research Council funded Research Network.
- 2005 Research Priority Setting Workshop, Pacific Fisheries Research Program, University of Hawaii.
- 2005 Hook Line and Bycatch Workshop, WWF/Marine Research Foundation, Kota Kinabalu, Malaysia.
- 2005 Workshop on Imprecise Probabilities and Applications in Marine Systems, CSIRO Marine Research, Hobart, Australia.
- 2005 Decision making for complex problems in conservation, ARC Centre of Excellence for Mathematics and Statistics of Complex Systems, Melbourne, Australia.
- 2004 Workshop on Metapopulation Modelling, Center of Excellence for Mathematics and Statistics of Complex Systems, Brisbane, Australia.
- 2004 Conservation Priorities, National Center for Ecological Analysis and Synthesis.
- 2001 Technical Advisory Team, Channel Islands Fox Recovery Team.
- 1999 Population Management, National Center for Ecological Analysis and Synthesis.
- 1998 Population Management, National Center for Ecological Analysis and Synthesis.

Teaching Experience

Mentoring

Extended Academic Visitors and Collaborators

- Marc Manel, Professor University of California, Sabbatical Visitor 2010
- Won Joon Shim, Professor, Korean Institute of Ocean Science and Technology, Sabbatical Visitor 2016
- Sunwook Hong, Director, Our Sea of East Asia Network, Tongyoung, Korea, Resident Collaborator 2016
- Montse Compa, Spanish Institute of Oceanography (IEO), Visiting Phd Student, 2016
- William Arlidge, Imperial College London, Visiting PhD Student, 2016

Postdoctoral Fellows

- Qamar Schyler, University of Queensland, 2014 – Marine debris impacts on turtles
- Che Elkin, University of Queensland 2006 – Metapopulation dynamics of artesian spring invertebrates.
- Jennifer Lavers, University of Tasmania 2011 – Biodiversity offsets and fisheries bycatch management.
- James Innes, University of Tasmania 2011– market based solutions for managing marine industries.

Honors, M.S. and Ph.D. Co-supervision

- Kelsey Richardson, PhD University of Tasmania – Sources, distribution and impact of lost fishing gear.
- Kathy Willis, PhD University of Tasmania - Effectiveness of investments in reducing marine debris
- Renee Rossini, PhD University of Queensland– Dynamics and conservation of artesian wetland fauna
- Lauren Roman, PhD University of Tasmania – Plastic impacts on seabirds
- Erin McCrueless, PhD University of California 2016 – Global prioritization of conservation actions.
- Juliana Rechetelo, PhD James Cook University, 2015 – Granivore bird declines and landscapes

Jack Buckingham, International Trainee, 2016 – Plastic ingestion by fish in the ASEAN region
 Renee Ohmsen, Domestic Trainee, 2015 – Estimating plastic input to the ocean from household waste
 Hayley Jones, Honors University of Queensland, 2015 – Estimating time since death for stranded turtles
 Kathy Willis, Honors University of Tasmania 2015 – drivers of plastic pollution in the Derwent Estuary
 Julia Reisser, PhD University of Western Australia, 2015 – sources, dynamics, and sinks of marine debris
 Qamar Schyler, PhD University of Queensland, 2015 – Assessing the impact of marine debris on turtles in Australia
 Clementine Meureaud, MS Supagro, Paris 2013 – Impact of local policy on marine debris inputs
 Julia Sommerfeld, PhD University of Tasmania 2013 – Foraging ecology of masked boobies
 Jessica Ford, PhD University of Tasmania 2013 – Incorporating individual heterogeneity in mark recapture models
 Stacey Buckelew, MS University of California 2012 – A global prediction of threats to seabirds.
 James Dell, PhD University of Tasmania 2012 – Movement behaviour of tuna in the East Australian Current.
 Tim Reid, PhD University of Tasmania 2010 – Foraging patterns and fishery encounters in flesh foot shearwaters.
 Toby Patterson, PhD University of Tasmania 2009 – Application of hidden Markov models to movement behaviour.
 Travis Gotch, MS University of Adelaide 2008 – Ecology of desert moundsprings.
 Liana Joseph, PhD University of Queensland 2006– Optimal monitoring of rare birds for conservation.
 Jessica Ford, MS University of Queensland, 2005 – Application of MCMC methods to demographic analysis
 Vanessa Adams, MS University of Queensland, 2005 – Metacommunity models in ecological systems

Undergraduate Supervision

Supervised 49 undergraduate research/independent study students.
 Directed 14 undergraduate research projects

Course Instruction

2004	Australian Mathematical Sciences Institute, University of Queensland
2003	Computational Statistics, University of Queensland
2003	Young Scientist Program, University of Queensland
2000	Environmental Science Academy for Advanced Secondary School Students
1998	Entomology Laboratory, UC Santa Cruz
1996	Quantitative Methods in Ecology (Graduate Modeling Course) UC Davis
1995	Field Methods in Ecology, UC Davis
1993 – 1995	Zoology (5 quarters) UC Davis
1993 – 1994	Ecology UC Davis
1992	Issues in Environmental Studies UC Davis
1992	Conservation biology UC Davis

Course Development

2003	Designed course in Computational Statistics using MCMC methods 2003
1999 – 2001	Designed and administered departmental undergraduate ecology entrance exam
1998	Developed entomology course, including materials and collection curation
1998	Designed ecology field problem book for undergraduate ecology course

Community Service

1998-2002	Sierra Club Conservation Committee, Volunteer Scientist
2002 - present	University of California Career Advice Network

Professional Affiliations

2005 – 2008	Department of Integrative Biology, University of Queensland, Honorary Appointment.
2005 – Current	Quantitative Marine Sciences Program, University of Tasmania, Adjunct Faculty
2014 – Current	Department of Applied Mathematics and Statistics, University of California Santa Cruz, Adjunct Faculty

Professional service

2004 – 2012 Associate Editor, Marine Ecology and Conservation, Journal of Applied Ecology.

Reviewer for:

American Midland Naturalist, Behavioural Ecology, Biological Conservation, Canadian Journal of Fisheries and Aquatic Sciences, Conservation Biology, Ecological Applications, Ecology Letters, Endangered Species Research, Israeli Journal of Ecology, Journal of Applied Ecology, Journal of Ecology, Marine Ecology Progress Series, Oecologia, Science, Theoretical Population Biology, US Fish and Wildlife Service, Austral Ecology.

References

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