

## Marine debris publication list

## Peer-reviewed publications

Maximenko, N et al. (61 co-authors). 2019. **Towards an integrated marine debris observing system, an Ocean of Opportunity**. *In press*. Frontiers in Marine Science.

van Sebille, E, P Delandmeter, J Scholfield, BD Hardesty, J Jones and A Donnelly. 2019. Basin-scale sources and pathways of microplastic that ends up in the Galapagos Archipelago. Ocean Science. Access here.

Richardson, K, BD Hardesty and C Wilcox. 2019. **Estimates of fishing gear loss rates at a global scale: a literature review and meta-analysis**. Fish and Fisheries. <u>Access here.</u>

Compa, Montserrat, C Alomar, C Wilcox, E van Sebille, L Lebreton, BD Hardesty and A Deudero. 2019. **Risk assessment of plastic pollution on marine biodiversity in the Mediterranean Sea.** Science of the Total Environment. <u>Access here</u>.

Hardesty BD, B Polidoro, M Compa, WJ Shim, B Wudianto and C Wilcox. 2019. **Multiple approaches to assessing the risk posed by anthropogenic plastic debris**. Marine Pollution Bulletin.

Roman L, H Patterson, K Townsend, C Wilcox, BD Hardesty and M Hindell. 2019. **The size of marine debris items ingested and retained by petrels.** Marine Pollution Bulletin. <u>Access here.</u>

Cower W, A Barrows, C Wilcox and M Erikson. 2019. Big data on marine debris from citizen science surveys: opportunities and challenges. *Accepted*, Marine Pollution Bulletin.

Roman L, BD Hardesty, M Hindell and C Wilcox. 2019. A quantitative analysis linking seabird mortality and marine debris ingestion. Nature Scientific Reports. Access here.

Claro F, MC Fossi, C Loakeimidis, M Baini, AL Lusher, W McFee, RR McIntosh, T Pelamatti, M Sorce, F Galgani and BD Hardesty. 2019. Tools and constraints in monitoring interactions between litter and megafauna: insights from case studies around the world. Marine Pollution Bulletin, 141, pp.147-160. Access here.

Roman L, L Lowenstine, LM Parsley, C Wilcox, BD Hardesty, K Gilardi and M Hindell. 2019. **Is plastic ingestion as toxic as we think? Insights from a plastic feeding experiment**. Science of the total environment, 665, pp.660-667. <u>Access here.</u>

Roman L, E Bell, C Wilcox, BD Hardesty and M Hindell. 2019. **Ecological drivers of marine debris ingestion in Procellariiforme seabirds.** Nature Scientific Reports, 9(916). <u>Access here.</u>

Richardson K, R Asmutis-Silvia, J Drinkwin and E Hogan. 2019. **Building evidence around ghost gear: global trends and analysis for sustainable solutions at scale**. Marine Pollution Bulletin, 138, pp.222-229. <u>Access here</u>.

Wilcox C, M Puckridge, Q Schuyler, K Townsend and BD Hardesty. 2018. A quantitative analysis linking sea turtle mortality and plastic debris ingestion. Nature Scientific Reports, 8(12538). Access here.

Vince J and BD Hardesty. 2018. **Governance solutions to the tragedy of the commons that marine plastics have become**. Frontiers in Marine Science, 5(214). <u>Access here.</u>

Brennan E, C Wilcox and BD Hardesty. 2018. **Connecting flux, deposition and resuspension in coastal debris surveys**. Science of the Total Environment, 644, pp.1019-1026. Access here.

Richardson K, R Gunn, C Wilcox and BD Hardesty. 2018. **Understanding causes of gear loss provides a sound basis for fisheries management**. Marine Policy, 96, pp.278-284. <u>Accesshere.</u>

Schuyler Q, BD Hardesty, TJ Lawson, K Opie and C Wilcox. 2018. **Economic incentives reduce plastic inputs to the ocean**. Marine Policy, 96, pp.250-255. Access here.

Jambeck J, BD Hardesty, AL Brooks, T Friend, K Teleki, J Fabres, Y Beaudoin, A Bamba, J Francis, AJ Ribbink, T Baleta, H Bouwman, J Knox and C Wilcox. 2017. **Challenges and emerging solutions to the land-based plastic waste issue in Africa**. Marine Policy, 96, pp.256-263. Access here.

Worm B, HK Lotze, I Jubinville, C Wilcox and J Jambeck. 2017. **Plastic as a Persistent Marine Pollutant.** Annual Review of Environment and Resources, 42, pp.1-26. <u>Access here.</u>

Willis K, R Eriksen, C Wilcox and BD Hardesty. 2017. **Microplastic distribution at different sediment depths in an urban estuary**. Frontiers in Marine Science, 4(419). <u>Access here</u>.

Willis K, C Maureaud, C Wilcox and BD Hardesty. 2017. How successful are waste abatement campaigns and government policies at reducing plastic waste into the marine environment? Marine Policy, 96, pp.243-249. Access here.

Hardesty BD, J Harari, A Isobe, L Lebreton, N Maximenko, J Potemra, E van Sebille, AD Vethaak and 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, 4(30). Access here.

Willis K, BD Hardesty, L Kriwoken and C Wilcox. 2017. Differentiating littering, urban runoff and marine transport as sources of marine debris in coastal and estuarine environments. Nature Scientific Reports, 7(44479). Access here.

Hardesty BD and C Wilcox. 2017. A risk framework for tackling marine debris. Analytical Methods, 9, pp.1429-1436. Access here.

Hardesty BD, TJ Lawson, T van der Velde, M Lansdell, G Perkins and C Wilcox. 2016. **Estimating quantities and sources of marine debris at a continental scale**. Frontiers in Ecology and the Environment, 15(1), pp.18-25. <u>Access here.</u>

Roman L, Q Schuyler, BD Hardesty and K Townsend. 2016. **Anthropogenic Debris Ingestion by Avifauna in Eastern Australia**, PLoS ONE, 11(8). <u>Access here.</u>

van der Velde T, DA Milton, TJ Lawson, M Lansdell, C Wilcox, G Davis, G Perkins and BD Hardesty. 2016. Comparison of marine data collected researchers and citizen scientists. Is citizen science data worth the effort? Biological Conservation, 208, pp.127-138. Access here.

Vince J and BD Hardesty. 2016. Plastic pollution challenges in the marine and coastal environments: from local to global governance. Restoration Ecology, 25(1), pp.123-128. Access here.

Wilcox C and BD Hardesty. 2016. **Biodegradable nets are not a panacea, but can contribute to addressing the ghost fishing problem.** Animal Conservation. <u>Access here.</u>

Wilcox C, E van Sebille and BD Hardesty. 2015. **The threat of plastic pollution to seabirds is global, pervasive and increasing.** Proceedings of the National Academy of Sciences, 112(38), pp.11899-11904. <u>Access here.</u>

van Sebille E, C Wilcox, L Lebreton, N Maximenko, BD Hardesty, J van Franeker, M Erikson, D Siegel, F Galgani and KL Law. 2015. **A global inventory of small floating plastic debris.** Environmental Research Letters, 10(12). <u>Access here.</u>

Schuyler Q, C Wilcox, K Townsend, KR Wedemeyer-Strombel, G Balazs, E van Sebille and BD Hardesty. 2015. **A global risk analysis for turtles and marine debris**. Global Change Biology, 22(2), pp.567-576. <u>Access here.</u>

Wilcox C, N Mallos, GH Leonard, A Rodriguez and BD Hardesty. 2015. Using expert elicitation to estimate the impacts of plastic pollution on marine wildlife. Marine Policy, 65, pp.107-114. Access here.

Jambeck, JA, R Geyer, C Wilcox, T. Siegler, M. Perryman, Andrady, R. Marayan and KL Law. 2015. **Plastic waste inputs to the oceans from land.** Science, 347(6223), pp.768-771. <u>Access here.</u>

Hardesty BD, T Good and C Wilcox. 2015. **Novel methods, new results and science-based solutions to tackle marine debris impacts on wildlife.** Ocean and Coastal Management, 115, pp.4-9. Access here.

Lawson TJ, K Johns, P Dann, C Wilcox and BD Hardesty. 2015. Characteristics of marine debris that entangle Australian fur seals (*Arctocephalus pusillus doriferus*) in southern Australia. Marine Pollution Bulletin, 98(1-2), pp.354-357. <u>Access here.</u>

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(1), pp.92-98. <u>Access</u> here.

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 and M Hamann. 2015. Global research priorities for the management and mitigation of plastic pollution on marine wildlife. Endangered Species Research, 24(3), pp.225-247. Access here.

Wilcox C, G Heathcote, J Goldberg, R Gunn, D Peel and BD Hardesty. 2014. **Understanding the sources, drivers and impacts of abandoned, lost and discarded fishing gear in northern Australia.** Conservation Biology, 29(1), pp.198-206. <u>Access here.</u>

Reisser J, J Shaw, G Hallegraeff, M Proietti, D Barnes, M Thums, C Wilcox, BD Hardesty and C Pattiaratchi. 2014. **Millimeter-sized** marine plastics: a new pelagic habitat for microorganisms and invertebrates. PLoS ONE, 9(6). <u>Access here.</u>

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, 14(14). Access here.

Reisser J, J Shaw, C Wilcox, BD Hardesty, M Proietti, M Thums and C Pattiaratchi. 2013. Marine plastic pollution in waters around Australia: characteristics, concentrations and pathways. PLoS ONE, 8(11). Access here.

Acampora, H, Q Schuyler, K Townsend and BD Hardesty. 2013. Comparing plastic ingestion between juvenile and adult stranded Short-tailed Shearwaters (*Puffinus tenuirostris*) in Eastern Australia. Marine Pollution Bulletin, 78(1-2), pp.63-68. Access here.

Schuyler Q, BD Hardesty, C. Wilcox and K Townsend. 2013. A global analysis of anthropogenic debris ingestion by sea turtles. Conservation Biology, 28(1), pp.120-139. Access here.

Butler JRA, R Gunn, HL Berry, GA Wagey, BD Hardesty and C Wilcox. 2013. A value chain analysis of ghost nets in the Arafura Sea: Identifying trans-boundary stakeholders, intervention points and livelihood trade-offs. Journal of Environmental Management, 123, pp.14-25. Access here.

Wilcox C, BD Hardesty, R Sharples, DA Griffin, TJ Lawson and R Gunn. 2013. **Ghost net impacts on globally threatened turtles, a spatial risk analysis for northern Australia**. Conservation Letters, 6(4), pp.247-254. Access here.

Schuyler Q, K Townsend, BD Hardesty and C Wilcox. 2012. **To eat** or not to eat: debris selectivity by marine turtles. PLoS ONE, 7(7). Access here.

Gunn R, BD Hardesty and J Butler 2010. **Tackling 'ghost nets': Local solutions to a global issue in northern Australia**. Ecological Management and Restoration, 11(2), pp.88-98. <u>Access here</u>.

Donlan CJ, DK Wingfield, LB 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), pp.1586-1595. Access here.

## **Publications in process**

Roman L, L Lowenstine, LM Parsley, C Wilcox, BD Hardesty, K Gilardi and M Hindell. **Understanding the sub-lethal impacts of plastic ingestion in birds**. *In revision*, Science Advances.

Wilcox C, BD Hardesty and KL Law. **Plastic pollution in the ocean is persistent and increasing.** *In review,* Science Advances.

Compa, Montserrat, C Alomar, C Wilcox, E van Sebille, L Lebreton, BD Hardesty and A Deudero. **Risk assessment of plastic pollution on marine biodiversity in the Mediterranean Sea**. *In review*, Nature Scientific Reports.

Hardesty BD, R Ohmsen and C Wilcox. A framework for understanding and modelling plastic flows from land into the ocean. *In review*, Science of the Total Environment.

Wilcox C, Reid T, N Carlile and BD Hardesty. **Multi-decadal** population dynamics of Flesh-footed Shearwaters considering multiple mortality sources. *In review.* Marine Ecology Progress Series.

## Selected popular articles, edited volumes, conference proceedings and technical reports (2010-present)

Hardesty BD, R Gunn and C Wilcox. 20 October 2019. **Addressing ghost nets in Australia and beyond – update of EMR feature.**Journal of Ecological Management & Restoration. <u>Access here.</u>

Schuyler Q, BD Hardesty and C Wilcox. 20 February 2018. **Deposit schemes reduce drink containers in the ocean by 40%**. The Conversation. <u>Access here.</u>

Hardesty BD, Q Schuyler, K Willis, TJ Lawson and C Wilcox. 2017. Policy and Practices Analysis to Reduce Debris Inputs to the Environment Phase II. A Final Report to the National Packaging Covenant Industry Association. CSIRO: EP178048.

Hardesty BD, Q Schuyler, K Willis, TJ Lawson and C Wilcox. 2017. Assessing the effectiveness of waste management in reducing the levels of plastics entering Australia's marine environment. A final report to the National Environmental Science Programme Marine Biodiversity Hub. CSIRO. Access here.

Hardesty BD, P Sobral, S Barry and C Wilcox. 2017. **Ocean Pollution: risks, costs and consequences.** Book chapter in Oceans. CSIRO Publishing.

Hardesty BD, Q Schuyler, TJ Lawson, K Opie and C Wilcox. 2016. **Understanding debris sources and transport from the coastal margin to the ocean.** A final report to the Australian Packaging Covenant Organisation Ltd.

Hardesty BD, C 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 for Ocean Conservancy and the National Oceanic and Atmospheric Administration of the United States. Access here.

Hardesty BD and C Wilcox. 2015. **Modelling and monitoring** marine litter movement, transport and accumulation. The state of knowledge on litter in the marine environment. A final report to the United Nations Environment Program. <u>Access here.</u>

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. <u>Access here.</u>

Hardesty BD and C Wilcox. 2015. **Modelling and monitoring of marine litter**. A final report to the United Nations Environment Program. Access here.

Hardesty BD and C Wilcox. 2015. **Modelling workshop summary report**. A final report to the United Nations Environment Program. Access here.

Hardesty BD and C Wilcox. 13 February 2015. **Eight million tons of plastic are going into the ocean each year.** The Conversation Access here.

Hardesty BD and C Wilcox. 15 September 2014. The oceans are full of our plastic – here's what we can do about it. The Conversation. Access here.

Hardesty BD, C Wilcox, TJ Lawson, M Lansdell and T van der Velde. 2014. **Understanding the effects of marine debris on wildlife**. A Final report for Earthwatch Australia. <u>Access here.</u>

Acampora H, BD Hardesty, K Townsend and K Erzini. 2014. **Plastic ingestion by short-tailed shearwaters** (*Puffinus tenuirostris*) in **northern Australia.** Proceedings of the International workshop on fate and impacts of microplastics in marine ecosystems.

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.

Hardesty BD and C Wilcox. 2013. **Understanding the effects of marine debris on wildlife**: Year 2 Annual Report to Earthwatch Australia. <u>Access here.</u>

Hardesty BD and C Wilcox. 31 January 2013. **Ghostnets fish on:** marine rubbish threatens northern Australian turtles. The Conversation. Access here.

Hardesty BD and C Wilcox. 2011. **Understanding the types,** sources and at-sea distribution of marine debris in Australian **Waters**. Final report to the Department of Sustainability, Environment, Water, Health, Population and Communities. <u>Accesshere</u>.

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. <u>Access here.</u>

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. Access here.

Hardesty BD and C Wilcox. 2012. **Understanding the effects of marine debris on wildlife.** A report to Earthwatch Australia. Access here.

Butler JRA, R Gunn, HL Berry, GA Wagey, BD Hardesty and C Wilcox. 2012. A value chain analysis of ghost nets in the Arafura Sea: identifying trans-boundary stakeholders, intervention points and livelihood trade-offs. A report to GhostNets Australia. Access here.

Hardesty BD and C Wilcox. 23 August 2011. **Marine debris:** biodiversity impacts and potential solutions. The Conversation. Access here.

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. Access here.