



**ABOUT THE CLEAN MARINE CAMPAIGN**

*Clean Marine is an education and awareness campaign targeting the recreational fishing and boating community in Western Australia.*

The campaign aims to reduce litter and waste in and around marine and river environments by:

- Increasing awareness of the effects of litter on the environment – especially the harm caused to marine animals, oceans and rivers.
- Encouraging responsible litter disposal behaviour when people are fishing, boating or at the beach.

Keeping marine and river environments litter-free is not just the responsibility of fishers and boaters. It is estimated that about 80 per cent of marine debris is from land based sources.<sup>i</sup> Littered items such as cigarette butts and food and beverage containers, reach the ocean and rivers through run-off from storm water drains.

This fact sheet outlines the problem of marine litter and how you can be a part of the Clean Marine solution.

**WHAT IS MARINE DEBRIS?**

Marine debris (or marine litter) is defined as any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment.<sup>iii</sup>

**AMOUNTS OF LITTER IN THE MARINE ENVIRONMENT**

- Seven billion tonnes of plastic litter enter the ocean every year.<sup>iv</sup> The United Nations Environmental Program estimates that 46,000 pieces of plastic debris float on, or near, the surface of every square mile of ocean.
- An estimated 70 per cent of marine litter ends up on the sea bed, 15 per cent on beaches and the remaining floats to the surface.<sup>v</sup> The Australian Marine Conservation Society highlights that three times as much rubbish is dumped into the world’s oceans annually as the weight of fish caught.<sup>vi</sup>
- During the 2009 International Coastal Clean-Up, 498,818 volunteers in 108 countries removed 10,239,538 individual pieces of rubbish weighing 33,775,64 kg in a single day.<sup>vii</sup>

**WHAT ARE THE IMPACTS OF MARINE DEBRIS?**

Marine litter not only kills and injures, but leads to great economic costs and losses to people and communities worldwide.

Entanglement and ingestion are the primary types of direct damage to wildlife caused by marine litter; it can smother sea beds and it is increasingly believed to be a source of toxic substances in the marine environment.<sup>v</sup>

Floating debris can be a hazard to boats; cleaning up beaches and coastal areas of litter and pollutant spills costs many thousands of dollars every year; and humans can also be at risk from items like broken glass washed up on beaches.

**FISHING LITTER**

*A survey by Ocean Watch Australia on Australian beach debris attributed 14 per cent of debris to commercial fishing and 8 per cent to recreational fishing activities.<sup>xiii</sup>*

While recreational fishing litter may seem to be less of a problem than waste from commercial fishing sources, items like bait bags and plastic bags, monofilament line, hooks, sinkers, food packaging, drink containers and cigarette butts have the potential, if not disposed of correctly, to cause significant harm to our marine and river environments.

In one WA study, daily debris collected and surveyed along the Busselton Jetty over a 10 month period indicated 41 per cent of all debris collected can be directly contributed to the recreational fishing industry.<sup>xiv</sup>



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Get involved in promoting the Clean Marine message. Resources available include a brochure, stickers and sign templates. Email [kabc@kabc.wa.gov.au](mailto:kabc@kabc.wa.gov.au) to get your copies or visit [www.kabc.wa.gov.au](http://www.kabc.wa.gov.au).



## THE FACTS ABOUT PLASTIC

- *Plastics are the largest and most detrimental part of the marine debris problem, comprising 60-80 percent of all marine debris and 90 percent of floating debris.*<sup>vii</sup>

This is of particular concern due to its durability and its potential to injure or kill marine wildlife.<sup>ix</sup>

- Available information indicates that at least 77 species of marine wildlife found in Australian waters and more than 260 marine species worldwide have been impacted by entanglement in, or ingestion of, plastic debris.<sup>x</sup> Affected species include marine turtles, whales, dolphins, seabirds, dugongs, seals, sharks and rays.<sup>xi</sup>
- Plastics breakdown into smaller and smaller pieces as they float around the oceans and do not biodegrade. Not only do they become ingested by marine life, they can also accumulate toxic chemicals, including DDT and PCBs. Plastic particles have been found to concentrate such chemicals to one million times the levels found in the water itself.
- A single one-litre drink bottle could break down into enough fragments to put one fragment on every kilometre of beach in the entire world.<sup>xii</sup>



Plastic litter left at fishing spots does not decompose.

**FIND OUT MORE ABOUT  
HOW TO CREATE A CLEAN  
MARINE ENVIRONMENT AT  
[WWW.KABC.WA.GOV.AU](http://WWW.KABC.WA.GOV.AU)**



Department of Environment Regulation  
Department of Transport  
Department of Fisheries



## REFERENCES

<sup>i</sup> Website accessed October 2010 [www.eoearth.org/article/Marine\\_debris](http://www.eoearth.org/article/Marine_debris); <sup>ii</sup> Dr David Kemp, Minister for the Environment and Heritage March 2004 [www.deh.gov.au/plasticdebris](http://www.deh.gov.au/plasticdebris); <sup>iii</sup> UN Environment Program, 2009; <sup>iv</sup> Faris, J& K. Hart(1995)Seas of Debris: A summary of the Third International Conference on Marine Debris, Alaska Fisheries Science Centre, National Oceanographic and Atmospheric Administration; <sup>v</sup> UNEP 2005. Marine Litter, an analytical overview; <sup>vi</sup> Australian Marine Conservation Society; <sup>vii</sup> Source: International Coastal Clean Up 2010 Report: Trash Travels; <sup>viii</sup> Gregory, M.R., Ryan, P.G.(1997) Pelagic plastics and other seaborne persistent synthetic debris: a review of Southern Hemisphere perspectives" in Coe, J.M. Rogers, D.B. (Eds.), Marine Debris- Sources, Impacts and Solutions; <sup>ix</sup> Andradý AL (2000) Plastics and their impacts in the marine environment. International Marine Debris Conference on Derelict Fishing Gear and the Ocean Environment; <sup>x</sup> Greenpeace (2006) Plastic debris in the world oceans. Greenpeace, Amsterdam; <sup>xi</sup> Ceccarelli, D. M. (2009) Impacts of plastic debris on Australian marine wildlife. Report by C&R Consulting for the Department of the Environment, Water, Heritage and the Arts; <sup>xii</sup> Moore, C. "A (2002)Comparison of Neustonic Plastic and Zooplankton Abundance in Southern California's Coastal Waters and Elsewhere in the North Pacific.Presentation to California and the World Ocean Conference. Santa Barbara, CA; <sup>xiii</sup> Herfort (1997) 1996 survey by Ocean Watch Australia Ltd; <sup>xiv</sup> Tangaroa Blue 2009. Photo acknowledgements: Turtle – Troy Mayne; Sea birds – Australian and Mandurah Sea Rescue Archives.