

No Place for Waste

Let's end ship waste dumping at sea



the **North Sea**
FOUNDATION

 **SEAS AT RISK**

Foreword

In a world without remoteness, the sea had become the only place where one could get away and be in an unspoiled environment. This was before the plague of humanity's plastic waste hit the ocean. On my return voyage from a yacht race to Hawaii in 1997, I veered from the usual sea route and went through the doldrums in the eastern North Pacific. There, I encountered an ocean I had never known. I couldn't come on deck for an entire week, and survey the sea surface without seeing some form of plastic waste, as far from civilization as one can get.

When coming across marine litter, on beaches, in the nearshore environment, or bobbing in the middle of the ocean, you can't assume that this litter is in your path only. If you see plastic debris where you are, you may be sure that there is more nearby. For the near term, civilization's "plastic footprint" on the oceans will worsen quickly. The rate of increase in plastic pollution of the ocean is so alarming, that it's doubling every decade is considered a conservative estimate.

One of the sources of plastic in the ocean is commercial shipping. Plastic packages materials that can be legally dumped under MARPOL Annex V, and is often difficult to remove, and thus goes overboard. All the creatures of the sea are being fooled by fake plastic food or entangled in lost plastic lines and gear, and the connected oceans don't obey political boundaries, so the predominantly neutrally buoyant plastic waste is going to go wherever the ocean takes it, making it a global problem, requiring solutions at global scales. With cleaning of the vast and deep ocean not being a practical solution, we must stop materials from becoming litter as close to their source as possible. This means redesigning products for reduction of plastic packaging, and increasing shoreside recycling, making zero waste to the ocean a priority. The work that organizations such as Seas at Risk and the North Sea Foundation are doing regarding marine waste is an important step in stopping the plastic plague where it originates. Let's remove shipping as a source of marine plastic litter.



Charles Moore,
*Founder of Algalita
Marine Research Foundation*

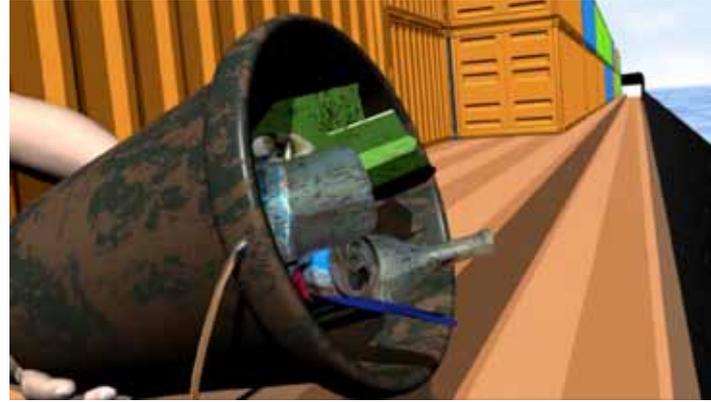
Marine litter worldwide

What

Marine litter includes everything from kitchen waste and plastic detergent bottles to oil barrels, fishing nets, broken fridges and redundant machinery.

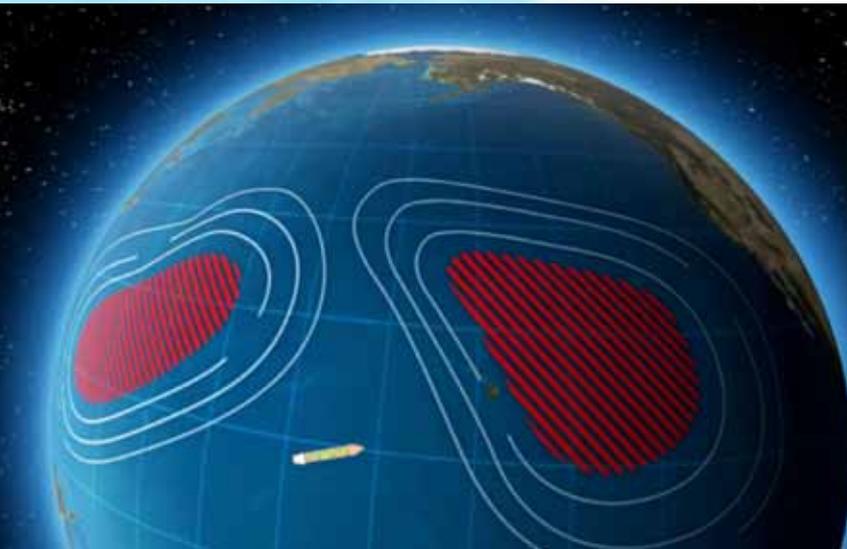
Where

So where do we find marine litter? A more fitting question would be: where don't we find marine litter? All over the world large quantities of dumped waste ends up in the sea as marine litter. This litter only becomes visible when on our shores, but according to divers and fishermen marine litter is everywhere at sea, even at depths of several hundred meters.



Sources

The sources of this waste are tourism, river effluent, and marine activities. Waste dumped from shipping, fisheries and other offshore activities can be a large proportion of total litter found at sea. The North Sea is one of the busiest shipping areas in the world and ship-source marine litter makes up half of total litter found on the North Sea beaches.



All over the world large quantities of dumped waste ends up in the sea as marine litter.

The Marine Litter Express

The incredible journey of the rubber ducks



Waste which enters the ocean can turn up anywhere in the world. In 1992 a container ship in the Pacific Ocean lost 30,000 rubber ducks off the coast of China. These ducks first traveled with the dominant currents in the direction of Australia, but fifteen years later they turned up on the shores of the UK. An interesting story, but it illustrates perfectly how ship-source marine litter is a global problem.

Societal costs

Clean-up costs for coastal communities

The removal of litter from beaches worldwide costs millions.

Waste as by-catch

Litter in fishing nets means extra work. Every week fishermen spend up to 2 hours sorting litter from fishing nets. Certain discarded items can even spoil catches making them worthless.

Damage to ships

The propellers of ships regularly get entangled in litter, resulting in lost operating time and extra dry-dock work.

Negative effect on tourism

Marine litter in the sea and on beaches is not attractive to tourists and will inevitably have negative consequences.

Sea mammals, birds and fish often view marine litter as food, resulting in entanglement, suffocation and starvation as their stomachs fill with plastic.

Ecological impacts

Consequences for sea life

Sea mammals, birds and fish often view marine litter as food, resulting in entanglement, suffocation and starvation as their stomachs fill with plastic.



Waste in the food chain: micro plastics

Because of its durability, plastic has brought society many advantages. The drawback is the increasing amount of plastic litter in the environment, which doesn't degrade but does disintegrate into smaller parts. These "micro plastics" are then consumed by animals and accumulate in the food chain.

Waste policies

For several years now, rules regulating the handling of waste on-board ship, its disposal at sea, and discharge to shore reception facilities have been in place. The most important of these are:

International Convention for the Prevention of Pollution from ships, the MARPOL 73/78 Convention

According to the MARPOL Convention Annex V, discharge of waste outside of Special Areas such as the North Sea and Mediterranean is only allowed when more than 12 nautical miles from the coast. Although the dumping of all waste, except food waste, is prohibited in Special Areas, no improvement with regard to ship-source marine litter has been found in the North Sea.

Unfortunately a significant proportion of ships still do not deliver their waste to port reception facilities.

EU Directive 2000/59/EC on Port Reception Facilities for Ship-generated Waste and Cargo Residues

This Directive requires all ships in European waters to deliver their waste to port reception facilities. Ships are also obliged to deliver waste to port when leaving the European Union. Unfortunately a significant proportion of ships still do not deliver their waste to port reception facilities.



Recommendations

1 Clear rules, clear compliance and strong enforcement

Clear rules for onboard personnel and passengers regarding waste and litter creates awareness and improves behaviour.

2 Zero discharge = Zero confusion

At the moment, certain types of waste are still allowed to be thrown overboard and others are not. This causes confusion. Keep it simple. Implementing a “zero discharge” approach makes environmental sense and avoids confusion.

3 Phase-out on-board waste incineration

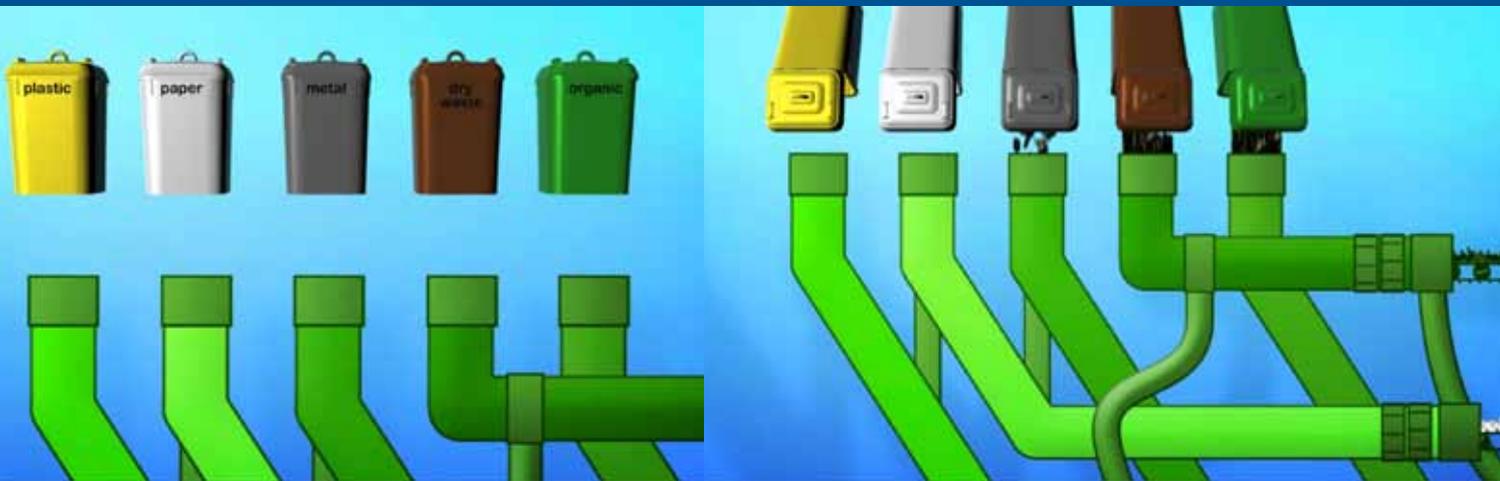
Compliance with the previous recommendations is impossible to control or enforce if waste can be burnt at sea and regulators have to rely on logged estimated amounts incinerated.



Implementing a “zero discharge” approach makes environmental sense and avoids confusion.

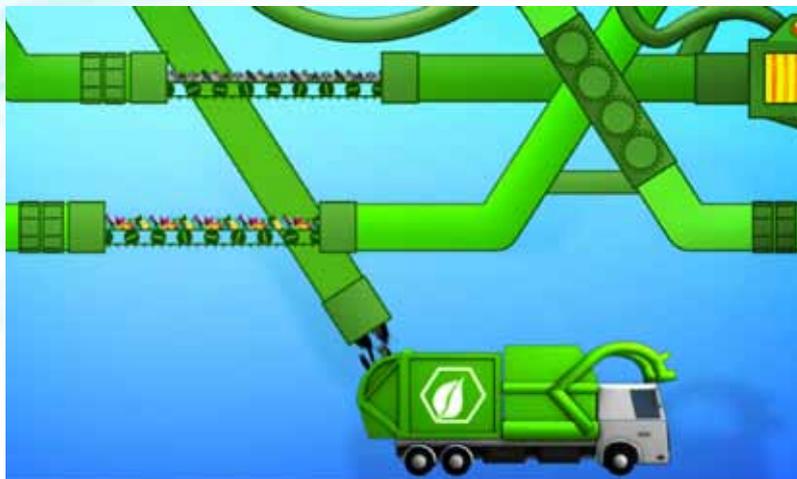


Recommendations



4 Deliver waste in ports

Improved and harmonised port reception facilities that are simple to use, accessible and affordable will decrease the amount of waste that ends up as marine litter.



5 Waste management as business practice

Waste management and recycling is all about volumes. If all ships deliver all their waste to ports the chances for the creation of serious markets in ship waste recycling increase.

Get in touch

The MARPOL Convention requirements for marine litter (Annex V) are currently being reviewed by the UN's International Maritime Organisation. We are pushing for a strengthened Annex V including, amongst other things, the approaches described in this brochure. If you have an interest in this work and would like to be involved and/or kept informed of activities surrounding the review of MARPOL Annex V please get in touch by contacting:



The Ship-Source Litter Campaign
Seas At Risk
Rue d'Edimbourg 26, 1050 Brussels
Tel.: +32 2 893 09 65 Fax: +32 2 893 09 66
Email : shiplitter@seas-at-risk.org



Stichting De Noordzee
Drieharingstraat 25, 3511 BH Utrecht
Tel.: +31 30 234 00 16 Fax: +31 30 230 28 30
Email: info@noordzee.nl

Interesting links

www.seas-at-risk.org,
www.imo.org,
www.algalita.org,
www.noordzee.nl
www.cleanshipping.info,
www.imares.wur.nl,
OSPAR Quality Status Report, 2000.

Colofon

Text: John Maggs, Merijn Hougee and
Vincent Balk
Illustrations: Paul Maas/Eric Rootselaar,
misterlee.nl and photo by W.J. Strietman
Design: STRETTA

