



Executive summary

Ghosts beneath the waves

Ghost gear's catastrophic impact on our oceans, and the urgent action needed from industry



Part One: The problem

Abandoned, lost or discarded fishing gear – otherwise known as 'ghost gear' – is a problem that spells catastrophe for marine life as we know it. At least 640,000 tonnes of ghost gear are added to our oceans every year, killing and mutilating millions of marine animals– including endangered whales, seals and turtles. The vast majority of entanglements cause serious harm or death. Swallowing plastic remnants from ghost gear leads to malnutrition, digestive blockages, poor health and death.

45% of all marine mammals on the Red List of Threatened Species have been impacted by lost or abandoned fishing gear.

Already threatened ecosystems, including shallow coral reef habitats, also suffer further degradation from ghost fishing gear.

Ghost gear undermines the viability of our fisheries too, as it catches and kills an enormous volume of seafood which would otherwise form part of the regular catch, in some cases worth millions of dollars depending on the fishery.

Ghost Gear: largely a plastic problem

It's impossible to talk about ghost gear without talking about plastics. The volume of both macroplastics (plastic remnants visible to the human eye) and microplastics generated by ghost gear is staggering. Since some plastics can withstand up to 600 years within ocean conditions, the threat to our ocean environments is far reaching.

As much as 92% of marine animal/debris encounters involve plastic debris. 71% of entanglements involve plastic ghost gear.

Microplastics also pollute marine food webs. The European shellfish consumer is exposed to as much as 11,000 microplastic particles annually. Toxic impacts are not fully understood, but could include embryo development, altered genetic profiles and hormone disruption.

Cover image: A loggerhead turtle is trapped in a ghost net in the Mediterranean sea.

Jordi Chias / naturepl.com

Image: A Hawaiian monk seal is caught in fishing tackle in the Pacific Ocean.

Michael Pitts / naturepl.com



A problem of global proportions

The impacts of ghost gear are both staggering and truly global in proportion, for example:

- In just one deep water fishery in the north east Atlantic some 25,000 nets have been recorded lost or discarded annually.
- Almost 5000 derelict nets removed from Puget Sound through retrieval programs were entangling over 3.5 million marine animals annually, including 1300 marine mammals, 25,000 birds, and 100,000 fish.
- Derelict fish traps near Oman are estimated to cause marine mortalities between 57 kg per trap in a three-month period alone. One study estimates over 15,000 traps lost within this study area every year.
- At current fishing levels, over the next 60 years in the Florida Keys alone, a staggering 11 million traps could become lost.

Illegal, unreported and unregulated (IUU) fishing: doubly dangerous

It's estimated that 1 in 5 wild caught fish is IUU. Because IUU fishing is both illegal and highly profitable, companies involved do everything they can to avoid detection or capture, including abandoning gear. IUU fisheries are also less likely to report gear lost through adverse conditions or user error might be denied access to port and are unlikely to be using marked gear.

Cost of inaction

Ghost gear is also extremely damaging to the sustainability of fisheries and marine habitats. There is a great risk that our oceans could simply stop providing for humans in the many ways we now rely on them. Just as ominous are the potential long-term effects of microplastics on human and marine food chains.

Priority should be given to tackling the problem of ghost gear, given its link to other key issues affecting ocean health – macroplastics, microplastics, pollution, food security, and IUU – and ultimately to prevent the accumulation of more ghost gear in our oceans and seas.

Part Two: The solutions

World Animal Protection's Sea Change Campaign, launched in 2014 with its Fishing's Phantom Menace report, works with stakeholders to tackle ghost gear with the 4 R's: Reducing the volume of fishing gear entering the oceans; Removing ghost gear already there; Recycling ghost gear in innovative ways; and Rescuing marine animals.

The Global Ghost Gear Initiative (GGGI) is a practical, industry-led effort to solve the ghost gear crisis. Its aims are to:

- Protect marine animals from harm.
- Improve the health of marine ecosystems.
- Safeguard the health and livelihoods of those who depend on our oceans.

In June of 2017 the GGGI launched a best practice framework (BPF) that offers guidance and aims to diminish the threat of ghost fishing.

Success stories

Globally there are many fantastic projects that are working to reduce ghost gear impacts and have a lasting positive effect on communities.

In Rehman Goth, Pakistan local divers have recovered and recycled gear and in so doing are raising over 92% of a typical month's fishing income. Funds are being used to refurbish a community centre.

Other scalable, replicable projects include those in the Gulf of Maine, USA; Alaska, USA; Indonesia; and Vanuatu.

Evidence has shown that in many cases the benefits generated by ghost gear solutions outweigh the costs of implementation. Investment in ghost gear solution projects will ultimately create a healthier marine environment that benefits the larger fishing industry, supports communities, and protect marine animals currently under threat. Our corporate ranking shows that companies choosing to be part of the solution both through participation in the Global Ghost Gear Initiative as well as through project work perform better in terms of addressing ghost gear in their supply chains.

Part Three: Evaluation

World Animal Protection conducted a review of 15 of the world's leading seafood suppliers in relation to their handling of ghost gear in their operations and supply chains.

Companies were scored separately and tiered in each of the following areas:

- Policy and Commitments.
- Management and Systems.
- Implementation and Reporting.

Overall the consolidated scores across the three categories were disappointing.

Image: A volunteer carries a bundle of lost fishing nets ashore to be recycled as part of the Olive Ridley Project. Olive Ridley Project.



Assessment total

Tier 1 Leader: setting best practice	Tier 2 Achiever: integral to business strategy	Tier 3 Improver: established, but work to be done	Tier 4 Engaged: on the agenda, but limited evidence of implementation	Tier 5 Not engaged: no evidence that ALDFG is on the business agenda
None of the assessed	None of the assessed	<ul style="list-style-type: none"> • Thai Union • Tri Marine • Young's Seafood 	<ul style="list-style-type: none"> • Bumble Bee Foods • Dongwon (StarKist) 	<ul style="list-style-type: none"> • Beaver Street Fisheries • Clearwater Seafoods • Cooke Seafood • East Coast Seafood Group • High Liner Foods • Maruha Nichiro • Nissui • Pacific Seafood Group • Pescanova • Samherji

An analysis of the overall results shows that while some companies are demonstrating effort to address ghost gear, none are deeply invested in a solution set, and the majority have yet to step up to the plate to any degree.

The assessed companies, and the industry as a whole, must do more on ghost gear. Action can include incorporating the BPF into existing CSR strategies where they exist to address abandoned, lost or discarded fishing gear (ALDFG), as well as becoming a signatory to the GGGI, and include that information on their company website. This gives companies an edge over their competitors and helps customers make a clear and better seafood choice.

Looking to the future

Large seafood corporations have a responsibility to marine wildlife, the communities affected by ghost gear and to future generations of fishers, to ensure that they use the resources of

the oceans sustainably. They must take urgent action to stem the tide of ghost gear entering our oceans every day.

Many of the projects undertaken by World Animal Protection and GGGI participants have recognised the need to include fishing communities in ghost gear solutions. Inclusive, incentivised business models have proven to be highly effective. Local communities are empowered to be authors of solutions to ghost fishing gear, rather than labelled as an uncaring part of the problem. Funds generated by projects benefit local people as a whole, encouraging further participation and a sense of investment in their coastlines.

Investment in ghost gear solution projects, such as those associated with the GGGI, will ultimately create a healthier, more plentiful marine environment that benefits the larger fishing industry, supports the small fishing communities, and protects the marine animals currently threatened by ghost gear.