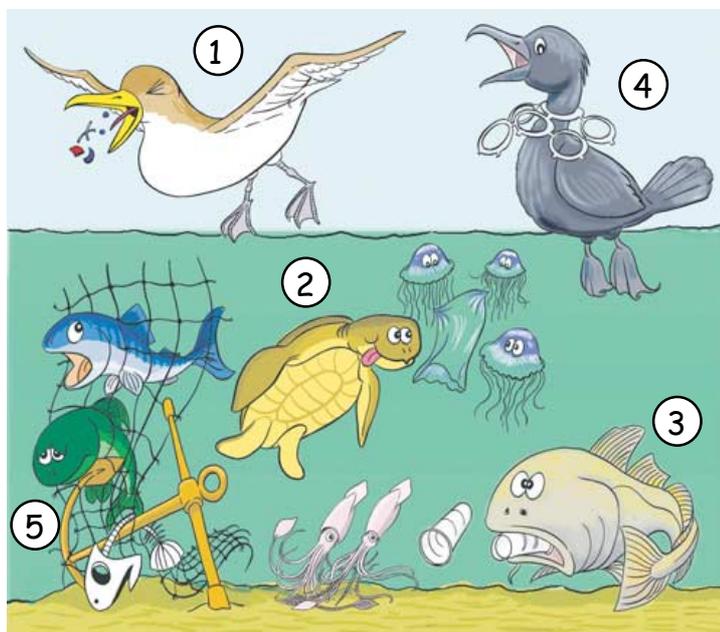


# Aquatic Life

## The Problem of Plastic

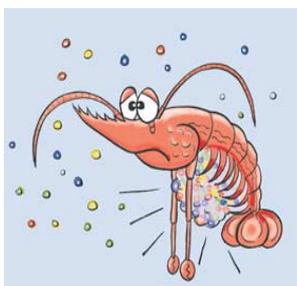


### Plastic in the Marine Environment

Floating pieces of plastic have been seen in the oceans since the 1970s and today some 250 species of marine animals show signs of "plastic stress" either from eating plastic, or becoming trapped in plastic fishing nets and packaging. A study carried out in the North Sea showed that 25 out of 27 fulmars had small pieces of plastic in their stomachs<sup>1</sup>. Turtles are known to mistake floating plastic bags for the jellyfish they feed on<sup>2</sup> and cod can choke on plastic cups that they mistake for tasty squid<sup>3</sup>. The plastic rings that hold drink cans together in "six packs" can mean a slow death for fish and diving birds that find their heads trapped inside them<sup>4</sup>. Fishing nets that are abandoned at sea or stuck on the bottom can remain "ghost fishing" for years, catching fish that nobody can ever harvest<sup>5</sup>.

### "Micro-Plastics" - a new threat

But the most serious threat from abandoned plastic in the marine environment recognised by scientists is the presence of "micro pellets" of abandoned plastic, some as small as two microns (two millionths of a metre) in diameter, which can be eaten by mistake by filter feeding animals at the bottom of the food chain. Not only do these micro pellets provide no food value whatsoever, but scientists fear that because of their extremely small size and relatively large surface area, these pellets might act as magnets for chemical contaminants such as heavy metals. Toxins such as these, suggest the scientists, may poison the ocean's food chain at its very core, with a knock on effect right up to the larger fish we rely on for our food.



### PLASTIC: An Important Part of Our Lives

Because of its flexibility, strength and lightness, plastic is an important part of our lives today - from plastic bottles and bags, to computers, cars and aircraft, with worldwide production growing from 5 million tonnes of plastic in the 1950's to some 230 million tonnes today. But the fact that plastic breaks down so slowly, makes it a real problem when it is discarded at sea.

### How You Can Help ...

In Ireland, the Plastic Bag Environmental Levy which was introduced in 2002, has been recognised by marine scientists as having reduced the amount of plastic litter on Ireland's beaches. Prior to the Levy, some 1.26 BILLION plastic shopping bags were given out each year, which then dropped by 90%. Projects such as DEEPCLEAN, which are designed to locate and recover lost fishing nets, are underway between scientists and the fishing industry. And you yourself can play an important part in cutting down on plastic pollution of the seas each time you visit the beach, by always disposing of your plastic rubbish sensibly or by bringing it home for recycling in your "Green Bin".

### Captain Cockle's Log



Welcome aboard shipmates!

Together, we'll be taking a look at the world's greatest natural resource - the sea!

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