

# UK - Marine Litter

The impacts of anthropogenic litter and debris upon marine life have become a global cause for concern. Around the world, an estimated one million birds and 100,000 marine mammals and sea turtles die each year from entanglement in plastics or plastic ingestion.

Off the Isle of Mull, Scotland, a study found that 12% of the 74 identifiable minke whales in the area displayed evidence of accumulating marine litter (Gill et al., 2000).

Many animals can become entangled in marine litter and this litter can become embedded in the flesh as the tissue grows around it. A minke whale was found dead off the coast of Shetland, Scotland in June 2007 after becoming entangled in plastic strapping usually used for packaging. The whale was initially sighted at sea; the animal was alive but clearly emaciated and had a large wound behind its head caused by the strapping. The litter had become wrapped around the head of the animal and is likely to have prevented the whale feeding properly for a considerable time.

For cetaceans, becoming tangled in discarded fishing gear is a major threat. A number of minke whales sighted by the Hebridean Whale and Dolphin Trust (HWDT) have been photographed entangled in creel lines, plastic strapping and fishing net. Such entanglement can impair the animals' ability to swim, breathe and find food. A study by the HWDT revealed that over 21% of minke whales stranded in Scotland died due to entanglement ([www.whaledolphintrust.co.uk](http://www.whaledolphintrust.co.uk)). Entanglement may also cause injury and wounds as the animal tries to disentangle itself from the litter, which can subsequently lead to infection.

Many cetaceans have been found to ingest marine litter, either accidentally but most likely because they look similar to prey species usually taken by the animals. Consumption of marine litter can cause physical damage of the digestive tract. Once ingested, the litter can block the digestive tract, prevent digestion and lead to starvation. Litter can also accumulate in the stomach of the animal and produce a false sensation of being full, reducing the animal's instinct to feed or the ability of the digestive tract to absorb nutrients. This is also likely to result in starvation.

In 2003, a Cuvier's beaked whale washed up on the coast of Mull, Scotland. This species is usually found in deep, offshore waters and feeds primarily on squid. Analysis of the stomach and intestinal contents of the dead animal revealed a proportion of shredded plastic bags. It is highly likely that the whale mistook this litter for squid, and that ingestion of the

plastic contributed to the death of the whale ([www.whaledolphintrust.org.uk](http://www.whaledolphintrust.org.uk)). In 2002, a minke whale washed up on the northern French coast was found to have ingested almost 800g of plastic bags (Mauger, 2002). A recent report shows an increase of 126% in the amount of plastic debris recorded in UK beach cleans since the ongoing survey began in 1994 (MCS, 2008).

In 2007, a Memorandum of Understanding was formed between the United Nations Environment Programme (UNEP) and OSPAR to look at ways of producing worldwide protocols for monitoring marine litter. However, the issue of marine litter remains a serious one that is potentially life threatening to cetaceans in UK waters.