

Spotting plastic among the walruses



Most beaches on Spitsbergen rarely get any human visitors. And yet they are often littered with more plastic than a Dutch beach. An inventory of this plastic is a first step towards reducing the amount of waste that washes up here.

TEXT KORNE VERSLUIS PHOTO WOUTER JAN STRIETMAN

Large amounts of plastic wash up on remote beaches all around the world.

Wouter Jan Strietman, a researcher at Wageningen Economic Research, went to sea twice this year to do research on the scale of the plastic litter problem in the North Pole region. Together with Eelco Leemans of the Clean Arctic Alliance and Norwegian researchers from the Norut Institute, he visited the islands of Jan Mayen and Spitsbergen. Although he knew in advance that the beaches were far from clean, he was shocked by the sight of the polluted beaches at deserted polar locations. 'We found the most litter on the remotest beaches on Spitsbergen. More than 1000 pieces per 100 metres.' By way of comparison: the North Sea Foundation has been recording quantities of waste on four non-tourist beaches in the Netherlands since 2004, and counts an average of 380 items of waste per 100 metres of beach.

Strietman and the Norut Institute want to find out where the waste comes from. A large proportion of it appears to come from fishing boats and other shipping. During the summer expedition to Spitsbergen, for instance, he found large numbers of straps used on fishing boats to close the polystyrene boxes in which frozen fish is stored.

SUDDEN SNUFFLING

This summer, Strietman and his fellow researchers joined a ship from Oceanwide Expeditions, a company which runs tourist expeditions to polar regions. 'They dropped us off on several beaches. The tourists went in one direction and we went in the other to inspect the plastic waste, often with walrus as the only spectators. On the first beach we visited, we were startled by suddenly snuffling sounds from the water. We thought it might be polar bears but it was walrus

'We found more than 1000 pieces of plastic per 100 metres'

that were keeping a careful eye on us.'

The waste they found on the beaches was very diverse. From cotton buds and wrapped cucumbers on the beach at Longyearbyen, the largest settlement on Spitsbergen, to a tangle of fishing nets so heavy that three men could not lift it off the ground. There is increasing concern about plastic pollution on beaches and in oceans. Spitsbergen's litter problem is not unique. Shocking photos have also been published of extreme quantities of plastic waste on remote Pacific islands.

Although much of the waste on the islands in the Arctic Sea seems to come from the immediate vicinity of the islands, some of it also comes from further afield. The origin of some pieces of plastic can be pinpointed with reasonable accuracy. 'On Jan Mayen, we found a plastic bucket of a type used in Southern European oyster farming,' says Strietman. Or take the trademark of a Canadian crab fishery. 'We have very precise information on that one. It was granted to a fishery in Nova Scotia in 2000.'

The original of the plastic is not always as clear as this though. In the case of a deodorant can with a Russian label, did it come off a ship or from the Russian mainland? The innumerable anonymous stoppers and bags are equally impossible to trace. Strietman: 'Several different ocean currents meet at Spitsbergen. You find tree trunks from Siberia next to waste from European countries.'

Making an inventory of the waste is the first step. 'We want to draw up a top 10 of the commonest forms of litter. And we want to be as specific as possible. It is not enough to know that there is fisheries waste here. We want to know what kind of fishing net it is so that later we can tell fishers and governments: there is x percent of type A, so much of type B and so on. So that we know which types of fisheries the items come from, and perhaps what the alternatives are. We can then consult with fisheries, governments and other relevant parties to see what they could do to reduce the volume of waste in the polar region.'

NOT OVERBOARD

Fisheries in the Netherlands signed a covenant with the government in 2014 to reduce the amount of waste ending up in the sea. In this Green Deal for Fisheries, the government pledged to provide an efficient waste collection system in the harbours. Fishers promised in turn to collect their waste on board ship, and to sort it into three categories. Strietman: 'A similar kind of solution could work in the polar region. The inventory is important so as to see who we need to get around the table to talk about solutions, and what the options are for making sure less waste washes up on the beaches.' ■

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