

SPECIAL INVESTIGATION



by David Jones

UNIMAGINABLE as it might seem to children today, who hanker after expensive electronic playthings, there was a time when finding a simple plastic model in a packet of cereal was a cause for excitement. In 1958, cereal manufacturer Quaker boosted sales of Sugar Puffs by offering a miniature collection of famous ships. 'Ahoy! A Free Toy!' was the advertising slogan — and the eyes of small boys and girls would light up as the replica of some famous ocean liner fell into their bowl. However, children eventually cast such toys aside. We cannot know precisely where one of these two-inch-long models of the RMS

Mauretania — then among the world's biggest and most luxurious passenger ships — was thrown away. Yet it seems this little plastic ship was discarded in a town or city close to Britain's east coast, for eventually — perhaps via a gutter or stream — it found its way into the

North Sea. There it began an epic voyage more remarkable than the transatlantic crossings made by the real Mauretania. Swept into the powerful North Atlantic Current (an extension of the Gulf Stream), it bobbed northwards for more than 2,000 miles, passing the coast of Norway until, after perhaps two or three years, it finally made landfall in the Arctic Circle. Now, a researcher investigating plastic waste pollution has spotted the Sugar Puffs promotional toy ship nestling among seaweed and fragments of walrus and whale bone, on Jan Mayen Island, a desolate and virtually uninhabited Norwegian-owned outpost which boasts the world's northernmost active volcano. Extraordinarily, though it had been battered by huge waves on its way to the island, 370 miles north east of Iceland, and may have lain on the frozen shoreline for decades, it looked exactly as it had when it first tumbled from a cereal packet, almost 60 years ago.

Indeed, the plastic replica has long outlasted the 772ft, 35,000 tonne steel-built Mauretania, which was in service for just 26 years before being scrapped in 1965.

Eelco Leemans, 59, the Dutch marine investigator who found the ship, told me last week: 'There were lots of plastic items on the beach — fishing material, bottles, crates — but my eyes fell on this little white thing, and I thought, oh, how incredible, a miniature ship! How on earth did this end up here?'

When the expedition was over, he took his treasure home, where his student daughter, Zita, 21, used still-readable facts embossed on the bottom of the ship to discover, via Google, that it could only have been among ten replica ocean liners given away with Sugar Puffs sold in Britain, in 1958.

In some ways it is a cute little story. However, as the world wakes up to the perils of the dumping of plastic in the oceans, this remarkable find — made in the summer before 24-hour darkness descended on the Arctic — is highly significant.

There is widespread concern about the way plastic rubbish dumped carelessly in far-away countries is polluting the British coastline.

For example, in Cornwall, where I recently reported that beaches are littered with waste from all over the world.

The Daily Mail is at the forefront of campaigns to stop plastic pollution poisoning the environment.

However, the discovery of the Sugar Puffs ship proves we are equally guilty of despoiling faraway seas with the lax disposal of plastic items — and directly in the firing line of Britain's plastic tide is the magnificent and supposedly pristine Arctic, one



Gift: A Sugar Puffs cereal packet from the Sixties



usually hit the Arctic. This could explain why, among the 5,700 items collected by the Dutch researchers, were many every-day brands sold in British shops — a Twix chocolate wrapper, a Colgate toothpaste tube, a Fanta pop bottle top, Mobil and Shell oil cartons — though, of course, they might have been tossed from ships.

The sheer longevity of the Sugar Puffs ship is also of interest — and deep concern — to marine scientists.

For as one of the Arctic research team's leaders, Wouter Jan Strietman, points out, the model dates back to the dawn of mass-produced plastic toys and household items, and its condition proves the material's resilience, even when subjected to the most extreme environmental conditions.

'It is possible that this tiny ship — which might have been thrown away by a child playing in the garden and been washed into the gutter by the rain — was among the first batch of plastic items to reach the Arctic,' said Mr Strietman, of the Wageningen Economic Research centre in the Netherlands.

'That makes it very important and symbolic, because it indicates how long plastic lasts in the environment. Finding the ship in this condition shows that when plastic reaches the Arctic it can stay there for a very long time, making it even more urgent to take action.'

'You also have to remember that tens of thousands of tonnes wash up



Ship shaped: Model of Mauretania has been worn away by the sea but remains intact after nearly 60 years

manufactured during the Sixties and Seventies.

Then there was a plastic lobster-pot identification tag bearing a serial number traceable to the year 2000, when it was used by a fishery some 3,000 miles away in Nova Scotia.

Attempts are now being made to contact the offending lobster company — not to shame anyone, says Mr Strietman, but to encourage them to adopt safer disposal methods.

Everyone who carelessly dumps plastics — from Britons discarding takeaway carriers after a night out, or fishermen throwing bits of netting overboard — would surely be more considerate if they saw the harrowing results of their actions, he says.

Given the remoteness of the Arctic islands, and the perpetual darkness that shrouds them during the long Polar winter, many tragedies caused by dumped plastics go undiscovered.

In the lighter months, for example, a reindeer was found garrotted by plastic-covered wire, having presumably become entangled as it scavenged the shoreline for leaves and seaweed to eat.

Photographers also captured the pitiful sight of an Arctic tern fatally enmeshed in nylon string, and a

What this toy ship from a 1958 packet of British Sugar Puffs tells us about the urgency of the plastic crisis

Newly found in the Arctic, it proves today's waste will be polluting our planet for decades

there, mainly from northern Europe and Russia, so this is literally the tip of the iceberg.'

In the first such exercise of its kind — linking specific plastic waste items to their sources — the Dutch research team journeyed to Jan Mayen Island and Svalbard, the picturesque archipelago where David Cameron famously drove a dog-sled to demonstrate his concern for the effects of climate change on the polar region.

Knowing these two places had been despoiled by plastic in recent years, their aim was to collect sam-

ples, then pinpoint their origins and work with the polluters to find out why their items ended up in the sea, and try to avoid it happening in the future.

However, even they were shocked at the amount of plastic rubbish they found.

Latest figures suggest there is now 79 million tonnes of litter in the Barents Sea south of Svalbard alone — and that is a conservative estimate. Shamefully, much of it will have found its way there after being dropped in the streets of Britain. More than half the plastic

items the researchers collected were unidentifiable. However, they found such a varied smorgasbord that it exceeded the 200 categories listed under an international ocean plastics classification protocol. In order to be precise, and identify the source, new ones — such as 'cod fishing net' — had to be added to the list.

Among those that could be categorised were fishing nets (12 per cent), caps and lids (10 per cent), and strapping band (8 per cent.) Other major items included floats and buoys, string and cord, plastic

bottles and containers, and plastic bags. Then there were the ubiquitous cotton buds: a seemingly small, innocuous cleansing stick that has become an environmental scourge.

Since these were mainly found on beaches near the capital of Svalbard, Longyearbyen, researchers believe they are one of the few items which came from the island's 2,600 population.

Also picked up on the icy beaches was a golf tee (the nearest concentration of courses is in north-eastern Scotland) and a Russian doll

As ice recedes more debris is revealed

polar bear attempting to disentangle itself from a washed-up trawler net.

The marine investigator Eelco Leemans was distressed to see five walrus lazily on a beach, on the western side of Svalbard. Once, they would have been surrounded by pebbles and kelp; now they were lying on a bed of plastic.

With the plastic tide rising inexorably, we can be sure there will be more grim scenes like this when the sun rises over the Arctic Circle again, next March.

The picture is no less grave in the Antarctic, as shown in the final episode of BBC TV's Blue Planet II, which captured pitiful images of an albatross that had fed its chick with a plastic carrier bag, presumably having mistaken it for squid. Another baby albatross had choked on a plastic toothpick.

As the Arctic ice recedes, releasing millions more pieces of previously frozen plastic debris, experts fear the plastic pollution at the top of the world might worsen exponentially, creating huge 'garbage patches' in the oceans like those that have been discovered in the Pacific.

The hope is that, as researchers alert the world to the threat facing the great white wilderness, this looming natural catastrophe can yet be averted.

If that is the case, an indestructible little Sugar Puffs ship that once adorned a British child's breakfast table will have played a small but symbolic part in delivering the planet from the plastic peril.

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Even researchers were shocked at level of rubbish

of the last great wildernesses on Earth. Carried by rivers such as the Thames, Humber, Tyne and Don, innumerable tonnes of plastic enter the North Sea from Britain each year; and at Christmas, when the shops are awash with plastic-wrapped food and gifts, the pollution problem is at its worst.

Denser plastic items sink to the seabed, where fragments can enter the marine food chain, causing untold damage to wildlife and perhaps to human health when we eat the creatures that have swallowed them.

According to the leading oceanographer Dr Erik van Sebille, who has developed a unique computer model that tracks the flow of plastics in the oceans, an astonishing 70 per cent of Britain's floating detritus will even-