



Fighting The Plastic Tide

An aerial survey of Scotland is highlighting coastal pollution hotspots

by JULIA HORTON

FLYING low over dark, rugged cliffs and pale, sandy coves a cheerful yellow stands out – the unmistakable sign of gorse, that sturdy shrub which can bloom in almost any season.

But rounding a headland, a kaleidoscope of other colours comes into view, revealing the grim and growing year-round presence of plastic waste, with dozens of crates, barrels and other debris in greens, blues and reds strewn across the shoreline.

Shocking sights like this, in Dumfries and Galloway, have inspired a unique aerial photographic survey of the nation's coast so that conservationists can develop an online map showing where the worst hotspots are.

As well as pinpointing key locations, the survey provides clear, visual information on the scale and type of waste in different places, which is helping communities to target beach clean-ups where they are most needed.

This is vital information, for at 9660km (6000 miles), Scotland's shores account for around a 10th of Europe's entire coastline.

This makes it a challenge to reach, both for surveys and clean-ups, especially given the often wild weather and remote terrain.

Images for the Scottish Coastal Rubbish Aerial Photography scheme, dubbed SCRAPbook, are being taken by volunteer pilots in the Sky Watch Civil Air Patrol, which is working with the Marine Conservation Society (MCS) in Scotland and the Moray Firth Partnership, a local environmental charity.

Sky Watch is also a charitable organisation, providing voluntary air support to safeguard communities and the environment. The pilots became aware of the amount of plastic waste on our shores when on flights to assist missing person searches, or provide erosion surveys and flood recording.

Sky Watch chairman and pilot Archie Liggat explains, "We would be doing searches for missing persons, taking pictures and looking out for what might be a body floating in the sea, and seeing quite a lot of litter in

those photographs. It's been becoming an increasingly common feature."

The worst areas which pilots see are blighted by thousands of bits of plastic waste at "industrial levels", he states bluntly, with rubbish often blown further inland by strong winds, spreading debris up hills beyond the shore.

And the true scale of the problem is likely to be far bigger than pilots can see from the sky, because the presence of larger pieces of litter suggests a serious amount of smaller pieces hidden from view under seaweed or buried in the sand as bigger waste items are broken up by wind and waves.

The need and desire to take action against the plastic tide is growing both nationally and globally, and this project has been further inspired by the latest government tourism campaign where 2020 has been designated Scotland's Year of Coasts and Water.

Recent figures from the MCS in Scotland hint at the scale of the problem, with more than 58,000 pieces of litter collected from just over 100 Scottish beaches by volunteers in only four days in 2017.

Now the charity is using the new picture-led map to co-ordinate what it hopes will be the largest targeted series of beach clean-ups nationwide this year.

One such operation was took place at Ugie Beach in



A relatively unpolluted cove

Large pieces of not yet fragmented waste are only the tip of the iceberg



“More than 58,000 pieces of litter were collected from 100 beaches in four days”



Volunteers can make a big difference

Peterhead, the latest of a growing number nationwide organised by local voluntary groups like the East Grampian Coastal Partnership (EGCP) along with the MCS in Scotland.

Walking alongside the group at Ugie, equipped with litter pickers, black bin bags and clipboards to record the rubbish collected, was EGCP project manager Ian Hay.

“We have such a stunning coastline,” he explains, “and some amazing, beautiful, sandy beaches.

“All this litter gets pushed into a corner by the wind and tides, so when you look one way you have a view which is first class, but then you turn around and there’s a pile of rubbish. »



“The aerial surveys have been very useful because they have shown us where some of these areas which are very isolated and difficult to reach are.

The unique images also help environmentalists see the direction of water currents, helping them plan better routes in and out of trickier locations including other sections of the Aberdeenshire coastline such as the rocky shores near Dunnottar Castle outside Stonehaven.

“We are planning some extreme beach cleans,” Ian adds, “with sea kayakers and climbers to get to these places where litter has accumulated for decades.”

Ugie Beach was one of the easier to reach places on the campaign’s list. From ground level it looked fairly free of litter before the beach clean, but the volunteer group still managed to fill about a dozen bin bags in under two hours, picking up everything from broken toys and fishing rope to drink cans and bottles.

Plastic is the most common waste material found by far, reflecting the global crisis.

Crawford Paris, the EGCP’s new beach litter officer, studied marine and coastal resource management.

He says, “I’ve always known marine litter was a problem, before it became news thanks to the BBC series *Blue Planet*, but since I started this job I’ve become even more aware.

“Even on this beach, which seems relatively clean, there are lots of smaller bits of litter.

“You find all kinds of things. It’s amazing how much stuff makes it on to the beach.”

Briony Mair is the head teacher at nearby Kininmonth Primary School, and after hearing about the aerial surveys she encouraged pupils, staff and families to get involved in combating plastic waste.

She says, “Hopefully the children will become more responsible. I think it helps raise awareness in the wider community too.”

Katie Chalmers, nine, reveals both how much children view litter as normal, if worrying, but also how awareness



Top Left: At the Ugie beach clean, the creel becomes a sledge to collect more litter

Above: Old ropes mingle with packaging

Left: Teamwork makes the job more rewarding

of the need to tackle the problem is growing. “There were less bottles on the beach today than I expected, because there are usually a lot of them. We have to clear them all up.”

Urging people to get involved and explaining the ultimate aim, MCS in Scotland’s project co-ordinator, conservation officer Catherine Gemmell, says, “The surveys are providing us with a new set of data in the fight against the rising plastic tide in Scotland.

“By greatly increasing the amount of data we have, the project can also help us to drive change to stop litter getting on to Scotland’s coast in the first place.” 

How To Get Involved:

● To find out about forthcoming beach cleans or organise one yourself, visit the MCS website at www.mcsuk.org/beachwatch

To see images of litter hotspots or make a donation to support ongoing aerial surveys visit www.scrapbook.org.uk