

Plastiglomerates – ‘unnoticed’ plastic pollution on our beaches.

Cornwall has a thriving network of community marine conservation volunteer groups who promote and protect the marine environment in their local patch. The Cornwall Plastic Pollution Coalition (CPPC) now comprises more than 40 environmental organisations, local marine conservation groups, beach cleaning groups and marine science experts. It is recognised that together this network is a powerful voice for our marine and coastal environment.

The CPPC has recently begun conducting citizen science research into a particularly worrying type of marine plastic pollution that most people would not even notice on a trip to a Cornish beach. Plastiglomerates look like rocks and pebbles but are in fact weathered pieces of incinerated plastics. They were first described by Dr Patricia Corcoran (Western Ontario University) in 2014 after she found specimens on beaches in Hawaii. Her research has identified them as being formed from plastics incinerated on beaches or coastal areas (or at sea then discarded from vessels).

This molten plastic can mix with beach sediments, and other organic matter so forming large agglomerations which often attach to bedrock or boulders. These large lumps are then weathered by the action of the wind, waves, and the climate system, so allowing small pieces to break off becoming smoothed and rounded. Colour variations exist depending on the nature of plastic that has been burned – but the spectrum of resulting shades mimics natural rock tones very successfully.

After contacting Dr Corcoran earlier in 2018, the CPPC began a collaborative initiative to log Plastiglomerates found not only on UK shores, but around the globe also. Reports and photographs are coming in from beach-cleaning and environmental groups around the world. Sadly many specimens have been found on Cornwall’s own beaches (North and South Coasts) as well as Devon, Dorset, Guernsey, Wales, Scotland, SW Ireland, Portugal, Canada and the Azores. Some of the samples are being analysed at Plymouth University to determine more about their age and composition.

The CPPC wish to raise awareness not only of the existence of this surreptitious plastic pollution, but also of the danger in burning plastics on or around the coastline. Piles of litter, fly-tipped rubbish, flotsam & jetsam, discarded fishing gear should be removed from beaches wherever possible, as opposed to burning it ‘in situ’ as this is how plastiglomerates can be formed. The many members of the CPPC carry out regular beach-cleans and litter-picks around the Duchy and try to recycle as much of the debris they remove as possible. If you would like to get involved with a group in your area, or find out more about the work of the CPPC please do so via their social media feeds (Face Book page is Cornish Plastic Pollution Coalition, Twitter @Cornish_PPC) or email deliawebb@btinternet.com

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