



10 Minutes for the Planet
Bursting the bubble: turtles and balloons ©
by Sarah Heath

Hello! I'm Sarah Heath and you're listening to 10 Minutes for the Planet on EnglishWaves.

The pretty image of brightly-coloured helium balloons released into a blue sky may put a smile on people's faces but how many see it for what it actually is? Littering. Only in the case of balloon releases, throwing rubbish upwards instead of onto the ground. Would admiration quickly turn to horror once the reality of where the balloons end up is discovered? Disappearing out of sight and mind, increasingly the final resting place of balloons sent high into the sky...is the sea.

The Marine Conservation Society in the UK has done studies on beach litter which has shown that the number of balloons and small fragments of balloons found on beaches in the UK, has tripled in the last ten years. Some estimates put the amount of rubbish and debris which ends up in the sea at 14 billion tons each year, of which balloons make up a significant percentage.

Balloons are frequently made of latex, a product which many balloon manufacturing companies claim is 100% biodegradable and therefore environmentally friendly. This claim has been used since the 1980s and is, in fact, untrue. The Marine Conservation Society believes that there should be clearer information on what constitutes "biodegradable". Natural latex does break down naturally but it can take four years to entirely biodegrade. It is also claimed that balloons can take the same amount of time to break down as an oak leaf – but oak leaves are surprisingly durable and also take four years to biodegrade! Furthermore, how many balloons are entirely made from natural latex without any plastic or coloured dyes being added into the mix? Even worse are balloons made of Mylar, a form of polyester, which is totally non-biodegradable. And then there is the string to which the balloon is attached, again often made from synthetic materials. And what happens in the four years it takes for the balloons to biodegrade? They are washed up on our beaches, and worse, consumed by animals mistaking them for food.

One peculiarity with helium balloons, are that when they are released into the atmosphere and eventually reach a certain height, temperatures drop to a point which makes the balloon explode in a very distinctive way. Fragments are left with fringes of shredded balloon which recreates a similar shape of an octopus or a jellyfish. And this is when hungry turtles get into trouble - jellyfish are their favourite food.

When they ingest the balloons there can be several outcomes – most of them fatal. The most common is that the balloon blocks their digestive system leading to starvation. The ingested balloon traps air which prevents the turtle from being able to dive down in the water to hunt for food – a condition known as floater syndrome. Once they have swallowed their food, turtles do not have the ability to simply regurgitate any rubbish they have inadvertently swallowed. Sometimes the turtles simply choke to death on the balloons and also the balloon's string, in which many animals get tangled up which prevents their ease of mobility.

The University of Queensland conducted research in 2012 which proved that turtles do specifically target balloons and that of the rubber items found in dead turtles, 78% were balloons or parts of balloons. Sometimes marine animals are lucky enough to be rescued by non-profit organisations such as the Clearwater Marine Aquarium in Florida, who provide rehabilitation and re-release marine animals. But more often than not, it is too late.

One environmentalist took the situation a stage further and has produced a feature-length documentary called Rubber Jellyfish which highlights the plight of turtles as they look for food only to mistakenly consume rubbish including balloons. Carly Wilson took the battle to businesses, scientists and environmentalists to see if her findings could be used as a catalyst for change. She wrote an open letter to the balloon-making industry with evidence from laboratory-controlled experiments on the photo-degradation of latex balloons in marine environments. Also included were statistics from an Australian organisation called the Tangaroa Blue Foundation who coordinate beach clean-ups. They found over 22,500 whole or partial balloons on beaches between 2012 and 2016.

The conclusion reached by the Endangered Species Act in the United States is discerningly straightforward: when animal habitats are protected, animals tend to thrive. For example, the number of nests created by North Atlantic green sea turtles dropped to only 464 in 1989. After conservation work which included preventing waste disposal and limiting tourism in certain areas, the nest count reached 39,000 in 2016. Conservation efforts are working, but it needs everyone to contribute. Hold tightly to those balloons, you don't know where they might end up if you let go – one balloon released in the UK was discovered over 10,000 miles away – in Australia.

Tune in next week for more stories on the environment, here on English Waves.