

# Fact sheet:

## Seashore - Is it pollution?

NetRegs

environmental regulations online

[www.netregs.org.uk](http://www.netregs.org.uk)

## Natural Occurrences

### Sea foam/sea scum

A common occurrence in harbours and on beaches, particularly when there is a spell of warm weather, and a gentle onshore breeze.

**Cause:** The warm weather encourages the growth of marine algae, which are usually dispersed by waves and tide. If the sea is calm then there can be significant growth of algae, which can be blown towards the coast. The action of waves can whip the dead algae up and form a foam, often seen during stormy weather.

Some seaweed continually shed cells from their surfaces, and they are usually consumed in the marine systems. However, where these cells accumulate due to tidal currents, or are blown at the surface towards the shore, they can also appear as brown scum or creamy foam. You should avoid paddling or swimming in this because sometimes the tentacles from jellyfish can be mixed into the foam as well.



Image: Sea scum.

### Bioluminescence

**Cause:** Some types of tiny marine organisms produce a flash of light when they are disturbed. Individually this would not be noticed, but when a significant number are present then the sea can seem to glow, particularly where waves are breaking, or where the water is disturbed, for example by a boat's wake. Many of the species that produce bioluminescence can also irritate the skin or cause illness if ingested. Be wary if you spot dead fish or other marine organisms amongst the algae. This could be because they are a toxic species, or it could be a result of them dying and decomposing. (see *Anoxic Kills* below.)



Image: Bioluminescence.

### Anoxic Kills

**Cause:** When a bloom of algae that floats in water dies, it loses its buoyancy and sinks to the seabed. Here, bacteria begin to break down the remnants of the algae and this process uses up oxygen. In calm weather or shallow water, this process can use up all the oxygen in seabed sediments. Animals that live in burrows in the seabed are sometimes trapped by this and die from being smothered or suffocated. The dead animals remain in their burrows until a period of rougher seas dislodges them and then they can be washed up on the shoreline.



# Red Tides

**Cause:** When algae grow and multiply they can become so abundant that they change the colour of sea water. Sometimes this can be a vivid red, but other colours are possible depending on the species that are present.

As the name suggests, the action of the tide against the shoreline causes these very dense clusters.



*Image: Red tides.*

# Pollen deposits

**Cause:** Trees can produce a lot of pollen, at any time between January and May. If there are a lot of trees of the same species growing together then they will all produce pollen together. An early warm spell of weather can mean a large amount of pollen being released at one time. If this is accompanied by light offshore winds, then pollen that falls onto water can form a floating mat which is usually yellow in colour, and which will eventually be deposited on rocks. This can look like paint, or a scum left by pollution, however, it is completely natural and harmless.



*Image: Pollen deposits.*

# Jellyfish

**Cause:** In early summer it is quite common for large numbers of jellyfish to appear, often close to beaches or the seashore. This is the time when jellyfish "hydra", the very small young jellyfish, are released. If the weather is calm, then the jellyfish will not disperse as much, and it is possible for large numbers to accumulate. Clear water during calm weather also makes sightings more common.

This is a natural phenomenon, but one to be treated with caution. Even ones that are not thought to be "stinging jellyfish" can cause allergic reactions in some people, particularly if they come into contact with the tentacles.

Large concentrations of jellyfish can cause problems for some marine industries, so reporting sightings can be valuable. The Marine conservation society welcomes reports of sightings of large "smacks" of jellyfish and they also provide a helpful identification guide at: <https://www.mcsuk.org/sightings/>



*Image: Jellyfish.*



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## Man-made Pollution

### Oil pollution

**Cause:** Oil spills from shipping, or from land based sources can pollute beaches and the foreshore. Heavy oil used to power ships engines can resemble tar when it reaches shore.

Oil can cause significant damage to wildlife so if a spill is spotted, or if it is a regular occurrence in one location, then your environmental regulator should be informed.



Image: Oil pollution.



Image: Sewage pollution 1.



Image: Sewage pollution 2.

### Sewage pollution

**Cause:** Vessels emptying sewage tanks at sea, or untreated sewage being discharged from onshore dwellings can be the cause.

Also, during sudden and very heavy rainfall events the sewer system can become overwhelmed. To prevent the sewage backing up, leading to sewage flooding streets and homes, the water companies will release the excess untreated sewage into the sea. This can be seen on the coast when it is washed up onto the foreshore.

Most will break down eventually and disappear, however, if the wrong things have been flushed down toilets or washed down sinks, such as cotton buds, condoms and sanitary products made of plastic, then these can remain on the foreshore.

If you have any concerns about what you see on the shore or in coastal waters then contact the UK wide pollution hotline on **0800 80 70 60**.

**Pollution hotline**

**0800 80 70 60**

24 hours a day, 7 days a week