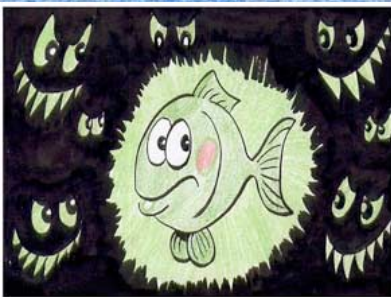


Algal blooms and living light...



During the summer, flashes of greenish light appear along the shoreline in the breaking waves, and even under foot on the wet sand. This is due to dense "algal blooms" of tiny living things called dinoflagellates (dino = armour, flagellate = living thread) that flourish in the warm water.

Some species contain poisons, which can build up in filter-feeding shellfish, making them unsafe to eat for a while. Others, like *Noctiluca scintillans* are completely harmless, unless their numbers are so dense that they take all the oxygen out of the water.

The greenish light comes from species like *Noctiluca*, which produce two special chemicals which, when mixed together, glow in the dark. Nobody really knows why these chemicals are produced. Some scientists think it is a defence mechanism that makes any animal eating *Noctiluca* glow in the dark also – making them an easy target for other predators.

Captain Cackle's Log



Welcome aboard shipmates!
Together, we'll be taking a look at
the world's greatest natural
resource -- the sea!

Words & pictures by John Joyce
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Stop Press

While *Noctiluca* is harmless to humans, some other species of algal bloom are toxic and can cause severe food poisoning from shellfish, such as oysters, scallops and mussels that have been exposed.

The Marine Institute regularly tests both the shellfish and the waters they come from for the presence of any poisonous algal blooms and sends text messages to shellfish producers to warn them of the danger. They also maintain a "Harmful Algal Blooms Database" of all recorded blooms.

Check it out at www.marine.ie