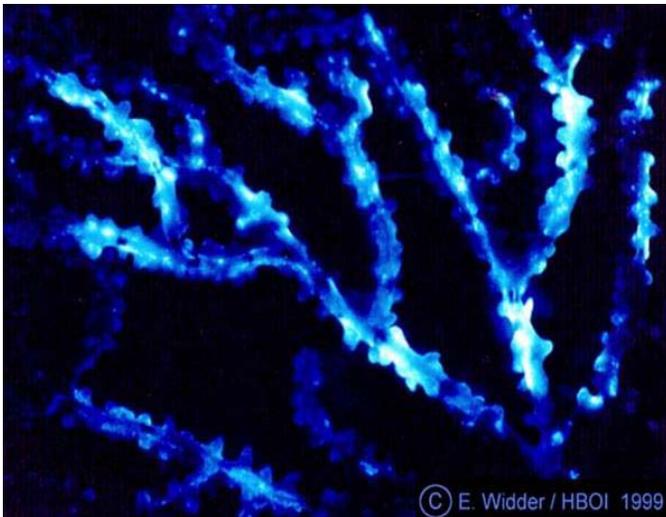


Bioluminescence

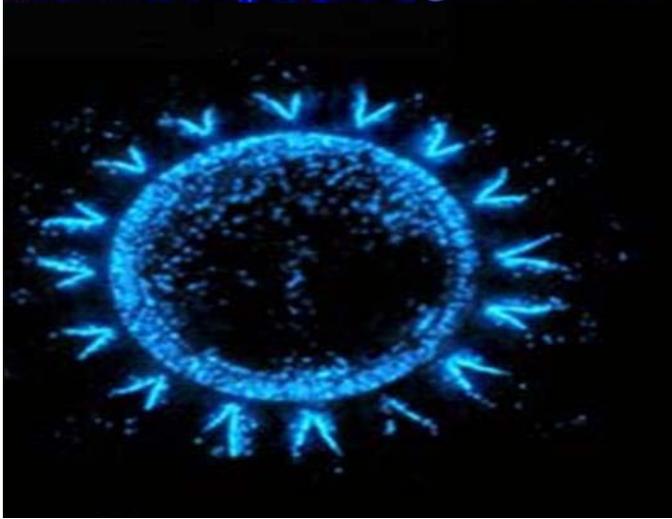
Have you ever heard of animals that make their own light? You may have seen fireflies or “lightning bugs” glowing on a summer evening, or a fungus called “foxfire” which gives off light. Many marine species are able to produce “living light” through a process known as bioluminescence, which is very common in the ocean. These organisms produce light through a chemical reaction that they control within their bodies. Other organisms have glowing bacteria that live on their bodies, and that is how they bioluminesce. Tiny plants and animals, and many worms, crustaceans, and fishes are bioluminescent. Nine out of ten animals that live in the deep sea generate their own light.

Why would an organism need to make its own light? Deep ocean environments are almost completely dark. Light can help an animal to attract food or a mate, to fool a predator, or to communicate with other animals. Different bioluminescent organisms can make different colored light such as green, red, or blue, which is the most popular color.

There is a lot that scientists still don't know about how marine organisms use their ability to make light. This is because they are hard to observe: turning on bright lights can cause animals to move away, and may permanently blind light-sensitive sight organs. Many type of bioluminescence can't be seen under ordinary visible light. Organisms must be captured in good condition in order to study their bioluminescent behavior, but unfortunately, nets and sampling equipment sometimes do not do a good job of preserving an organism as it is brought to the surface.



This bamboo coral glows when something brushes up against it.



This bioluminescent jelly has a sort of “burglar alarm” to scare away predators.