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ANNOUNCEMENTS (Updated: Dec 16, 2005)

Bioluminescence from space! Scientists have detected a huge "[milky sea](#)" of bioluminescent bacteria using a satellite.

It has been a while, but we updated the [research section](#) with more current literature. If you would like your paper listed, send us a note.

We're number one! -- at least in the top search engines like Google, Lycos, About, Altavista, Yahoo, Netscape, and AskJeeves. Maybe that explains all the spam.... We have updated our awards and added some of the more impressive sites linking to us. Check them out at the bottom of the [About page](#).

Publicize your research and see recent scientific references in our [Research Forum](#).

Bioluminescence is simply light produced by a [chemical reaction](#) which originates in an organism.

It can be expected anytime and in any region or depth in the sea. Its most common occurrence to the sailor is in the often brilliantly luminescent bow wave or wake of a surface ship. In these instances the causal organisms are almost always dinoflagellates, single-cell algae, often numbering many hundreds per liter.

They are mechanically excited to produce light by the ship's passage or even by the movement of porpoises and smaller fish.

Bioluminescence is a primarily marine phenomenon. It is the predominant source of light in the largest fraction of the habitable volume of the earth, the deep ocean . In contrast, bioluminescence is essentially absent (with a few exceptions) in fresh water, even in Lake Baikal. On land it is most commonly seen as glowing fungus on wood (called foxfire), or in the few families of luminous insects. (For firefly information, try [here](#).)

Bioluminescence has evolved many times in the sea as evidenced by the several distinct [chemical mechanisms](#) by which light is emitted and the large number of only distantly related taxonomic groups that have many bioluminescent members.

Bioluminescent bacteria occur nearly everywhere, and probably most spectacularly as the rare "milky sea" phenomenon, particularly in the Indian Ocean where mariners report steaming for hours through a sea glowing with a soft white light as far as the eye can see.

[Find out more](#) about the basic properties of bioluminescence.



The deep-sea fish *Aristostomias* has more than one light organ. Read more about this and other [amazing adaptations](#). (Illustration © Steven Haddock)