

SCIENCE ILLUSTRATED

An Undersea Camera That Won't Scare Away Its Subjects

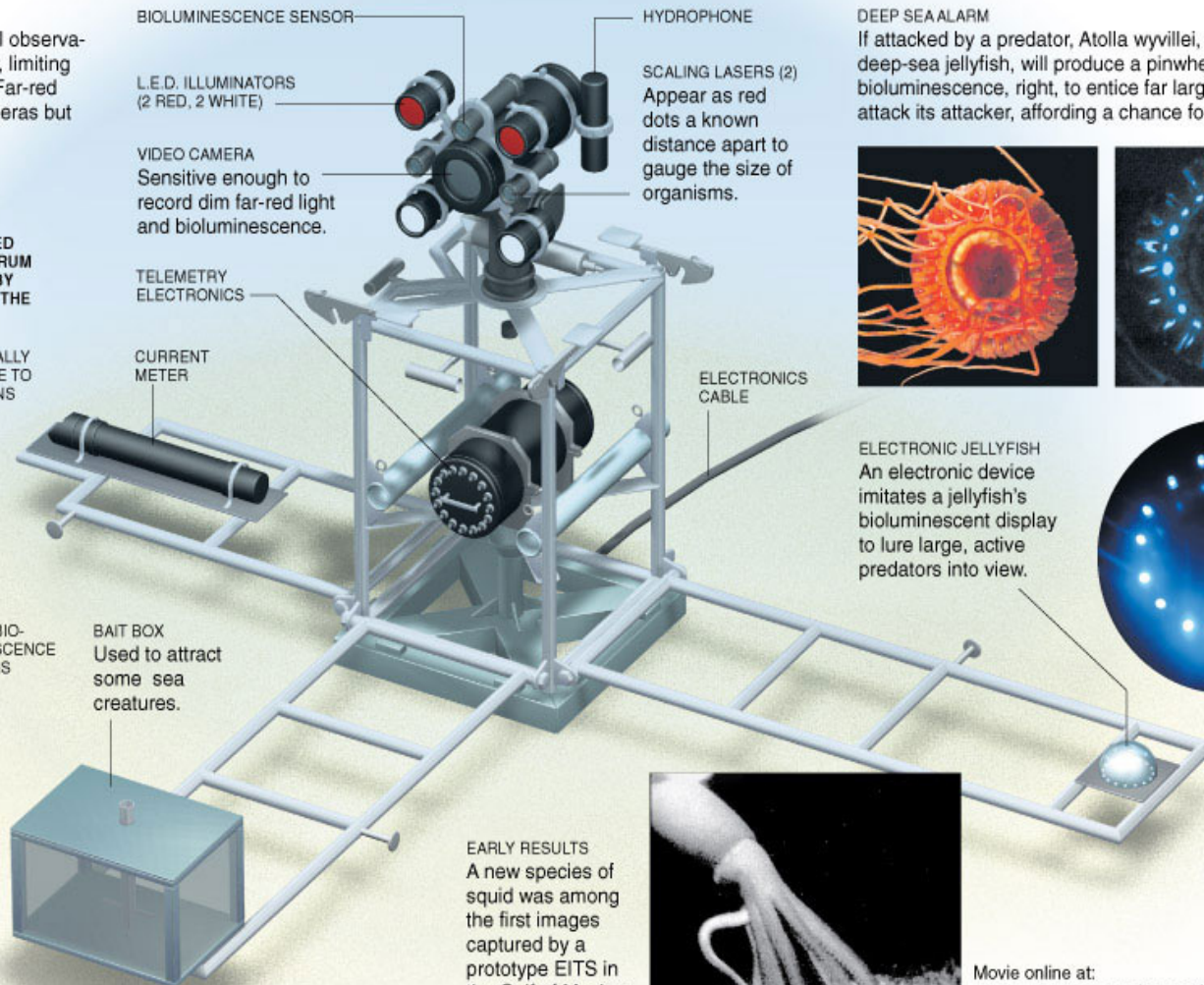
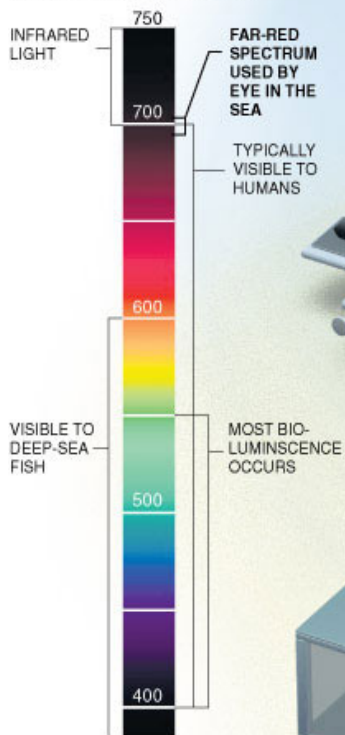
Undersea creatures can be very sensitive to light, complicating attempts to find and photograph them. Lights on vessels venturing into a world without sunlight drive species away, as can bright lights for video. Infrared light decays rapidly in seawater. But Edith A. Widder, a marine biologist at the Ocean Research and Conservation Association, has developed a

system that uses a spectrum of light known as far red. Called Eye in the Sea, the system will be used starting in November 2007 as part of the Monterey Bay Aquarium Research Institute cabled observatory, a remotely controlled camera platform that can be lowered to the dark depths of the sea. ANGELA M. H. SCHUSTER

SEEING WITHOUT BEING SEEN

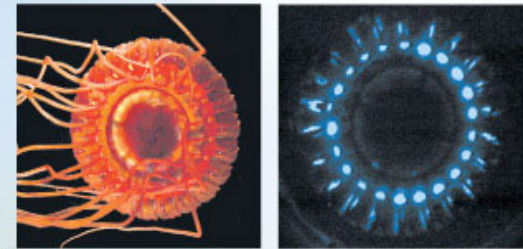
Infrared light used for terrestrial observation decays rapidly in seawater, limiting its utility in ocean exploration. Far-red light can be seen by video cameras but is invisible to ocean life.

WAVELENGTH, IN NANOMETERS



DEEP SEA ALARM

If attacked by a predator, *Atolla wyvillei*, a common deep-sea jellyfish, will produce a pinwheel display of bioluminescence, right, to entice far larger predators to attack its attacker, affording a chance for escape.



ELECTRONIC JELLYFISH

An electronic device imitates a jellyfish's bioluminescent display to lure large, active predators into view.



EARLY RESULTS
A new species of squid was among the first images captured by a prototype EITS in the Gulf of Mexico.



Movie online at:
www.oceanrecon.org/research.html

Source: Ocean Research and Conservation Association