

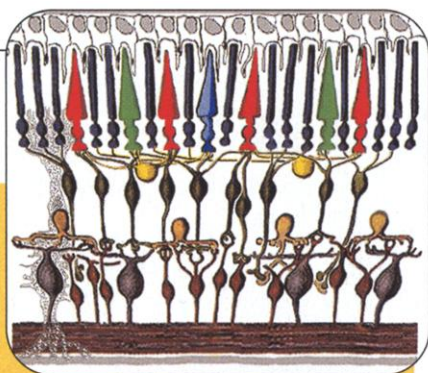
EDUCATION

Vision Made Clear

As you read these words, photons bouncing off the page are pelting the light-sensitive retinas in the back of your eyes. Networks of cells in the retina (above) capture this rain of photons, transforming it into electrical signals the brain can interpret to create an image. That's the simple version of how we see.

For a detailed explanation of what scientists know about the mechanisms of sight, take a peek at Webvision, an online text on the anatomy and function of the mammalian retina hosted by the University of Utah. Starting with the basics of eye anatomy, the expert authors plunge into topics such as the biochemistry of rods and cones, chemical communication among cells in the retina, and the workings of the visual cortex, the brain region where signals from the eyes are processed. Making each chapter easier on the eye are plentiful drawings, photos, and movies.

webvision.med.utah.edu



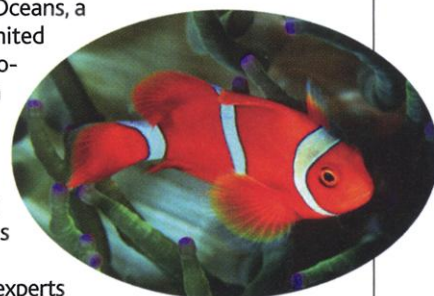
RESOURCES

Saving the Seven Seas

Promoting sustainable use of the hard-pressed oceans is the mission of the UN Atlas of the Oceans, a new online encyclopedia from the United Nations. The site aims to provide up-to-date data on human uses of the ocean and environmental issues, such as pollution, food security, and global climate change. The atlas should attract a broad audience, from schoolchildren to ecologists and policy-makers, says project manager John Everett.

Sections offer overviews written by experts in fields such as fisheries, along with documents and reports from UN agencies and organizations such as the National Oceanic and Atmospheric Administration, one of the site's chief contributors. Although the atlas is embryonic, some of the content is already taking shape. Visit the energy section, for example, to find a report on the feasibility of offshore wind farms and backgrounders on generating power from the tides and from waves. An image gallery is also in the works (above, a spine-cheek anemonefish). The atlas depends on contributions from oceanographers and other specialists and needs more input, says Everett, who envisions participation from hundreds of scientists. "We're looking for collaborators to help us fill the closets in this big house we've built."

www.oceansatlas.org



EXHIBIT

Ground Control to Major Tomasov

In the early 1960s, the Soviets seemed to be the ones with the right stuff, after their rockets hoisted the first satellite and the first person into space. Their head start fizzled, but the space program endured the political events of the next 40 years. Uncover the history of the Soviet and Russian space efforts at this site created by journalist Anatoly Zak, who covered the field for the Moscow newspaper *Nezavisimaya Gazeta*.

Get oriented with a timeline spotlighting more than 100 years of developments, from the noodling of the earliest rocket researchers to last year's commercial launches. Click on an interactive map to tour facilities such as the Baikonur Cosmodrome, the main Soviet and Russian launch site since the 1950s. The biography section profiles masterminds such as Sergei Korolev, who survived 6 years in the gulag to become head of Soviet rocket development. The site's news roundup presents the latest on Russian ventures, which might soon include a real space oddity—the first pop star in orbit.

www.russianspaceweb.com

IMAGES

Where the Heat Is On

Expressed in figures such as average temperature increase per decade, global warming sounds remote and unthreatening. The online gallery World View of Global Warming aims to make climate change real and immediate by documenting effects we can see and measure today. The site builds on a photo exhibit begun 3 years ago by photographer Gary Braasch of Nehalem, Oregon. Braasch collected examples of environmental shifts that range from disappearing toads in Costa Rica to melting permafrost in Alaska to surging sea levels in Siberia. The most dramatic shots involve swiftly melting ice. The Ururashraju glacier in Peru, for example, recoiled 500 meters between 1986 and 1999. In Antarctica, the Müller Ice Shelf (right) has begun to shrink and crumble after expanding for the last 400 years. Each case, Braasch says in the introduction, comes from peer-reviewed, published studies.

www.worldviewofglobalwarming.org



Send site suggestions to netwatch@aaas.org. Archive: www.sciencemag.org/netwatch