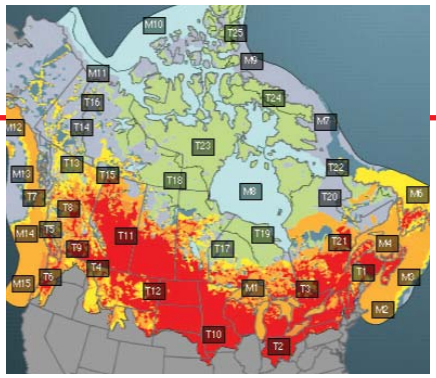
NetWatch

edited by Mitch Leslie



RESOURCES

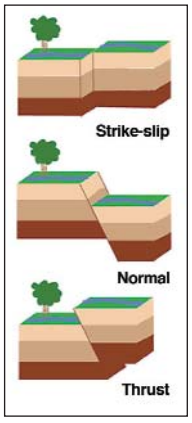
Race to Save the Environment

Bone up on the threats facing North American ecosystems and what treaties are meant to protect nature worldwide at this pair of environmental sites. The Nature Audit from World Wildlife Fund Canada takes a broad view of conservation.* The site hews Canada and the northern United States into 40 aquatic and terrestrial "conservation planning regions" that not only share similar ecology but also face similar types of human development and activities, such as mining, oil drilling, deforestation, and invasive species. Click on a nifty interactive map to summon a description of each region and its conservation imperatives. Here, a composite map shows the most threatened areas in red and orange.

Wondering which agreement governs air pollution crossing the U.S.-Canada border? This site† at Columbia University's Center for International Earth Science Information Network hosts a database of 190 environmental treaties, from the Convention on Long-Range Transboundary Air Pollution to the Antarctic Treaty on Environmental Protection. You can peruse the texts of treaties and find out which countries have signed or ratified them.

* wwf.ca/AboutWWF/WhatWeDo/TheNatureAudit/InteractiveMap

† sedac.ciesin.columbia.edu/entri/index.jsp



DICTIONARY

Solid Definitions for an Unstable Field

If your understanding of the difference between a dip-slip fault and a strike-slip fault is a little shaky, slide over to this illustrated glossary of earthquake vocabulary from the U.S. Geological Survey. Photos and easy-to-grasp drawings help convey the meanings of more than 100 quake-related terms, from accretionary wedge to rupture velocity to tsunamigenic. In a strike-slip fault, for instance, the fracture is vertical, but it's tilted in a dip-slip fault, in which rock can move down (normal) or up (thrust).

earthquake.usgs.gov/image_glossary

COMMUNITY SITE

Plants' Underground Partners

Most plant species get by with a little help from some friends: Fungi swap minerals that they slurp from the soil for food from the plant. Researchers studying this mutually beneficial partnership, known as mycorrhizae, can find an abundance of useful information at this community site from the University of Tennessee, Knoxville. Want to stay up-to-date on the latest research? Listings highlight fresh literature, texts, book reviews, and journals. Looking for a simpatico collaborator? Follow links to several directories of fungus researchers and a long roster of mycorrhizae labs. Still digging for that first job? Try the half-dozen linked jobs boards.

mycorrhiza.ag.utk.edu

DATABASE

Get to Know Your Inner Microbe

Inside a eukaryotic cell, structures called mitochondria and chloroplasts perform the jobs of releasing energy from food and (in plants) capturing sunlight. These organelles tote their own DNA, a vestige of their ancestry as independent bacteria. GOBASE, a collection of chloroplast and mitochondrial genomes sponsored by the University of Montreal in Canada, supplies plenty of information for researchers probing everything from the evolution of these partnerships to the interplay between mitochondrial and nuclear genes. The database holds partial and complete genome sequences from a slew of plants, animals, protists, and fungi. You can also get the lowdown on functions of organelle proteins and uncover gene maps and diagrams of RNA structures for some species.

megasun.bch.umontreal.ca/gobase

IMAGES

Earthly Photo Ops

Looming above the central Australian desert, Uluru (below) carries scars from wind and water erosion and chemical weathering. At this new gallery from the American Geological Institute in Alexandria, Virginia, you can find many more shots that illustrate concepts in environmental science, geology, oceanography, climatology, and related disciplines. Free for teaching and research, the more than 1200 images in 39 categories range from glaciers sprawled across mountain valleys to satellite photos of the pollution-shrouded U.S. eastern seaboard to a wealth of beautiful minerals. Shutterbugs can contribute their own shots to the album.

www.earthscienceworld.org/imagebank

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

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