



DATABASE

On the Rocks

If you need to know how much water each American county consumes or want to locate Cretaceous sedimentary deposits that might conceal a *Tyrannosaurus rex* skeleton, then check out GEO-DATA Explorer, a jam-packed storehouse from the U.S. Geological Survey. This portal offers more than 100 geological and geographical data sets for the United States and other countries, from maps of coal deposits to real-time stream flow measurements.

The site is organized around a tool that lets you, with a little practice, zoom in on maps and add layers showing different data sets. For example, with the North America map, you can plot the positions of volcanos

and meteorite impacts, landfall sites for hurricanes, and the classification of public lands. Some other categories—such as county water consumption and agrochemical use—are hard to see on the maps but can be downloaded as data files. The site's international collections emphasize the distribution of natural resources such as oil, coal, and natural gas.

geode.usgs.gov

IMAGES

Join an Expedition

Who said the age of exploration is over? We might have mapped the physical contours of the planet, but taxonomists still have plenty of work to do because millions of species remain undescribed. Click on the photo essays prepared by the Missouri Botanical Garden in St. Louis and you can tag along with botanists and other scientists as they collect specimens in exotic places. Stand alongside a forest river in Madagascar, home to two-thirds of the world's chameleons (above, *Chamaeleo pardalis*), or voyage into southern Venezuela, where the carnivorous plant *Utricularia quelchii* awaits its prey on mountaintops. More than just pretty pictures, these essays supply background info on natural history, geology, the origins of various species, and the human impact on local biodiversity.

ridgwaydb.mobot.org/mobot/photoessays

EDUCATION

Hunting a Ghostly Particle

Raymond Davis and Masatoshi Koshiba shared this year's Nobel Prize in physics for their ingenious underground experiments that trapped neutrinos, wispy subatomic particles that might have no mass. Although it hasn't been updated recently, this site by a French researcher provides a good brief history of the pursuit of these ghostly particles. German physicist Wolfgang Pauli predicted the existence of neutrinos in 1930, but scientists did not detect their spoor until 1956. The site also offers plenty of information about various neutrino-capturing projects, many of which are ensconced underground in order to screen out extraneous particles. (Right, the Homestake detector, buried 1480 meters below the surface in a South Dakota gold mine, where Davis studied solar neutrinos for 2 decades starting in 1967.)



www.lapp.in2p3.fr/neutrinos

DATABASE

Confluence of Ocean Info

Data on marine species can be as widely scattered and hard to locate as giant squid. Simplifying the search, the Ocean Biogeographic Information System (OBIS) lets you trawl 12 marine databases for collection records. You can merge geographic information from storehouses such as CephBase (which focuses on squid and their kin), FishBase, and FishNet and from collections on crustaceans, coral, and plankton. However, coverage is still spotty. Search for "barracuda," for instance, and you'll get a long list of records that includes the longitude and latitude of barracuda catches in the late 1700s, but nothing more recent. OBIS's creators plan to link to more databases and to incorporate environmental measurements. The project is part of the international Census of Marine Life, whose goal is to compile a complete catalog of marine species, their distribution, and their abundance.

www.iobis.org

COMMUNITY SITE

Developing Interest

Tackling questions such as the origin of the heartbeat and the effect of temperature on muscle growth, developmental physiology is where embryology meets molecular biology and biochemistry. Seasoned researchers and newbies alike will find plenty of developmental physiology resources at this community site created by Warren Burggren of the University of North Texas in Denton. Using it, you can locate possible collaborators, browse a schedule of upcoming meetings, link to reviews of new books, or peruse a list of new journals. You can also find support for yourself or your work with lists of jobs and funding providers.

www.biol.unt.edu/developmentalphysiology

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

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