

SOFTWARE

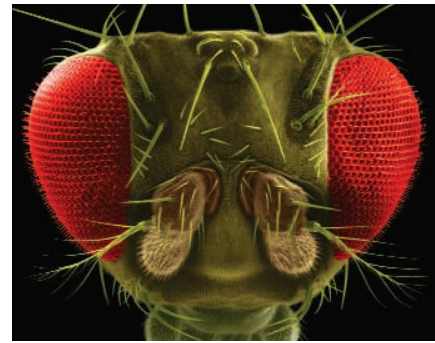
Do-It-Yourself Field Guides

Plenty of field guides cover organisms such as birds and wildflowers, but what if you're interested in less showy creatures such as tapeworms or diatoms? This free program from emeritus developmental biology professor Richard Campbell of the University of California, Irvine, lets you make your own illustrated guides. To simplify identification, you can organize the species by characteristics or location. >> rcampbell.bio.uci.edu/DigitalNatureGuide

EDUCATION

Bio Teacher's Aide

Having trouble putting together that lecture on Mendelian genetics? Need a refresher on stem cells? Check out the materials stashed at BioEd Online from Baylor College of Medicine in Houston, Texas. Most of the content is geared toward the high school level, but some of it would work for introductory college classes. You can download more than 30 slide sets that delve into subjects from cloning to population ecology. Other slides offer help in the lab, explaining techniques such as using a bright-field microscope. Visitors can also cue up some 40 video lectures. The Hot Topics section features short articles on the prospects for a bird flu pandemic and other current issues. The site also posts news stories from *Nature*. >>
www.bioedonline.org



EDUCATION

Surfing the Final Frontier

When astronomers talk about the Jeans length, they aren't referring to inseams. The term describes how small an interstellar hydrogen cloud can become before it begins to condense, one of the criteria for new star formation. Students keen to learn more about stellar birth or a host of other topics in space science should plot a course for Astronomy Online. The encyclopedia comes from amateur astronomer Ricky Leon Murphy, whose day job at Stanford University Hospital entails photographing the interior of the eye. You'll find brief illustrated chapters on topics such as the structure of the solar system and the clustering of galaxies, along with guest contributions. Readers who just want to stargaze can flip through the gallery, which showcases photos such as this stunner of the Iris nebula, a swirl of dust lit by a sizzling young star (above). >>

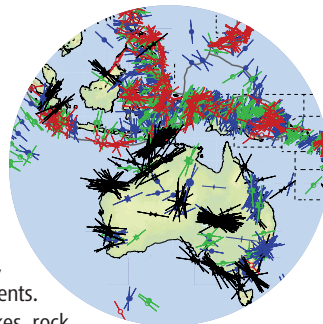
astronomyonline.org

DATABASE

Planetary Pressure Points >>

As tectonic plates jostle each other, they stretch and squeeze Earth's crust. Find out where rocks are showing the strain at the World Stress Map Project from the Heidelberg Academy of Sciences and Humanities in Germany. Aimed at everyone from geologists modeling plate movements to engineers assessing earthquake risk, the clearinghouse records nearly 16,000 stress measurements. The values are based on ground slippage from earthquakes, rock fractures during drilling, and other indicators of underground tension and compression. Users can download the database or consult maps that depict the direction of stress and the quality of the data in different places (above, Australia and southeast Asia). You can also use the site's software to craft your own maps. >>

www.world-stress-map.org



TOOLS

Notching Connections

In animals from nematodes to humans, the Notch pathway helps tender young cells decide whether they'll grow up into a neuron or another type of cell. Researchers can trace the molecular liaisons that make up the mammalian version of the pathway at the Murine Notch Signal Transduction Database, created by grad student Julius Barsi and undergraduate Zack Mahdavi of the University of Texas, Austin. To uncover information about particular components, mouse across a map of the pathway and click on a protein, gene, or RNA molecule. Up pops a page that lists the other components your choice links to and describes these interactions. Entries also furnish PubMed abstracts for papers that provide evidence for each connection. >>
web.biosci.utexas.edu/artzt%5Flab/notch

Send site suggestions to >> netwatch@aaas.org

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