IMAGES

Virtual Brain Shelf

Why does a mouse's brain have smooth hemispheres whereas an elephant's are wrinkled (above)? Brain experts can make educated guesses—maybe the extra neurons handle sensory input from the elephant's dexterous trunk—but they can't answer definitively, says neurophysiologist Wally Welker of the University of Wisconsin, Madison. Hoping to stimulate research into differences in brain anatomy is Comparative Mammalian Brain Collections, run by Welker and colleagues at Michigan State University and the National Museum of Health and Medicine.

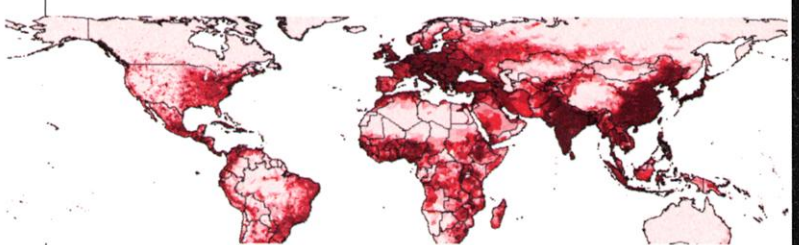
Instead of row after row of jars, this online brain museum stocks images of whole brains of more than 100 mammalian species—from humans to dolphins to tree shrews—and stained thin sections for 15 species. Backgrounders cover topics such as brain nomenclature and how to infer the brain structure of extinct animals from impressions inside fossil skulls. Zoologists, psychologists, and neuroanatomists are the target audiences, but many teachers and students also use the site, Welker says.

brainmuseum.org

DATA

Earth by the Numbers

Suppose you need to know what percentage of land in Uganda is set aside in reserves, or how many of Australia's 260 mammal species are threatened, or how many wild orchids are legally sold each year. Track down these nuggets (the answers are 7.9, 58, and 343,801) at Earth-



Trends, a new environmental almanac packed with facts and figures of value to policy-makers, researchers, and even teachers hoping to jazz up a lecture. Compiled by the World Resources Institute in Washington, D.C., the data cover more than 140 countries as well as regional and global trends, with topics running from energy production to fish consumption to forest loss. For each of 10 major themes (agriculture and food, climate and atmosphere, and so on), you can call up tables, country profiles, and downloadable maps like the one above, which shows the density of the soaring human population.

earthtrends.wri.org

EXHIBITS

Fuel Cell Future?

Just in time for a hot summer of high gas prices and rolling blackouts, an online exhibit at the Smithsonian Institution investigates the history and potential of hydrogen-powered fuel cells, a possible clean alternative to filthy coal and oil. Surprisingly, research on the cells—which emit mainly just water—stretches back more than 150 years. However, high costs and practical difficulties (such as the sizzling operating temperatures of some designs) have confined them to use in spacecraft, the occasional power plant, and a few prototype vehicles.

americanhistory.si.edu/csr/fuelcells/index.htm

RESOURCES

Covering the Spectrum

Using a method called mass spectrometry to identify chemicals, scientists can trap a poison-wielding murderer, pinpoint leaks in the international space station, or deduce the diets of ancient cave-dwellers. A site called i-mass.com* is dedicated to mass spectrometry, which uses an electromagnetic field to "weigh" the contents of a sample. Offerings include news briefs gleaned from technical and popular publications, tip-offs to valuable journal articles, links to labs, and the all-important jobs list. A newer site† from publisher John Wiley provides similar features but covers all spectroscopy, from infrared to Raman.

* i-mass.com
† www.spectroscopynow.com/Spy/basehtml/SpyH

RESOURCES

Crocodile Den

Get up close and personal with some large, carnivorous reptiles at Crocodilians: Natural History and Conservation, created by croc specialist Adam Britton of Darwin, Australia. Illustrated with range maps and photos, the site describes the physical characteristics, favorite haunts, and breeding habits of all 23 species of crocodilians. There's also plenty of information on the basic biology, taxonomy, and conservation status of these persecuted species, nearly half of which are endangered.

Some visitors may be persuaded to shed their stereotypes. If you think the aquatic reptiles are nothing but lounge lizards, for instance, check out the film clips of agile crocodiles galloping or leaping from the water almost like a dolphin to snap at a hunk of meat. And unlike most reptiles, croc parents aren't deadbeats. The female guards her nest and gently totes the youngsters around in her mouth (above). Beat that, soccer moms.

www.crocodilian.com

Send great Web site suggestions to netwatch@aaas.org

CREDITS: (BRAINS) UNIVERSITY OF WISCONSIN BRAIN COLLECTION; (CROCODILE) ADAM BRITTON