

NET NEWS

Calling All Taxonomists

It's such a daunting job that nobody has pulled it off in more than 200 years: compiling a list of the world's known species. But the organizers of a new project called Wikispecies hope that everyone from biologists to birders will lend their know-how to a comprehensive online catalog of the world's roughly 1.8 million kinds of living things, such as the raft spider (*Dolomedes fimbriatus*; below).

Wikispecies hails from the same organization that launched the user-written encyclopedia Wikipedia (NetWatch, 5 September 2003, p. 1299). Like Wikipedia, the entries will evolve as contributors edit, correct, and augment one another's writing. But Wikispecies is aimed at scientists rather than the general public. "You won't have to fax your degrees" before you can add to the site, says Wikipedia founder Jimmy Wales, but submissions will have to pass muster with a technical audience. The site includes preliminary classifications for some groups, and the first species pages should post later this year, Wales says. Researchers can join the conversations about the site's structure or flesh out the classification for various groups.



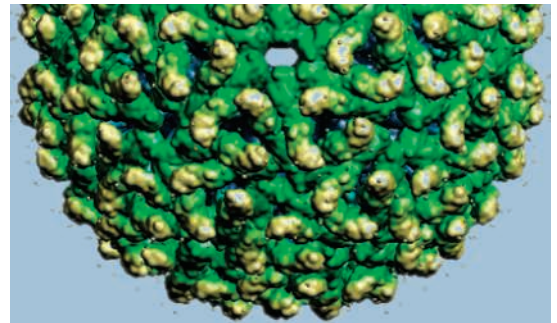
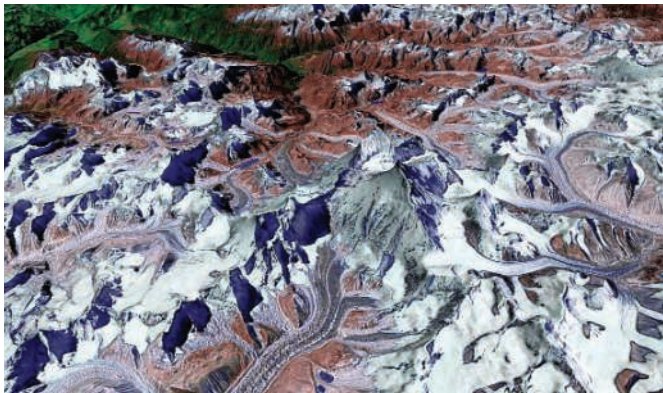
species.wikipedia.org

DATABASE

Counting Cancer's Bad Breaks

Mutations can foil the intricate mechanism that controls cell division, triggering cancer. COSMIC, a year-old database from the Sanger Institute near Cambridge, U.K., tallies the faults within genes that can promote uncontrolled growth. Curators plucked information on more than 18,000 noninherited mutations from published studies, focusing on 21 genes that don't already have their own databases. You can search the collection by gene or by tissue to find out the location and frequency of different glitches. For instance, 47% of eye tumors sport mutations in the gene *RB1*, whose protein normally keeps growth-stimulating molecules in check. The database also records instances in which a particular gene isn't mutated in a certain sample, information that can help pin down how often the change occurs in different cancers.

www.sanger.ac.uk/genetics/CGP/cosmic



RESOURCES

Viral Visions

The surface of a virus reveals how the infectious particle breaks into cells and possibly how to thwart it. Researchers can view and analyze the exteriors of 200 viral varieties at the freshly revamped VIPERdb,^{*} from the Scripps Research Institute in La Jolla, California. The site draws on structural coordinates stashed in the Protein Data Bank, allowing users to study different aspects of each virus's architecture. Choosing the mosquito-borne Sindbis virus (above), for instance, calls up images that illustrate its overall structure, show how its proteins fit together, and more. Other features identify the strongest and weakest interactions between sections of the virus, which can help researchers pinpoint its vulnerable spots. The recent upgrade tripled the number of viruses in the database and added tools for comparing viral characteristics.

The intricacies of viral surface structure are also on display at this colorful gallery[†] from the University of Wisconsin, Madison. Images and animations afford a close look at the Flock House virus, the Semliki Forest virus, and more than 30 other types.

^{*} viperdbscripps.edu

[†] rhino.bocklabs.wisc.edu/cgi-bin/virusworld/virustable.pl

IMAGES

Above and Beyond

Even on the best relief maps, Mount Everest and other spectacular geographical features are, well, flat. But the mountain stands tall (left) at this new atlas of panoramic images aimed at geography students and curious visitors. Crafted by William Bowen, a retired professor of geography from California State University in Northridge, the collection boasts some 500 computer-generated aerial views of the world's landscapes, from the Florida Keys to the Pyrenees Mountains to the Bay of Bengal. "My plan will be a small attempt to make far-off places literally visible to anyone who wishes to see them," Bowen says.

geogdata.csun.edu/world_atlas/index.html

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