DATABASE

Parse Protein Pedigrees

A new Web site from Hebrew University in Jerusalem aims to simplify the analysis of protein structure and function. Along with the usual sequence information, ProtoNet automatically clusters proteins by similarity, creating a family tree that allows researchers to compare individual proteins or related groups. For more than 100,000 proteins, the site holds a data card that lists each molecule’s amino acid sequence, identifies functional regions, and charts the taxonomy of the organism it comes from. You can compare each protein to other members of its immediate family or climb up the tree to contrast different groups, which might help deduce the function of mystery molecules or tease out evolutionary trends. If you don’t find your favorite protein here, submit its sequence to find out how it fits into known clusters.

www.protonet.cs.huji.ac.il/protonet/index.php

RESOURCES

Tour the Strongholds of Biodiversity

Evolution plays favorites. Only 25 small areas, known as biodiversity hotspots, boast nearly half of the world’s plant species and more than one-third of its vertebrates. Conservationists treasure these havens of biodiversity because each one nurtures an abundance of unique species. Visit the hotspots with this new online atlas, which expands on an analysis published 2 years ago by Conservation International, based in Washington, D.C.

Packed with facts and figures, the atlas whisks you around the globe to places like California, Madagascar, West Africa, and the Atlantic coastal forests of South America, which host some 20,000 plant species. You can meet some of the novel organisms in places like New Zealand, home to flightless nocturnal parrots, rare ferns, crickets the size of mice, and this multilegged velvet worm (above). People are rapidly destroying habitat in the hotspots, and the site provides the latest on conservation measures and continuing threats. For example, to protect some New Zealand natives from ravenous invasive species, conservationists have transplanted all the remaining individuals to predator-free islands.

www.biodiversityhotspots.org/xp/Hotspots

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