dollars on an unpopular war, it leaves you with precious little to spend on anything else," fumed Michael Lubell of the American Physical Society. "I don't expect to see any real changes until after the 2008 election."

Part of Marburger's comments were aimed at pending legislation that would authorize large increases at several science agencies (*Science*, 4 May, p. 672). "People probably wonder why Marburger is not more enthusiastic about these authorizations," the science adviser said in an interview. "I appreciate the desire of Congress to do this, and I feel uncomfortable criticizing them. But it's unrealistic to expect it to happen."

His dark analysis also applies to the flattening of the National Institutes of Health budget after its 5-year doubling ended in 2003, which he says created an increased research capacity that the federal government cannot support. Referring to the communities' expectations of continued robust increases, he said in his speech that "I cannot see how such an expansion can be sustained by the same business model that led to its creation. The new researchers will either find new ways to fund their work, or they will leave the field."

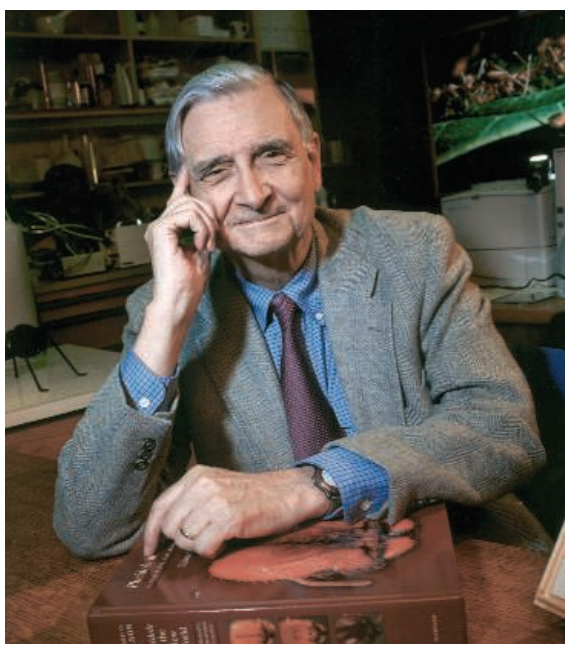
Michael Rodemeyer, a former longtime Democratic congressional science aide, acknowledges that "it's politically hard" to shift spending toward science but disagrees with Marburger that there is any "iron law" fixing its share of domestic spending. But Dan Sarewitz, another former aide now at Arizona State University in Tempe, thinks that Marburger's underlying message is valid. "It's certainly reasonable to complain that the current Administration's priorities have recklessly wasted the budgetary surplus and made it impossible to make important discretionary investments," says Sarewitz. "But if this is true for science, then it's true for other areas. … So which ones would science like to go up against?"

–JEFFREY MERVIS

BIODIVERSITY

The Ultimate Life List

Hands up if you've heard this before: An ambitious new project promises to create an online compendium of all 1.8 million or so described species. It can already claim participation by premier institutions, a wad of start-up cash, and huzzahs from biodiversity guru Edward O. Wilson. Although some confess to a wary sense of déjà vu, taxonomists hope that the Encyclopedia of Life (EOL) can provide the long-awaited comprehensive species catalog. Even enthusiasts agree that it faces some tall hurdles, however, such as signing up curators and getting permission to use copyrighted material.



Electronic ark. E. O. Wilson's idea for a Web-based encyclopedia containing all the species on Earth is now ready for launch.

Announced this week, EOL involves big names in biodiversity research, including Harvard University and the Smithsonian Institution, and has garnered $12.5 million from the John D. and Catherine T. MacArthur Foundation and the Alfred P. Sloan Foundation. Its plan envisions posting Web pages for each known species. EOL will also provide access to original species descriptions by teaming with the Biodiversity Heritage Library, which is digitizing the pre-1923 taxonomic literature on which the copyright has expired.

Pages on 50,000 species should be ready by the end of 2008, with 700,000 to 1 million species online by 2011, says EOL's newly appointed executive director, James Edwards. He estimates that the work will take 10 years and cost $70 million to $100 million. A separate group is developing a European equivalent, known as SpeciesBase, and the two projects will swap information.

If EOL sounds familiar, that's because its brief overlaps with those of several efforts, notably the All Species Foundation, whose chair promised to deliver a Web site for every species (*Science*, 26 October 2001, p. 769). That project is defunct, but others have managed to cover slices of biodiversity. At one end of the spectrum is the Catalogue of Life, which houses bare-bones taxonomic data—the equivalent of name, rank, and serial number—for more than 1 million species. At the opposite end are lush sites such as FishBase and AlgaeBase, which home in on specific groups and offer illustrated pages on individual species.

EOL will follow both approaches but differs from these projects in automating information collection. Software will pluck data from FishBase, Catalogue of Life, and other Web sources—a "mashup" in Internet parlance. But EOL will be a curated mashup, with experts crafting a home page for each species that records its classification, alternative names, distribution, habitat, diet, and so on. Users will have the opportunity to build additional wiki-style pages, determining what content to include and who gets to contribute, Edwards says. Birdwatchers could flock together to post sighting records, for example, while molecular biologists might add gene expression data.

Researchers praise the EOL's vision but fret about the execution. "The exercise is only worthwhile if it's more accurate and better coordinated than what's already available on the Internet," says Frank Bisby, a taxonomist at the University of Reading in the U.K. and co-director of the Catalogue of Life. Even getting the names right for the poorly studied groups that contain much of biodiversity is a challenge, says Joel Cracraft, curator of ornithology at the American Museum of Natural History in New York City.

Obtaining permission to use post-1923 literature is also an issue, says Donat Agosti, an American Museum of Natural History entomologist who works in Bern, Switzerland. Edwards says that EOL is negotiating with scientific societies and publishers. Although some deals are in the offing, none has yet been announced, he says.

–MITCH LESLIE

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