

GENOMIC PRESERVATION

DNA OF THE DEEP: ALGAE EXPERT AIMS TO ARCHIVE THE OCEAN

While the San Diego Zoo is stockpiling DNA from endangered primate species, and London's Kew Gardens is putting away samples of plants that might become extinct, a little-known nonprofit organization in Ipswich, Mass., has taken on the task of preserving the DNA of ocean-going organisms.

The Ocean Genome Legacy is the pet project of **NEW ENGLAND BIOLABS** President Don Comb. "We felt that *Homo sapiens* has done a bad job of preserving biodiversity on land," he explains, "and with the earth's surface being 30 percent used for human basic needs, and another 50 percent expected in 50 years, we better start preserving the marine species."

Comb hired Wolfgang Hess, a blue-green algae expert from Berlin's **HUMBOLDT UNIVERSITY**, to direct his effort to archive the DNA of marine organisms — more than 50 percent of which he says have yet to be described — with an initial \$1 million grant from New England Biolabs. The organization will encourage researchers worldwide to submit DNA samples from marine

organisms, which Hess's team will use to make DNA libraries that will, in about two years, be made available to the scientific community for free.

Hess will rely on partners to collect samples while his team performs DNA analysis, purification, bioinformatics, and phylogenetic tree construction.

A far-flung board of trustees should help with the global effort. It includes Nobel laureates Sydney Brenner and Rich Roberts, Douglas Foy, former director of the **CONSERVATION LAW FOUNDATION** in Boston; John Benzie, director of the center for marine and coastal studies at the **UNIVERSITY OF NEW SOUTH WALES**; and Wolfgang Sterrer, curator of the **BERMUDA NATURAL HISTORY MUSEUM**.

A sponge to be archived by the Ocean Genome Legacy



Already, the project has started to culture sponge and sea urchins. Says Comb, who developed a fondness for marine research many years ago as a **HARVARD MEDICAL SCHOOL** student stationed at the Bermuda Biological Station, "This is essentially where all life began. We wanted to start with the major transition groups — sponges and animals with bilateral symmetry."

—Adrienne Burke