Marine census shows ocean life "richer" than expected

Oct. 4, 2010 Courtesy of the Census of Marine Llfe and World Science staff

A ten-year effort by marine explorers from more than 80 countries has led to the first global Census of Marine Life, the most complete picture yet of the oceans' biodiversity, scientists announced Oct. 4.



The tube-dwelling anemone lives in a mucous tube on the muddy bottoms of coastal waters, estuaries, and soft seabeds in tropical and subtropical waters. When the anemone is threatened, it retracts into its tube for protection. The beautiful stinging tentacles vary from a vibrant purple to a creamy brown. (Photo: Karen Gowlett-Holmes)

More than 2,700 researchers working with the Census project spent over 9,000 days at sea on more than 540 expeditions, plus "countless days in labs and archives," the organization, headquartered at the University of Rhode Island, said in a statement.

Members said the findings show that ocean life is even richer and more diverse than widely imagined.

The census catalogued nearly 30 million observations of 120,000 species organized in a database called the Ocean Biogeographic Information System. The system contains a directory of the names and home ranges of known ocean species. It also delineates the vast areas of ocean that have never been explored.

"We prevailed over early doubts that a Census was possible, as well as daunting extremes of nature," said Australian Ian Poiner, chair of the Census Steering Committee. "The Age of Discovery continues."



This spectacular jellyfish inhabits the water of the Great Barrier Reef off Lizard Island, Queensland, Australia. (Gary Cranitch, Queensland Museum)

The beauty, wonder, and importance of marine life are hard to overstate, Poiner added. "All surface life depends on life inside and beneath the oceans. Sea life provides half of our oxygen and a lot of our food and regulates climate. We are all citizens of the sea. And while much remains unknown, including at least 750,000 undiscovered species and their roles, we are better acquainted now with our fellow travelers and their vast habitat on this globe."



A new species, the kelp Aureophycus aleuticus (Max K. Hoberg, Institute of Marine Science, University of Alaska Fairbanks)

Begun in 2000, the Census (<u>www.coml.org</u>) grew to a \$650 million global exploration, involving over 670 institutions and more than 10 times the original 250 collaborators. The Census reached its total of 17 projects in 2005.

More than 300 leaders of the Census group are meeting Oct. 4 through 7 in London at the Royal Institution of Great Britain, the Royal Society, and Natural History Museum to share the results and discuss their implications.

The directory establishes a baseline through which future damage to or restorations of marine ecosystems can be gauged, researchers said.

The project also generated an array of beautiful photographs of sea creatures, some of them new to science.