

San Diego Supercomputer Center Participates in First 'Census of Marine Life'

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After a decade of joint work involving 2,700 researchers from 80 countries, the world's scientists - as well as the general public - can now access the Census of Marine Life, which provides the first in-depth look at the more than 120,000 diverse species which inhabit our oceans.

The Census of Marine Life initiative, started in 2000, is the result of one of the largest scientific collaborations ever conducted, the result of more than 540 expeditions and 9,000 days at sea, plus more than 2,600 academic papers published during that period.

The just-released census paints an unprecedented picture of the diversity, distribution, and abundance of all kinds of marine life in the world's oceans, from microbes to whales, from the icy poles to the warm tropics, from tidal shores to the deepest depths.

Moreover, the census will serve as a baseline to measure any changes during the 21st century, be it from global warming trends or man-made disasters such as the Gulf of Mexico oil spill that occurred earlier this year. A full press release describing the CoML initiative can be found [here](#).

Participating in the global research was Karen Stocks, a biological oceanographer and deep sea ecologist with the San Diego Supercomputer Center at UC San Diego. Stocks has been developing the SeamountsOnline data base since 2001, which supports the data analysis efforts for CenSeam, a project launched in 2005 to determine the role of seamounts, or underwater mountains, in the biogeography, biodiversity, productivity, and evolution of marine organisms, and to evaluate the effects of human exploitation on seamounts. CenSeam joined the Census of Marine Life in early 2005.

By uniting the global seamount research community, CenSeam has been able to explore unknown regions, discovered new species, and document how humans are impacting these systems,"said Stocks, one of the co-leads of the CenSeam project, a collaborative effort between SDSC and the National Institute of Water and Atmospheric Research (NIWA) in Wellington, New Zealand.

The overall goals of the CenSeam project are to:

- coordinate existing and planned programs for maximum benefit through encouraging community networking
- catalyze new seamount sampling activities
- offer mini-grants to expand the scope of surveys/data collection/analysis
- align research approaches and data collection
- ensure that opportunities for collaboration between programs are maximized
- integrate and analyze incoming information to create new knowledge, and
- consolidate and synthesize existing data e.g. historical data that to date has been functionally inaccessible to the scientific community

"It is this final goal where the expertise and resources of SDSC have been able to contribute most meaningfully to the recently completed Census of Marine Life project," said Stocks. "We could bring together, for the first time, data from seamounts all over the world into a single system to look at their global patterns, and understand how seamounts contribute to the patterns of life in the oceans in general."

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