## Thousands of strange creatures found deep in ocean

By CAIN BURDEAU (AP) – 22 November 2009

NEW ORLEANS — The creatures living in the depths of the ocean are as weird and outlandish as the creations in a Dr. Seuss book: tentacled transparent sea cucumbers, primitive "dumbos" that flap ear-like fins, and tubeworms that feed on oil deposits.

A report released Sunday recorded 17,650 species living below 656 feet, the point where sunlight ceases. The findings were the latest update on a 10-year census of marine life.

"Parts of the deep sea that we assumed were homogenous are actually quite complex," said Robert S. Carney, an oceanographer at Louisiana State University and a lead researcher on the deep seas.

Thousands of marine species eke out an existence in the ocean's pitch-black depths by feeding on the snowlike decaying matter that cascades down — even sunken whale bones. Oil and methane also are an energy source for the bottom-dwellers, the report said.

The researchers have found about 5,600 new species on top of the 230,000 known. They hope to add several thousand more by October 2010, when the census will be done.

The scientists say they could announce that a million or more species remain unknown. On land, biologists have catalogued about 1.5 million plants and animals.

They say they've found 5,722 species living in the extreme ocean depths, waters deeper than 3,280 feet.

"The deep sea was considered a desert until not so long ago; it's quite amazing to have documented close to 20,000 forms of life in a zone that was thought to be barren," said Jesse Ausubel with the Alfred P. Sloan Foundation, a sponsor of the census. "The deep sea is the least explored environment on earth."

More than 40 new species of coral were documented on deep-sea mountains, along with cities of brittlestars and anemone gardens. Nearly 500 new species ranging from single-celled creatures to large squid were charted in the abyssal plains and basins.

Also of importance were the 170 new species that get their energy from chemicals spewing from ocean-bottom vents and seeps. Among them was a family of "yeti crabs," which have silky, hairlike filaments on the legs.

In the mid-Atlantic, researchers found 40 new species and 1,000 in all, said Odd Aksel Bergstad, an oceanographer with the University of Bergen in Norway who was reached by telephone in the Azores islands.

"It was a surprise to me to find such rich communities in the middle of the ocean," he said. "There were not even good maps for the area. Our understanding of the biodiversity there was very weak."

More than 2,000 scientists from 80 countries are working to catalog the oceans' species.

Researching the abyss has been costly and difficult because it involved deep-towed cameras, sonar and remotely operated vehicles that cost \$50,000 a day to operate, Carney said.

Once the census is complete, the plan is to publish three books: a popular survey of sea life, a second book with chapters for each working group and a third focusing on biodiversity.

## On the Net:

• Census of Marine Life: http://www.coml.org/

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Photo 1 of 2



This undated photo released by Census of Marine Life and the Woods Hole Oceanographic Institution shows a transparent sea cucumber, Enypniastes, creeping forward on its many tentacles at about 2 cm per minute while sweeping detritus-rich sediment into its mouth at 2,750 meters in the Northern Gulf of Mexico. Thousands of marine species eke out an existence in the ocean's pitch-black depths by feeding on the snowlike decaying matter that cascades down, and even sunken whale bones, according to a report released Sunday, Nov. 22, 2009. (AP Photo/Larry Madin) NO SALES, MANDATORY CREDIT, EDITORIAL USE ONLY

This undated photo released by Census of Marine Life and the Woods Hole Oceanographic Institution shows engineers from the Woods Hole Oceanographic Institution recovering the hybrid underwater robot Nereus aboard the 135 foot RV Cape Hatteras in deteriorating weather conditions above the Mid-Cayman Spreading Center in the Caribbean Sea. Thousands of marine species eke out an existence in the ocean's pitch-black depths by feeding on the snowlike decaying matter that cascades down, and even sunken whale bones, according to a report released Sunday, Nov. 22, 2009. (AP Photo/Chris German) NO SALES, MANDATORY CREDIT, EDITORIAL USE ONLY