

Thursday, December 2, 2010

Workshop

From discovery to conservation of marine biodiversity

16:00 - 18:00

[Parallel Workshop](#) related to plenary session 2

Oral presentation

Biodiversity assessment in deep ocean basins

Angelika Brandt

Zoological Museum, Martin Luther-King-Platz 3, 20146 Hamburg, Germany

contact-e-mail: ABrandt@zoologie.uni-hamburg.de

How many species live in the ocean which covers 70 % of our Earth's surface? How many live in the deep sea?

During the past 10 years and enormous effort has been undertaken to investigate the marine life. The Census of the Marine Life (CoML) is an International Project that took place between 2000 and 2010, involved 400 expeditions, and more than 2000 scientists from 85 nations. Within the 16 field projects of the Census of the Marine Life, >5600 new species were discovered and 22.1 Millionen localities documenting the geographic distribution of 108,000 species were published in OBIS (Ocean Biogeographic Information System). These data will serve as future benchmarks against which changes in species ranges and occurrences can be measured.

However, with increasing depth our knowledge of the marine biodiversity decreases. In the abyssal (~3500-6000 m) only a tiny fraction of the organisms are discovered and each deep-sea expedition yields a high number of new species. For example, in the SO deep sea > 1400 species were identified from 40 locations and 50-90 % of the organisms (taxon dependent) were new to science. In general, larger animals are better known than small ones, the percentage of unknown species therefore increases with decreasing size of the taxa. Even though we have identified a number of factors regulating biodiversity, the correlation between productivity, stability and biodiversity functioning still has to be investigated further. After 10 years of CoML we have to use this benchmark knowledge and try to discover the processes driving the patterns observed. This is important knowledge that is still lacking, but necessary for policy makers and stakeholders, for conservation purposes and a sustainable use of the marine biosphere in the future.