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Wednesday, 2<sup>nd</sup> October 2019, 11:00 a.m. [11:00h]  
**GEOMAR Lecture Hall West (R.54)** | Düsternbrooker Weg 20, 24105 Kiel

## Research in the Largest Ecosystem of the World – The Deep Sea



**The deep sea is the largest habitat on earth, more than 70 % of our planet is ocean and 90 % of it is deep sea. So far, less than 1% of the deep seafloor has been scientifically studied and most species (> 95 %) are new to science.**

For many people, the deep sea holds not only unknown creatures, they perceive the extreme environmental conditions as inhospitable, even scary. The creatures living in this environment are adapted to the cold (2-4 ° C), darkness (no sunlight), low food availability (at 1000 m depth reach less than 1% of primary production) and great depth (> 11,000 m), as well as the very high ambient pressure from 1100 bar.

The deep sea is often described as a monotonous, homogeneous habitat. However, expeditions with research vessels into this unknown habitat have greatly expanded our knowledge. The first expedition for the systematic investigation of the deep sea took place 1872-1876 with the corvette HMS Challenger, few years later 1898-1899 the German Valdivia expedition under the direction of the zoologist Carl Chun accomplished, many other expeditions followed. The lecture gives an insight into the diversity of selected groups of organisms, their biogeography, special adaptation strategies and geographic regions and about some current projects.