

Spatial planning in the deep – lesson learned and new opportunities

Elisabetta Menini, Duke University (United States), elisabetta.menini@duke.edu

The deep sea is getting busier. Seabed mining exploration are ongoing, and exploitation may start soon; the ocean floor is the physical platform of global internet cables; there are old dumping sites, landfills, as well as wrecks and historical artifacts that testimony humans' colonization. All of this influence the deep-sea ecosystems and its functions. In the coastal zone, the holistic approach applied in marine spatial planning (MSP) is considered as a useful process to balance human activities and marine conservation. The deep ocean is the new frontier of this process. MSP is a process that include the use of MPAs or other Area Based Management Tools, which can expand environmental protection deeper and preserve the three-dimensional environment from surface to bottom. Lessons learned and innovations can be applied to policy, strategies, and improve the current and future deep-sea international environmental strategies. It is time to project deep sea science into deep-sea spatial planning and start drafting deep-sea policy and regulations. Deep-sea spatial planning is an interdisciplinary area that needs to consider studies in situ, predictive modelling, development of new technology, new use of old data and methods to deal with uncertainty and data poor areas. But also, socioeconomic factors, and synergies with international conservation policies. What is the best available science that provide answers on how to meet conservation principles such as representativity, important areas, connectivity, and replication? New collaborations and connections within academia, industries and politics are needed for the preservation of the international deep.