

## **The pros and cons of DNA barcoding: preliminary results from recent cruises to the CCFZ**

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There is a need to characterize faunal diversity, abundance and distribution in order to predict the effects of mining on deep-sea organisms prior to mining-related exploitation. The approach of an integrative molecular morphological taxonomy, i.e. reverse taxonomy has proven to be a useful and robust instrument to begin constructing a provisional inventory of the polychaete and isopod fauna and their broad-scale distribution across the CCZ. This method allows for straight-forward allocation of individuals to genotypic clusters and thus facilitates comparison overcoming the time-consuming morphological approach. Subsequently, for our study, the identity of molecular operational taxonomic units (MOTUs), which were represented by more than one specimen, was analyzed using traditional morphological methods. The advantage of molecular barcodes is, that they can be easily exchanged between contractors or published in online repositories (Genbank, BOLD) and thus are promising to be helpful to assess biodiversity and distribution patterns in the CCFZ.