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TITLE: Abyssal fauna of the UK-1 polymetallic nodule exploration claim, Clarion-Clipperton Zone, central Pacific Ocean: Echinodermata

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ABSTRACT:

We present data from a DNA taxonomy register of the abyssal benthic Echinodermata collected as part of the Abyssal Baseline (ABYSSLINE) environmental survey cruise 'AB01' to the UK Seabed Resources Ltd (UKSRL) polymetallic-nodule exploration claim 'UK-1' in the eastern Clarion-Clipperton Zone (CCZ), central Pacific Ocean abyssal plain. Morphological and genetic data are presented for 17 species (4 Asteroidea, 4 Crinoidea, 2 Holothuroidea and 7 Ophiuroidea) identified by a combination of morphological and genetic data. No taxa matched previously published genetic sequences, but 8 taxa could be assigned to previously-described species based on morphology, although here we have used a precautionary approach in taxon assignments to avoid over-estimating species ranges. The Clarion-Clipperton Zone is a region undergoing intense exploration for potential deep-sea mineral extraction. We present these data to facilitate future taxonomic and environmental impact study by making both data and voucher materials available through curated and accessible biological collections.

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