

communities were less abundant, and had a structure typical of sediment abyssal communities. No gradient was observed along the two transects, indicating that the influence of methane seeps on the surrounding area is very limited.

17:45 18:00 THE MID-SLOPE DEPTH PEAK IN BENTHIC DIVERSITY: ITS COMMONALITY AND POTENTIAL CAUSES

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The 25-years old statement that within-habitat diversity is higher at bathyal depths than either on the shelf or in the abyss remains a challenging theory in ecology. The commonality and causes of this mid-slope diversity peak are among the key questions addressed by COMARGE (Continental Margin Ecosystems on a worldwide scale), a field project of the Census of Marine Life. In order to address this question, we have gathered about 15 cross-margin datasets from the Arctic, Atlantic, Pacific, Indian, Southern Oceans and the Gulf of Mexico, each spanning a depth range of 1000 m up to 4000 m. Together they encompass a wide range of geological settings (active vs passive margins), hydrological properties (including oxygen minimum zones), productivity regimes and taxonomic groups (protists to fish). A unimodal relationship of species diversity along depth gradients was the most common pattern. This unimodal pattern was particularly evident when a dataset included samples from the shelf, upper slope communities were submitted to disturbance and/or there was an ecotone between two bathyal communities. The potential processes underlying the observed pattern are discussed.

18:00 18:15 GLOBAL GENERALITY OF BATHYMETRIC ZONATION ON CONTINENTAL MARGINS

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Bathymetric zonation or depth-related change in species composition is a characteristic of distributions on continental margins. Within well-studied regions the patterns are reproducible, predictable, and directional. Various explanations as to the cause of zonation have been proposed. Some proposed mechanisms are physiological and some ecological. When zones are compared at multiple locations through out the world ocean including detritus-fueled and chemosynthetic fauna, there is some indication of common patterns. Zonation is ubiquitous, but the rates vary by region and taxa. The presence of zonation within chemosynthetic communities can be interpreted as being independent of food influx and possibly indicative of a hydrostatic pressure effect. A better resolution of cause will require large-scale sampling following a specific design proposed herein.

18:15 18:30 MEGABENTHOS BIODIVERSITY IN ATLANTIC CONTINENTAL MARGINS OFF WEST AFRICA

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