
[EJ] Evening Poster | B (Biogeosciences) | B-PT Paleontology

[B-PT05] Evolution of Chemosynthetic Ecosystem in Earth History

convener: Robert Jenkins (School of Natural System, College of Science and Engineering, Kanazawa University), Hiromi Kayama WATANABE (Japan Agency for Marine-Earth Science and Technology), Takami Nobuhara (静岡大学教育学部理科教育講座地学教室)

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Chemosynthetic communities have changed in their taxonomic composition and spatial distribution through the Earth history, but the causes and backgrounds remain to be unclear. Topics and information in various studies will be exchanged between geology, paleontology, geochemistry, and biology. We also hope to raise some seeds of co-works on evolutionary study on chemosynthetic ecosystem.

[BPT05-P02] Epifauna on a deep-sea hydrothermal vent squat lobster, *Shinkaia crosnieri*, in the Izena Hole of the Okinawa Trough

Mai Karasawa², *Hiromi Kayama WATANABE¹, Hiroshi Miyake² (1. Japan Agency for Marine-Earth Science and Technology, 2. Kitasato University)

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Relationships between foundation species and their associating animals provide baseline knowledge towards elucidating biodiversity. Here, we report epibiotic animals associating with a foundation species, the squat lobster *Shinkaia crosnieri*, in a deep-sea hydrothermal vent field in the Okinawa Trough, Northwest Pacific, and discuss their relationships. The epibiotic fauna recorded on *S. crosnieri* included *Amphisamytha* sp., dirivultid copepod, and *Lepetodrilus nux*. Of note, the number of individuals of *Amphisamytha* sp. increased with increasing size of *S. crosnieri*. In particular, one *S. crosnieri* individual had more than 300 individuals of the dirivultid copepod, *L. nux*, and more than 30 individuals of *Amphisamytha* sp. attached to it. The results suggested that older individuals host more epifauna, contributing to greater biodiversity. Furthermore, aggregations of individuals increased habitat heterogeneity, resulting in their hosting more species.