

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

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

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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-P04] New species of the Jurassic to Cretaceous seep-restricted bivalve *Caspiconcha* from Japan, Spain and New Zealand

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Chemosynthesis-based ecosystems are commonly found around hydrothermal vents and methane seeps in the deep sea. Mesozoic vents and seeps were also inhabited by animals endemic to such environments. Amongst bivalves, several genera of Lucinidae and the large kalenterid genus *Caspiconcha* were restricted to the Mesozoic seeps. Thus, it is important to know their fossil record to understand evolutionary history of chemosynthetic communities.

We report four new species of the Mesozoic methane seep-restricted bivalve genus *Caspiconcha*. One is from the late Albian of northern Spain. Two new species are from the late Albian of Yubari City, Hokkaido, and from the Campanian of Nakagawa Town, Hokkaido, respectively. The other is from the late Albian to mid-Cenomanian of New Zealand. The oldest confirmed record of the genus is known from the latest Jurassic, it reached its maximum diversity in the Albian, and declined in diversity and abundance through the Late Cretaceous.