

Temporal size changes of the *Paragloborotalia siakensis* (LeRoy) at ODP Site 807 in the western equatorial Pacific.

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The maximum diameter of foraminiferal test is one of easily measurable characters. The shell size analysis of foraminifera will contribute to discuss the evolutionary hypothesis related size such as Cope's rule, Lilliput effect and Dwarfing.

We reported the long-term size changes of middle Miocene planktonic foraminiferal species *Paragloborotalia siakensis* (LeRoy) in eastern equatorial Pacific (Suzuki et al., 2017, 2018 JpGU; Suzuki and Hayashi 2019 JpGU). The reconstructed dominant size fluctuation showed that *P. siakensis* experienced several minor giantism and dwarfing events through 4 million years. Especially, a rapid size increases of this species generally correspond to isotopic events related to the EAIE. Consequently, the size increase of this species should be regarded as an adaptation for the eutrophic condition related to the intensification of the E-W contract (La Nina-like ocean) in the equatorial Pacific.

This study aims to reconstruct the temporal size change of *P. siakensis* (LeRoy) during Middle Miocene in the western equatorial Pacific and to discuss the relationship between the E-W contract in equatorial Pacific and planktonic foraminiferal shell size distributions.

Keywords: Foraminifera, size change, Cope's rule, Lilliput effect

