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Increase of the corallum in the Silurian rugose coral *Idiophyllum* (Arachnophyllidae) from the Ningqiang Formation, China

Kido, E. [1]

[1] University of Graz, Institute for Earth Sciences (Geology & Paleontology), Heinrichstrasse 26, A-8010 Graz, e-mail: erikakido07@yahoo.co.jp

Rugose corals are a fossil marine group which appeared in the middle Ordovician and became extinct end of Permian. Rugosa are identified based on the morphological features of their skeletal elements such as septa, tabulae, dissepiments, and wall, which are observed from serial transverse and longitudinal thin sections. The Silurian rugose coral *Idiophyllum* Cao occurs in the Ningqiang Formation (Upper Llandovery), Ningqiang-Guangyuan area near the border of Shaanxi and Sichuan, China. This coral occurs as both compound and solitary forms. Its corallum is characterized by possessing carinate septa displaying pinnate arrangement, convex tabularium which consists of incomplete tabulae, wide dissepimentarium, and distinct cardinal fossula. *Idiophyllum* has major, minor and tertiary septa. Tertiary septa are inserted irregularly and partly. The total number of septa in this coral reaches up to more than two hundred. Seven species have been assigned to *Idiophyllum* (He and Chen, 1986; Kido and Sugiyama, 2005); *Idiophyllum dabashanense*, *I. multifurcatum*, *I. ningqiangense*, *I*, *tenuiseptatum*, *I. major*, *I. shaanxiense* and *I. massulatum*. One of them, *I. massulatum* has a compound thamnasterioid corallum. He and Chen (1986) indicated that in the compound corallum of *I. massulatum* generally 2 to 5 offsets arise in the axial or peripheral region of the corallum of the parent. Lin *et al*. (1995) mentioned that the increase in the solitary corallum of *Idiophyllum* is parricidal. However, characteristics of the increase in corallum of *Idiophyllum* and septal insertion which is observed in the offsets have not been described in detail. Additional specimens of *Idiophyllum massulatum* and the species of *Idiophyllum* with solitary form were collected in the Ningqiang Formation of Yanzishi, Guangyuan, Sichuan. In these species peripheral and parricidal increase were observed, respectively. Modes of increase in *Idiophyllum*, together with the septal insertion observed in the offsets, are presented.

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