



Reconsideration of Natural Monuments No. 413 (Mungokri Stromatolite) of Chosun Supergroup, Korea

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Stromatolite-like structures, so-called "Mungokri Stromatolite", which is located along the cliff of creeks in the vicinity of Oman bridge, Mungok-ri, Yeongwol, Gangweondo was designated as Natural Monument No. 413 in March, 2000. The Mungokri Stromatolite resembles LLH(laterally-linked hemispheroid) type stromatolite, each dome of which is laterally connected forming a stromatolite bed. The Mungokri Stromatolite, however, cannot be regarded as stromatolite because domal structure and fine lamination (the most diagnostic character) cannot be observed both in the field and through the petrological thin section. The smooth surface structure and very thin, irregular cracks characterized in the surface of the Mungokri Stromatolite also differ from those of a normal stromatolite. Such differences strongly suggest that the Mungokri Stromatolite is not a stromatolite but an algal mound. If we take considerations: 1) general lithology and sedimentary structures of Socheong island, 2) observation that angles of columns' inclination are not consistent throughout the stromatolite beds, and that vertical columns are also found in stromatolite beds, 3) igneous intrusion that would have caused structural deformation of sedimentary rocks of Socheong island, the inclination of Socheong stromatolites could be better interpreted as a secondary structural deformation probably after formation of stromatolite columns, rather than as a result of heliotropism. Consequently, renaming of the Mungokri Stromatolite, Natural Monument No. 413, is necessary.

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