

南極スカーレン大池に産する扁平な形をした藻類集合体の内部環境 について、 阿寒湖産の藻類集合体(マリモ)の内部環境との比較から考える

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Comparison the micro-ecosystem of aggregates of microorganisms in Antarctic Lake, Skallen Ôike with algal aggregations of the Marimo (*Aegagropila linnaei*) in Lake Akan, Japan.

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Various sizes of lakes are distributed in the rocky region of the Sôya Coast on the east coast of Lützow-Holm Bay, Dronning Maud Land, East Antarctica.

A great number of the flat-globular aggregates of microorganism composing of mainly green algae, cyanophyta, diatoms and Protozoa are growing in the bottom of these lakes, especially in the low salinity lake, Skallen Ôike (Ref. 1).

The internal environments of the aggregate of microorganisms were measured in the 49th Japan Antarctic Research Expedition. Their inner conditions are reductive and alkali.

Computed tomography finds a cavity in the center of the aggregate of microorganisms (Ref. 2). As the result of decomposition, the aggregate of microorganisms contains gas in the cavity and floats on the water. We showed a similarity between the aggregates of microorganisms in Antarctic Lake, Skallen Ôike and the Marimo (*Aegagropila linnaei*) in Lake Akan, Japan (Ref. 1, 2).

The new micro-environment measuring equipment and method were developed (Ref. 3) to detect simply the photosynthetic products of algal aggregations in the field work.

The green algae of the aggregate were cultured and the feature of the algae will be reported.

References

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