

Distribution and Identification of Dictyostelids

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Thirty three species of cellular slime molds have been isolated from South Korea. They have been identified by the stages of the life cycles and morphological characteristics such as color, size, branch, polar granule, etc. However, these methods were often insufficient for the classification among the very similar species. Therefore, the purpose of this study is to suggest a new criterion and apply it to eleven species : *Dictyostelium dimigraformum*, *D. giganteum*, *D. discoideum*, *D. purpureum*, *D. minutum*, *D. aureostipes*, *D. polycephalum*, *Polysphondylium violaceum*, *P. candidum*, *P. pallidum*, *P. tenuissimum*. The result of classification by rRNA gene sequencing is similar to that by previous method. This is thought to be a proper method for distinguishing between very closed species.

Dictyostelids in Tidal Flat of Jebu-do and Lake Shihwa

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The purpose of this study is to isolate dictyostelids present in high salinity and to compare the distribution of dictyostelids in Lake Shihwa polluted by industrial waste with those in tidal flat of Jebu-do which is in a natural condition. And the relation between the occurrence and distribution of dictyostelids and environmental factors is analyzed. The results are as follows.

Five species were isolated : *Dictyostelium purpureum*, *D. aureostipes*, *D. giganteum*, *D. sp.*, *Polysphondylium pallidum*. There are few differences between Lake Shihwa and tidal flat of Jebu-do. Environmental factors such as soil pH, organic content, total nitrogen, total phosphorus and salinity made a little effect on total species number and the number of clones.