

Diatom 4: 89-98 (英文)

小杉正人: 珪藻の現生・化石群集間の類似度の測定—相同群集による古環境の復原法—

Masato Kosugi: Method for paleoenvironmental reconstructions based on the similarities between present communities and fossil assemblages of diatom

#### Abstract

A new method for paleoenvironmental reconstruction was presented to analyze paleoecology of fossil diatom assemblages. Similarities between fossil assemblages and present communities were measured to find out same community in a present environment. The Jaccard's coefficient was utilized as similarity index in this paper. The fossil assemblages from the Holocene sediments deposited after the maximum stage of the Jomon (Holocene) transgression were examined to reconstruct paleoenvironments on the basis of similarities between fossil assemblages and many present communities in various environments.

As a result, similar present communities to fossil assemblages could be identified and it was clarified that the vertical succession of fossil assemblages corresponded to spacial one of present communities from marine to limnological conditions.

Key index words: paleoecology, similarity, fossil assemblage, present community.