

## Vertical profiles of phytoplankton derived from marine ecosystem models

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Observations of marine ecosystems are usually difficult due to vast spatial extent of the ocean (both horizontally and vertically). Even if satellite observation technology develops, it usually observes only an ecological state of a surface layer of the ocean. Marine ecosystem modeling is a powerful method to overcome the issue, and expected to fill gaps of scientific knowledge hard to obtain by the observation. Numerous marine ecosystem models have been developed within a scientific community, but there exist only some models that cover the global oceans to describe a detailed phytoplankton community structure (Phytoplankton Functional Types). We hereby compare vertical profiles of phytoplankton structure on a global scale, derived from numerical models, that cannot usually be obtained from the observations.

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