

Initiation of biogeochemical float observations in the western North Pacific

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One of the goals in present-day ocean biogeochemistry is to gain a better understanding of the variability in phytoplankton productivity with changing physical and chemical structure of the upper ocean. However, ship-based studies of the open ocean have been limited in their ability to conduct high-frequency observations for understanding variations in phytoplankton productivity and environmental parameters. Also, satellite image analysis is a powerful tool for measuring phytoplankton productivity and environmental parameters, but the information on satellite data is limited to the near-surface layers. To overcome these problems, we started using profiling floats incorporating biogeochemical sensors which enable *in situ* measurements of phytoplankton productivity and environmental parameters over high vertical and temporal resolutions, and have carried out time-series observations in the western North Pacific. Here, we show the results of observations in the western North Pacific by the biogeochemical floats.

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