

台風通過が貧栄養海域の生物群集構造に及ぼす影響の評価

Evaluation of floral and faunal shifts in the oligotrophic ocean after typhoon passage

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Typhoon can induce vertical mixing, upwelling, or sometimes both of them in the water column because of the strong wind stress. These events can induce phytoplankton blooms after typhoon passages in the oligotrophic ocean. However, little is known about community structure and succession in lower trophic organisms following the passage of typhoons. Therefore, we tried to evaluate the community successions in the East China Sea and the northwest Pacific Ocean through on deck bottle incubation experiments simulating the hydrographic conditions after the passage of typhoon.

In all experimental conditions we designed, chlorophyll *a* concentrations increased, and the increased algal cells were mainly composed of large diatoms. Although nano-sized ciliates also increased, the abundance of possible diatom grazers such as dinoflagellates and nauplii little changed throughout our incubations. These results suggest that the increased diatom may sink and enhance biogenic carbon flux in the water column. Typhoons can affect not only phytoplankton productivity, but also the composition of lower trophic organisms and biogeochemical processes in the oligotrophic ocean.

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