Attempt to expansion of benthic habitat in the fishing ports of cold region

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From the slump of fishery resources in recent years, the Japanese Fisheries Agency has been promoting the development of suitable habitats that correspond to the life histories of aquatic organisms, aiming to raise the productivity of the entire sea area through the creation of rich ecosystems. Since previous research have revealed that fishing ports with calm waters are suitable habitats for juvenile fish, it is necessary to consider the improvement of fishing ports as an important condition.

This study was conducted to clarify whether artificial structures (e.g. blocks) in fishing ports could be used as habitats for benthic organisms on which fishes feed by field experiments using simple seafloor substrate specimens. In addition to the experiments, we compared benthic community composition both in and out of fishing ports in cold region.

The number and wet weight of macrozoobenthos were higher in the sediments of inside of the port than outside of the port. However, they were similar in the seafloor substrate and sediment of inside of the port. Therefore, it is suggested that the expansion of benthic habitat by artificial structure would be an effective maintenance method to enhance the function of feeding ground.