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Abstract

Conservation and creation of habitats in the coastal area are set as a new target of “Basic Program for the Conservation of the Environment of the Seto Inland Sea”. In addition, when the impacts of a landfill are unavoidable, it is required to conduct appropriate compensation measures based on the result of quantitative evaluation. The quantification of ecosystem services which lost by a landfill is desirable for selecting the most effective measure. However, it is difficult to figure out quantitatively a whole variety of ecosystem services. In this report, we try to quantify the biomass around harbor structures, using a simple evaluation method of biomass carbon. On the gentle slope revetment and the adjacent seabed of the artificial island built in the western Seto Inland Sea, we compare the biomass carbon per unit area for each of three layers on the revetment and for each of habitat foundations. Moreover, in the case of conducting a landfill project with and without an eco-friendly structure in this area, we estimate the annual biological production using the biomass carbon and the amount of increase in biomass carbon.