

Verification of the effectiveness of biplane-type breakwater as a tsunami countermeasure in submerged conditions

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The effectiveness of biplane-type breakwaters as tsunami countermeasures was verified when they are submerged in water, with the aim of reducing the obstruction of the marine landscape by breakwaters and seawalls. Six types of biplane-type breakwaters were made of plaster, and wave height measurements were conducted in a tank. As a result, the probability of wave height decrease was high for the three biplane-type breakwaters above water, but the probability of wave height increase exceeded the probability of wave height decrease for the three biplane-type breakwaters submerged in water. Therefore, it is concluded that submerging biplane-type breakwaters in water is not effective against tsunamis.

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