

Coastal Ecosystem Monitoring on National Park-Miyajima

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The belt transect method is used in the evaluation of coastal environments, especially intertidal communities, over the mid to long term. We used the superficial distribution of characteristic animals as an index to evaluate the coastal environment of Miyajima, Japan.

We chose Miyajima (lat 34°18'N, long 132°19'E) in the Seto Inland Sea National Park for our investigation, and selected three points differing in distance from habitation and in geographical features. In 1998, 1999, and 2000, 10 investigators counted the number of intertidal communities in the intertidal range along 300 m of coastline to determine their distribution.

In each survey, we found many *U. conglobata*, which are characteristic of polluted areas, at Kamimurohama, near human habitation. In contrast, we found many *Capitulum mitella* and *Serpulorbis imbicatus* at Kohgozaki, away from human habitation. We found more *R. clavigera*, *Acanthopleura japonica*, and *Sacculosipbonaria japonica* at Koshibosoura, which has both sand and rocks. than at Kamimurohama, which is sandy.

The distribution, kind, and number of characteristic animals differed greatly according to distance from human habitation and geographical features. The coastal ecosystem is rich in the unpolluted southwest of Miyajima but poor in the polluted northeast.