

The value of coral and its change in Kushimoto, southern Kii Peninsula

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In the tropical and subtropical regions, coral is given the status important as one of the symbolic living things of the marine environment. Especially, in the consideration of resource use, coral is generally treated as a physiographic factor which provides a coral reef ecosystem and is often related to local fishing. Meanwhile, the use of coral itself has been seldom brought up for discussion.

Kushimoto is one of the regions in Wakayama Prefecture, and is located in the southernmost end in Kii Peninsula. Owing to the influence of the Kuroshio Current, the subtropical marine biota, typified by coral assemblages, has been produced in the western coastal waters of Kushimoto, and some local residents who lived in the area have collected and used coral as resources. In Kushimoto, coral was usually collected by gathering the casted corpses on the littoral zone, and sometimes by skin diving. Mainly, people has used coral as a material of slaked lime to make mortar, or for processing as a souvenir thing. The scale of these productions was not much extensive, but the use of coral in Kushimoto has been practiced and continued in relation to other local resource uses. For instance, to make mortar, other materials which were collected or produced in the region, such as seaweed and whale oil, were also used with slaked lime made from coral. And when making slaked lime, old timber and thinnings were used as fuel at the sequence of calcination.

Such collection and use of coral in Kushimoto were at least continued until 1970s, and then, these activities have been completely abandoned now. Instead, since the designation of some parts of the coastal area in Kushimoto as a national park in 1970, the coral and coastal environments have become an object of conservation. Therefore, a collection and use of the coral which inhabits the coastal waters of Kushimoto have been forbidden. And also, following such a increasing of the evaluation to the coral as an important factor of the marine environment, it brings an expectation of the value of coral as tourist attractions.

Besides, in recent years, the temperature of the nearshore waters in Kushimoto tends to rise notably, and it brings about the increase of a number of species and cover degree of coral which inhabits the coastal waters of Kushimoto. Given this situation, the increase in coral has a negative effect on regional fishery. On the other hand, large amounts of corallivorous organisms such as *Acanthaster planci* and *Drupella* spp. have been caused a problem for the conservation of coral since 2000s. Thus, the conditions of natural and social environments which surround the coral inhabits the coastal waters of Kushimoto have been constantly changing.

In this presentation, I would like to show the structure of resource use focusing on coral once formed in Kushimoto, and examine how the value of coral has been changed up to the present to consider the relationship between coral and people.

Keywords: coral, natural resource use, marine environmental conservation, Kushimoto