

Recent Transition of Red Tides Problems in the Seto Inland Sea, Japan

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Abstract

According to the industrial development along the coast of the Seto Inland Sea, the Sea had suffered from eutrophication aggravation associated with heavy red tides outbreaks from 1960' s. A large-scale red tide occurred in 1957 in the western bay due to *Gymnodinium mikimotoi*. *Chattonella* spp, which was furious in fin fish culture fields from 1969 to 1987, killed nearly 25 million yellow tails and cost about \20 billion. Recently *Heterocapsa circularisquama* has appeared and caused severe damages to pearl oyster and oyster culture.

In 1976 about 300 cases of the outbreaks of red tides were reported in the Seto Inland Sea but now decreased to nearly 100 cases. *Heterosigma akasiwo* and *Noctiluca sintillans* still appear on a considerable scale but the fisheries damages have remarkably decreased. It seems to be due to the various countermeasures implemented by the Environment Agency and the Fisheries Agency of Japan.