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## Moritosi TANIGUTI\* : A Map of Marine Vegetation of Tokyo and Sagami Bays

谷口森俊 : 東京湾および相模湾の海藻植生図

A map of the vegetation of marine algae along the coasts of the Tokyo and Sagami bays is given in Fig. 1. This is to show the distribution map of an inland-sea community, *Ulva pertusa-Grateloupia filicina* association, and two open-sea communities, *Hizikia fusiforme-Eisenia bicyclis* and *Gigartina intermedia-Sargassum sagamianum* associations. The former is a typical inland-sea community of the temperate zone. The composition is as follows; In the intertidal zone, evident belts of *Ulva pertusa* above 20 cm T.L. and *Grateloupia* (*Grateloupia filicina*, *G. livida*, *G. okamurai* and *G. turuturu*) below the level are recognized. In addition to those species, *Bryopsis plumosa*, *Gymnogongrus flabelliformis*, *Enteromorpha linza*, etc. are found. The physiognomic type belongs to the Green-Red one. The portions of net in Fig.1 show the distribution of the association. The community is distributed over most parts of the Tokyo bay. That is, inside the Futtsu-Yokosuka line, the *Ulva pertusa-Grateloupia filicina* association and outside, the *Hizikia fusiforme-Eisenia bicyclis* association, are distributed. The fact that the inland-sea community is found at most parts of

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\* Karasugi-cho 413-2, Hisai-shi, Mie prefecture, Japan 514-11

三重県久居市烏木町 413 番地の 2

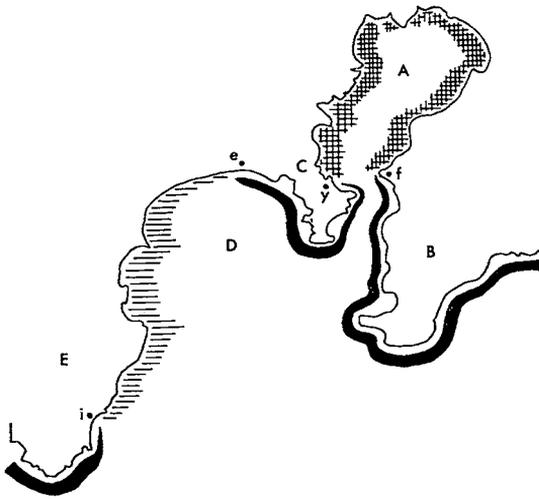


Fig. 1. Map of Marine Vegetation of Tokyo and Sagami Bays

Nets : *Ulva pertusa*-*Grateloupia flicina* association

Black patches : *Hizikia fusiforme*-*Eisenia bicyclis* association

Horizontal bars : *Gigartina intermedia*-*Sargassum sagamianum* association

A : Tokyo Bay, B : Boso peninsula, C : Miura Peninsula, D : Sagami Bay, E : Izu Peninsula, e : Enoshima, f : Futtsu, i : Inatori, y : Yokosuka

along the coasts of the Miura and Boso peninsulas, the mouth of the Tokyo bay and the southern part of the Izu peninsula. In the community, two belts are distinctly found in the intertidal zone; That of *Hizikia fusiforme* above and that of *Eisenia bicyclis* below. The black patches in Fig. 1 show the distribution of the association. The vegetation is rich and can be found over the area which is strongly influenced by the Kuroshio warm current. On the other hand, the *Gigartina intermedia*-*Sargassum sagamianum* association is distributed over the area along the western part of the Sagami bay. In the community, two belts of *Gigartina intermedia* and *Sargassum sagamianum* are remarkably formed, from above downwards, in the intertidal zone. The portions of horizontal bars in Fig. 1 show the distribution of the association. Generally,

the Tokyo bay, may be caused by that the bay is of bag-shape and rivers are numerous. The influence of the open-sea abruptly decreases at the Futtsu-Yokosuka line. However, in the neighbourhood of the Tokyo and the Yokohama harbors, nearly all of the marine algae are hardly found except *Enteromorpha*. This will be caused by the heavy oil from steamers, and by the drainage of factories and houses. The direction of the return current in the Tokyo bay is anti-clockwise, i.e. turning to the left.

Next, the typical open-sea community of the temperate zone, the *Hizikia fusiforme*-*Eisenia bicyclis* association is distributed

the association is distributed over the area along the open-sea coasts which are strongly influenced by fresh water. There the vegetation is poor. The direction of the return current in the Sagami bay is anti-clockwise, i. e. turning to the left. Therefore, along the coasts of Miura and Boso peninsulas, the *Hizikia fusiforme-Eisenia bicyclis* association is developed surely because of being under the direct influence of the open-sea water. Along the western coast of the Sagami bay, however, the sea-water coming from the open-sea is greatly modified by the fresh water of rivers. Accordingly, the *Gigartina intermedia-Sargassum sagamianum* is developed along the western coast. It may be thought, too, that the discolorment of some seaweeds is duely brought out there. But the southern part of the Izu peninsula being under the direct influence of the open-sea water. There the typical *Hizikia fusiforme-Eisenia bicyclis* association is found.

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## 摘 要

東京湾および相模湾の海藻植生図を作成した。図中、黒い部分はヒジキ-アラメ群集の横線の部分はカイノリー-ネジモク群集の、網目の部分はアナアオサ-ムカデノリ群集の分布領域である。