

Note on the Marine Algal Flora along the Coast of the San-in District of Honshū*

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(Received September 6, 1976)

Researches on the marine algal flora along the southwestern coast of the San-in District of Honshū which extends from Ōmishima, Yamaguchi Pref., to Yodo-e, Tottori Pref., were carried out by the writer during a period ranging from August 1966 to June 1976. This coast, which consists of rocky beaches and sandy ones mixed nearly half and half, is exposed to violent waves during typhoon and monsoon seasons of the year. As a result of the researches, the writer could collect many kinds of marine plants including 20 spp. of Cyanophyceae belonging to 5 families and 11 genera, 33 spp. of Chlorophyceae belonging to 9 families and 11 genera, 57 spp. of Phaeophyceae belonging to 17 families and 36 genera, 106 spp. of Rhodophyceae belonging to 25 families and 58 genera, and 3 spp. of Sea-grasses belonging to 1 family and 2 genera.

The species marked with ○ in the list, 36 in number are those newly added to the flora of the San-in District as a whole, which extends from Hikoshima Islet, Shimonoseki City in Yamaguchi Pref., to Shōmenzaki Point, Takahama-cho in Fukui Pref.. Among these species, the following 15 species are also new to the Japan Sea coast of Honshū: *Xenococcus acervatus*, *Hydrocoleum coccineum*, *Phormidium submembranaceum*, *Spirulina tenerrima*, *Oscillatoria amphibia*, *Monostroma latissimum*, *Cladophora ohkuboana*, *Chaetomorpha spiralis*, *Caulerpa peltata* var. *peltata*, *Dictyota dilatata*, *Distromium decumbens*, *Erythrotrichia biseriata*, *Bangia ciliaris*, *Colaconema simplex*, and *Acrochaetium crassipes*. And 2 species, *Ulva fasciata* and *Homoeostrichus flabellatus*, are new to the Japan Sea. The southwestern coast of the San-in District seems not only to be the southern limit of distribution in the Japan Sea for *Xenococcus cladophorae* and *Plocamium recurvatum*, but also the eastern limit for *Bryopsis maxima*, *Derbesia tenuissima*, *Codium coarctatum*, *Codium cylindricum*, *Codium mamillosum*, *Ecklonia cava* and *Galaxaura apiculata*.

* Contribution No. 6 from Oki Marine Biological Station, Shimane University.

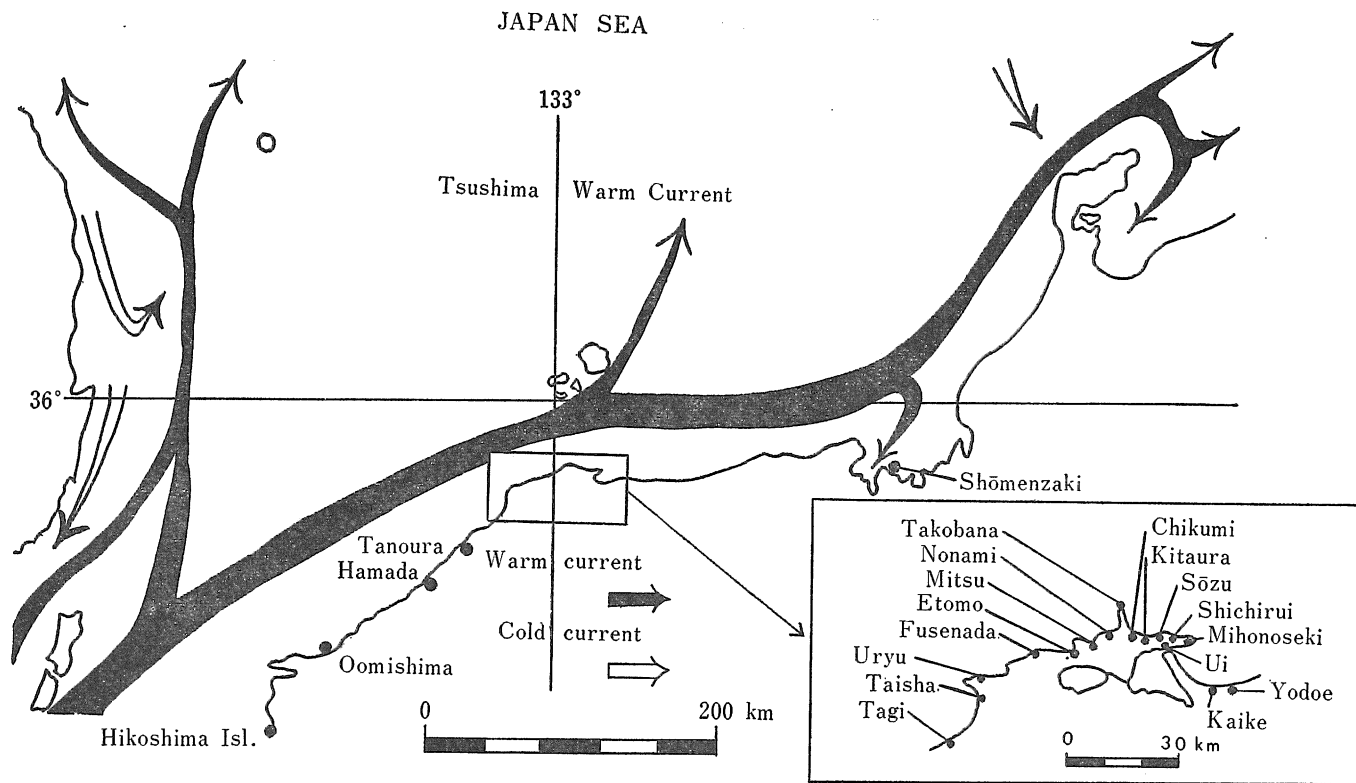


Fig. 1. Map showing ocean currents in the southwestern part of the Japan Sea, the area of San-in coast and the site of the collecting localities.

CYANOPHYCEAE
CHROOCOCCALES
CHROOCOCCACEAE

1. *Anacystis aeruginosa* (ZANARDINI) DROUET et DAILY
in UMEZAKI, I., Mar. Blue-green Alg. Jap., p. 12, pl. 1, fig. 2, 1961; NODA, M., Mar. Alg. Sado Isl. Jap. Sea (2), p. 15, 1974.

Habitat: 0.3 m, on *Caulerpa okamurai*: Chikumi.

ENTOPHYSALIDACEAE

2. *Entophysalis conferta* (KÜTZING) DROUET et DAILY
in UMEZAKI, I., Mar. Blue-green Alg. Jap., p. 18, pl. 2, fig. 2, 1961; TOKIDA, J. and MASAKI, T., List Mar. Alg. Coll. Vicin. Oshoro Mar. Biol. Sta. Oshoro, Hokkaido, Jap., p. 181, 1959.

Habitat: 1.5 m above low-tide-level, on *Lyngbya*: Etomo.

HYELLACEAE

- 3. *Xenococcus acervatus* SETCHELL et GARDNER
Mar. Alg. Pac. Coast N. Am., pp. 31-32, pl. 5, fig. 13, 1919; DESIKACHARY, T. V., Cyanophyta, p. 182, pl. 31, fig. 28, 1959.

Habitat: 1.5 m above low-tide-level, on concrete surface: Etomo.

4. *Xenococcus cladophorae* (TILDEN) SETCHELL et GARDNER
Mar. Alg. Pac. Coast N. Am., pp. 33-34, pl. 4, fig. 8, 1919; DESIKACHARY, T. V., Cyanophyta, p. 183, pl. 31, fig. 26, 1959; TOKIDA, J. and MASAKI, T., List Mar. Alg. Coll. Vicin. Oshoro Mar. Biol. Sta., Oshoro, Hokkaido, Jap., p. 191, 1959.

Habitat: 1.5 m above low-tide-level, on concrete surface: Etomo.

NOSTOCALES
OSCILLATORIAACEAE

- 5. *Hydrocoleum coccineum* GOMONT
in UMEZAKI, I., Mar. Blue-green Alg. Jap., pp. 26-27, pl. 3, fig. 3, 1961.
Japanese name: Miru-tsuki.
Habitat: 0.3 m, on *Caulerpa okamurai*: Chikumi.
6. *Sirocoleus kurzii* (ZELLER) GOMONT
in UMEZAKI, I., Mar. Blue-green Alg. Jap., pp. 32-33, pl. 4, fig. 2, 1961; DESIKACHARY, T. V., Cyanophyta, pp. 340-341, pl. 47, fig. 5, 1959.

Japanese name: Edauchi-nawamo.

Habitat: At low-tide-level, on various Cyanophyceae: Etomo.

7. *Lyngbya confervoides* C. AGARDH ex GOMONT
in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast. N. Am. Part I Myxophyceae,

pp. 77-78, 1919; DESIKACHARY, T. V., Cyanophyta, p. 314, pl. 49, fig. 9, pl. 52, fig. 13, 1959; UMEZAKI, I., Mar. Blue-green Alg. Jap., p. 53, pl. 8, fig. 2, 1961.

Japanese name: Kudamo.

Habitat: 0.5 m above low-tide-level, on rocky bottom: Etomo.

8. *Lyngbya lutea* (AGARDH) GOMONT

in DESIKACHARY, T. V., Cyanophyta, p. 310, pl. 52, fig. 9, 1959; UMEZAKI, I., Mar. Blue-green Alg. Jap., p. 50, pl. 7, fig. 3, 1961.

Habitat: 1.5 m above low-tide-level, on concrete surface: Etomo.

9. *Lyngbya semiplena* (C. AGARDH) J. AGARDH

in SETCHELL, W. A. and GARDNER, N. L., Alg. N. W. Am., p. 187, 1903; DESIKACHARY, T. V., Cyanophyta, p. 315, pl. 49, fig. 8, pl. 52, fig. 7, 1959; UMEZAKI, I., Mar. Blue-green Alg. Jap., pp. 51-53, pl. 7, fig. 4, 1961.

Japanese name: Yogore-kudamo.

Habitat: At low-tide-level, on concrete surface: Uryu.

○10. *Phormidium submembranaceum* (ARDISSONE et STRAFFORELLO) GOMONT

in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part I Myxophyceae, pp. 71-72, 1919; DESIKACHARY, T. V., Cyanophyta, pp. 273-275, pl. 44, fig. 19, 1959; UMEZAKI, I., Mar. Blue-green Alg. Jap., pp. 62-63, pl. 10, fig. 3, 1961.

Habitat: 0.3 m, on *Caulerpa okamurai*: Chikumi.

11. *Spirulina labyrinthiformis* (MENEHINI) GOMONT

in DESIKACHARY, T. V., Cyanophyta, p. 195, pl. 36, fig. 11, pl. 49, fig. 1, 1959; UMEZAKI, I., Mar. Blue-green Alg. Jap., p. 67, pl. 10, fig. 10, 1961.

Japanese name: Hime-rasenmo.

Habitat: 0.3 m, on *Caulerpa okamurai*: Chikumi.

12. *Spirulina major* KÜTZING ex GOMONT

in SETCHELL, W. A. and GARDNER, N. L., Alg. N. W. Am., p. 182, 1903; Mar. Alg. Pac. Coast N. Am. Part I Myxophyceae, pp. 56-57, pl. 1, fig. 5, 1919; DESIKACHARY, T. V., Cyanophyta, pp. 196-197, pl. 36, fig. 13, 1959; UMEZAKI, I., Mar. Blue-green Alg. Jap., pp. 65-66, pl. 10, fig. 8, 1961.

Habitat: 0.3 m, on *Caulerpa okamurai*: Chikumi.

13. *Spirulina subsalsa* OERSTED ex GOMONT

in DESIKACHARY, T. V., Cyanophyta, pp. 193-195, pl. 36, fig. 3, 9, 1959; UMEZAKI, I., Mar. Blue-green Alg. Jap., p. 66, pl. 10, fig. 9, 1961.

Japanese name: Rasenmo.

Habitat: 0.3 m, on *Caulerpa okamurai*: Chikumi.

○14. *Spirulina tenerrima* KÜTZING ex GOMONT

in COLLINS, F. S. and HERVEY, A. B., Contrib. Bermuda Biol. Sta. Res., No. 69. Alg. Bermuda, pp. 18-19, 1917; UMEZAKI, I., Mar. Blue-green Alg. Jap., p. 65, pl. 10, fig. 7, 1961.

Habitat: 0.3 m, on *Caulerpa okamurai*: Chikumi.

○15. *Oscillatoria amphibia* C. AGARDH ex GOMONT

in SETCHELL, W. A. and GARDNER, N. L., Alg. N. W. Am., p. 183, 1903; Mar. Alg. Pac. Coast N. Am. Part I Myxophyceae, p. 63, 1919; COLLINS, F. S. and HERVEY, A. B., Contrib. Bermuda Biol. Sta. Res., No. 69. Alg. Bermuda, p. 20, 1917; DESIKACHARY, T. V., Cyanophyta, p. 229, pl. 37, fig. 6, 1959; UMEZAKI, I., Mar. Blue-green Alg. Jap., pp. 73-74, pl. 11, fig. 9, 1961.

Habitat: 1.5 m above low-tide-level, on concrete surface: Etomo.

16. *Oscillatoria nigro-viridis* THWAITES ex GOMONT

in SETCHELL, W. A. and GARDNER, N. L., Alg. N. W. Am., p. 183, 1903; Mar. Alg. Pac. Coast N. Am. Part I Myxophyceae, p. 62, 1919; COLLINS, F. S. and HERVEY, A. B., Contrib. Bermuda Biol. Sta. Res., No. 69. Alg. Bermuda, p. 19, 1917; DESIKACHARY, T. V., Cyanophyta, p. 202, pl. 42, fig. 6, pl. 49, fig. 2, 1959; UMEZAKI, I., Mar. Blue-green Alg. Jap., pp. 70-71, pl. 11, fig. 5, 1961.

Japanese name: Kuro-yuremo.

Habitat: 0.3 m, on *Caulerpa okamurai*: Chikumi.

RIVULARIACEAE

17. *Calothrix confervicola* (ROTH) AGARDH ex BORNET et FLAHAULT

in COLLINS, F. S. and HERVEY, A. B., Contrib. Bermuda Biol. Sta. Res., No. 69. Alg. Bermuda, p. 27, 1917; UMEZAKI, I., Mar. Blue-green Alg. Jap., pp. 94-95, pl. 16, fig. 2, 1961.

Habitat: 1 m, on *Padinas*: Shichirui.

18. *Calothrix parasitica* (CHAUVIN) THURET ex BORNET et FLAHAULT

in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part I Myxophyceae, p. 98, 1919; COLLINS, F. S. and HERVEY, A. B., Contrib. Bermuda Biol. Sta. Res., No. 69. Alg. Bermuda, p. 27, 1917; UMEZAKI, I., Mar. Blue-green Alg. Jap., pp. 91-92, pl. 16, fig. 1, 1961.

Habitat: 0.3 m, on *Caulerpa okamurai*: Chikumi.

19. *Calothrix pilosa* HARVEY ex BORNET et FLAHAULT

in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part I Myxophyceae, p. 102, pl. 8, fig. 4, 1919; COLLINS, F. S. and HERVEY, A. B., Contrib. Bermuda Biol. Sta. Res., No. 69. Alg. Bermuda, p. 27, 1917; UMEZAKI, I., Mar. Blue-green Alg. Jap., pp. 97-98, pl. 18, fig. 2, 1961.

Japanese name: Mosa-higemo.

Habitat: At low-tide-level, on concrete surface: Etomo.

20. *Isactis plana* (HARVEY) THURET

in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part I Myxophyceae, pp. 104-105, 1919; UMEZAKI, I., Mar. Blue-green Alg. Jap., pp. 101-103, 1961.

Japanese name: Iwano-aza.

Habitat: At low-tide-level, on rocky bottom: Shichirui.

CHLOROPHYCEAE

ULOTRICHALES

ULOTRICHACEAE

21. *Ulothrix flacca* (DILLWYN) THURET

in YENDO, K., Notes Alg. New Jap., p. 119, 1909; SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part II Chlorophyceae, pp. 284-285, 1920.

Japanese name: Hibi-midoro.

Habitat: 0.4 m above low-tide-level, on concrete surface: Hamada.

ULVALES
MONOSTROMACEAE

- 22. *Monostroma latissimum* (KÜTZING) WITTRÖCK Plate I, Fig. 1
 in SETCHELL, W. A. and GARDNER, N. L., Alg. N. W. Am., p. 207, 1903; Mar. Alg. Pac. Coast N. Am. Part II Chlorophyceae, p. 241, 1920.
Japanese name: Hirohano-hitoegusa.
Habitat: Drifting, on the bark of *Betula platyphylla* var. *japonica*: Etomo.

ULVACEAE

23. *Ulva conglobata* KJELLMAN
 in OKAMURA, K., Icon. Jap. Alg. Vol. IV., pp. 58-61, pl. 165, fig. 1-10, 1951; Descr. Jap. Alg. (in Jap.), pp. 9-10, 1956.
Japanese name: Botan-aosa.
Habitat: At low-tide-level, on rocky bottom: Hamada, Etomo, Taisha.
- 24. *Ulva fasciata* DELILE Plate I, Fig. 2
 in COLLINS, F. S., Green Alg. N. Am., p. 216, 1909; BØRGENSEN, F., Mar. Alg. Da. W. Ind. I. Chlorophyceae, p. 8, 1913.
Japanese name: Ribon-aosa.
Habitat: 0.3 m, on rocky bottom: Hamada, Taisha, Etomo, Mihonoseki, Kaike.
25. *Ulva pertusa* KJELLMAN
 in WEBER-VAN BOSSE, A., Liste Alg. Siboga, pp. 51-52, 1913; OKAMURA, K., Icon. Jap. Alg., Vol. IV., pp. 79-83, pl. 169, fig. 8, pl. 170, fig. 1-15, 1951.
Japanese name: Ana-aosa.
Habitat: 2 m, on rocky bottom: Hamada, Etomo.
26. *Enteromorpha compressa* (LINNÉ) GREVILLE
 in COLLINS, F. S., Green Alg. N. Am., p. 201, 1909; SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part II Chlorophyceae, pp. 251-252, pl. 14, fig. 7-8, pl. 16, fig. 3, 1920.
Japanese name: Hira-aonori.
Habitat: 0.5 m, on rocky bottom: Hamada, Taisha, Etomo, Kitaura.
27. *Enteromorpha intestinalis* (LINNÉ) LINK
 in COLLINS, F. S., Green Alg. N. Am., pp. 204-205, 1909; COLLINS, F. S. and HERVEY, A. B., Alg. Bermuda, p. 34, 1917.
Japanese name: Bou-aonori.
Habitat: At low-tide-level, on rocky bottom: Hamada, Etomo.
28. *Enteromorpha linza* (LINNÉ) J. AGARDH
 in COLLINS, F. S., Green Alg. N. Am., p. 206, 1909; SETCHELL, W. A. and GARDNER, N. L., Alg. N.W. Am., p. 212, 1903.
Japanese name: Usuba-aonori.
Habitat: 0.5 m, on rocky bottom: Hamada, Taisha, Etomo.

29. *Enteromorpha prolifera* (MÜLLER) J. AGARDH
 in COLLINS, F. S., Green Alg. N. Am., pp. 202-203, 1909; COLLINS, F. S. and HERVEY, A. B.,
 Alg. Bermuda, p. 33, 1917.

Japanese name: Suji-aonori.

Habitat: In tidepool, on rocky bottom: Etomo.

CLADOPHORALES
 CLADOPHORACEAE

30. *Chaetomorpha aerea* (DILLWYN) KÜTZING
 in HARVEY, W. H., Ner. Bor.- Am. Sub-Class III. Chlorospermae, incl. supp., p. 86, 1858;
 COLLINS, F. S., Green Alg. N. Am., pp. 324-325, pl. 12, fig. 115, 1909.

Japanese name: Tarugata-juzumo.

Habitat: 0.5 m, on rocky bottom: Shichirui.

31. *Chaetomorpha crassa* (C. AGARDH) KÜTZING
 in WEBER-VAN BOSSE, A., Liste Alg. Siboga I Myxophyceae, Chlorophyceae, Phaeophyceae, p.
 85, 1913; COLLINS, F. S. and HERVEY, A. B., Alg. Bermuda, p. 42, 1917.

Japanese name: Hosojuzumo.

Habitat: Driftng, on *Sargassa*: Hamada, Etomo, Kitaura, Shichirui.

32. *Chaetomorpha media* (C. AGARDH) KÜTZING
 in COLLINS, F. S., Green Alg. N. Am., p. 79, 1918; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p.
 68, 1956.

Japanese name: Enaga-juzumo.

Habitat: At low-tide-level, on rocky bottom: Etomo, Kitaura.

33. *Chaetomorpha moniligera* KJELLMAN
 in OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 66-67, fig. 34, 1956; Icon. Jap. Alg., Vol. VI;
 pp. 15-16, pl. 260, fig. 1-8, 1961.

Japanese name: Tama-juzumo.

Habitat: At low-tide-level, on rocky bottom: Etomo.

- 34. *Chaetomorpha spiralis* OKAMURA Plate I, Fig. 3
 Icon. Jap. Alg., Vol. II., pp. 162-165, pl. 95, fig. 1-11, 1951; Descr. Jap. Alg. (in Jap.), pp.
 67-68, 1956.

Japanese name: Futo-juzumo.

Habitat: 0.3 m, on rocky bottom: Hamada.

35. *Cladophora densa* HARVEY
 in YAMADA, Y., Mar. Alg. Mutsu Bay Adj. Waters. II., pp. 499-501, fig. 2, 1928; OKAMURA, K.,
 Descr. Jap. Alg. (in Jap.), pp. 59-60, fig. 30, 1956.

Japanese name: Asamidori-shiogusa.

Habitat: 0.3 m, on rocky bottom: Hamada, Etomo, Kitaura.

36. *Cladophora fascicularis* (MERTENS) KÜTZING
 in COLLINS, F. S., Green Alg. N. Am. p. 345, 1909; COLLINS, F. S. and HERVEY, A. B., Alg.
 Bermuda, p. 46, 1917.

Japanese name: Fusa-shiogusa.

Habitat: 1 m, on *Sargassa*: Kitaura, Shichirui.

○37. *Cladophora ohkuboana* HOLMES

New Mar. Alg. Jap., pp. 249–250, pl. 10, fig. 1, 1895; OKAMURA, K., Icon. Jap. Alg., Vol. VII., p. 47, pl. 325, fig. 1–3, 1962.

Japanese name: Kata-shiogusa.

Habitat: 0.3 m, on rocky bottom: Etomo.

38. *Cladophora opaca* SAKAI

Sp. *Cladophora* Jap. Vicin., pp. 62–64, pl. 11, fig. 2, 1964; *Cladophora glaucescens* (non HARVEY) YENDO, Notes Alg. New Jap., V., pp. 248–249, 1916.

Japanese name: Tsuyanashi-shiogusa.

Habitat: At low-tide-level, on rocky bottom: Etomo, Kitaura.

39. *Cladophora uncinella* HARVEY

in OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 55–56, 1956; SAKAI, Y., Sp. *Cladophora* Jap. Vicin., pp. 60–62, text-fig. 28, pl. 11, fig. 1, 1964.

Japanese name: Maki-shiogusa.

Habitat: At low-tide-level, on rocky bottom: Etomo, Kitaura, Mihonoseki.

40. *Cladophora utriculosa* KÜTZING

in YENDO, K., Notes Alg. New Jap., II., pp. 265–266, 1914; YAMADA, Y., Rep. Biol. Surv. Mutsu Bay. 9. Mar. Alg. Mutsu Bay Adj. Waters. II., p. 503, fig. 5, 1928.

Habitat: At low-tide-level, on rocky bottom: Kitaura.

41. *Cladophora wrightiana* HARVEY

in OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 51, 1956; SAKAI, Y., Sp. *Cladophora* Jap. Vicin., pp. 70–73, text-fig. 33–34, pl. 14, 1964.

Japanese name: Cha-shiogusa.

Habitat: 1 m, on rocky bottom: Hamada.

ANADYOMENACEAE

42. *Microdictyon japonicum* SETCHELL

in OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 40–41, fig. 19, 1956; SEGAWA S., mar. alg. Susaki, Prov. Idzu, its vicin., p. 60, 1935.

Japanese name: Amimoyō.

Habitat: 1.5 m, on rocky bottom: Uryu.

CAULERPALES CAULERPACEAE

43. *Caulerpa okamurai* W. v. BOSSE

in OKAMURA, K., Alg. Ogasawara-jima (Bonin Isls.), pp. 5–7, pl. 1, fig. 13–14, 1897; Descr. Jap. Alg. (in Jap.), pp. 104–105, fig. 53, 1956; Icon. Jap. Alg. Vol. IV., pp. 11–14, pl. 154, fig. 1–8, 1951; KAJIMURA, M., swarm. prod. disch. *Caulerpa okamurai* WEBER VAN BOSSE Shimane Pref., pp. 8–13, fig. 1–6, 1969.

Japanese name: Fusa-iwazuta.

Habitat: 1 m, on rocky bottom: Hamada, Etomo, Chikumi, Shichirui.

○44. ***Caulerpa peltata*** LAMOUREUX var. ***peltata***

Caulerpa peltata (LAMX.) WEB. v. B., var. *typica* in Liste Alg. Siboga I Myxophyceae, Chlorophyceae, Phaeophyceae, pp. 110-111, 1913; OKAMURA, K., Icon. Jap. Alg. Vol. VI., p. 60, pl. 280, fig. 10-12, 1961.

Japanese name: Takatsuki-zuta.

Habitat: 20 m, on Melobesioideae: off Takobana.

DERBESIALES
DERBESIACEAE

○45. ***Derbesia tenuissima*** (DE NOTARIS) CROUAN

in YENDO, K., Notes Alg. New Jap., II., p. 267, 1914; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 127, 1956; YAMADA, Y., Two new rec. mar. alg. Jap. (in Jap.), pp. 324-325, 1925.

Japanese name: Tsuyunoito-keba.

Habitat: 1 m, on *Caulerpa okamurai*: Chikumi.

CODIALES
BRYOPSIDACEAE

○46. ***Bryopsis maxima*** OKAMURA

Descr. Jap. Alg. (in Jap.), p. 91, 1956.

Japanese name: Oo-hanemo.

Habitat: At low-tide-level, on rocky bottom: Etomo.

47. ***Bryopsis plumosa*** (HUDSON) C. AGARDH

in COLLINS, F. S., Green Alg. N. Am., pp. 403-404, pl. 17, fig. 155, 1909; BØRGENSEN, F., Mar. Alg. Da. W. Ind. I. Chlorophyceae, pp. 117-118, 1913.

Japanese name: Hanemo.

Habitat: 0.3 m, on *Gymnogongrus flabelliformis*, on rocky bottom: Hamada, Taisha, Etomo.

CODIACEAE

48. ***Codium adhaerens*** (CABRERA) C. AGARDH

in COLLINS, F. S., Green Alg. N. Am., p. 387, 1909; SETCHELL, W. A. and GARDNER, N. L., Alg. N. W. Am., p. 231, 1903; OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 140-141, pl. 134, fig. 1-3, 1951.

Japanese name: Hai-miru.

Habitat: 1 m, on rocky bottom: Hamada.

49. ***Codium coarctatum*** OKAMURA

Icon. Jap. Alg. Vol. III., pp. 141-145, pl. 134, fig. 4-12, 1951; Descr. Jap. Alg. (in Jap.), p. 124, 1956.

Japanese name: Nezashi-miru.

Habitat: Drifting or 0.3 m, on rocky bottom: Tagi, Etomo.

50. *Codium contractum* KJELLMAN

in OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 70-73, pl. 120, fig. 1-8, 1951; Descr. Jap. Alg. (in Jap.), pp. 124-125, 1956.

Japanese name: Sakibuto-miru.

Habitat: Drifting: Etomo.

○51. *Codium cylindricum* HOLMES

New Mar. Alg. Jap., p. 250, pl. 7, fig. Ia-b, 1895; OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 177-180, pl. 141, fig. 1-11, 1951; Descr. Jap. Alg. (in Jap.), p. 125, 1956.

Japanese name: Naga-miru.

Habitat: Drifting: Hamada, Etomo.

52. *Codium divaricatum* HOLMES

New Mar. Alg. Jap., p. 250, pl. 7, fig. 2a-b, 1895; OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 155-160, pl. 136, fig. 1-8, 1951; Descr. Jap. Alg. (in Jap.), pp. 125-126, 1956.

Japanese name: Kuro-miru.

Habitat: 0.5 m, on rocky bottom: Etomo.

53. *Codium fragile* (SURINGAR) HARIOT

in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part II Chlorophyceae, pp. 171-172, pl. 28-29, 1920; *Codium mucronatum* J. AG. var. *Californicum* J. AG., OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 117-119, pl. 130, fig. 1-9, 1951; Descr. Jap. Alg. (in Jap.), p. 123, fig. 62, 1956.

Japanese name: Miru.

Habitat: 1 m, on rocky bottom: Hamada, Taisha, Uryu, Etomo.

54. *Codium mamillosum* HARVEY

in OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 151-153, pl. 135, fig. 10-16, 1951; Descr. Jap. Alg. (in Jap.), p. 121, 1956.

Japanese name: Tama-miru.

Habitat: Drifting: Etomo.

PHAEOPHYCEAE

DICTYOTALES

DICTYOTACEAE

55. *Padina arborescens* HOLMES

New Mar. Alg. Jap., pp. 251-252, pl. 12, fig. 1, 1895; OKAMURA, K., Icon. Jap. Alg. Vol. VI., p. 3-4, pl. 252, fig. 1-13, 1961; Descr. Jap. Alg. (in Jap.), pp. 182-183, fig. 94, 1956.

Japanese name: Umi-uchiwa.

Habitat: 0.5 m, on rocky bottom: Hamada, Etomo, Shichirui.

56. *Padina crassa* YAMADA

Notes Some Jap. Alg. II., pp. 67-68, pl. 17, fig. 2, 1931; OKAMURA, K., Icon. Jap. Alg. Vol. VI., pp. 87-88, pl. 294, fig. 5-11, 1961; Descr. Jap. Alg. (in Jap.), p. 183, 1956.

Japanese name: Konaumi-uchiwa.

Habitat: 0.5 m, on rocky bottom: Hamada, Etomo.

57. *Padina minor* YAMADA

Stud. Meeresalg. Ins. Formosa 2. Phaeophyceae, pp. 251–252, fig. 5, 1925; OKAMURA, K., Icon. Jap. Alg. Vol. VI., p. 54, pl. 279, fig. 6–9, 1961; Descr. Jap. Alg. (in Jap.), p. 184, 1956.

Japanese name: Usuyuki-uchiwa.

Habitat: 0.3 m, on rocky bottom: Kitaura.

58. *Zonaria diesingiana* J. AGARDH

in OKAMURA, K., Icon. Jap. Alg. Vol. I., pp. 16–18, pl. 4, fig. 1–10, 1951; Descr. Jap. Alg. (in Jap.), pp. 177–178, fig. 90, 1956.

Japanese name: Shima-oogi.

Habitat: Drifting or 2 m, on rocky bottom: Tagi, Etomo.

59. *Dictyota dichotoma* (HUDSON) LAMOUROUX

in HARVEY, W. H., Ner. Bor.-Am. I, Melanospermae, pp. 109–110, 1852; OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 39–46, pl. 111, fig. 1–9, pl. 112, fig. 1–10, pl. 113, fig. 1–5, 1951; TAYLOR, W. R., Mar. Alg. E. Trop. Subtrop. Coasts Am., pp. 218–219, pl. 31, fig. 5, 1960.

Japanese name: Amiji-gusa.

Habitat: At low-tide-level, on rocky bottom: Hamada, Etomo, Kitaura, Shichirui.

○60. *Dictyota dilatata* YAMADA

Stud. Meeresalg. Ins. Formosa 2. Phaeophyceae, pp. 252–253, fig. 6, 1925; OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 163–164, 1956.

Japanese name: Sakibiro-amiji.

Habitat: 30 m, on sunken tree branch: off Takobana.

61. *Dictyota linearis* (C. AGARDH) GREVILLE

in COLLINS, F. S. and HERVEY, A. B., Alg. Bermuda, p. 89, 1917; OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 29–31, pl. 107, fig. 1–9, 1951; Descr. Jap. Alg. (in Jap.), pp. 162–163, 1956.

Japanese name: Ito-amiji.

Habitat: 0.5 m, on *Gelidium amansii*: Etomo.

62. *Pachydictyon coriaceum* (HOLMES) OKAMURA

Contrib. Knowl. Mar. Alg. Jap. III., pp. 39–41, 1899; Icon. Jap. Alg. Vol. I., pp. 105–109, pl. 23, fig. 1–6, pl. 24, fig. 6–12, 1951; *Glossophora coriacea* HOLMES, New Mar. Alg. Jap., p. 251, 1895.

Japanese name: Sanada-gusa.

Habitat: 0.5 m, on rocky bottom: Hamada, Kitaura, Shichirui.

63. *Dilophus okamurai* DAWSON

Dictyota marginata OKAMURA, Icon. Jap. Alg. Vol. III., pp. 33–36, pl. 108, fig. 9, pl. 109, fig. 1–7, 1951; *Dilophus marginatus* (non J. AGARDH) OKAMURA, in Descr. Jap. Alg. (in Jap.), pp. 167–168, fig. 85, 1956.

Japanese name: Fukurin-amiji.

Habitat: At low-tide-level, on rocky bottom: Etomo, Sōzu.

64. *Spatoglossum pacificum* YENDO

Nov. Alg. Jap., Dec. I–III., pp. 2–3, 1920; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 171, 1956.

Japanese name: Komon-gusa.

Habitat: 1 m, on rocky bottom: Etomo.

65. *Dictyopteris prolifera* (OKAMURA) OKAMURA

Halyseris prolifera OKAMURA, in DE TONI, J. B. und OKAMURA, K., Neue Meeresalg. Jap., pp. 74–76, 1894; *Halyseris prolifera* OKAMURA, in Icon. Jap. Alg. Vol. I., pp. 55–57, pl. 12, fig. 1–6, 1951.

Japanese name: Hera-yahazu.

Habitat: 0.5 m, on rocky bottom: Hamada, Tagi, Shichirui.

66. *Dictyopteris undulata* (HOLMES) OKAMURA

Dictyopteris undulata HOLMES, New Mar. Alg. Jap., p. 251, pl. 8, fig. 1, 1895; *Halyseris undulata* HOLMES, in OKAMURA, K., Icon. Jap. Alg. Vol. I., pp. 51–55, pl. 11, fig. 1–10, 1951.

Japanese name: Shiwa-yahazu.

Habitat: Drifting or 2 m, on rocky bottom: Hamada, Etomo.

○67. *Distromium decumbens* (OKAMURA) LEVRING Plate I, Fig. 4

Chlanidote repens OKAMURA, Icon. Jap. Alg. Vol. I., pp. 112–116, pl. 24, fig. 13–18, 1951; *Chlanidote decumbensa* OKAMURA, Contrib. Knowl. Mar. Alg. Jap. III., pp. 38–39, fig. 23–25, 1899.

Japanese name: Futae-oogi.

Habitat: Drifting: Etomo.

○68. *Homoeostrichus flabellatus* OKAMURA Plate I, Fig. 5

Icon. Jap. Alg. Vol. VI., pp. 57–58, 55–56, pl. 279, fig. 11–13, 1961; Descr. Jap. Alg. (in Jap.), pp. 179–180, fig. 92, 1956.

Japanese name: Yare-oogi.

Habitat: 30 m, on stones: off Takobana.

ECTOCARPALES ECTOCARPACEAE

69. *Giffordia mitchellae* (HARVEY) HAMEL

in TAYLOR, W. R., Mar. Alg. E. Trop. Subtrop. Coasts Am., p. 206, pl. 29, fig. 1–2; *Ectocarpus Mitchellae* HARV., in OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 138–139, fig. 68, 1956.

Japanese name: Tawaragata-shiomidoro.

Habitat: At low-tide-level, on *Sargassum thunbergii*: Etomo.

SPHACELARIALES SPHACELARIACEAE

70. *Sphacelaria variabilis* SAUVAGEAU

in YAMADA, Y., Rep. Biol. Surv. Mutsu Bay. 9. Mar. Alg. Mutsu Bay Adj. Waters. II., pp. 504–505, fig. 7, 1928; OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 152–153, fig. 78, 1956.

Japanese name: Matazaki-kurogashira.

Habitat: At low-tide-level, on *Sargassum thunbergii*: Etomo.

71. *Halopteris filicina* (GRATELOUP) KÜTZING

in OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 154–155, fig. 79, 1956; SEGAWA, S., mar. alg. Susaki, Prov. Idzu, its vicin., p. 66, 1935.

Japanese name: Kashirazaki.

Habitat: 20 m, on stone: off Takobana.

CHORDARIALES ELACHISTACEAE

72. *Halothrix tortuosa* TAKAMATSU

Halothrix nordöst. Honshū, Jap., pp. 184–186, Taf. XXV, fig. 1, text-fig. 2, 1937.

Habitat: 0.3 m, on the leaves of *Phyllospadix japonica*: Etomo.

LEATHESIACEAE

73. *Petrospongium rugosum* (OKAMURA) SETCHELL et GARDNER

Mar. Alg. Pac. Coast N. Am. Part III Melanophyceae, pp. 509–510, pl. 39, fig. 42–43, 1925; OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 186–187, fig. 96, 1956; INAGAKI, K., Syst. Stud. Order Chordariales Jap. its Vicin., pp. 97–100, fig. 1–3, 1958.

Japanese name: Shiwanokawa.

Habitat: 0.5 m, on rocky bottom: Shichirui.

74. *Leathesia difformis* (LINNÉ) ARESCHOUG

in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part III Melanophyceae, pp. 511–512, pl. 40, fig. 52, pl. 43, fig. 65–66, 1925; TAYLOR, W. R., Mar. Alg. N.E. Coast N. Am., p. 149, pl. 12, fig. 5, pl. 14, fig. 8, 1957.

Japanese name: Nebarimo.

Habitat: At low-tide-level, on rocky bottom: Hamada, Uryu.

CHORDARIACEAE

75. *Tinocladia crassa* (SURINGAR) KYLIN

in INAGAKI, K., Syst. Stud. Order Chordariales Jap. its Vicin., pp. 143–145, fig. 49, 1958; *Mesogloia crassa* SURING., in OKAMURA, K., Icon. Jap. Alg. Vol. I., pp. 89–92, pl. 20, fig. 1–9, 1951; *Eudesme crassa* (SURING.) OKAM., in Descr. Jap. Alg. (in Jap.), pp. 193–194, fig. 100, 1956.

Japanese name: Futo-mozuku.

Habitat: Drifting: Hamada, Etomo.

76. *Sphaerotrichia divaricata* (C. AGARDH) KYLIN

in INAGAKI, K., Syst. Stud. Order Chordariales Jap. its Vicin., pp. 146–147, fig. 53, 1958; *Chordaria firma* E. S. GEPP., in OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 183–188, pl. 143, fig. 1–9, pl. 145, fig. 1–9, 1951; Descr. Jap. Alg. (in Jap.), pp. 196–198, fig. 103, 1956.

Japanese name: Ishi-mozuku.

Habitat: 0.3 m, on rocky bottom: Hamada, Etomo.

77. *Papenfussiella kuromo* (YENDO)^g INAGAKI

Syst. Stud. Order Chordariales Jap. its Vicin., pp. 128–129, 1958; *Myriocladia kuromo* YENDO, in Nov. Alg. Jap., Dec. I–III, pp. 1–2, 1920.

Japanese name: Kuromo.

Habitat: At low-tide-level, on rocky bottom: Hamada, Etomo.

ACROTHRICEAE

78. *Acrothrix pacifica* OKAMURA et YAMADA
 in YAMADA, Y., Notes Some Jap. Alg. III., p. 113-114, pl. 24, text-fig. 1932; OKAMURA, K.,
 Descr. Jap. Alg. (in Jap.), p. 206, fig. 110, 1956.
Japanese name: Nise-mozuku.
Habitat: Drifting, on *Chorda filum*: Hamada, Etomo.

SPERMATOCHEACEAE

79. *Nemacystus decipiens* (SURINGAR) KUCKUCK
 in INAGAKI, K., Syst. Stud. Order Chordariales Jap. its Vicin., p. 182-185, fig. 80-83, 1958;
Cladosiphon decipiens (SURING.) OKAM., in Icon. Jap. Alg. Vol. II., p. 136-140, pl. 89, fig. 1-5, 1951.
Japanese name: Mozuku.
Habitat: Drifting, on *Gymnogongrus flabelliformis*, *Sargassa*: Hamada,
 Etomo.

ISHIGEACEAE

80. *Ishige okamurai* YENDO
 Fucaceae Jap., pp. 154-155, pl. II, fig. 1-8, 1907; OKAMURA, K., Descr. Jap. Alg. (in Jap.),
 pp. 238-239, fig. 130, 1956.
Japanese name: Ishige.
Habitat: At low-tide-level, on rocky bottom: Oomishima, Hamada.

SPOROCHNALES SPOROCHNACEAE

81. *Carpomitra cabreræ* (CLEMENTE) KÜTZING
 in OKAMURA, K., Icon. Jap. Alg. Vol. I., pp. 61-64, pl. 14, fig. 6-8, pl. 15, fig. 1-14, 1951; Descr.
 Jap. Alg. (in Jap.), pp. 212-213, fig. 114, 1956.
Japanese name: Ichimegasa.
Habitat: 20 m, on Melobesioideae: off Takobana.

DESMARESTIALES DESMARESTIACEAE

82. *Desmarestia viridis* (MÜLLER) LAMOUROUX
 in OKAMURA, K., Icon. Jap. Alg. Vol. II., pp. 84-86, pl. 73, fig. 1-3, pl. 75, fig. 5-6, 1951; TAYLOR,
 W. R., Mar. Alg. N. E. Coast N. Am., pp. 153-154, pl. 13, fig. 3, 1966.
Japanese name: Ke-urushi-gusa.
Habitat: Drifting or at low-tide-level, on rocky bottom: Hamada, Etomo.

SCYTOSIPHONALES
SCYTOSIPHONACEAE

83. *Hydroclathrus clathratus* (BORY) HOWE
in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part III Melanophyceae, p. 543, 1925; TAYLOR, W. R., Mar. Alg. E. Trop. Subtrop. Coasts Am., p. 261, pl. 36, fig. 5, 1960.
Japanese name: Kagome-nori.
Habitat: At low-tide-level, on rocky bottom: Hamada.
84. *Colpomenia bullosa* (SAUNDERS) YAMADA
Colpomenia sinuosa f. *deformans* SETCHELL and GARDNER, in Mar. Alg. Pac. Coast N. Am. Part III Melanophyceae, p. 542, 1925; TAYLOR, W. R., Mar. Alg. E. Trop. Subtrop. Coasts Am., p. 261, pl. 36, fig. 5, 1960.
Japanese name: Watamo.
Habitat: At low-tide-level, on rocky bottom: Hamada.
85. *Colpomenia sinuosa* (ROTH) DERBÈS et SOLIER
in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part III Melanophyceae, pp. 539-540, pl. 45, fig. 82-86, 1925; TAYLOR, W. R., Mar. Alg. E. Trop. Subtrop. Coasts Am., p. 260, pl. 36, fig. 1, 1960.
Japanese name: Fukuro-nori.
Habitat: 0.5 m, on rocky bottom, on *Sargassa*: Etomo, Shichirui.
86. *Endarachne binghamiae* J. AGARDH
in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part III Melanophyceae, pp. 538-539, pl. 38, fig. 37-38, pl. 83a, 1925; OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 233-234, fig. 126, 1956.
Japanese name: Haba-nori.
Habitat: At low-tide-level, on rocky bottom: Hamada, Etomo.
87. *Scytosiphon lomentarius* (LYNGBYE) J. AGARDH
in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part III Melanophyceae, pp. 531-533, pl. 44, fig. 72, 74, 1925; TAYLOR, W. R., Mar. Alg. N.E. Coast N. Am., pp. 168-169, pl. 15, fig. 2, pl. 16, fig. 3, 1966.
Japanese name: Kayamo-nori.
Habitat: 0.3 m, on rocky bottom: Hamada, Taisha, Etomo, Shichirui.
88. *Petalonia fascia* (O. F. MÜLLER) KUNTZE
Laminaria Fascia, AG., in HARVEY, W. H., Ner. Bor.-Am. I, Melanospermae, p. 91, 1852; TAYLOR, W. R., Mar. Alg. N.E. Coast N. Am., pp. 167-168, pl. 14, fig. 5, pl. 15, fig. 3, 1966.
Japanese name: Seiyō-haba-nori.
Habitat: 0.3 m, on rocky bottom: Etomo.

PUNCTARIACEAE

89. *Punctaria latifolia* GREVILLE
in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part III Melanophyceae,

p. 519, 1925; TAYLOR, W. R., Mar. Alg. N.E. Coast N. Am., p. 166, pl. 15, fig. 5, 1966.

Japanese name: Haba-modoki.

Habitat: Drifting: Etomo.

LAMINARIALES CHORDACEAE

90. *Chorda filum* (LINNÉ) LAMOUREUX

in SETCHELL, W. A. and GARDNER, N. L., Mar. Alg. Pac. Coast N. Am. Part III Melanophyceae, pp. 592-593; TAYLOR, W. R., Mar. Alg. N.E. Coast N. Am., p. 176, pl. 14, fig. 3, pl. 15, fig. 1, 1966.

Japanese name: Tsurumo.

Habitat: Drifting: Hamada, Etomo.

LAMINARIACEAE

91. *Eisenia bicyclis* (KJELLMAN) SETCHELL

in OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 140-143, 152-154, pl. 238, fig. 1-5, pl. 239, 1951; Descr. Jap. Alg. (in Jap.), p. 268, fig. 150, 1956.

Japanese name: Arame.

Habitat: 3 m, on rocky bottom: Kitaura, Shichirui.

○92. *Ecklonia cava* KJELLMAN

Plate II, Fig. 2

in OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 135-137, 147-149, pl. 236, fig. 1-7, 1951; Descr. Jap. Alg. (in Jap.), pp. 269-271, fig. 151, 1956.

Japanese name: Kajime.

Habitat: Drifting: Hamada, Etomo.

93. *Ecklonia kurome* OKAMURA

Icon. Jap. Alg. Vol. V., pp. 137-140, 149-151, pl. 236, fig. 8, pl. 237, fig. 1-4, 1951; Descr. Jap. Alg. (in Jap.), pp. 271-272, fig. 152, 1956.

Japanese name: Kurome.

Habitat: 1 m, on rocky bottom: Hamada, Uryu, Mitsu, Etomo.

ALARIACEAE

94. *Undaria pinnatifida* (HARVEY) SURINGAR

in OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 118-120, 127-128, pl. 231, fig. 1-3, pl. 235, fig. 1-10, 1951; Descr. Jap. Alg. (in Jap.), pp. 281-282, fig. 157, 1956.

Japanese name: Wakame.

Habitat: At low-tide-level, on rocky bottom: Hamada, Taisha, Etomo.

FUCALES SARGASSACEAE

95. *Cystophyllum sisymbrioides* J. AGARDH

in YENDO, K., *Fucaceae Jap.*, pp. 36–40, pl. III, fig. 1–6, 1907; OKAMURA, K. *Icon. Jap. Alg. Vol. V.*, pp. 21–23, 35–36, pl. 206, fig. 1–4, 1951.

Japanese name: Joro-moku.

Habitat: Drifting: Taisha, Etomo, Shichirui.

- 96. *Cystophyllum turneri* YENDO Plate II, Fig. 1
Fucaceae Jap., pp. 40–42, pl. III, fig. 7–11, 1907; OKAMURA, K., *Descr. Jap. Alg. (in Jap.)*, pp. 311–312, 1956.

Japanese name: Hie-moku.

Habitat: Drifting: Etomo.

97. *Hizikia fusiforme* (HARVEY) OKAMURA

Turbinaria (?) fusiformis YENDO, *Fucaceae Jap.*, pp. 44–48, pl. IV, fig. 1–7, 1907; OKAMURA, K., *Descr. Jap. Alg. (in Jap.)*, pp. 314–315, fig. 165, 1956.

Japanese name: Hijiki.

Habitat: At low-tide-level, on rocky bottom: Hamada, Etomo, Nonami, Shichirui.

98. *Sargassum confusum* C. AGARDH

in YENDO, K., *Fucaceae Jap.*, pp. 106–112, pl. 14, fig. 1–12, 1907; OKAMURA, K., *Descr. Jap. Alg. (in Jap.)*, p. 335, 1956.

Japanese name: Fushi-suji-moku.

Habitat: Drifting: Hamada, Taisha, Etomo, Shichirui.

99. *Sargassum fulvellum* AGARDH

Sargassum enerve AG., in YENDO, K., *Fucaceae Jap.*, pp. 96–98, pl. XIII, fig. 1–6, 1907; OKAMURA, K., *Descr. Jap. Alg. (in Jap.)*, pp. 335–337, fig. 169, 1956.

Japanese name: Hondawara.

Habitat: Drifting or 0.5 m, on rocky bottom: Hamada, Taisha, Etomo.

100. *Sargassum hemiphyllum* C. AGARDH

in YENDO, K., *Fucaceae Jap.*, pp. 99–102, pl. XIII, fig. 7–17, 1907; OKAMURA, K., *Icon. Jap. Alg. Vol. V.*, pp. 48–51, 61–62, pl. 213, fig. 1–7, 1951.

Japanese name: Iso-moku.

Habitat: At low-tide-level, on rocky bottom: Hamada, Etomo.

101. *Sargassum horneri* (TURNER) C. AGARDH

in YENDO, K., *Fucaceae Jap.*, pp. 74–80, pl. X, 1907; OKAMURA, K., *Icon. Jap. Alg. Vol. V.*, pp. 3–5, 15–16, pl. 202, fig. 1–8, 1951.

Japanese name: Aka-moku.

Habitat: Drifting or at low-tide-level, on rocky bottom: Hamada, Taisha, Uryu, Etomo, Sōzu.

102. *Sargassum kjellmanianum* YENDO

Fucaceae Jap., pp. 102–106, pl. XV, fig. 1–5, 1907; OKAMURA, K., *Icon. Jap. Alg. Vol. V.*, pp. 45–48, 58–60, pl. 212, fig. 1–9, 1951.

Japanese name: Hahaki-moku.

Habitat: Drifting or 0.5 m, on rocky bottom: Hamada, Etomo, Shichirui.

103. *Sargassum micracanthum* (KÜTZING) YENDO

Fucaceae Jap., pp. 123-127, pl. XV, fig. 10-21, 1907; OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 51-54, 63-65, pl. 214, fig. 1-11, 1951.

Japanese name: Toge-moku.

Habitat: Drifting or at low-tide-level, on rocky bottom: Hamada, Etomo.

104. *Sargassum nigrifolium* YENDO

Fucaceae Jap., pp. 127-129, pl. XVI, fig. 1-3, 1907; OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 8-10, pl. 204, fig. 1-7, 1951.

Japanese name: Narasamo.

Habitat: At low-tide-level, on rocky bottom: Shichirui.

105. *Sargassum patens* C. AGARDH

in YENDO, K., Fucaceae Jap., pp. 64-69, pl. VIII, 1907; OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 80-81, pl. 218, fig. 1-7, 1951.

Japanese name: Yatsumata-moku.

Habitat: Drifting or at low-tide-level, on rocky bottom: Hamada, Taisha, Etomo, Sōzu, Shichirui.

106. *Sargassum piluliferum* C. AGARDH

in YENDO, K., Fucaceae Jap., pp. 54-60, pl. VI, fig. 1-7, 1907; OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 69-70, 78-79, pl. 216, fig. 1-6, 1951.

Japanese name: Mame-tawara.

Habitat: Drifting or at low-tide-level, on rocky bottom: Oomishima, Hamada, Etomo, Shichirui.

107. *Sargassum ringoldianum* HARVEY

in YENDO, K., Fucaceae Jap., pp. 146-150, pl. XVIII, 1907; OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 32-34, 41-42, pl. 210, fig. 1-4, 1951.

Japanese name: Ooba-moku.

Habitat: Drifting: Hamada, Etomo.

108. *Sargassum serratifolium* C. AGARDH

in YENDO, K., Fucaceae Jap., pp. 81-85, pl. XI, fig. 1-7, 1907; OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 23-26, 36-38, pl. 207, fig. 1-3, 1951.

Japanese name: Nokogiri-moku.

Habitat: Drifting: Hamada, Taisha, Etomo, Shichirui.

109. *Sargassum thunbergii* (MERTENS) O. KUNTZE

in YENDO, K., Fucaceae Jap., pp. 114-119, pl. XV, fig. 5, 1907; OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 6-8, 16-18, pl. 203, fig. 1-9, 1951.

Japanese name: Umi-toranoo.

Habitat: At low-tide-level, on rocky bottom: Oomishima, Hamada, Etomo, Sōzu, Shichirui.

110. *Sargassum tortile* C. AGARDH

in YENDO, K., Fucaceae Jap., pp. 85-88, pl. XII, fig. 1-8, 1907; OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 26-29, 38-39, pl. 208, fig. 1-6, 1951.

Japanese name: Yore-moku.

Habitat: Drifting or at low-tide-level, on rocky bottom: Hamada, Etomo, Sōzu.

111. *Sargassum yendoi* OKAMURA et YAMADA
 in YAMADA, Y., Notes Some Jap. Alg. VIII., pp. 121-123, fig. 1-2, 1938.
Japanese name: Yendō-moku.
Habitat: Drifting: Etomo.

RHODOPHYCEAE
 BANGIOPHYCIDAE
 BANGIALES
 BANGIACEAE

112. *Goniotrichum alsidii* (ZANARDINI) HOWE
 Mar. Alg. Peru, pp. 75-77, 1914; TANAKA, T., Syst. Stud. Jap. Protofloridae, pp. 5-7, fig. 2-3,
 1952; TAYLOR, W. R., Mar. Alg. N. E. Coast N. Am., p. 202, pl. 28, fig. 1-4, 1966.
Japanese name: Benimidoro.
Habitat: 2 m, on *Caulerpa okamurai*: Chikumi.
- 113. *Erythrotrichia biseriata* TANAKA
 in TANAKA, T., Syst. Stud. Jap. Protofloridae, p. 17, fig. 8, 1952.
Japanese name: Hime-ribon.
Habitat: At low-tide-level, on *Sphacelaria lutea*: Shichirui.
- 114. *Erythrotrichia carnea* (DILLWYN) J. AGARDH
 in TANAKA, T., Syst. Stud. Jap. Protofloridae, pp. 14-16, fig. 7, 1952; TAYLOR, W. R., Mar. Alg.
 N. E. Coast N. Am., pp. 202-203, pl. 28, fig. 13-15, 1966.
Japanese name: Hoshinoito.
Habitat: At low-tide-level, on *Sphacelaria lutea*: Shichirui.
- 115. *Erythrotrichia reflexa* (CROUAN) THURET
 in TANAKA, T., Syst. Stud. Jap. Protofloridae, p. 17, fig. 9, 1952.
Japanese name: Yumigata-hoshinoobi.
Habitat: 0.3 m, on *Sargassum patens*: Etomo.
- 116. *Bangia ciliaris* CARMICHAEL
 in YENDO, K., Notes Alg. New Jap., IV., p. 51, 1916; TAYLOR, W. R., Mar. Alg. N. E. Coast
 N. Am., p. 204, pl. 28, fig. 5-9, 1966.
Japanese name: Hime-ushike-nori (nom. nov.).
Habitat: At low-tide-level, on *Sargassum hemiphyllum*: Etomo.
117. *Bangia fusco-purpurea* (DILLWYN) LYNGBYE
 in TANAKA, T., Syst. Stud. Jap. Protofloridae, pp. 23-24, pl. II, fig. 2, 1952; TAYLOR, W. R., Mar.
 Alg. N. E. Coast N. Am., p. 204, pl. 28, fig. 10-12, 1966.
Japanese name: Ushike-nori.
Habitat: At low-tide-level, on rocky bottom: Etomo, Shichirui, Kaike.
118. *Bangia gloiopeltidicola* TANAKA
 sp. *Bangia* Jap., pp. 163-165, fig. 1-2, 1950; FUKUHARA, E., holdf. *Bangia fusco-purpurea* (DILLWYN)
 LYNGB. and *B. gloiopeltidicola* TANAKA, pp. 41-46, fig. 1-2, 1967.
Japanese name: Funorino-ushige.

Habitat: At high-tide-level, on *Gloiopeltis furcata*: Etomo.

119. *Porphyra dentata* KJELLMAN

in UEDA, S., Syst. Stud. Jap. *Porphyra* (in Jap.), pp. 19–20, pl. I, fig. 9–10, pl. III, fig. 6–13, pl. XIII, fig. 3–4, pl. XIV, fig. 1, 1932; TANAKA, T., Syst. Stud. Jap. Protofloridae, pp. 36–38, pl. IV, fig. 1, text-fig. 18, 1952.

Japanese name: Oni-ama-nori.

Habitat: At low-tide-level, on rocky bottom: Taisha, Etomo, Sōzu, Shichirui, Kaike.

120. *Porphyra okamurai* UEDA

Syst. Stud. Jap. *Porphyra* (in Jap.), pp. 14–15, pl. 1, fig. 9–10, pl. II, fig. 1–6, pl. XII, fig. 1–2, 1932; TANAKA, T., Syst. Stud. Jap. Protofloridae, pp. 28–31, pl. III, fig. 1, text-fig. 14–15, 1952.

Japanese name: Kuro-nori.

Habitat: From low-tide-level to 0.5 m above it, on rocky bottom or concrete surface: Taisha, Etomo, Yodoe.

121. *Porphyra pseudolinearis* UEDA

Syst. Stud. Jap. *Porphyra* (in Jap.), pp. 29–31, pl. I, fig. 6 or 11, 11, pl. VI, fig. 17–18, pl. VII, fig. 1–5, pl. XIX, fig. 1–2, 1932; TANAKA, T., Syst. Stud. Jap. Protofloridae, pp. 49–51, pl. VIII–IX, text-fig. 24, 1952.

Japanese name: Uppurui-nori.

Habitat: 0.5 m above low-tide-level, on rocky bottom: Taisha, Etomo, Kitaura, Sōzu, Kaike.

122. *Porphyra yezoensis* UEDA

Syst. Stud. Jap. *Porphyra* (in Jap.), pp. 23–24, pl. 1, fig. 9–14, pl. IV, fig. 11–17, pl. XVI, fig. 3–4, 1932; TANAKA, T., Syst. Stud. Jap. Protofloridae, pp. 39–41, pl. V, VII, fig. 3, text-fig. 19, 1952.

Japanese name: Susabi-nori.

Habitat: 0.5 m, on *Gracilarias*, *Chondria intermedia*, *Gelidium amansii*: Taisha, Etomo, Ui.

FLORIDEOPHYCIDAE

NEMALIONALES

ACROCHAETIACEAE

○123. *Colaconema simplex* INAGAKI

in OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 372, fig. 178, 1956.

Japanese name: Beni-mayudama.

Habitat: 1 m, endophytic in the outer membrane of *Polysiphonia* sp.: Hamada.

○124. *Acrochaetium crassipes* BØRGENSEN

in BØRGENSEN, F., Mar. Alg. Dan. W. Ind. III Rhodophyceae, pp. 20–21, 1915–1920; YENDO, K., Notes Alg. New Jap., VII., pp. 201–202, 1917.

Habitat: 2 m, on *Caulerpa okamurai*: Chikumi.

HELMINTHOCLADIACEAE

125. *Nemalion vermiculare* SURINGAR
 in OKAMURA, K., Icon. Jap. Alg. Vol. IV., pp. 28–30, pl. 158, fig. 1–16, 1951; Descr. Jap. Alg. (in Jap.), pp. 413–414, fig. 191, 1956.
Japanese name: Umizōmen.
Habitat: At high-tide-level, on rocky bottom: Nonami.
126. *Trichogloea requienii* (MONTAGNE) KÜTZING
Trichogloea lubrica (HARV.) J. AG., in OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 411–412, fig. 190, 1956; TAYLOR, W. R., Mar. Alg. E. Trop. Subtrop. Coasts Am., p. 323, 1960.
Japanese name: Akebono-mozuku.
Habitat: Drifting: Etomo.
127. *Helminthocladia yendoana* NARITA
 Enum. Sp. Nemalionis Helminthocladiae Jap., pp. 191–193, pl. IV, fig. II, 1918; OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 415–417, fig. 193.
Japanese name: Hoso-beni-mozuku.
Habitat: 1 m, on rocky bottom: Etomo.

CHAETANGIACEAE

- 128. *Galaxaura apiculata* KJELLMAN Plate II, Fig. 3
 in TANAKA, T., Gen. *Galaxaura* Jap., pp. 162–163, pl. 41, fig. 2, text-fig. 26–27, 1936; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 448, 1956.
Japanese name: Gibōshi-garagara.
Habitat: Drifting or 2 m, on concrete surface: Taisha, Etomo.
129. *Galaxaura falcata* KJELLMAN
 in TANAKA, T., Gen. *Galaxaura* Jap., pp. 158–161, pl. 39, text-fig. 22–23, 1936; OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 445–447, fig. 206–207, 1956.
Japanese name: Hira-garagara.
Habitat: Drifting: Etomo.

BONNEMAISONIACEAE

130. *Delisea fimbriata* (LAMOUROUX) MONTAGNE
Delisea pulchra MONT., in YAMADA, Y., Notes Some Jap. Alg. I., pp. 28–29, 1930; *Delisea japonica* OKAM., Icon. Jap. Alg. Vol. I., pp. 139–144, pl. 29, fig. 1–11, 1951.
Japanese name: Tamaitadaki.
Habitat: Drifting: Hamada.
131. *Bonnemaisonia hamifera* HARIOT
Asparagopsis hamifera (HARIOT) OKAM., Icon. Jap. Alg. Vol. IV., pp. 131–133, pl. 183, fig. 10–11, pl. 184, fig. 10–16, 1951; Descr. Jap. Alg. (in Jap.), pp. 430–431, fig. 200, 1956.

Japanese name: Kagi-nori.

Habitat: 0.3 m, on rocky bottom: Etomo, Kitaura.

GELIDIALES
GELIDIACEAE

132. *Gelidium amansii* LAMOUROUX
in OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 25–26, 27–29, pl. 106, fig. 1–8, 1951; Descr. Jap. Alg. (in Jap.), pp. 458–459, fig. 210, 1956.
Japanese name: Makusa.
Habitat: 2 m, on rocky bottom: Tanoura, Etomo.
- 133. *Gelidium divaricatum* MARTENS
in OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 456, 1956; SEGAWA, S., mar. alg. Susaki, Prov. Idzu, its vicin., p. 73, 1935.
Japanese name: Hime-ten-gusa.
Habitat: At low-tide-level, on rocky bottom: Taisha, Etomo.
134. *Gelidium japonicum* OKAMURA
Gelidium Pterocladia Jap., p. 52, pl. 18, fig. 2, 1934; Descr. Jap. Alg. (in Jap.), p. 458, 1956; SEGAWA, S., mar. alg. Susaki, Prov. Idzu, its vicin., pp. 73–74, 1935.
Japanese name: Oni-kusa.
Habitat: 0.3 m, on rocky bottom: Etomo.
135. *Gelidium pusillum* (STACKHOUSE) LE JOLIS
in OKAMURA, K., Icon. Jap. Alg. Vol. II., pp. 11–13, pl. 54, fig. 10–14, 1951; TAYLOR, W. R., Mar. Alg. E. Trop. Subtrop. Coasts Am., pp. 354–355, pl. 45, fig. 4, 1960.
Japanese name: Hai-ten-gusa.
Habitat: 0.5 m above low-tide-level, on rocky bottom: Etomo.
136. *Pterocladia capillacea* (GMELIN) BORNET et THURET
in OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 50–53, pl. 115, fig. 1–11, 1951; *Pterocladia tenuis* OKAMURA, in Descr. Jap. Alg. (in Jap.), pp. 467–468, fig. 214–215, 1956.
Japanese name: Oba-kusa.
Habitat: Drifting or 0.3 m, on rocky bottom: Etomo.
137. *Pterocladia densa* OKAMURA
Gelidium Pterocladia Jap., p. 63, pl. 30, fig. 1–2, pl. 33, fig. 4–8, 1934; Descr. Jap. Alg. (in Jap.), pp. 468–469, 1956.
Japanese name: Kata-oba-kusa.
Habitat: At low-tide-level, on rocky bottom: Shichirui.

CRYPTONEMIALES
DUMONTIACEAE

138. *Hyalosiphonia caespitosa* OKAMURA
Icon. Jap. Alg. Vol. II., pp. 51–59, pl. 65, fig. 1–6, 1951; Descr. Jap. Alg. (in Jap.), pp. 478–479,

fig. 221, 1956.

Japanese name: Isomume-modoki.

Habitat: Drifting: Taisha.

RHIZOPHYLLIDACEAE

139. *Desmia hornemanni* MERTENS

Chondrococcus Hornemanni (MERT.) SCHMITZ., in OKAMURA, K., Icon. Jap. Alg. Vol. IV., pp. 158–159, 171–172, pl. 190, fig. 1–14, 1951; Descr. Jap. Alg. (in Jap.), pp. 487–488, fig. 227, 1956.

Japanese name: Hosoba-namino-hana.

Habitat: Drifting or at low-tide-level, on rocky bottom: Etomo, Shichirui.

140. *Desmia japonica* HARVEY

Chondrococcus japonicus (HARV.) OKAM., in Icon. Jap. Alg. Vol. IV., pp. 160, 172, pl. 190, fig. 15, 1951; Descr. Jap. Alg. (in Jap.), p. 488, 1956.

Japanese name: Namino-hana.

Habitat: Drifting or at low-tide-level, on rocky bottom: Hamada, Etomo.

SQUAMARIACEAE

141. *Peyssonnelia caulifera* OKAMURA

in Descr. Jap. Alg. (in Jap.), pp. 493–494, fig. 230, 1956.

Japanese name: Etsuki-iwano-kawa.

Habitat: 3 m, on rocky bottom: Uryu.

CORALLINACEAE

142. *Lithophyllum okamurai* FOSLIE

in OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 512, fig. 241, 1956.

Japanese name: Hiraibo.

Habitat: At low-tide-level, on rocky bottom: Etomo, Shichirui.

143. *Fosliella zostericola* (FOSLIE) SEGAWA

in OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 507–508, 1956.

Japanese name: Mokasa.

Habitat: 0.3 m, on the leaves of *Phyllospadix japonica*: Taisha, Etomo.

144. *Amphiroa dilatata* LAMOUROUX

in YENDO, K., Corallinae Jap., pp. 12–13, pl. I, fig. 17–21, pl. V, fig. 4, 1902; OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 518–519, fig. 244, 1956.

Japanese name: Kaninote.

Habitat: Drifting or 0.3 m, on rocky bottom: Etomo.

145. *Amphiroa zonata* YENDO

Corallinae Jap., pp. 10–11, pl. I, fig. 11–14, pl. IV, fig. 9, 1902; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 517, 1956.

Japanese name: Usukawa-kaninote.

Habitat: Drifting or 0.5 m, on rocky bottom: Oomishima, Taisha, Etomo, Mihonoseki.

146. *Marginisporum aberrans* (YENDO) JOHANSEN et CHIHARA

Amphiroa aberrans YENDO, Corallinae Jap., pp. 16–17, pl. II, fig. 1–5, pl. V, fig. 1–3, 1902; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 520, 1956.

Japanese name: Fusa-kaninote.

Habitat: Drifting or at low-tide-level, on rocky bottom: Etomo.

147. *Marginisporum crassissimum* (YENDO) JOHANSEN et CHIHARA

Amphiroa crassissima YENDO, Corallinae Jap., pp. 16, pl. I, fig. 27–28, pl. V, fig. 5–6, 1902; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 521, 1956.

Japanese name: Heritori-kaninote.

Habitat: 0.5 m, on rocky bottom: Etomo.

○148. *Alatocladia modesta* (YENDO) JOHANSEN Plate II, Fig. 4

Cheilosporum anceps YENDO var. *modesta* YENDO, Corallinae Jap., p. 19, pl. II, fig. 9, pl. VI, fig. 3, 1902; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 524, 1956.

Japanese name: Yahazu-shikoro.

Habitat: Drifting: Etomo.

149. *Corallina pilulifera* POSTELS et RUPRECHT

in YENDO, K., Corallinae Jap., pp. 30–31, pl. III, fig. 14–16, pl. VII, fig. 14–16, 1902; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 527, 1956.

Japanese name: Piri-hiba.

Habitat: Drifting or at low-tide-level, on rocky bottom: Oomishima, Taisha, Etomo, Mihonoseki, Kaike.

○150. *Corallina squamata* ELLIS et SOLANDER Plate III, Fig. 1

in YENDO, K., Corallinae Jap., p. 32, pl. III, fig. 17, pl. VII, fig. 17, 1902; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 528, 1956.

Japanese name: Miya-hiba.

Habitat: Drifting or at low-tide-level, on rocky bottom: Taisha, Etomo.

151. *Jania arborescens* YENDO

Corallina arborescens YENDO, Corallinae Jap., pp. 25–26, pl. III, fig. 5, pl. VII, fig. 5, 1902; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 531, 1956.

Japanese name: Kiburi-mosazuki.

Habitat: 0.3 m, on *Marginisporum* sp.: Shichirui.

152. *Jania radiata* YENDO

Corallina radiata YENDO, Corallinae Jap., p. 26, pl. III, fig. 6, pl. VII, fig. 7, 1902; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 532, 1956.

Japanese name: Hiougi.

Habitat: Drifting, on *Sargassum ringgoldianum*: Uryu.

153. *Jania decussato-dichotoma* YENDO

Corallina decussato-dichotoma YENDO, Corallinae Jap., p. 25, pl. III, fig. 1–3, pl. VII, fig. 3–4, 1902; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 530, 1956.

Japanese name: Hime-mosazuki.

Habitat: At low-tide-level, on rocky bottom: Oomishima, Tanoura.

154. *Halymenia acuminata* (HOLMES) J. AGARDH

Grateloupia acuminata HOLMES, New Mar. Alg. Jap., p. 254, pl. X, fig. 2a-2c, 1895; OKAMURA, K., Icon. Jap. Alg. Vol. I., pp. 174-177, pl. 35, fig. 6-12, 1951.

Japanese name: Oo-mukade-nori.

Habitat: 0.5 m, on rocky bottom: Etomo.

CRYPTONEMIACEAE

155. *Grateloupia divaricata* OKAMURA

New Little Know. Alg. Jap., pp. 482-480, fig. 1-2, 1895; Icon. Jap. Alg. Vol. III., pp. 55-59, pl. 116, 117, fig. 12-18, 1951.

Japanese name: Kata-nori.

Habitat: At low-tide-level, on rocky bottom: Taisha, Etomo, Yodoe.

156. *Grateloupia filicina* (WULFEN) J. AGARDH

in TAYLOR, W. R., Mar. Alg. E. Trop. Subtrop. Coasts Am., p. 424, pl. 54, fig. 2-3, 1960; OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 538-539, fig. 253, 1956.

Japanese name: Mukade-nori.

Habitat: 0.5 m, on rocky bottom: Hamada, Taisha, Etomo, Nonami.

157. *Grateloupia imbricata* HOLMES

New Mar. Alg. Jap., p. 255, pl. VIII, fig. 2a-2b, 1895; OKAMURA, K., Icon. Jap. Alg. Vol. VII., p. 29, pl. 316, fig. 1-3, 1962.

Japanese name: Sakura-nori.

Habitat: 0.5 m, on rocky bottom: Taisha, Etomo, Mihonoseki, Yodoe.

158. *Grateloupia livida* (HARVEY) YAMADA

Notes Some Jap. Alg. II., pp. 74-75, 1931; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 541, 1956.

Japanese name: Hira-mukade.

Habitat: 0.3 m, on rocky bottom: Taisha, Etomo.

159. *Grateloupia okamurai* YAMADA

Notes Some Jap. Alg. IX., pp. 204-205, 1941.

Japanese name: Kyōno-himo.

Habitat: Drifting: Taisha, Etomo.

○160. *Grateloupia ramosissima* OKAMURA

Plate III, Fig. 2

Icon. Jap. Alg. Vol. III., pp. 60-62, pl. 68, fig. 1-11, 1951; Descr. Jap. Alg. (in Jap.), p. 142, 1956.

Japanese name: Suji-mukade.

Habitat: At low-tide-level, on rocky bottom: Taisha, Etomo.

161. *Grateloupia turuturu* YAMADA

Notes Some Jap. Alg. IX., pp. 205-206, pl. XLVI, 1941.

Japanese name: Tsurutsuru.

Habitat: 0.5 m, on rocky bottom: Hamada, Taisha, Etomo.

- 162. *Pachymeniopsis lanceolata* (OKAMURA) YAMADA Plate III, Fig. 3
Aeodes lanceolata OKAM., Icon. Jap. Alg. Vol. VII., pp. 42-43, pl. 322, fig. 1-5, 1962; Descr. Jap. Alg. (in Jap.), p. 544, fig. 254, 1956.
Japanese name: Fudaraku.
Habitat: Drifting: Etomo.
163. *Carpopeltis affinis* (HARVEY) OKAMURA
 Icon. Jap. Alg. Vol. VII., pp. 30-31, pl. 316, fig. 4-15, 1962; Descr. Jap. Alg. (in Jap.), pp. 553-554, fig. 260, 1956.
Japanese name: Matsu-nori.
Habitat: At low-tide-level, on rocky bottom: Hamada.

ENDOCLADIACEAE

164. *Gloiopeltis furcata* POSTELS et RUPRECHT
 in OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 164-167, pl. 244, fig. 1-18, 1951; Descr. Jap. Alg. (in Jap.), p. 562, fig. 264, 1956.
Japanese name: Fukuro-funori.
Habitat: At low-tide-level, on rocky bottom: Taisha, Etomo, Shichirui.
165. *Gloiopeltis tenax* (TURNER) J. AGARDH
 in OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 564, 1956.
Japanese name: Ma-funori.
Habitat: Drifting: Etomo, Chikumi.

GIGARTINALES
NEMASTOMACEAE

166. *Schizymenia dubyi* (CHAUVIN) J. AGARDH
 in OKAMURA, K., Icon. Jap. Alg. Vol. VII., pp. 10-11, 10-11, pl. 307, fig. 1-5, pl. 308, fig. 12, 1962; INAGAKI, K., Mar. Rhodophyceae coll. Oshoro Bay its vicin. (in Jap.), p. 38, fig. 18, 1933.
Japanese name: Beni-sunago.
Habitat: 0.3 m, on rocky bottom: Taisha, Etomo.

SOLIERIACEAE

167. *Solieria robusta* (GREVILLE) KYLIN
Rhabdonia robusta J. AG., in YENDO, K., Notes Alg. New Jap.. II., pp. 273-276, 1914; OKAMURA, K., Icon. Jap. Alg. Vol. IV., pp. 102-105, pl. 174, fig. 1-10, 1951.
Japanese name: Mirin.
Habitat: Drifting: Etomo.

PLOCAMIACEAE

168. *Plocamium leptophyllum* KÜTZING var. *flexuosum* J. AGARDH
in OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 14–15, pl. 103, fig. 6–7, 1951; Descr. Jap. Alg. (in Jap.), p. 616, 1956.
Japanese name: Hosoyukari.
Habitat: Drifting or 1 m, on *Gelidium amansii*, *Sargassa*: Oomishima, Hamada, Taisha, Uryu, Fusenada, Etomo, Kitaura, Yodoe.
169. *Plocamium oviforme* OKAMURA
Icon. Jap. Alg. Vol. III., pp. 12–14, pl. 103, fig. 1–5, 1951; Descr. Jap. Alg. (in Jap.), pp. 616–617, 1956.
Japanese name: Hime-yukari.
Habitat: Drifting, on *Sargassum serratifolium*: Uryu.
170. *Plocamium recurvatum* OKAMURA
Icon. Jap. Alg. Vol. III., pp. 7–8, pl. 102, fig. 3–4, 1951; Descr. Jap. Alg. (in Jap.), p. 615, 1956.
Japanese name: Maki-yukari.
Habitat: At low-tide-level, on rocky bottom: Kitaura.
171. *Plocamium telfairiae* HARVEY
in YENDO, K., Notes Alg. New Jap. III., pp. 111–113, 1915; *Plocamium abnorme* HOOK. et HARV., in OKAMURA, K., Icon. Jap. Alg. Vol. III., pp. 1–6, pl. 101, fig. 1–14, 1951.
Japanese name: Yukari.
Habitat: Drifting: Hamada, Taisha, Fusenada, Etomo.

HYPNEACEAE

172. *Hypnea charoides* LAMOUROUX
in TANAKA, T., Gen. *Hypnea* Jap., pp. 243–245, fig. 16, 1941; *Hypnea seticulosus* J. AGARDH var. ?, in OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 611–612, 1956.
Japanese name: Ibara-nori.
Habitat: Drifting or from low-tide-level to 0.5 m, on rocky bottom, on *Sargassa*, *Gymnogongrus flabelliformis*: Hamada, Tanoura, Taisha, Uryu, Fusenada, Etomo, Kitaura, Sōzu, Shichirui, Mihonoseki.
173. *Hypnea japonica* TANAKA
Gen. *Hypnea* Jap., pp. 236–238, pl. 54, text-fig. 9–10, 1941; *Hypnea musciformis* (WULFEN) LAMX., in OKAMURA, K., Icon. Jap. Alg. Vol. II., pp. 35–38, pl. 59, fig. 7, pl. 60, fig. 7–11, 1951.
Japanese name: Kagi-ibara-nori.
Habitat: Drifting: Taisha.

SPHAEROCOCCACEAE

- 174. *Phacelocarpus japonicus* OKAMURA

in Descr. Jap. Alg. (in Jap.), pp. 619–620, fig. 293, 1956.

Japanese name: Kijinoo.

Habitat: Drifting: Hamada, Etomo.

175. *Caulacanthus okamurai* YAMADA

Notes Some Jap. Alg. V., pp. 278–279, 1933; *Endocladia complanata* HARV., in OKAMURA, K., Icon. Jap. Alg. Vol. I., pp. 129–135, pl. 27, fig. 12–20, pl. 28, fig. 13–17, 1951.

Japanese name: Iso-dantsū.

Habitat: At low-tide-level, on rocky bottom: Etomo.

GRACILARIACEAE

176. *Gracilaria bursa-pastoris* (GMELIN) SILVA

in OHMI, H., Sp. *Gracilaria Gracilariopsis* Jap. Adj. Waters, pp. 18–20, pl. III, fig. C, pl. IV, fig. B, text-fig. 7, 1958; *Gracilaria compressa* (AG.) GREV., in OKAMURA, K., Icon. Jap. Alg. Vol. V., pp. 160–162, 171–172, pl. 242, fig. 5–10, 1951; Descr. Jap. Alg. (in Jap.), pp. 630–631, fig. 299, 1956.

Japanese name: Shiramo.

Habitat: Drifting or at low-tide-level, on rocky bottom: Taisha, Etomo.

177. *Gracilaria textorii* SURINGAR

in OHMI, H., Sp. *Gracilaria Gracilariopsis* Jap. Adj. Waters, pp. 40–44, text-fig. 20–21, 1958; OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 632–633, 1956; INAGAKI, K., Mar. Rhodophyceae coll. Oshoro Bay its vicin. (in Jap.), p. 37, fig. 12, 1933.

Japanese name: Kaba-nori.

Habitat: Drifting or at low-tide-level, on rocky bottom: Hamada, Taisha, Etomo, Kitaura.

178. *Gracilaria verrucosa* (HUDSON) PAPENFUSS

in OHMI, H., Sp. *Gracilaria Gracilariopsis* Jap. Adj. Waters, pp. 6–10, pl. I, fig. A–D, text-fig. 1–2, 1958; *Gracilaria confervoides* (L.) GREV., in OKAMURA, K., Icon. Jap. Alg. Vol. IV., pp. 1–4, pl. 151, fig. 1–9, 1951.

Japanese name: Ogo-nori.

Habitat: From low-tide-level to 1 m, on muddy or rocky bottom: Hamada, Tagi, Taisha, Shichirui, Ui.

PHYLLOPHORACEAE

179. *Gymnogongrus flabelliformis* HARVEY

in MIKAMI, H., Syst. stud. Phylloporaceae Gigartinaceae Jap. its Vicin., pp. 183–187, fig. 2–3, 1965; OKAMURA, K., Icon. Jap. Alg. Vol. IV., pp. 128–129, 139–140, pl. 181, fig. 7–9, pl. 182, fig. 9–14, 1951.

Japanese name: Okitsu-nori.

Habitat: 0.5 m, on rocky bottom: Hamada, Tanoura, Taisha, Etomo.

GIGARTINACEAE

180. *Gigartina tenella* HARVEY

in MIKAMI, H., Syst. Stud. Phylloporaceae Gigartinaceae Jap. its Vicin., pp. 207-210, fig. 15-16, 1965; OKAMURA, K., Icon. Jap. Alg. Vol. I., pp. 159-163, pl. 33, fig. 1-8, 1951.

Japanese name: Sugi-nori.

Habitat: At low-tide-level, on rocky bottom: Hamada, Tanoura, Taisha, Etomo, Shichirui.

181. *Chondrus ocellatus* HOLMES

New Mar. Alg. Jap., pp. 252-253, pl. IX, fig. 2, 1895; MIKAMI, H., Syst. Stud. Phylloporaceae Gigartinaceae Jap. its Vicin., pp. 229-230, 1965.

Japanese name: Tsuno-mata.

Habitat: Drifting or at low-tide-level, on rocky bottom: Hamada, Tanoura, Taisha, Etomo.

RHODYMENIALES
CHAMPIACEAE182. *Lomentaria catenata* HARVEY

in INAGAKI, K., Mar. Rhodophyceae coll. Oshoro Bay its vicin. (in Jap.), pp. 40-41, 1933; OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 683-684, fig. 326, 1956.

Japanese name: Fushi-tsunagi.

Habitat: Drifting or at low-tide-level, on rocky bottom: Taisha, Etomo.

183. *Lomentaria hakodatensis* YENDO

Nov. Alg. Jap.. Dec. I-III., p. 6, 1920; INAGAKI, K., Mar. Rhodophyceae coll. Oshoro Bay its vicin. (in Jap.), pp. 41-42, fig. 14-15, 1933.

Japanese name: Kosuji-fushi-tsunagi.

Habitat: Drifting or at low-tide-level, on rocky bottom: Taisha, Etomo, Mihonoseki, Yodoe.

○184. *Lomentaria lubrica* (YENDO) YAMADA

Notes Some Jap. Alg. III., p. 121, 1932; *Chylocladia lubrica* YENDO, Nov. Alg. Jap.. Dec. I-III., p. 6, 1920.

Habitat: Drifting: Taisha.

185. *Champia parvula* (AGARDH) J. AGARDH

in HARVEY, W. H., Ner. Bot.-Am.. II, Rhodospermae., p. 76, 1853; OKAMURA, K., Icon. Jap. Alg. Vol. II., pp. 89-91, pl. 76, fig. 1-14, 1951.

Japanese name: Watsunagiso.

Habitat: Drifting, on *Sargassa*: Etomo.

CERAMIALES
CERAMIACEAE

186. *Antithamnion nipponicum* YAMADA et INAGAKI
Acrothamnion pulchellum J. AGARDH (?), in YAMADA, Y., Rep. Biol. Surv. Mutsu Bay. 9. Mar. Alg. Mutsu Bay Adj. Waters. II., pp. 528-529, fig. 22, 1928; YENDO, K., Notes Alg. New Jap.. V., pp. 262-263, 1916.
Japanese name: Futatsu-gasane.
Habitat: 0.3 m, on *Gracilaria* sp.: Etomo.
187. *Wrangelia japonica* NODA
Wrangelia Sado Isl. Jap. Sea, pp. 17-18, fig. 1, 1964.
Japanese name: Rangeria.
Habitat: Drifting: Etomo.
188. *Griffithsia japonica* OKAMURA
 Icon. Jap. Alg. Vol. VI., pp. 36-37, pl. 270, fig. 1-15, 1961; Descr. Jap. Alg. (in Jap.), pp. 716-717, fig. 342, 1956.
Japanese name: Kazashi-gusa.
Habitat: 0.3 m, on *Amphiroa zonata*, *Chondrus ocellatus*, *Sargassa*: Taisha, Etomo.
189. *Ceramium boydenii* GEPP
 in NAKAMURA, Y., Sp. Gen. *Ceramium Campylaephora* Esp. Those N. Jap., pp. 160-163, fig. 15-16, 1965; OKAMURA, K., Icon. Jap. Alg. Vol. I., pp. 248-251, pl. 50, fig. 1-18, 1951.
Japanese name: Ami-kusa.
Habitat: Drifting, on *Sargassa*: Taisha, Etomo.
190. *Ceramium japonicum* OKAMURA
 Contrib. Knowl. Mar. Alg. Jap. II., pp. 38-39, pl. 3, fig. 24-28, 1891; NAKAMURA, Y., Sp. Gen. *Ceramium Campylaephora* Esp. Those N. Jap., pp. 152-155, fig. 12-13, 1965.
Japanese name: Hane-igisu.
Habitat: Drifting or at low-tide-level, on *Gelidium amansii*, *Corallina pilulifera*, *Gymnogongrus flabelliformis*: Taisha, Etomo.
191. *Ceramium kondoi* YENDO
 Nov. Alg. Jap.. Dec. I-III., p. 9, 1920; NAKAMURA, Y., Sp. Gen. *Ceramium Campylaephora* Esp. Those N. Jap., pp. 155-157, pl. IV, fig. 1-2, pl. IX, fig. 1, text-fig. 14, 1965.
Japanese name: Igisu.
Habitat: Drifting: Etomo.
192. *Ceramium tenerrimum* (MARTENS) OKAMURA
 Icon. Jap. Alg. Vol. IV., pp. 112-114, 121-122, pl. 179, fig. 1-7, 1951; NAKAMURA, Y., Sp. Gen. *Ceramium Campylaephora* Esp. Those N. Jap., pp. 133-135, pl. 1, fig. 4, text-fig. 5, 1965.
Japanese name: Ke-igisu.
Habitat: At low-tide-level, on rocky bottom: Fusenada, Etomo, Kitaura, Mihonoseki.

193. *Campylaephora hypnaeoides* J. AGARDH
in NAKAMURA, Y., Sp. Gen. *Ceramium Campylaephora* Esp. Thos. N. Jap., pp. 170-173, text-fig. 19, 1965.
Japanese name: Ego-nori.
Habitat: Drifting or 0.3 m, on *Sargassa*: Taisha, Etomo.
194. *Centroceras clavulatum* (C. AGARDH) MONTAGNE
in FELDMANN-MAZOYER, G., Céramiacées Médit. Occ., pp. 337-341, fig. 128-129, 1940; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 743, fig. 355, 1956.
Japanese name: Toge-igisu.
Habitat: At low-tide-level, on rocky bottom: Tagi, Etomo, Kitaura, Shichirui, Mihonoseki.

DELESSERIACEAE

195. *Hypoglossum nipponicum* YAMADA
Notes Some Jap. Alg. I., pp. 35-36, pl. VI, fig. 6, 1930; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 762, 1956.
Japanese name: Hosonaga-beniha-nori.
Habitat: Drifting: Etomo.
196. *Acrosorium polyneurum* OKAMURA
Descr. Jap. Alg. (in Jap.), pp. 787-788, 1956.
Japanese name: Suji-usuba-nori.
Habitat: Drifting or 0.3 m, on rocky bottom: Etomo.
197. *Acrosorium uncinatum* (J. AGARDH) KYLIN
Stud. Delesseriaceen, p. 78, fig. 61, 1924; Calif. Rhodophyceen, p. 32, 1941.
Japanese name: Kagi-usuba-nori.
Habitat: Drifting or 0.3 m above low-tide-level, on rocky bottom: Taisha, Etomo.
198. *Acrosorium yendoi* YAMADA
Notes Some Jap. Alg. I., pp. 33-34, pl. V, fig. 4, 1930; *Nitophyllum monanthos* J. AG., in YENDO, K., Notes Alg. New Jap., VIII., pp. 69-71, 1918.
Japanese name: Hai-usuba-nori.
Habitat: Drifting or 0.5 m, on *Gelidium amansii*, *Symphyocladia latiuscula*, *Sargassa*: Taisha, Etomo, Sōzu, Yodoe.

DASYACEAE

199. *Heterosiphonia japonica* YENDO
Nov. Alg. Jap., Dec. I-III., pp. 8-9, 1920; OKAMURA, K., Icon. Jap. Alg. Vol. IV., pp. 68-72, pl. 167, fig. 1-16, 1951.
Japanese name: Isohagi.
Habitat: Drifting or 0.5 m, on rocky bottom: Etomo.

200. *Heterosiphonia pulchra* (OKAMURA) FALKENBERG
 in INAGAKI, K., Mar. Rhodophyceae coll. Oshoro Bay its vicin. (in Jap.), pp. 67–68, fig. 28, 1933;
 OKAMURA, K., Icon. Jap. Alg. Vol. IV., pp. 63–68, pl. 166, fig. 1–13, 1951.
Japanese name: Shima-dajia.
Habitat: Drifting or 0.5 m, on *Pterocladia* sp.: Taisha, Etomo.
201. *Dasya scoparia* HARVEY
 in OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 801–802, 1956.
Japanese name: Mosa-dajia.
Habitat: Drifting or at low-tide-level, on rocky bottom, on *Gelidium amansii*,
Sargassa: Taisha, Etomo.
202. *Dasya villosa* HARVEY
 in YENDO, K., Notes Alg. New Jap.. V., p. 262, 1916; OKAMURA, K., Descr. Jap. Alg. (in Jap.),
 pp. 803–804, 1956.
Japanese name: Kebuka-dajia.
Habitat: Drifting: Etomo.
203. *Benzaitenia yenoshimensis* YENDO
 in INAGAKI, K., Mar. Rhodophyceae coll. Oshoro Bay its vicin. (in Jap.), p. 72, 1933; OKAMURA,
 K., Descr. Jap. Alg. (in Jap.), pp. 806–807, fig. 387, 1956
Japanese name: Bentenmo.
Habitat: 0.5 m, on *Chondria crassicaulis*: Etomo, Mihonoseki.

RHODOMELACEAE

204. *Polysiphonia japonica* HARVEY
 in YAMADA, Y., Rep. Biol. Surv. Mutsu Bay. 9. Mar. Alg. Mutsu Bay Adj. Waters. II., p. 522,
 1928; SEGI, T., Syst. Stud. Gen. *Polysiphonia* Jap. Its Vicin., pp. 228–232, pl. VIII, 3, text-fig. 22, 1951.
Japanese name: Kiburi-ito-gusa.
Habitat: Drifting or at low-tide-level, on rocky bottom, shells, *Sargassa*,
Grateloupia divaricata, *Chondria crassicaulis*: Etomo.
- 205. *Polysiphonia kampsaxii* BØRGESEN Plate III, Fig. 4
 in SEGI, T., Syst. Stud. Gen. *Polysiphonia* Jap. Its Vicin., pp. 183–185, pl. II, fig. 2, text-fig. 2, 1951.
Japanese name: Take-ito-gusa.
Habitat: 0.3 m, on *Sargassum patens*: Etomo.
- 206. *Polysiphonia savatieri* HARIOT Plate IV, Fig. 1
 in SEGI, T., Syst. Stud. Gen. *Polysiphonia* Jap. Its Vicin., pp. 202–207, pl. III, fig. 8, text-fig. 10–11,
 1951; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 830, 1956.
Japanese name: Hime-ito-gusa.
Habitat: 0.3 m, on *Sargassum patens*: Etomo.
- 207. *Polysiphonia tokidai* SEGI Plate IV, Fig. 2
 Syst. Stud. Gen. *Polysiphonia* Jap. Its Vicin., pp. 192–194, pl. III, fig. 3–4, text-fig. 6, 1951.
Japanese name: Usu-ito-gusa.
Habitat: 0.3 m, on *Sargassum patens*: Etomo.

208. *Polysiphonia urceolata* (DILLWYN) GREVILLE
 in YENDO, K., Notes Alg. New Jap., IV., pp. 60-61, 1916; SEGI, T., Syst. Stud. Gen. *Polysiphonia* Jap. Its Vicin., pp. 239-244, pl. X, XI, fig. 1, text-fig. 26-27, 1951.
Japanese name: Syōjōke-nori.
Habitat: At low-tide-level, on rocky bottom: Etomo.
209. *Chondria crassicaulis* HARVEY
 in OKAMURA, K., Icon. Jap. Alg. Vol. I., pp. 12-16, pl. III, fig. 1-15, 1951; HOLMES, E. M., New Mar. Alg. Jap., p. 256, pl. VIII, fig. 4a-c, 1895.
Japanese name: Yuna.
Habitat: At low-tide-level, on rocky bottom: Tanoura, Taisha, Etomo, Shichirui, Mihonoseki.
210. *Laurencia intermedia* YAMADA
 in SAITO, Y., Stud. Jap. Sp. *Laurencia*, Sp. Ref. Their Comp. Morph., pp. 39-45, pl. XII, fig. 1-7, pl. XIII, fig. 1-14, text-fig. 31-35, 1967; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 853, fig. 399, 1956.
Japanese name: Kuro-sozo.
Habitat: 0.3 m, on rocky bottom: Etomo, Shichirui, Mihonoseki.
211. *Laurencia okamurai* YAMADA
 in SAITO, Y., Stud. Jap. Sp. *Laurencia*, Sp. Ref. Their Comp. Morphol., pp. 21-29, pl. VII, fig. 1-3, pl. VIII, fig. 1-4, pl. IX, fig. 1-12, text-fig. 15-21, 1967; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 856, 1956.
Japanese name: Mitsude-sozo.
Habitat: 0.3 m, on rocky bottom: Tanoura, Etomo, Kitaura, Shichirui.
212. *Laurencia pinnata* YAMADA
 in SAITO, Y., Stud. Jap. Sp. *Laurencia*, Sp. Ref. Their Comp. Morphol., pp. 37-39, pl. IV, fig. 8-9, text-fig. 30, 1967; OKAMURA, K., Descr. Jap. Alg. (in Jap.), p. 859, 1956.
Japanese name: Hane-sozo.
Habitat: Drifting: Taisha, Etomo.
213. *Symphyclocladia latiuscula* (HARVEY) YAMADA
 Notes Some Jap. Alg. IX., p. 215, 1941; OKAMURA, K., Icon. Jap. Alg. Vol. II., pp. 169-172, pl. 97, fig. 1-9, 1951.
Japanese name: Isomurasaki.
Habitat: Drifting or at low-tide-level, on rocky bottom: Taisha, Etomo.
214. *Symphyclocladia marchantioides* (HARVEY) FALKENBERG
 in OKAMURA, K., Icon. Jap. Alg. Vol. II., pp. 152-157, pl. 93, fig. 1-17, 1951; *Pterosiphonia pumila* YENDO, Nov. Alg. Jap., Dec. I-III., p. 7, 1920.
Japanese name: Kozanemo.
Habitat: Drifting or at low-tide-level, on rocky bottom: Etomo.
215. *Symphyclocladia pennata* OKAMURA
 Icon. Jap. Alg. Vol. IV., pp. 186-188, 197-198, pl. 196, fig. 7-9, pl. 197, fig. 9-13, 1951; *Pterosiphonia parasitica* FKBG., in YENDO, K., Notes Alg. New Jap., VIII., p. 78, 1918.
Japanese name: Hime-kozane.
Habitat: Drifting: Taisha, Etomo.

216. *Herposiphonia tenella* (C. AGARDH) NAEGELI
 in OKAMURA, K., Icon. Jap. Alg. Vol. VI., pp. 22-23, pl. 264, fig. 1-9, 1961; Descr. Jap. Alg. (in Jap.), p. 870-871, fig. 405, 1956.
Japanese name: Kumonosu-hime-goke.
Habitat: 0.3 m, on *Corallina pilulifera*: Etomo.
- 217. *Euzoniella ocellata* YENDO Plate IV, Fig. 3
 Nov. Alg. Jap.. Dec. I-III., p. 8, 1920; OKAMURA, K., Descr. Jap. Alg. (in Jap.), pp. 877-878, 1956.
Japanese name: Kushinoha-modoki.
Habitat: Drifting, on *Ulva pertusa*, *Sargassa*: Taisha, Etomo.
218. *Leveillea jungermannioides* (MARTENS et HERING) HARVEY
 in OKAMURA, K., Icon. Jap. Alg. Vol. II., pp. 148-152, pl. 92, fig. 1-10, 1951; Descr. Jap. Alg. (in Jap.), pp. 878-879, fig. 409, 1956.
Japanese name: Jabara-nori.
Habitat: Drifting: Etomo.

MONOCOTYLEDONEAE
 HELOBIALES
 ZOSTERACEAE

219. *Zostera marina* LINNÉ
 in OHWI, J., Fl. Jap. (in Jap.), p. 60, 1953; DEN HARTOG, C., Sea-Grass. World, pp. 44-60, fig. 11, 1970.
Japanese name: Amamo.
Habitat: Drifting or 1.5 m, on sandy-muddy bottom: Oomishima, Taisha, Etomo.
220. *Zostera noltii* HORNEMANN
 in DEN HARTOG, C., Sea-Grass. World, pp. 64-71, fig. 12-14, 1970; *Zostera nana* ROTH, OHWI, J., Fl. Jap. (in Jap.), p. 60, 1953.
Japanese name: Ko-amamo.
Habitat: Drifting: Taisha.
221. *Phyllospadix japonicus* MAKINO
 in DEN HARTOG, C., Sea-Grass. World, pp. 112-114, fig. 34i-l, 35a-b, 1970; OHWI, J., Fl. Japan. (in Jap.), p. 60 (as "*Ph. japonica*"), 1953.
Japanese name: Ebi-amamo.
Habitat: Drifting or 1.5 m, on rocky bottom: Taisha, Etomo.

Acknowledgement

The writer wishes to acknowledge his indebtedness to Professor Emeritus Jun Tokida of Hokkaido University, for his helpful suggestions and critical reading of the manuscript.

Explanation of Plates

Plate I

- Fig. 1. *Monostroma latissimum* (KÜTZING) WITTROCK: Habit of a dried specimen collected at Etomo, on March 30, 1971.
- Fig. 2. *Ulva fasciata* DELILE: Habit of a dried specimen collected at Etomo, on September 9, 1971.
- Fig. 3. *Chaetomorpha spiralis* OKAMURA: Habit of dried specimens collected at Hamada, on June 27, 1970.
- Fig. 4. *Distromium decumbens* (OKAMURA) LEVRING: Habit of a specimen preserved in formalin-seawater, collected from deep sea off Takobana, on September 20, 1975.
- Fig. 5. *Homoeostrichus flabellatus* OKAMURA: Part of a specimen preserved in formalin-seawater, collected from deep sea off Takobana, on September 20, 1975.

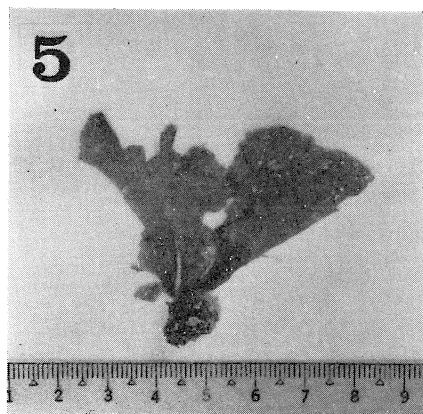
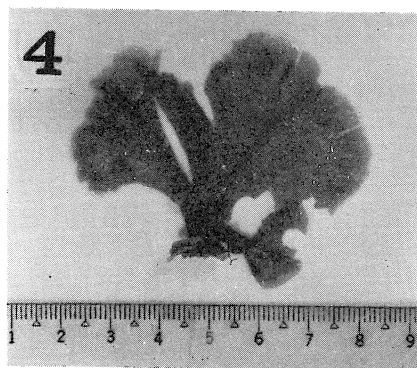
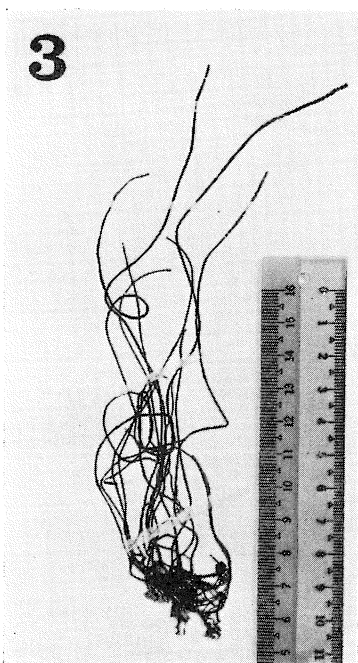
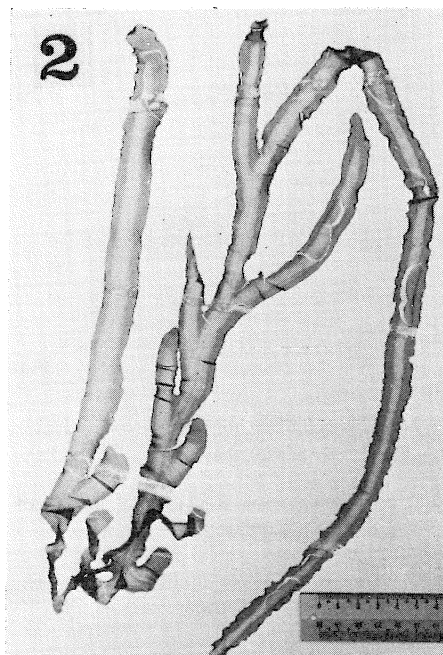
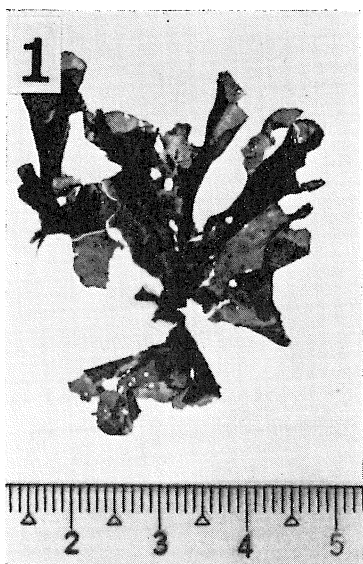


Plate II

- Fig. 1. *Cystophyllum turneri* YENDO: Habit of a dried specimen collected at Etomo, on November 29, 1970.
- Fig. 2. *Ecklonia cava* KJELLMAN: Habit of a dried specimen collected at Hamada, on November 22, 1970.
- Fig. 3. *Galaxaura apiculata* KJELLMAN: Habit of a dried specimen collected at Etomo, on January 10, 1969.
- Fig. 4. *Alatocladia modesta* (YENDO) JOHANSEN: Habit of a specimen collected at Etomo, on December 6, 1970.

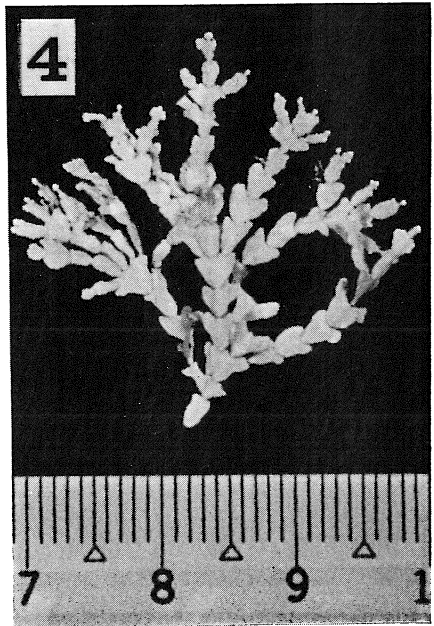
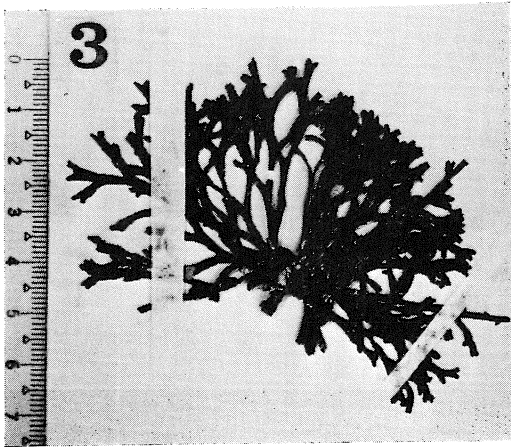
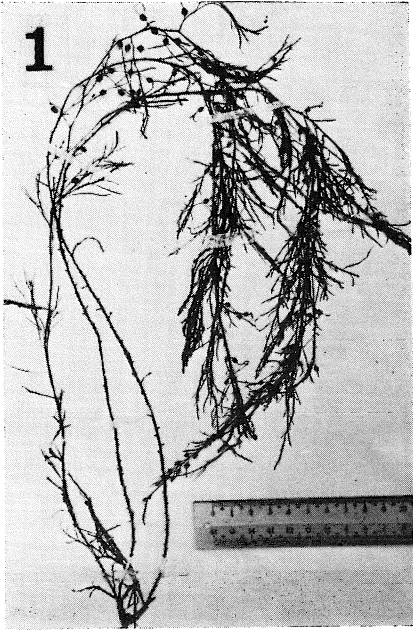


Plate III

- Fig. 1. *Corallina squamata* ELLIS et SOLANDER: Habit of a specimen collected at Etomo, on October 22, 1968.
- Fig. 2. *Grateloupia ramosissima* OKAMURA: Habit of some dried specimens collected at Etomo, on April 19, 1970.
- Fig. 3. *Pachymeniopsis lanceolata* (OKAMURA) YAMADA: Habit of a dried specimen collected at Etomo, on May 22, 1969.
- Fig. 4. *Polysiphonia kampsaxii* BØRGESEN: Part of a female plant preserved in formalin-seawater, collected at Etomo, on March 31, 1976.

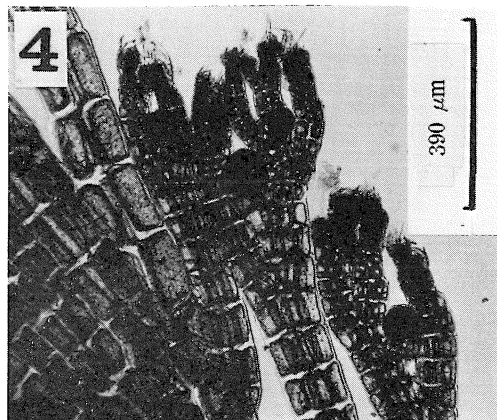
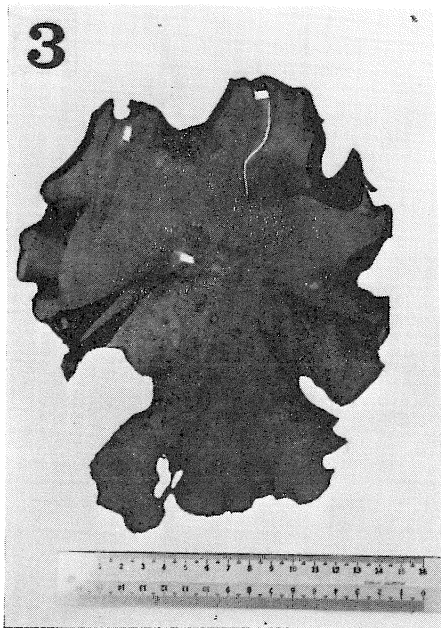
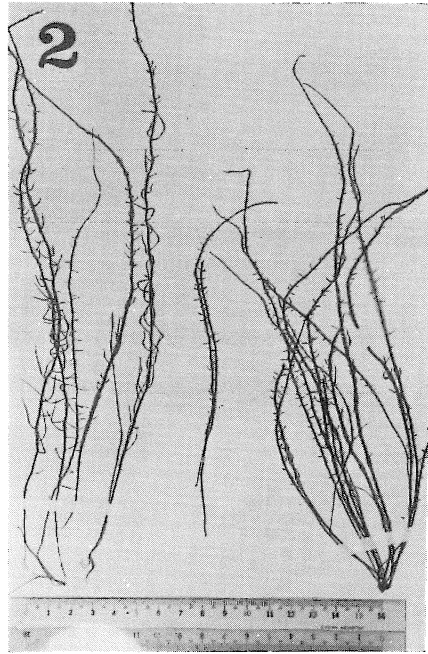
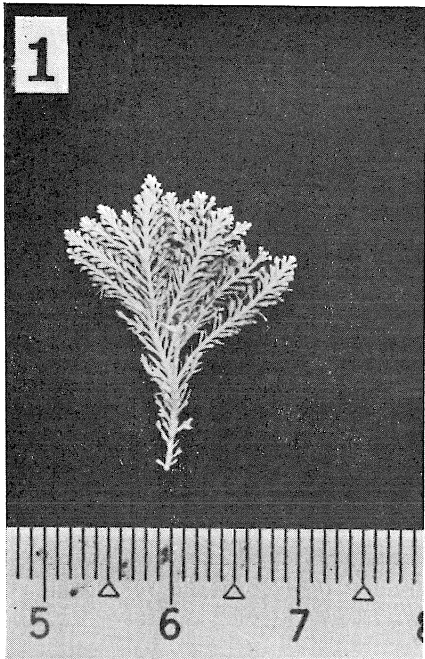


Plate IV

- Fig. 1. *Polysiphonia savatieri* HARIOT: Part of a female plant preserved in formalin-seawater, collected at Etomo, on March 31, 1976.
- Fig. 2. *Polysiphonia tokidae* SEGI: Part of a tetrasporangial plant preserved in formalin-seawater, collected at Etomo, on March 31, 1976.
- Fig. 3. *Euzoniella ocellata* YENDO: Part of a dried specimen collected at Etomo, on November 23, 1970.

