Notes on Some Japanese Algae X.

By

YUKIO YAMADA

Cladophoropsis herpestica (MONTAGNE) HOWE

Mar. alg. Peru (1914) p. 31; SETCHELL, Tahitian alg. (1926) p. 77, pl. 8, fig. 1.

Syn. *Conferva herpestica* MONTAGNE, Prod. Phyc. Antarct. (1842) p. 15; Id. Voy. au Pole sud., Bot. (1845) p. 6.

Syn. *Cladophoropsis coriacea* YENDO, Nov. alg. Japon. (1920) p. 1.

Japanese name: *Kataba-midorige.*

Locality: Garanbi, Formosa; Gotō, Hizen Prov.; Sagami Prov.; Bō-syū Prov.

Cladophoropsis sundanensis REINBOLD

Einige neue Chlorophyc. Ind. Ozean (Nouva Notaris. Ser. 16, 1905) p. 147; Id. in WEBER VAN BOSSE's List. alg. Siboga, vol. 1 (1913) p. 77, fig. 18; BOERGESEN, List mar. alg. Bombay (1935) p. 10, fig. 1.

Frond forming a rather dense cushion-like mass on the frond of other species of Cladophoropsis entangling each other, about 1–1.5 cm high, irregularly and rather densely branched; branches dichotomous mostly in the lower parts of the frond or often secund especially in the upper parts of the frond, obtuse at apices; hapters very rarely present, mostly at apices of short ramuli; rhizoids present at the base of the frond; main filaments 80–100μ, ramuli about 60μ thick. The length of cells extremely irregular.

Japanese name: *Hime-midorige.*

Locality: Naha, Okinawa Pref.

Cladophoropsis Zollingeri (KUETZING) BOERGESEN

Cont. connais. gen. Siphonocladus (1905) p. 288; REINBOLD, in WEBER VAN BOSSE's List. alg. Siboga, vol. 1 (1913) p. 76; HOWE, Mar. alg. Peru (1914) p. 31.

Syn. *Aegaglopila Zollingeri* KUETZING, Spec. alg. (1849) p. 415; Id., Tab. Phyc. vol. 4 (1854) pl. 64, figs. B–D.

Syn. *Cladophoropsis fasciculata* OKAMURA (non Siphonocladus fasciculatus KJELLMAN) Icon. Japan. alg., vol. 4 (1921) p. 75, pl. 169, figs. 1–7; YAMADA and TANAKA, Mar. alg. Yonakuni (1938) p. 55.

Japanese name; *Midorige.*

Locality: Garanbi, Kasyōtō and Kōtōsho, Formosa; Yonakuni-zima, Ryūkyū archipelago; Kyūsyū to Bōsyū Prov.

I have noticed for years that the *Cladophoropsis* which is illustrated by OKAMURA as *Cl. fasciculata* shows several peculialities which do not coincide with KJELLMAN's original description. Having studied KJELLMAN's original specimen by the kindness of Prof. SVEDELIUS in Uppsala I came to the conclusion that the OKAMURA's species is not *Cl. fasciculata* KJELLM. but referable to *Cl. Zollingeri* (KG.) BOERG. This species distributes from the Malay archipelago to the middle part of Japan proper via Formosa and Ryūkyū archipelago.

Ilea Fascia f. **zosterifolia** (REINKE) SETCHELL et GARDNER

Phyc. Cont., VII (1924) p. 13; Id., Mar. alg. Pac. Coast N. Amer. Part III, Melanophyc. (1925) p. 537.

Syn. *Phyllitis zosterifolia* REINKE, Algenfl. westl. Ostsee (1889) p. 61; DE TONI, Syll. alg., vol. 3 (1895) p. 488; LAKOWITZ, Algenfl. gesamt. Ostsee (1929) p. 243, fig. 344.

Japanese name: *Hosoba-no-Seiyō-habanori.*

Locality: Esasi, Osima Prov.

Litosiphon yezoense YAMADA et NAKAMURA spec. nov. Text-fig. 1.

Frons epiphytica, in frondibus Laminariae dense caespitosa, rhizoideis prope basim frondis egredientibus affixa, cylindrica, ad basim attenuata, apice obtusa, pilis non ornata, ca. 20–25 mm longa, 0.1–0.18 mm lata in parte latissima, plerumque ex aliquot seriebus cellularum fere rectangularium constituta, sed interdum monosiphona praesertim in partibus inferioribus frondis; chromatophoris numerosis, discoideis; sporangiis unilocularibus in superficie frondis sine ordine sparsis, projectis.

Japanese name: *Kobu-no-hige* (nov.).

Locality: Muroran, Iburi Prov.

Frond epiphytic on the leaves of Laminaria, densely caespitose, attached to the host by means of rhizoids issued near the base of the frond, not branched, cylindrical, tapering toward the base, ending in a blunt point, without hairs, about 20–25 mm long, 0.1–0.18 mm thick in the broadest parts, usually consisted of several rows of nearly rectangular cells, some-

times monosiphonous, especially in the lower portion of the frond; chromatophores numerous, discoid; unilocular sporangia scattered on the surface of the frond without any order, projecting.

As mentioned above in the diagnosis the present species shows no hairs, in this point resembling *L. filiforme* (REINKE) SVED. But this species is separable from the new species by its base which forms a disc.

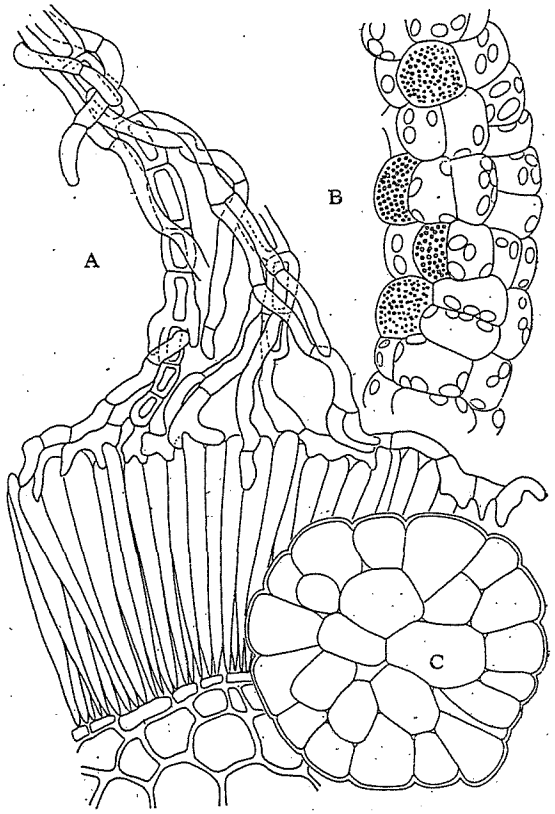

Fig. 1. *Litosiphon yezoense* YAMADA et NAKAMURA.
A. Basal portion of the frond. ×300.
B. A part of the frond showing unilocular sporangia. ×300.
C. Cross section of the frond. ×300.

Apoglossum minimum
YAMADA spec. nov.

Frons minima, vix 12 mm attingens, basi irregulariter discoidea, stipitata, stipite cylindraceo, breve, simplici vel longo, diviso, sursum foliacea, late linearis, ca. 1–1.5 mm lata, costata, praeter ad costam monostromatica, venis microscopicis destituta, in utrisque lateribus transverse sinuosa, margine leviter undulata, a costa foliola juvenilia emittens; foliolis juvenilibus obovatis vel ellipsoideis apice mucronatis; cystocarpiis breviter ampulliformibus, ad costam productis; soris tetrasporangiorum longe ellipsoideis, in costae utrisque lateribus productis; antheridiis in eodem loco aggregatis.

Japanese name: *Hidatoriginu* (nov.).

Locality: Hayama, Sagami Prov. (Herb. Biol. Labor., Imp. Palace, Tokyo, Nos. 990, a; 1854; 2348).

Frond very small, scarcely attaining 12 mm, attaching to the substratum by means of an irregularly shaped discoid base, stipitate; stipe

cylindrical, sometimes short and simple, sometimes long and divided, at first representing a midrib; leafy parts broadly linear, about 1–1.5 mm broad, costate, without microscopic nerves, plaited along both sides of the midrib, slightly undulated at margin, giving off young leaflets from the midrib; young leaflets obovate or elliptical, mucronate at apices; cystocarps shortly flask-shaped, produced on midrib; tetrasporangial sori long elliptical, produced on both sides of midrib; antheridia on both sides of midrib.

Frond consisting of one layer of cells, in the midrib four large cells present sorrunding central cell inside and some layers of small cells outside, at apices transversely divided apical cells present.

Callithamnion minutissima YAMADA spec. nov.

Frons minutissima, 2–5 mm longa, erecta, rhizoideis e partibus basilaribus emittentibus affixa, non corticata, in partibus inferioribus mediisque dichotome vel alternato-pinnatim, superioribus fere corymbose ramosa; cellulis inferioribus 70–100μ crassis, 1–1.5-plo diam. longioribus, sursum gracilioribus, 2–3-plo diam. longioribus, sed in partibus superioribus iterum brevioribus, 1–2-plo diam. longioribus, ultimis semper obtusis. Species dioica; cystocarpiis lobatis vel raro simplicibus; antheridiis in latere superiore ramulorum superiorum productis; tetrasporangiis solitariis vel seriatis(?), ovatis vel longe ovatis, ca. 45$\mu\times$70μ.

Japanese name: *Hina-no-Kinuitogusa.*

Locality: Hayama, Sagami Prov. (Herb. Biol. Labor., Imp. Palace, Tokyo, Nos. 368 and 1837).

Frond 2–5 mm long, erect, attached to the host by means of rhizoids sent off from the base of the frond or its vicinity, not corticated, dichotomously branched in general, in the lower and middle parts of the frond dichotomously or somewhat alternate-pinnately, in the upper portion somewhat corymbosely branched. Cells about 70–100μ thick, 1–1.5 times as long as broad near the base of the frond, becoming slenderer by and by and longer upwards, 2–3 times as long as broad in the lower and middle portions of the frond, in the upper portion becoming somewhat shorter again, 1–2 times as long as broad, the ultimate ones always obtuse, membran thick. Species dioecious; cystocarps lobed, but rarely simple; antheridial stands produced on the upper side of branches in the upper portion of the frond; tetrasporangia produced solitarly or seriately(?), ovate or longly ovate, about 45$\mu\times$70μ, tetrahedrally divided.

The present species resembles in some degree *C. callophyllidicola* YAM. in its small size, branching, habitate etc., but can be easily ditinguished

by its more slender frond and longer cells and ultimate ramuli which do not taper so conspicuously as in *C. callophyllidicola*.

Griffithsia Text-fig. 2–3.

venusta YAMADA spec. nov.

Frons solitaria, erecta, parva, 1–2 cm alta, rhizoideis tenuibus ramosis ex cellulis basilaribus emittentibus adfixa, in partibus inferioribus vix vel raro, superioribus repetite dichotoma, flabellata; cellulis inferioribus fere cylindraceis, ad dissepimenta leviter nodosis, ca. 280μ crassis, ca. 2-plo diam. longioribus, superioribus nonnihil crassioribus, saepe cuneatis, ultimis vel penultimis saepe sphaeroideis; tetrasporangiis circulum ad superiorem partem cellularum penultimarum vel vicinarum formantibus, 14–15 cellulis brevibus crassis incurvis involucratis; antheridiis ad superiorem partem cellularum penultimarum vel vicinarum productis, circulum densum formantibus; cystocarpiis ad humerum cellularum in eodem loco ut tetrasporangia productis, 4–5 cellulis brevibus crassis nonnihil incurvis involucratis.

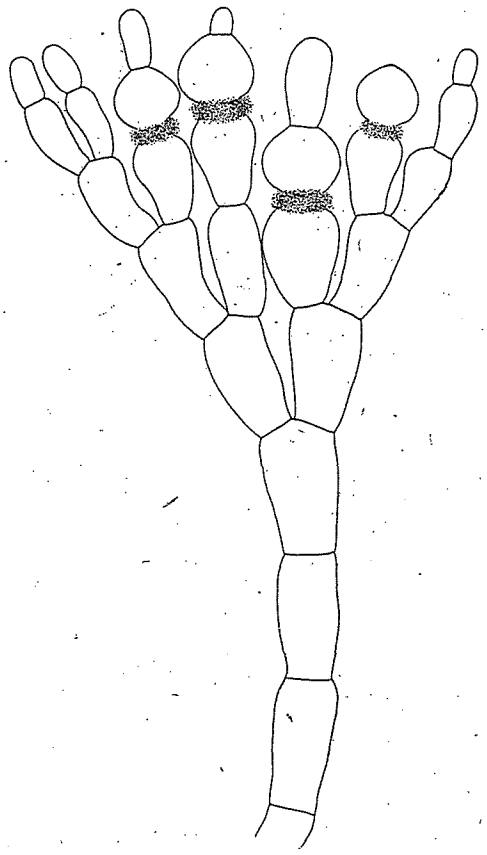

Fig. 2. *Griffithsia venusta* YAMADA. An upper part of the male plant. ca. × 60.

Japanese name: *Tama-Kazasigusa*.

Locality: Hayama, Sagami Prov. (Herb. Biol. Labor., Imp. Palace, Tokyo, Nos. 1921,c and S. 597).

Frond solitary, attaching to the frond of *Cladophora Wrightiana* HARV. etc. by means of ramifying thin rhizoids issued from the basal parts, erect, small, 1–2 cm high, not or rarely ramifying in the lower and middle parts, but nearly always in the upper parts repeatedly dichotomous, forming

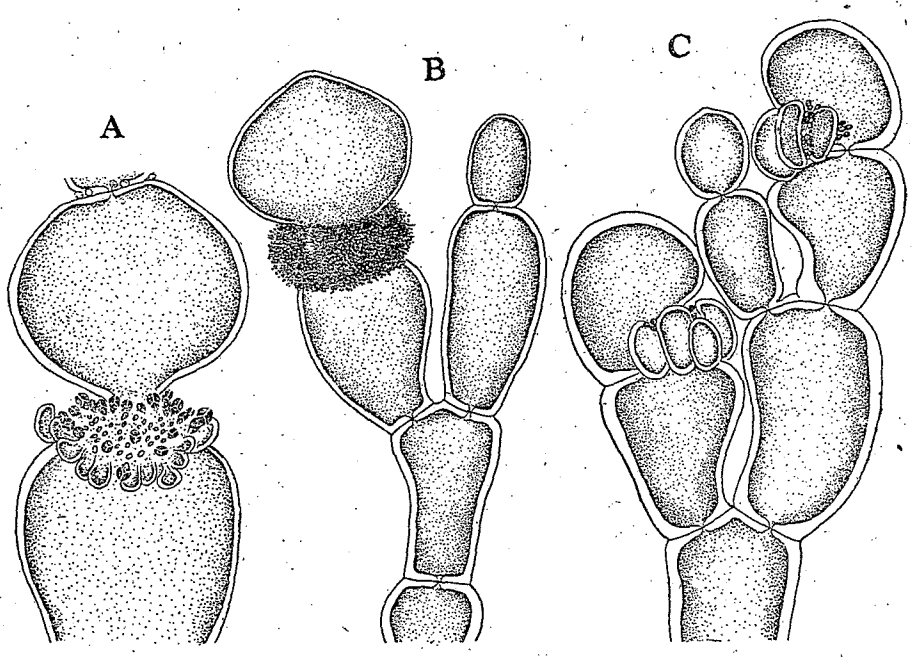

Fig. 3. *Griffithsia venusta* YAMADA.
A. Tetraspores. ca. × 30. B. Antheridial stand. ca. × 25. C. Cystocarps. ca. × 35.

a flabellate outline; cells of the lower parts of the frond nearly cylindrical, often more or less thickened at joints, about 280μ in diam., about twice as long as broad, upper ones, especially those below the dichotomy often somewhat wedge-shaped (in the optical section), becoming somewhat thicker than the lower ones, ultimate or penultimate ones often spheroid; tetrasporangia forming a ring at the upper end of penultimate or somewhat lower cells, protected by about 14–15 short, thick, somewhat inwardly curved cells, which together form an involucrum; antheridial stands produced at the upper end of penultimate or somewhat lower cells, forming a thick ring, without involucrum; cystocarps produced on the shoulder of penultimate or somewhat lower cells, protected by 4–5 short thick somewhat inwardly curved cells, which together form an involucrum.

Liagorophila endophytica YAMADA gen. et spec. nov. Text-fig. 4.
(Chantransiaceae)

Frons filamentosa, cellularum unam seriem formans, parce divisa, prope extremitate repetite dichotoma; cellulis in partibus inferioribus saepe longe doliiformibus, ca. 16μ crassis, superioribus brevioribus, fere ellipsoideis

vel obovatis, ca. 1–2-plo diametro longioribus. Ramuli carpogonici 1- vel 2-cellulares, tenues, plerumque ad humeros cellularum superiorum producti, filamentis gonimoblasti brevissimis. Carpogonia post fecundationem longitudinaliter divisa.

Japanese name:

Locality: Daibanratu and Ryūkyūsyo, Formosa.

When the writer tried collections of the marine algae for the first time in Formosa in 1923, he found in Daibanratu a large specimen of *Liagora* cast ashore. It was a very nice specimen and one branch of it was preserved in alcohol. In 1930 it was compared by the writer with the type specimen of *L. orientalis* J. Ag. at Lund, with which it was identified. At that time, however, neither carpogonial branch nor cystocarp could be observed, and only the antherida were found. But later on when the writer was engaging in the study of *Liagora*, he reexamined that specimen and found very peculiar carpogonial branches and cystocarps which were described precisely in my previous paper*. As it is well known, in all species of *Liagora* ever described, the fertilised carpogonia are divided for the first time by a horizontal wall and then the sporogenous filaments come out of the upper cell thus produced. In this case, however, the matter is quite different, the fertilised carpogonia being divided by a longitudinal wall and newly produced cells giving off very short sporogenous filaments. Moreover the carpogonial branches are extremly short, often lacking even hypogynous cell. Therefore the writer established a section Orientales for embracing *Liagora orientalis* J. Ag. and later he proposed a new genus *Protoliagora* for this plant before the meeting in Fukuoka of the Botanical Society of Japan, but he did not describe yet. After that he has payed special attention to find again *L. orientalis* when he made collections in the south. Very fortunately in 1940

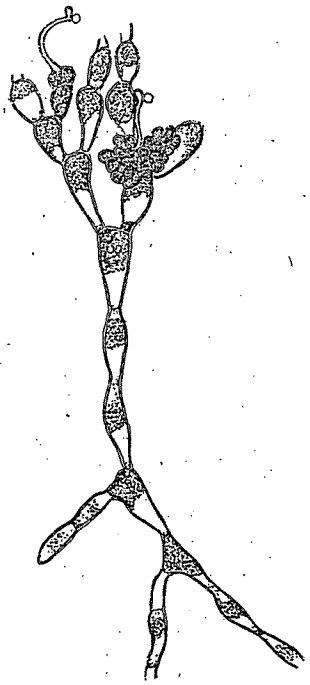

Fig. 4.
Liagorophila endophytica YAMADA.
ca. × 260.

* The species of Liagora from Japan (Vol. II, no. 1 of this publication).

the writer found a *Liagora* which most probably is to be referred to that species, and more fortunately in some specimens of it those peculiar cystocarps as well as carpogonial branches were abundantly produced. And to the writers great surprise, beside these ones there were observed on the same specimens, many cystocarps and carpogonial branches, which are of the common type found in other species of this genus. From this fact it became suspectable, that the peculiar reproductive organ which the writer assumed as that of *L. orientalis* does not belong to this *Liagora* but may represent a different thing, and at last it was ascertained. Then what is this small endophyte? As it is clearly seen in the text-figure the frond of this alga is very simple, being composed of a row of cells which ramifies dichotomously near the top. The diameter of this filament is about the same as that of the assimilating filaments of *L. orientalis*, and in many cases the filamentous frond are embeded in gelatinous matter nearly in parallel with the assimilating filaments of the host. But in spite of the writers effort he did not succeed in finding any connection between these filaments and the body of *Liagora*. The writer believes, for this reason, that he can say with certainty, these filamentous bodies bearing peculiar carpogonial branches and cystocarps do not belong to *Liagora*, but they represent a distinct plant, and in the characteristics shown in the vegetative as well as reproductive organs of this plant it, most probably, represents a member of the Chantransiaceae. In this family the plant in question may be comparable with *Chantransia* in the vegetative parts on one hand, and with *Kylinia* in reproductive organ on the other. But from *Chantransia* it is completely different in the development of cystocarps and from *Kylinia* in which the first division of the fertilised carpogonia is completed by a longitudinal wall as in the plant in question, it is quite different in all other characteristics. And so it seems correct to the writer to regard it as a representative of a new genus, characterized in particular by the structure of the carpogonial branches and by the development of the cystocarps.

Liagora orientalis J. AGARDH

Anal. alg., cont. 3 (1896) p. 99; DE TONI, Syll. alg., vol. 4 (1897) p. 86; YAMADA, Notes Japan. alg., V (1933) p. 282; Id., Spec. Liagora Japan (1938) p. 4.

Syn. *L. formosana* YAMADA, l. c. p. 32, pls. 14–15.

As stated above, the peculiar carpogonial branches and cystocarps assumed by the writer as those of *L. orientalis* J. AG. are now concluded

belonging to another distinct plant. Therefore the characteristic separating *L. formosana* YAM. from *L. orientalis* J. AG. becomes very weak, in the vegetative features both species being hardly separable from one another. And the writer came to the conclusion that both these species ought to be united.

Liagoropsis YAMADA gen. nov. (Helminthocladiaceae)

Frons compressa vel cylindracea, pinnatim vel dichotome vel paniculatim ramosa, mucosissima, plus minusve calce incrustata; ex medulla filamentis hyalinis longitudinaliter laxe intricatis, axem centralem formanti et fila peripherica filamentis assimilatoribus a medulla verticaliter exeuntibus, di- vel trichotome fastigiatis, basi cylindraceis, sursum moniliformibus composita, constituta; spermatangia in apicem filamentorum assimilatorum producta, fere cymose aggregata; ramis carpogoniis erectis, ex 4–5—7–8 cellulis constitutis, in filamentis assimilatoribus locum ramuli occupantibus; cystocarpiis nudis, filamentis involuclaribus nullis vel exigue evolutis. Typus *Liagoropsis maxima* YAMADA.

Liagoropsis maxima YAMADA spec. nov. Text-figs. 5–6.

Frons mucosa, lubricissima, 15–50 cm alta, erecta, radice parva disciforme adfixa, praeter partem supeiorem ramulorum compressa, usque 1.5 cm lata, irregulariter longitudinaliter tenuiterque canaliculata, calce leviter obducta; ramis vel fere pinnata vel furcata, a margine vel aliquando e superficiem frondis exeuntibus, prope apicem cylindraceis; filamentis medularibus raro furcatis, 4–9μ crassis; filamentis strati periferici 300–600μ crassis, 3–4 furcatis, prope apicem fere corymbosis, cellulis inferioribus cylindraceis, tenuibus, basim ca. 4μ crassis, 5–6-plo diam. longioribus, sursum mox brevioribus et crassioribus, ellipsoideis vel ovalibus, prope apicem moniliformibus, ca. 15μ crassis, raro pilo breve coronatis. Species dioica; ramis carpogonii erectiusculis, ex 6–10 (plerumque 7–8) cellulis compositis, 9–15μ latis, ad cellulam filamentorum strati periferici terminalibus vel subterminalibus vel lateralibus; cystocarpiis nudis, ca. 140μ crassis, filamentis involucrorum destitutis; carposporis fere obovoideis, ca. 15μ longis; antheridiis obovoideis, ca. 3μ longis, ad apicem filamentorum periferice corymbosis.

Japanese name: *Ō-nuruhada* (nov.).

Locality: Babukutu, Formosa (Y. NAKAMURA).

Frond mucous, strongly lubricous, erect, 15–50 cm high, fastened to the substratum by means of a small disc-shaped base, compressed excepting

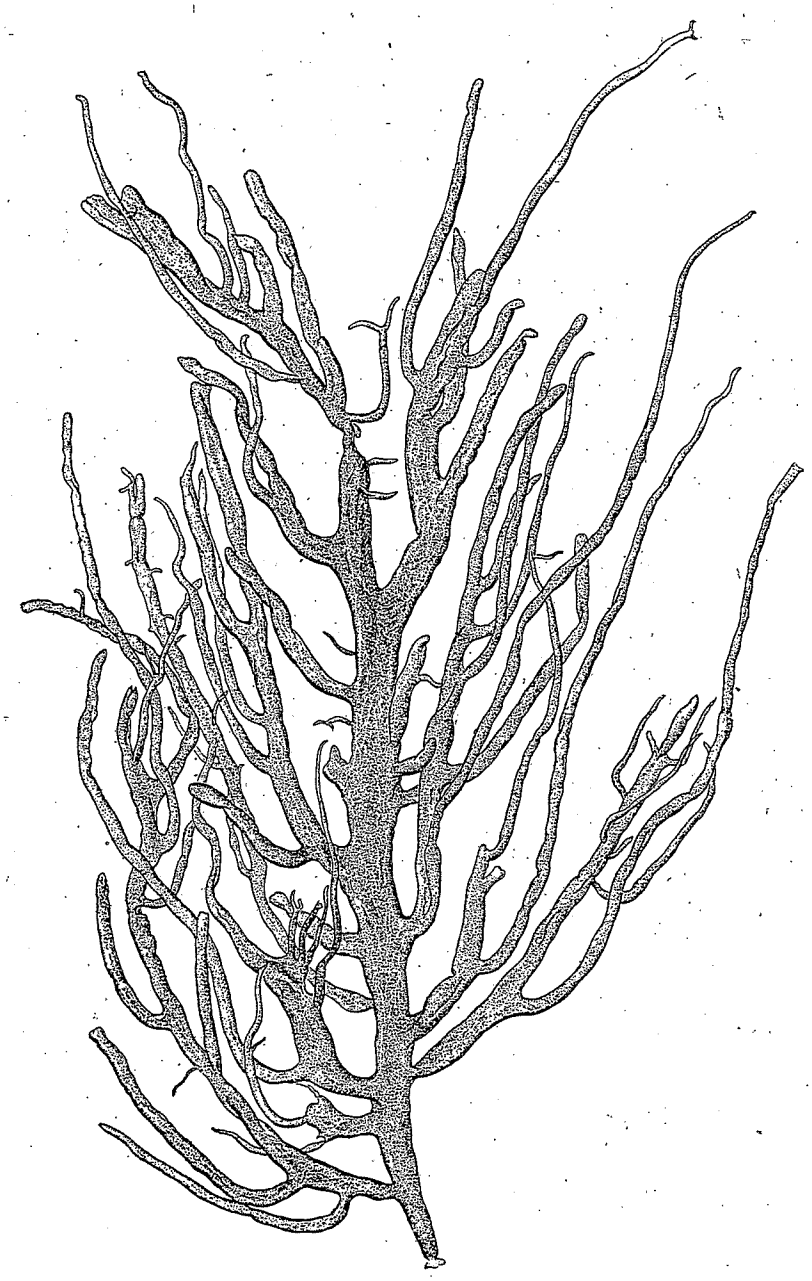

Fig. 5. *Liagoropsis maxima* YAMADA. ca. × 11/19.

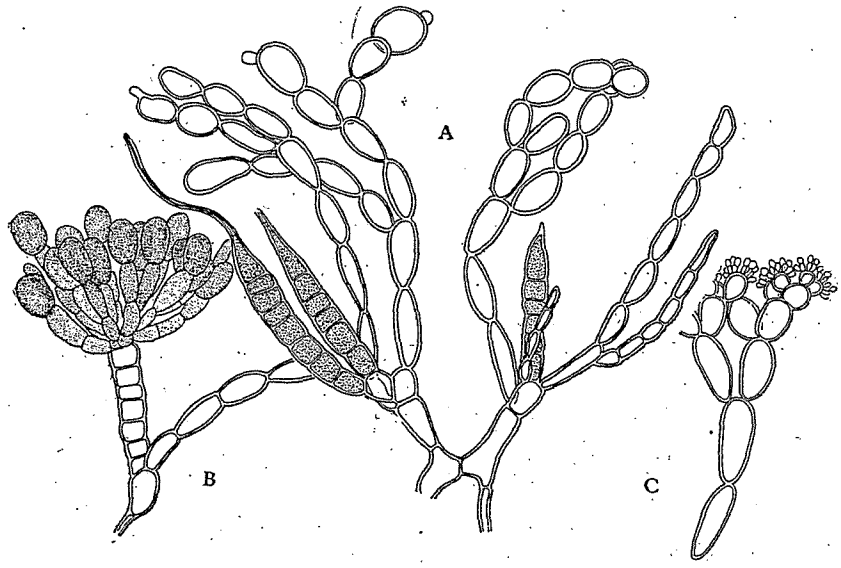

Fig. 6. *Liagoropsis maxima* YAMADA.
A. Assimilating filaments with carpogonial branches. B. Cystocarp.
C. Antheridial stands. ca. ×320.

in the upper parts of the branchlets, up to 1.5 cm broad, irregularly longitudinally and shallowly canaliculate on the surfaces, incrusted with lime weakly; branches furcate or pinnate, sent off from the margin or sometimes from the surfaces of the frond, cylindrical near the apex; medulary filaments rarely furcate, 4–9μ thick; assimilating filaments 300–600μ long, 3–4 times furcate, nearly corymbose near the apex, lower cells cylindrical, thin, near the base about 4μ thick, 5–6 times as long as broad, becoming thicker and shorter upwards, ellipsoid or oval, moniliform, about 15μ thick near the apex, rarely provided with a short hair. Species dioecious; carpogonial branches nearly erect, composed of 6–10 (mostly 7–8) cells, 9–15μ broad, terminal or subterminal or lateral on the cells of the assimilating filaments; cystocarps without involucral filaments, about 140μ in diam.; carpospores almost obovoid, about 15μ long; antheridia obovoid, about 3μ long, corymbose on the terminal cells of the assimilating filaments.

The new genus shows evidenly the close relationship to the genus *Liagora*, showing many common characteristics. Yet there are very important discrepancies between these two genera. The carpogonial branches of *Liagoropsis* do not represent a distinct side branch of the assimilating

filaments as in *Liagora,* but often showing equal branch with the assimilating filaments or being terminal. In the cystocarps the involucral filaments do not develop or are formed very weakly, forming a nude mass of larger spores. Moreover deposit of lime is commonly slight comparing with many species of *Liagora.*

Myriogramme variegata YAMADA spec. nov.

Frons basi irregulariter discoidea parva adfixa, stipite brevi vel longo, cylindraceo, simplici vel raro diviso ornata, sursum in partem foliaceam expansa; partis foliaceis enervosis, venis microscopicis destitutis, lineamentum variabilissimis, nunc simplicibus et longe ellipticis vel late linearibus vel obovatis, nunc semel bisve dichotome patenterque divisis, haud 1.5 cm attingentibus, ca. 3–4 mm latis, ad basin anguste vel late cuneatis, apice fere semper rotundatis, margine integris vel minutissime denticulatis, saepe variegatis, tenuissimis, praeter prope basin monostromaticis, ad apicem dentum minutissimum cellulis apicalibus transverse articulatis sed frondum rotundum non ornatis; cystocarpiis sine ordine per frondem sparsis, ca. 800μ diam; soris tetrasporiferis parvis, orbiculatis vel ellipticis vel irregularibus.

Japanese name: *Huiri-ginu.*

Locality: Hayama, Sagami Prov. (Herb. Biol. Labor., Imp. Palace, Tokyo, Nos. 2119, 2123 a and 2236.)

Frond attaching to the substratum by means of a small irregularly disc-shaped base, shortly or somewhat longly stalked with stipe nearly cylindrical and simple or rarely divided, expanding upwards into leafy part; leafy part very variable in shape, simple and longly elliptical, or ribbon-shaped, or obovate, sometimes 1–2 times divided dichotomously with a rounded axil, hardly attaining 1.5 cm in hight, about 3–4 mm broad, becoming broader below dichotomy, narrowly or broadly cuneate at the base, almost always rounded at apices, entire or minutely dentated at margin, often variegate. Frond very thin, composed of one layer of cells excepting near the base, without transversely dividing apical cell at the rounded apices, but provided with it at apices of the tooth-like protuberances at margin, neither macroscopic nor microscopic nerves present. Cystocarps scattered on leafy parts without any regularity, about 800μ in diameter; sori of tetrasporangia small, circular or elliptical or irregular in outline, produced on leafy parts.

The present species seems to relate closely to *Myriogramme Hollenbergii* KYLIN (Calif. Rhodophyceen, 1941, p. 32, pl. 11, fig. 30), but the

variegation of the leaves and eventual occurrence of the minute teeth on the margin of the leaves separate the present species from the Californian one.

Rhodochortonopsis spongicola YAMADA gen. et spec. nov. Text-figs. 7–8.

Frons inter spongiam penetrans, fere cylindracea, irregulariter ramosa, 60–200μ crassa, e filamentis irregulariter valde ramosis, facem spicualae laxe contegentibus composita; filamentis unam seriem cellularum formantibus, cellulis cylindraceis ca. 7μ crassis, plerumque 5–10-plo diam. longioribus, sursum brevioribus vel raro longioribus, non constrictis; stichidiis ovatis vel clavatis, textu denso, ad apicem ramorum productis; tetrasporangiis longis, zonatim divisis, fere radiatim dispositis.

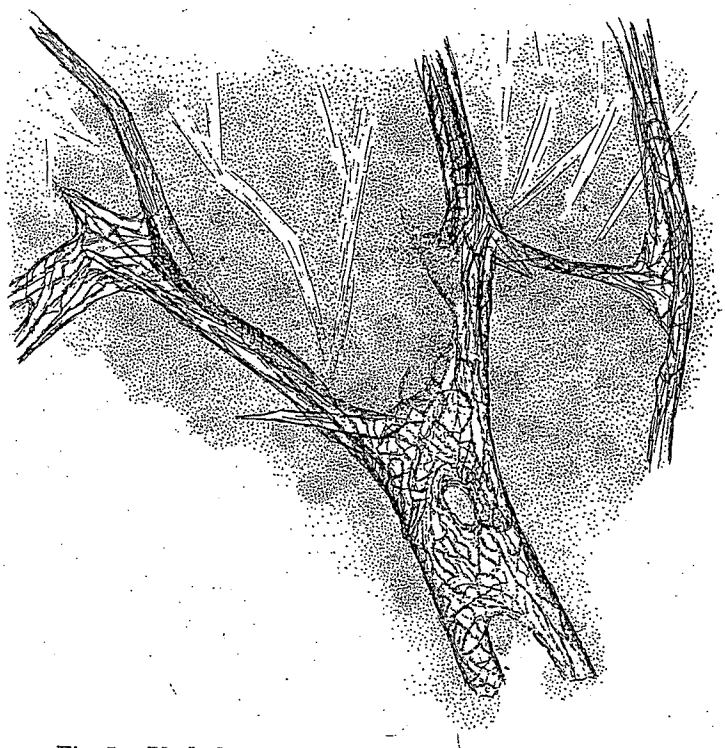

Fig. 7. *Rhodochortonopsis spongicola* YAMADA. ca. × 30.

Japanese name: *Kaimen-sibari.*

Locality: Hayama, Sagami Prov. (Herb. Biol. Labor., Imperial Palace, Tokyo, No. 1859.)

Frond irregularly branched, nearly cylindrical, about 60–200μ thick,

growing on the tube of a Polychaeta, penetrating a sponge which covers the tube, the upper parts of branches raising above the surface of the sponge. The frond composed of branched filaments like *Rhodochorton* covering loosely the bundle of spicules of the sponge. The filaments irregularly much ramified, branches often anastomose, cells usually cylindrical, about 7μ thick, usually 5–10 times as long as thick but becoming shorter toward the end of branches of the frond, or sometimes very long, not constricted at dissepiments. Stichidia ovate or clavate, produced at the extremity of branches of the frond, the tissue of which is here very compact. Tetrasporangia long, zonately divided, arranged nearly radiately. Other reproductive organ unknown.

The vegetative parts of the present alga is very much like that of *Rhodochorton*, especially the description and figures of *Acrochaetium*

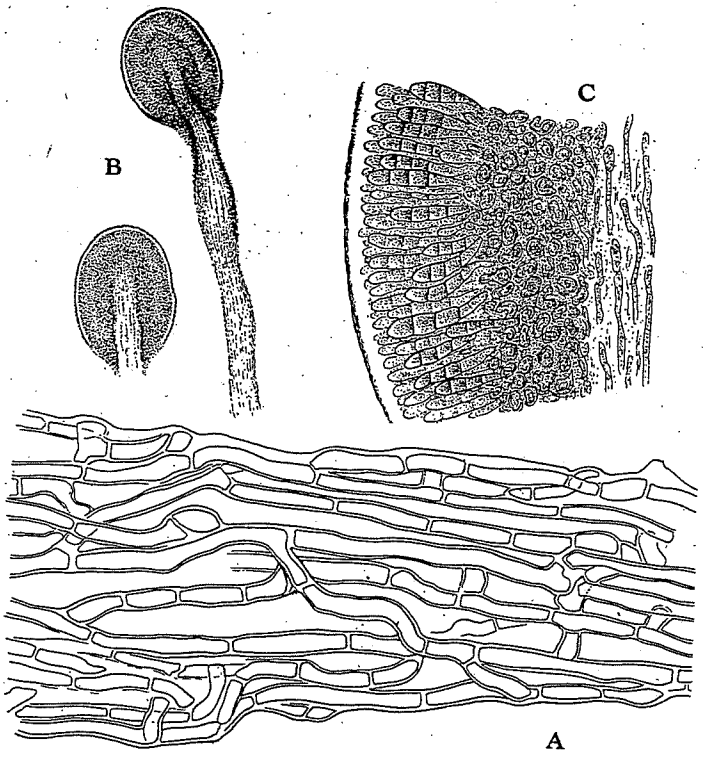

Fig. 8. *Rhodochortonopsis spongicola* YAMADA.
A. A part of the frond. ca. ×470. B. Stichidia. ca. ×40.
C. Cross-section of a stichidium. ca. ×330.

spongicolum WEB. VAN BOS. (Liste alg. Siboga, II, p. 195) sugests the affinity of it to this alga. However very peculiar stichidia hinder us referring the present species to *Rhodochorton* (*Acrochaetium*). On the other hand owing to lack of cystocarps it is impossible to determine the systematic position of the new genus.

Shchizoseris subdichotoma (SEGAWA) YAMADA comb. nov.

Syn. *Myriogramme subdichotoma* SEGAWA, New or noteworth. alg. Izu (Sci. Pap. Inst. alg. research, Hokkaido Imp. Univ., vol. 2, 1941) p. 269.

Japanese name: *Hime-beniyahazu.*

Locality: Susaki and Kisami, Izu Prov.; Hayama, Sagami Prov. (Herb. Biol. Labor., Imp. Palace, Tokyo, Nos. 2261, S 151, S 290, S 290, S 329 and S 388).

When SEGAWA described *Myriogramme subdichotoma* he could not see any cystocarp in his specimens. Therefore there remains some doubt about the exact systematic position of this alga and he did not forget to note about it. Very fortunately one specimen of this species in the Herbarium of the Biological Laboratory, Imperial Palace (s 290) is cystocarpic and its structure shows that the present alga should be referred to *Schizoseris.*