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Diagnoses of New Sargassums from Japan

By

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Sargassum amabile YAMADA

Notes on *Sargassum* from south. parts of Japan, II (Journ. Japan. Bot., Vol. 18, p. 515 (in Japanese) figs. 16-17.

Frons mediocris, ca. 50 cm longa et ultra; radice conica, elevata, parva; caule brevi vix 1 cm longo, cylindrico, ca. 1-2 mm in diam. (sicc) leve vel leviter verrucoso, 2-3(-5) ramos primarios quoquoversum emittentibus; ramis primariis filiformibus, teretibus, levibus, ca. 50 cm longis 1 mm crassis (sicc), ramos secundarios quoquoversum emittentibus; ramis secundariis usque ad 15 cm longis, filiformibus, teretibus, levibus vel parce glandulosis, ramulos quoquoversum emittentibus; foliis inferioribus lineari-lanceolatis, ca. 4-7 cm longis, ca. 6-8 mm latis, margine obsolete dentatis, basi cuneatis, apice acutis, costatis, parce glandulosis, ceteris lineari-lanceolatis vel saepe linearibus, ca. 1.5-5 cm longis, ca. 1-3 mm latis, cetera ut folia inferiora; vesiculis obovatis vel ellipticis vel fusiformibus vel raro sphaericis, ca. 3-5 mm longis, apice obtusis vel aristatis, glandulosis, petiolo tereto ipsis brevioribus; receptaculis androgynis, multa conceptacula foeminea continentibus simplicibus vel furcatis, ancipito-compressis vel triquetris, saepe tortis, interdum ad apicem dilatatis, verrucosis, margine apiceque spinuloso-dentatis, ca. 5-10 mm longis, racemosis vel cymoso-racemosis, masculos continentibus leviter angustioribus et minus spinosis.

Fronde weak, mediocre, about 50 cm high, or slightly longer; root a small elevated conical disc; stem short, hardly reaching 1 cm in length, cylindrical, about 1-2 mm in diam. in dried specimens, smooth or somewhat verrucous, giving off several (mostly 2-3-5) primary branches in every direction; primary branches filiform, terete, smooth, about 50 cm in length, about 1 mm in diam. when dried, giving off secondary rami multifariously at intervals of about 3 cm; secondary rami up to about 15 cm long, filiform, terete, smooth or sparsely glandulose, sending ramuli in every direction at intervals of about 6-10 mm; leaves in the lower parts of the frond linear lanceolate, about 4-7 cm long, 6-8 mm wide, serrato-dentate or obtusely dentate at margin, cuneate at base, acute at apices, provided with a per-

current midrib and a few cryptostomata, those of middle and upper portions of the frond linear lanceolate or often linear, about 1.5–5 cm long, about 1–3 mm wide, otherwise about the same as the lower ones; vesicles obovate or elliptical especially small ones or fusiform (those ones always aristate at apices) or rarely nearly sphaerical especially large ones, about 3–5 mm long, at apices obtuse or aristate especially in the young ones, provided with cryptostomata, shortly stalked, stalks terete, usually shorter than the vesicles themselves; receptacles androgynous, those containing more oogonial conceptacles than the male ones simple or furcate, ancipito compressed or triquetrous, often torted sometimes broadended near the apices, verrucous, spinoso dentate at margin and at apices, about 5–10 mm in length, racemose-ly or cymoso-racemose-ly arranged, those containing mostly antheridial conceptacles slightly narrower and less spinose than the other.

Japanese name: *Taoyame-moku*.

Loc.: Garanbi, Formosa.

Judging from the descriptions of *S. pseudo-cystocarpum* GRUN. and *S. pulchellum* GRUN. the present species seems to stand very near to these species. But from the former species it differs by the receptacles and from the latter also by the receptacles and the large leaves.

On the other hand *S. virgatum* (MONT.) J. AG. looks to have some likeness to the present species (Cf. KÜTZING: Tab. Phyc., vol. 11, tab. 14), but the unarmed receptacles of this species distinguish the new species from it.

***Sargassum alternato-pinnatum* YAMADA**

l. c. III, p. 559 (in Japanese), figs. 28–29.

Frons mediocris, ca. 50 cm longa; radice parva, disciforme, ca. 1 cm lata; caule brevissimo, vix 0.5 cm attingente, tereto, levi?, ramos plures primarios quoquoversum emittentibus; ramis primariis usque ad 50 cm longis, angulatis, saepe quadrangularibus, ca. 2 mm crassis, parce muriculatis, ramos secundarios quoquoversum, intervallo inter singulos 1–2 cm emittentibus; ramis secundariis usque ad 25 cm longis, densius muriculatis, gracilioribus quam ramis primariis, cetera ut primarii; foliis linearibus, 1–3 cm longis, ca. 1.5–3 mm latis, alternato-pinnatim divisis vel simplicibus, sicco leviter pruinosis, margine remote et acute vel inferioribus saepe obsolete dentatis, apice obtusis, ad basim saepe minute spinulosis (raro alato-dentatis), costatis, glandulosis; vesiculis subsphaericis vel ovatis ad 6 mm longis, apice muticis, eglandulosis, petiolis leviter compressis vel raro complanatis, juvenilibus ipsis leviter longioribus, adultioribus brevioribus, saepe ad basim spinulosis suffultis; receptaculis androgynis, parvis, ca. 1–2–2.5

mm longis, longe conicis, saepe furcatis, verrucosis; hic illic spinulosis, cymoso-racemosis.

Frond mediocre, about 50 cm in total length; root small disc with the diam. of about 1 cm; stem very short, scarcely reaching 0.5 cm in length, terete, smooth?, sending off several primary branches in every direction; primary branches up to 50 cm in length, angulate, often quadrangular in cross section, about 2 mm in diam., sparingly muriculate giving off secondary branches in every direction at intervals of about 1-2 cm; secondary branches up to about 25 cm in length, more densely muriculate and becoming slenderer than the primary branches, otherwise as the latter; leaves 1-3 cm long, about 1.5-3 mm broad, linear, alternate-pinnate or simple, after drying weakly pruinose, distantly and sharply dentate or often obsoletely dentate at the margin especially in the lower parts of the frond, obtuse at apex, often provided with fine spines at the base, sometimes alato-dentate, percurrent with a midrib and dotted with small cryptostomata disposed in nearly one row on both sides of the midrib; vesicles subspherical or ovate reaching up to about 6 mm in length, smooth at spices, without cryptostomata, petioles slightly compressed or rarely complanated, slightly longer than the vesicle in young ones but shorter in large ones, often provided with short spines near the base; receptacles androgyneous, rather small, about 1-2-2.5 mm long, longly conical, often furcate, verrucous, provided with sharp spines here and there, cymoso-racemosely arranged.

Japanese name: *Kireba-moku*.

Loc.: Aburatu, Hyūga Prov. (Y. NAKAMURA); Hayama, Sagami Prov. (Herb. Biol. Labor., Imp. Palace, Tokyo, No. 2038).

The present species appears to belong to "life-form" group with *S. obtusifolium* J. Ag., *S. torvum* J. Ag., *S. polyphyllum* J. Ag., *S. incisum* DICKIE, *S. Merrifieldiae* J. Ag., *S. pachycarpum* J. Ag., *S. polyporum* MONT. etc. (Cf. W. A. SETCHELL: Hong Kong Seaweeds V, p. 11). But all these species belong to the Malacocarpicae of J. G. AGARDEH, while the present species shows acanthocarpic characters and proves to be androgyneous. Therefore it seems to me better to keep our plant as a new distinct species.

Sargassum asymmetricum YAMADA

l. c. III, p. 561 (in Japanese), figs. 30-31.

Frons mediocris, gracilis; radice parva, disciforme; caule brevissimo, 5 mm vix attingente, tereto?, leve?, ca. 2 mm in diam. (sicco), ramos primarios quoquoversum emittente; ramis primariis teretibus, ca. 2-3 mm crassis, muriculatis, usque ad 37 cm longis, ramos secundarios, intervallo

inter singulos 0.5–1 cm quòquoversum emittentibus; ramis secundariis leviter gracilioribus et brevioribus, cetera ut primarii; foliis lineari-oblongis, membranaceis, furcatis vel alternato-pinnatis, ad 2 cm longis, 3 mm latis, apice obtusis vel acutiusculis, margine argute vel obsolete spinuloso-dentatis, basi saepe asymmetrice cuneatis, costatis, glandulosis; vesiculis ovatis vel subsphaericis, ad 4.2 mm longis, apice muticis vel praesertim juvenilibus mucronatis vel raro aristatis, sparsim glandulosis, pedicellis teretibus et glandulosis vel alato-dentatis ipsis leviter brevioribus vel raro longioribus suffultis; receptaculis androgynis, cylindraceutis, verrucosis, saepe furcatis, cymosis, pauce spinulosis, raro cum vesiculas mixtis.

Fronde mediocre, slender; root a small disc; stem very short, scarcely exceeding 5 mm in length, terete?, smooth? about 2 mm thick in dried specimens, sending off several primary branches in every direction; primary branches terete, about 2–3 mm thick, muriculate, up to about 37 cm in length, giving off secondary branches in every direction at intervals of about 0.5–1 cm; secondary branches as primary ones, except being slightly slenderer and shorter; leaves linear-oblong, membranaceous, furcate or divided in an alternato-pinnate manner, or simple, up to 2 cm long, 3 mm wide, obtuse or acutiuscule at apices, sharply or absolutely spinuloso-dentate at margin, often asymmetrical and cuneate at the base, provided with a midrib and nearly one row of cryptostomata on every side of the midrib; vesicles ovate or subspherical, up to 4.2 mm in length, muticous or especially in young ones mucronate or rarely aristate at apices, sparingly glandulose, supported on a pedicel, pedicels terete and glandulose or alato-dentate, as long as the vesicles themselves or slightly shorter or rarely longer; receptacles androgynous, cylindrical, verrucous, often furcate, cymosely disposed, sparingly spinose, rarely mixed with vesicles.

Japanese name: *Katawa-moku*.

Loc.: Utinoura, Ōsumi Prov. (Y. NAKAMURA); Cape Bō, Satsuma Prov. (Y. NAKAMURA).

The present species relates very closely to *S. alternato-pinnatum* YAM. But the leaves are thinner than in the latter and the small vesicles are often mucronate or aristate. Therefore I separated the present plant from *S. alternato-pinnatum*.

Sargassum Henslowianum C. AGARDH var. **condensatum** YAMADA
l. c. I, p. 373 (in Japanese), fig. 2.

Receptaculis racemosis vel saepe paniculatis praesertim in parte inferiore inflorescentiae.

Primary? branches complanate, smooth, about 2 mm wide in dried specimen, sending off from the margin the secondary branches in a distichous manner at intervals of about 1.5–2 cm; secondary branches up to about 28 cm in length, about the same as the primary ones except being somewhat narrower; leaves linear-lanceolate or linear, up to 8 cm long, 8 mm wide, sharply serrate at margin, acutiuscule at apices, percurrent with a midrib and provided with nearly one row of cryptostomata on both sides of the midrib, very slightly pruinose in dried specimens; vesicles obovate or subspherical, up to 8 mm in length, glandulose, muticous at apices, longly pedicellate, pedicels complanated, often leaf-like, always much longer than the vesicles themselves, (sometimes about three times as long as the length of the vesicle itself); receptacles (oogonial ones) conical, often furcate at apices, racemosely or often paniculately arranged especially in the lower parts of the inflorescences.

Japanese name: *Enaga-moku*.

Loc.: Cape Nomo, Hizen Prov. (S. NARITA).

The present plant certainly relates very closely both to *S. Henslowianum* Ag. and to *S. paniculatum* J. Ag. The distinction between these species, according to the descriptions, lies in the colour and rigidity of the leaves and grade of the complexity of the receptacles, but it does not seem to me being a very distinct one.

Sargassum hyugaense YAMADA

l. c., I, p. 379 (in Japanese), figs. 7–8.

Frons mediocris, ca. 50 cm longa; radice parva, discoidea, 1.5 cm lata; caule brevissimo, 1 cm vix superante, cylindraco, nonnihil verrucoso, ca. 3 mm crasso, quoquoersum ramos primarios emittente; ramis primariis 50 cm longis, compressis, longitudinaliter angulatis, spinulosis, ca. 3 mm latis, ramos secundarios alternatim e marginibus emittentibus; ramis secundariis usque ad 25 cm longis, ca. 1.5–2.5 cm separatim dispositis, tenuioribus quam rami primarii, cetera ut ei; foliis basilaribus longe ellipticis, 2–2.5 cm longis, 7–8 mm latis, margine integris, apice obtusis, costatis, inconspicue minuteque glandulosis, aliis lineari-lanceolatis vel linearibus, 3–8 cm longis, 2–5 mm latis, raro furcatis; margine acute dentatis, apice acutiusculis, costatis, conspicue glandulosis, leviter pruinosis; vesiculis subobovatis vel sphaericis, usque ad 6 mm longis, muticis, minute glandulosis, petiolatis, petiolis compressis vel complanatis, margine saepe serratis, plerumque leviter brevioribus quam longitudo vesiculorum; receptaculis lancoido-conicis, saepe furcatis, verrucosis, inermibus, androgynis,

racemos densos formantibus.

Frond mediocre, about 50 cm in total length; root a small disc with diam. of about 1.5 cm; stem very short, scarcely reaching 1 cm in length, cylindrical, somewhat verrucous, about 3 mm in diam. giving off primary branches in every direction; primary branches reaching about 50 cm in length, compressed, longitudinally angular, spinulose, about 3 mm in breadth, sending off secondary branches alternately from the edges at intervals of about 1.5–2.5 cm; secondary branches up to about 25 cm long, thinner than the primary ones, otherwise about as the primary ones; leaves, those near the base of the frond longly elliptical, 2–2.5 cm long, 7–8 mm wide, entire at margin, obtuse at apex, provided with a midrib and very small inconspicuous cryptostomata, other ones linear-lanceolate or linear, 3–8 cm long, 2–5 mm broad, occasionally furcate, sharply dentate at margin, acutiuscule at apices, provided with a percurrent midrib and rather conspicuous cryptostomata, weakly pruinose; vesicles subobovate or spherical, up to about 6 mm long, mucicous, with small cryptostomata, provided with a stalk; stalk compressed or complanated, often serrate at margin, usually slightly shorter than the vesicle itself; receptacles lancoid-conical, often furcate, verrucous, unarmed, forming a condensed raceme, androgyneous.

Japanese name: *Hyūga-moku*.

Loc.: Aburatu and Aosima, Hyūga Prov. (Y. NAKAMURA).

The present species seems to be related very closely to *S. Merrifieldiae* J. AG. But the rachis of the branches in our species are compressed and the branches of the next order are given off from the margin of the rachis, being distichous, though often it does not clearly look so, because the rachis is often torted. And moreover the leaves are almost always pruinose though weakly.

Beside the specimens from Aburatu there are two specimens from Aosima. In these specimens leaves are narrower and less dentate than in the former, but most probably they belong to the same species. All specimens were collected cast ashore, therefore the exact localities are not known.

***Sargassum kasyotense* YAMADA**

l. c., III, p. 553 (in Japanese), figs. 22–23.

Frons mediocris, gracilis, ca. 40 cm longa; radice conica, 1 cm lata; caule ca. 2 cm longo, tereti, verrucoso, ca. 3 mm crasso, ramulos primarios quoquoversum emittente; ramis primariis ca. 40 cm longis, teretibus, angulatis, remote spinulosis, ramulos secundarios quoquoversum emittentibus; ramulis secundariis usque ad 10 cm longis, gracilioribus quam primariis,

cetera ut rami primarii; foliis linearibus vel lineari-lanceolatis, fere sessilibus, usque ad 4 cm longis, 6 mm latis, apice obtusis, margine serrulatis, costatis, minutissime et inconspicue glandulosis; vesiculis ovatis vel pyriformibus, apice muticis vel mucronatis, pedicellatis; pedicellis complanatis, brevibus, saepe serrato-alatis; receptaculis gracilibus, linearibus, leviter compressis, repetite furcatis, remote et retuse compressis in partibus superioribus, conceptaculis femineis paucis, verrucosis vel hemispherice elevatis.

Frond mediocre, weak, gracile, about 40 cm in length (upper portion of the primary branches is broken); root an elevated conical disc with the diam. of about 1 cm; stem about 2 cm long, terete, verrucose, about 3 cm in diam., sending off primary branches in every direction; primary branches about 40 cm in length, terete, angulate, remotely spinulose, giving off secondary branches in turn in every direction; secondary branches up to about 10 cm in length, gradually becoming slenderer than the primary ones, otherwise as the primary branches; leaves linear or linear-lanceolate, nearly sessile, up to 4 cm in length, 6 mm in width, obtuse at apices, finely serrate at margin, provided with a percurrent midrib and very small inconspicuous cryptostomata; vesicles ovate or pyriform, muticous or tipped with a small mucro at their apices, standing on flattened, often serrato-winged short stalk; receptacles very thin, linear, slightly compressed, repeatedly furcate, bluntly and distantly spined in the upper parts, female conceptacles few in number, verrucose or hemispherically inflated.

Japanese name: *Hosomi-moku*.

Loc.: Kasyōtō, Formosa (T. TANAKA).

Very regrettably there is only one specimen before us, which Mr. T. TANAKA collected in August, 1939. The upper portions of the primary branches are torn off, therefore their exact length is not known. Judging from their slenderness, however, the lost parts do not seem being very long.

One very peculiar characteristic of this *Sargassum* is its slender linear receptacles. The conceptacles are elevated hemispherically, but they are very few in number. I saw them all containing ripe eggs and so the receptacles are already not young.

The present species seems to show some relation to *S. cymosum* Ag. But by the muriculate branches the present species can be distinguished from *S. cymosum* Ag. Furthermore the receptacles of *S. cymosum* Ag. are androgynous or male according to GRUNOW, but in our specimen the receptacles are female.

Sargassum piluliferum C. AGARDH var. **serratifolium** YAMADA

l. c. I, p. 374 (in Japanese), figs. 3-4.

Foliis serratis, fronde graciliore quam in typo.

Frond. small, up to about 25 cm in length, weak; root a small elevated disc, about 1 cm in diam; stem short, scarcely exceeding 1 cm in length, cylindrical, verrucous, about 1.5 mm in diam., sending off primary branches in every direction; primary branches 10-25 cm in length, slightly compressed, glandulose especially in their upper parts, 1.5-1.0 mm broad, giving off secondary branches in nearly distichous manner, at intervals of 0.5-1 cm; secondary branches about 5-10 cm in length, but becoming shorter upwards, otherwise about the same as the primary branches; leaves narrowly linear, subdichotomously furcate or simple, 2-3 cm in length, 1-2 mm in breadth, sharply or obsoletely serrate at margin, acutiuscule at apices, provided with a faint immersed midrib and two rows of cryptostomata; vesicles few in number, spherico-obovoide, mucous at apices, about 3-4 mm in length, provided with a petiole about as long as the length of the vesicle itself and cryptostomata; receptacles dioicous, female ones cylindrical, verrucous, very rarely provided with spines, racemosely or paniculately arranged, male ones becoming slightly longer, not armed with any spines.

Japanese name: *Kireba-no-mamedawara*.

Loc.: Utinoura, Ōsumi Prov. (Y. NAKAMURA).

The new variety can be distinguished very easily by its serrated leaves from the typical species. Furthermore the frond is much more delicate than the type of the species.

Sargassum salicifolioides YAMADA

l. c. III, p. 555 (in Japanese), figs. 24-26.

Frons mediocris, ca. 45 cm longa; radice conica?, parva; caule brevissimo, vix 0.5 cm longo, cylindrico, verrucoso, 2.5 mm in diam., ramos primarios quoquoersum emittente; ramis primariis usque ad 45 cm longis, leviter compressis, ca. 2-3 mm latis, sparsim muriculatis, ramos secundarios distiche emittentibus; ramis secundariis raro 15 cm attingentibus, manifestiore muriculatis; foliis alternato-pinnatim divisis vel raro simplicibus, usque ad 6 cm longis, 6 mm latis, segmentis vel foliis simplicibus linearibus, margine integriusculis vel obsolete dentatis, sessilibus, apice obtusis vel acutiusculis, costatis, glandulosis; vesiculis sphaericis vel leviter elongatis, usque ad 6 mm longis, apice muticis, eglandulosis, petiolo cylindrico ipsis brevioribus; receptaculis teretibus, saepe divisis, verrucosis, cymosis

vel subracemosis, androgynis.

Frond mediocre, about 45 cm in total length; root a small conical disc?; stem exceedingly short, nearly reaching 0.5 cm in length, cylindrical, verrucous, about 2.5 mm in diam., giving off primary branches in every direction; primary branches up to 45 cm in length, slightly compressed, about 2–3 mm in width, very sparingly muriculate, sending off secondary branches nearly distichously at intervals of about 1–2 cm; secondary branches reaching about 15 cm in length, but usually shorter, more strongly muricate than the primary branches; leaves alternatopinnately divided or simple, about up to 6 cm long, 6 mm wide, segments or single leaves linear, nearly entire or obsoletely dentate, sessile, obtuse or acutiuscule at apices, provided with a percurrent midrib and nearly one row of cryptostomata; vesicles spherical or very slightly elongated, up to about 6 mm in length, mucicous at apices, without cryptostomata, stalk cylindrical, shorter than the vesicles themselves (in young small vesicles stalks usually longer); receptacles terete, often forked, verrucous, cymosely or subracemosely arranged, androgynous.

Japanese name: *Hukuremi-moku*.

Loc.: Kasiwazima, Tosa Prov.

The present plant seems to relate closely to *S. salicifolium* J. Ag. but leaves are linear-lanceolate in *S. salicifolium* while in the present species they are linear, and more often divided than in J. AGARDH's species.

Sargassum tenuifolium YAMADA

l. c. II, p. 505 (in Japanese), figs. 10–11.

Frons mediocris, gracilis; radice conica, parva, 1–1.5 cm lata; caule brevissimo, saepe 2–3 mm crasso, 0.5 mm vix superante, fere unum ramum primarium (raro duos) emittente; ramis primariis 50 cm longis et ultra, ad basin teretibus, sursum leviter compressis, 4–5 mm latis, longitudinaliter angulatis, ramos secundarios quoquoversum emittentibus; ramis secundariis in parte inferiore frondis retroflexis, longissimis, saepe 50 cm superante, 1–2 mm latis, ramulos quoquoversum emittentibus, cetera ut rami primarii; foliis basilaribus retroflexis, lanceolatis, breviter lateque petiolatis, apice obtusis, pinnatim sectis vel profunde dentatis, usque ad 5 cm longis, ca. 1.2 cm latis, evanescente costatis, parce glandulosis, superioribus tenuioribus, angustioribus, acutius dentatis, parcius glandulosis vel eglandulosis, petiolis cylindraceutis, longis, foliolis ramulorum ultimorum valde irregularibus; vesiculis obovatis, usque ad 8 mm longis, eglandulosis, petiolatis, petiolis brevibus, cylindraceutis vel complanatis, apice mucronatis vel foliola parva coronatis; receptaculis compressis, spathulatis, apice acute spinulosis,

solitariis vel racemosis, androgynis.

Fronde mediocre, gracile; root a small elevated disc with diam. of about 1-1.5 cm; stem exceedingly short, scarcely reaching 0.5 cm in length, often 2-3 mm, sending off mostly one (rarely two) primary branch; primary branches reaching 50 cm or more, terete at base, slightly compressed upwards, about 4-5 mm wide, with two or three ridges running downwards from the insertion points of the leaves, thus often triangular in cross section, sending off secondary branches in every direction at intervals of about 1.5-4 cm; secondary branches retroflex in the lower parts of the frond, becoming very long, often attaining 50 cm, 1.2 mm in width, otherwise as the primary branches, sending off in turn small ramuli in every direction; leaves on the primary branches retroflex, lanceolate, provided with a short broad petiole at the base, obtuse at the apex, pinnately sected or deeply dentate, the sili being sharply dentate or obsolete in the lower parts of the frond, about 5 cm long, about 1.2 cm wide in the largest one, provided with an evanescent midrib and a few cryptostomata, upper leaves becoming thinner, narrower, and more sharply dentate with very few or without cryptostomata, petiole cylindrical, long, leaflets on the ultimate ramuli very irregular in outline; vesicles obovate, up to 8 mm in length, without cryptostomata, provided with a cylindrical or flattened leaf-like short petiole, petiole usually shorter than the vesicle itself, at the apex mucronate or coronated with a small leaflet; receptacles compressed, spatulate, provided with sharp spines at margin and top, solitary or racemously arranged, androgynous.

Japanese name: *Usuba-moku*.

Loc.: Sikine-zima and Kōzu-sima, Izu Prov. (S. SEGAWA); Kusimoto, Kii Prov. (S. INOH); Utinoura, Ōsumi Prov. (Y. NAKAMURA); Amami-Ōsima, Satuma Prov. (K. HAMANA).

As stated above the stem of this species is very short and so often the primary branches look like the prolongations of the stem itself. The leaves are almost always simple, but very rarely the pinnately divided ones are met with.

Judging from the descriptions and figures *S. lacerifolium* (TURN.) J. Ag. appears to show some resemblance to the present species, though I have not seen any authentic specimen of the Australian species. But the receptacles are triangular and very often the vesicles are alated in *S. lacerifolium* and that is not the case in *S. tenuifolium*.