2. *Pugetia palmatifolia* sp. nov. (Figs. 7-9).

This alga was found cast ashore, attaching to a small piece of sandstone, at Higashisōya on the eastern coast of southern Sakhalien, in August 1929. Its frond is carnosomembranaceous in substance, and resembles in general appearance a certain form of *Erythrothyllura* Gmelini YENDO. The herbarium specimen is reddish-brown in color and adheres firmly to paper. The frond is ca. 14 cm. in height, attaches to the substratum by means of a small disc. The basal part of the frond is stalk-like and branched, gradually broadened upward, and sends off proliferous blades from the margin. The blades are obovato-cuneate in shape, smooth or slightly crenate or rarely dentate at the margin, ca. 190μ thick in the marginal portion, up to 390μ thick near the base, usually palmately cleft into irregular laciniae, and frequently proliferate on the margins into similarly shaped lobes. In the internal structure of the marginal part of the blade, our
plant agrees *Callophyllis* in having a few rhizoidal cells between big roundish medullary cells, the latter being usually in two layers in our plant and not so closely set as in *Callophyllis*. The rhizoidal cells are somewhat thicker than those of *Callophyllis*, and run vertically mainly through the central part of the medulla. In the basal part of the blade and in the stalk, the medullary layer contains a considerable amount of rhizoidal cells, which fill up the central space between the two layers of big medullary cells and occupy the larger part of the medulla, contributing thus to the increase of the thickness in these parts of the frond. Reproductive organs are unfortunately not found in the specimens at hand.

Considering from the above described structure of the frond, it may be justified to classify the present plant in the genus *Pugetia*. This genus was originally founded on an alga discovered at Canoe Island, Wash., U.S.A., and named *Pugetia fragillissima* by Kylin\(^1\) (1925 p. 30). In 1941, the last mentioned author\(^2\) described the second species *P. firma* Kylin, when he recognized the close affinity between his two species and *Microcoelium chilensis* J. Agardh and transferred the latter to *Pugetia*.

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because *Microcoelia* had already been applied by Lindley\(^3\) (1830, p. 60) to a genus of Orchidaceae before it was used by J. Agardh\(^4\) (1876, p. 226) in naming the Chile alga, Kylin has added to the genus two more species, i.e., *P. sanguinea* (Montag.) Kylin and *P. japonica* Kylin, the latter being proposed for *Microcoelia chilensis* (non J. Ag.) Okamura\(^5\) (1900, p. 7) or *Callophyllis* (*Microcoelia*) *chilensis* (non J. Ag.) Okamura (Alg. Jap. Exsic., no. 12). Our Saghalien plant in consideration is more complex in the external appearance than any of these known species of *Pugetia*, so that I propose to name it *Pugetia palmatifolia* sp. nov. As already mentioned in the above description, the present new species resembles a certain form of *Erythrophyllum* Gmelini Yendo, especially in having stalks formed by eroded old blades. However, it differs from the latter in its somewhat thinner blade, differently shaped and colored. The medullary rhizoidal cells sometimes happen to contain a few yellowish crystals, but a sort of the giant cells with homogeneous yellowish content found in the medulla of an *Erythrophyllum* can not be observed in our new species. The blade is usually cleft palmately and often proliferated on the margins, but not branched more or less regularly dichotomously as in *Callophyllis*.

The definition of the genus *Pugetia* in such a broader sense as comprising all of those species mentioned above as well as the present new one will be given as follows:

**Pugetia** Kylin. Frond from a small scutate disc, forming a sessile or stalked blade; the blade membranaceous, orbicular or obovate, umbilicato-cordate or cuneate at the base, with an entire or broadly and irregularly laciniate margin; tissue composed of two layers, cortical and medullary; cortex consisting of 1-3 rows of small assimilating cells; medulla consisting of 1-2 (–3) rows of big cells and more or less abundant small isodiametric or elongated rhizoidal cells running between the big cells; cystocarps scattered over the frond, immersed in the medullary layer; tetrasporangia scattered in the cortical layer, cruciately divided.

The diagnosis of the new species is given below:

**Pugetia palmatifolia** Tokida, sp. nov, Fronda carnoso-membranacea in sicco arcte chartae adhaerente, saxicola, disco parvo adfixa, ca. 14 cm.

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3) Lindley, 1830, Genera & species of Orchidaceous plants
4) Agardh, J. G. 1876, Species genera et ordines algarum, 3 (1).
5) Okamura, J. K. 1900, Illustrations of the marine algae of Japan. 1 (1).
alta, inferiore parte caulifera et ramosa, sursum latior et ad marginem
goliis proliferis ornata; foliis obovato-cuneatis, margine ca. 190 μ inferne
usque ad 390 μ crassis, plerunque irregulariter subpalmato-lacinatis, margine
integris aut leviter crenatis aut raro dentatis, saepè segmentis conformibus
proliferis, cellulis rhizoidiformibus strati medullaris elongatis, inter strata
do cellulis rotundatis magnis constituta verticaliter percurrentis, in superiore
parte foliis paucis, sed in inferiore parte foliis et in stipite numerosis;
fructis ignotis. Japanese name. *Yatsude-Kinuhada* (n. n.).

**Habitat.** Found cast ashore, attaching to a small piece of sand

2. やつすべきすハダ（新種）はキヌハダ属（岡田金太郎博士）*Pugetia* (Kylin 1925)
の新種で，樺太東岸の東宗谷の海濱の打揲げ品中に発見された。*Pugetia* は元来北米ワシントン州の Canoe Isl. の一種を土産として設けられた属で，命名者 Kylin は，1941
年に更に一新種を加へた際，これら 2 種と *Microcoelia chilensis* J.Ag. との近縁を
認めたが，*Microcoelia* なる属名は J. Agardh (1876) に先立つて Lindley (1830) が既にラン科の属名として用いるので，該種を *Pugetia chilensis* (J.Ag.)
Kylin と改名すべきとした。キヌハダは岡村博士により *Microcoelia chilensis* に同
定され，*Callophyllis chilensis* (J.Ag.) Okamura と改定されたが，Kylin はこれ
を別種と認み *Pugetia japonica* Kylin と命名した。本新種はキヌハダと體形を異に
し，同属の既知種のどれよりも外形が複雑である。組織はキヌハダ属の特徴を示してあ
る。生殖器官は未詳。

今 堀 宏 三：東 亞 輪 藻 類 雜 記 （其の一）

Kōzo Imahori; Miscellaneous Papers on the East
Asiatic Carophyta. (I)

1. *Nitella stellaris* Allen ハナビリフラスコモ及び *Nitella subspicata*
Allen テンマキフラスコモの日本産は誤り。

本邦産輪藻科植物について研究を行った最初の人は米人 T.F. Allen 氏であると
は周知のことである。氏は田中芳男氏採集にかかる本邦産輪藻料植物を研究し，その結
果を Bulletin of the Torrey Botanical Club, 21 (1894), 22 (1895), 23 (1896),
及び 25 (1898) の各巻に相次いで発表した。

牧野富太郎博士は，Allen 氏の発表せるもの及び齋田功太郎博士が 植物學雑誌 1 巻
2 號に発表されたものを整理され，和名を附して紹介と共に 本誌 6 巻 12 報に発表