Six New Marine Algae from New Zealand.

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From Mr. V. W. Lindauer I have received specimens of several New Zealand marine algae. I thank him very much for all this valuable material. In this paper follows the description of six species, which I have found to be new. Specimen numbers quoted are those of Herbarium V. W. Lindauer.

Fig. 1—A–B: Gelidiurn ceramoides. (A) Transversal section. (B) Tetrasporiferous ramuli. (C) Callophyllis stewartensis. Transversal section with tetraspores. A × 225; B × 20; C × 120.
Gelidium ceramoides Levr. nov. sp. (Plate 41, fig. 1)

Frons ad 8–15 cm. alta, filiformis, cylindracea, 0·5–0·8 mm. crassa, modo Ceramium pseudodichotome ramosa usque ramosissima, ramulis in planta tetrasporifera densius fastigiatiss, fertilibus ultimis 1–2 mm. longis.

Thallus 8–15 cm. high, filiform, cylindrical, 0·5–0·8 mm. thick, of the same habit as a Ceramium, pseudodichotomously branched from the base with main axis distinct only below. Fructification in somewhat smaller apices, borne in tufts. Colour dark.

I have seen rich material of this species, which seems to be a rather typical one, differing from other Gelidium of the same size in habit and especially in ramification without any distinct main axis.

There is a certain variety between the different specimens I have seen. That designed as the type is rather richly branched, partly due to the dense tetrasporiferous branchlets. Others are more slender and somewhat less branched.

Loc.: South Otago, Kaka Point (30.4.45, Nos. 6045 [Type] and 6078); Dunedin, Taieri Beach (20.7.45, Nos. 6374 and 6316).

Callophyllis stewartensis Levr. nov. sp. (Plate 42, fig. 2)

Frons ad ca. 20 cm. alta, irregulariter laciniata e margine prolificans. Cystocarpia sparsa ad ca. 2 mm. diametra.

Thallus up to ca. 20 cm. high, richly divided and irregular in shape, with numerous proliferations from the margin. Cystocarps scattered over the thallus, to ca. 2 mm. in diameter. Colour when dried dark red.

Loc.: Stewart Is. (No. 7672, May, 1946); Pegasus, Whale Passage (No. 6575, 17.9.45).

Sarcodina grandifolia Levr. nov. sp. (Plate 42, fig. 3)

Frons ad 0·5 m. alta, expansa, laciniata, e margine prolificans; prollificationes ad 20 cm. longi, versus basin angustati. Cystocarpia sparsa, 1–1·5 mm. diametro.

Thallus up to 0·5 m. high, flabellately divided or with marginal proliferations. Proliferations up to 20 cm. long, often dichotomously branched, acute and gradually attenuated towards the base. Cystocarps scattered over the frond spherical, 1–1·5 mm. in diameter. Colour when dried dark red.

This species seems to be a very typical one, well separated from the others, especially because of its much larger size. I have seen rich material of it. Different specimens show a certain variation in habit. In some cases—it may be younger specimens—the frond is flabellately divided, in larger specimens the younger segments are clearly attenuated towards the bases, which may be typical for the species.

Loc.: Stewart Is. (No. 7585, type); Pegasus, Rosa Is. (No. 6563); Herekōpare (Nos. 6092, 4311); Ringa Ringa, wrack (No. 5896); Lyall Bay (in pool, No. 5275); Lonneker’s Nugget (No. 4577).
**Sarcodia flabellata** Levr. nov. sp. (Plate 42, fig. 4)

*Frons laciniata, flabellata, ad 15 cm. alta, segmentis dichotomis, rotundatis-acuminatis*. Cystocarpia hemisphaerica, 0·8–1 mm. diametro, sparsa.

Frond up to about 15 cm. high, flabellate. Segments dichotomously divided with obtuse-acute apices. Cystocarps spherical, 0·8–1 mm. in diameter, scattered over the frond.

I have only seen some few specimens of this species, which ought to be nearly related to *S. grandifolia*. As is seen from the figures the habit is somewhat different, and *S. flabellata* is above all smaller.

**Loc.**: Stewart Island (No. 4610); Pegasus, Rosa Is. (No. 4922).

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**Myriogramme parvula** Levr. nov. sp. (Plate 41, fig. 5)

*Frons rotundata-ovata, integrata, avena brevissime stipitata, 1–1·5 cm. alta, sora tetrásporiferi, rotundati, 0·2–0·5 mm. diametro, sparsi.*

Thallus roundish-oval, 1–1·5 cm. high, with a short, 1–1·5 mm. long stipe. Veins or microscopical veins absent, margin not dentated. Tetrasporangial sori roundish, small, 0·2–0·5 mm. in diameter, scattered over the thallus. Colour, when dry, dark red.

This species seems to be nearest related to that which Kylin (1929) described for New Zealand under the name *M. oviformis* and
FIG. 1—*Gelidium ceramoides.* × 0.6.
FIG. 5—*Myriogramme pareula.* × 1.
FIG. 6—*Nitophyllum lindaueri.* × 0.45.
Fig. 2 a, b—Callophyllis stewartensis. × 0.35.
Fig. 3—Sarcodia grandisfolia. × 0.27.
Fig. 4—Sarcodia flabellata. × 0.35.
which he later (1933, 1934) stated to be identical with *Abroteia suborbicularis* Harv. *M. parvula* differs by its smaller size and by the shortly stipitate thallus.

*Loc.*: Ahipara Point (No. 2390, on Landsburgia, 6.10.1941).

**Nitophyllum lindaueri** Levr. nov. sp. (Plate 41, fig. 6)

*Fronds ad 20 cm. alta, tenue membranaceae, avenia, irregulariter laciniata et e margine prolificans; sori tetrasporiferi minuti, oblongi, per totam superficiem frondis superioris sparsi.*

Thallus to 20 cm. high, membranaceous (ca. 0.07–0.1 mm. thick), richly and irregularly laciniated and with marginal proliferations in older specimens. Tetrasporangial sori scattered over the surface of the frond, oblong, ca. 0.4–1 mm. broad and 0.6–2 long. Cystocarps spherical, 0.5–0.7 mm. in diameter, scattered over the frond.

The anatomical structure of this species shows that it belongs to *Nitophyllum*. I have not been able to study any procarps, but the structure of the cystocarps is typical of this genus. It seems to be very nearly related to *N. crispum* (Kütz.) J. Ag. (cf. Kylin, 1929) found in Tasmania, but the tetrasporangial sori are here rounded. The main difference is, therefore, that *N. lindaueri* has oblong sori.

I have seen several specimens of this new species. They are all very richly laciniated, but the shape of the laciniae is irregular and variable and in older specimens they are more like proliferations.

*Loc.*: Stewart Island, Pegasus, Tin Mine Beach (8.12.1945, No. 7216, Type); New Plymouth, Ngamotu Beach, drift (24.11.1946, Nos. 7900 and 7901).

**REFERENCES.**


