

New Records of Benthic Marine Algae from the Canary Islands

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Abstract

Fourteen new records of marine algae from the Canary Islands are reported: *Apoglossum ruscifolium* (Turner) J. Agardh, *Haraldia lenormandii* (Derbès *et* Solier) J. Feldmann, *Lomentaria subdichotoma* Ercegovic, *Myriogramme minuta* Kylin, *Predaea pusilla* (Berthold) J. Feldmann, *Rhodymenia ardissoni* J. Feldmann, *Cutleria chilosa* (Falkenberg) Silva, *Carpomitra costata* (Stackhouse) Batters, *Dictyopteris delicatula* Lamouroux, *Rosenvingea intricata* (J. Agardh) Børgesen, *Saccorhiza polyschides* (Lightfoot) Batters, *Sphacelaria plumula* Zanardini, *Cladophora hutchinsiae* (Dillwyn) Kützing and *Halimeda discoidea* Decaisne. Data concerning morphology, phenology, ecological conditions and geographical distribution of the species are presented.

Introduction

Floristic data on the marine plants of the Canary Islands have been summarized by Børgesen (1925–1930), Gil-Rodríguez and Afonso-Carrillo (1980) and Afonso-Carrillo and Sansón (1989). Recently, Sansón *et al.* (1991) have reported seven new Florideophyceae, increasing the known seaweed flora of the Canary Islands to 465 species (93 Chlorophyta, 79 Phaeophyta, 271 Rhodophyta, 22 Cyanophyta and 3 Spermatophyta). We report here on several taxa new to the Canary Islands, which have been mainly identified from subtidal field collections.

Material and Methods

Specimens were collected during 1990 and 1991 at several localities in the Canary Islands, mainly by SCUBA diving, and were deposited at TFC (Departamento de Biología Vegetal, Botánica, Universidad de La Laguna, Canary Islands). Slides for anatomical studies were prepared from specimens preserved in 4% formalin in seawater and sectioned by hand with a razor blade. Camera lucida drawings were obtained with the use of a Zeiss microscope.

Results

Rhodophyta

Apoglossum ruscifolium (Turner) J. Agardh

Rosenvinge, 1924, p. 474, fig. 437; Newton, 1931, p. 319, fig. 195; Gayral, 1958, p. 452, pl. 131, fig. 68a; Gayral, 1966, p. 537, pl. 140; Coppejans, 1983, pls. 227–228.

The Canary Islands plants are up to 30 mm long, linear-oblong, with a patent midrib, repeatedly proliferous with lateral branches arising endogenously and not from any superficial cell of the midrib. Fronds are formed of small angular cells crossed by small veins arranged obliquely to the midrib. Tetrasporangial plants were found.

Localities: Roque del Oeste (Lanzarote), 23. 06. 1990 (TFC Phyc. 7223); Puerto de la Cruz (Tenerife), 21. 06. 1991 (TFC Phyc. 5870).

Ecology: The specimens collected at Roque del Oeste were growing on hydrozoans, with other small and sciaphilic species [e.g. *Heterosiphonia crispella* (C. Agardh) Wynne, *Lophocladia trichoclados* (C. Agardh) Schmitz, *Hypoglossum hypoglossoides*

(Stackhouse) Collins *et* Hervey, *Acrosorium venulosum* (Zanardini) Kylin], at 10 m depth. The plants from Puerto de la Cruz were collected growing in a littoral pool.

Distribution: Reported from the Eastern Atlantic coasts, (Norway to Senegal, Madeira) and the Western Mediterranean Sea.

Haraldia lenormandii (Derbès *et* Solier) J. Feldmann (Fig. 1)

Feldmann, 1939, p. 5, figs 1–3; Ardré, 1970, p. 312; Boudouresque *et al.*, 1977, p. 86, figs 22–23; Cormaci *et al.*, 1979, p. 33, fig. 12; Coppejans, 1983, pls 230–231.

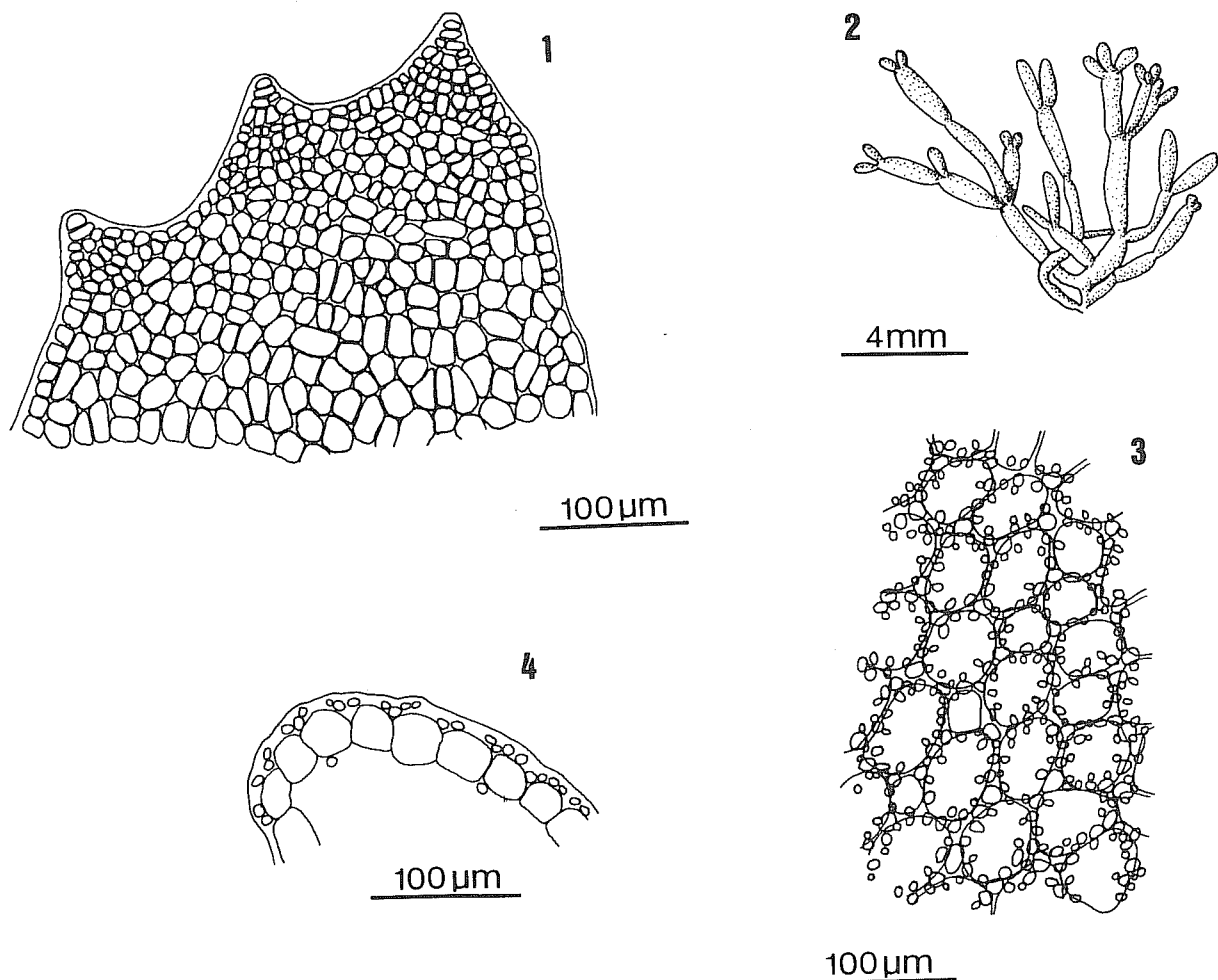
Plants examined are membranous, palmate-laciniate, to 10 mm long, monostromatic, with dentate margins and without a midrib or microscopic veins. Isodiame-

tric cells in surface view, originate from the transverse division of an initial cell (Fig. 1). Fertile specimens were not observed.

Locality: Roque del Este (Lanzarote), 23. 06. 1990 (TFC Phyc. 7234).

Ecology: *Haraldia lenormandii* was collected growing on overhangings, at 17 m depth. Dominant seaweeds reported from the same sample include *Halopteris filicina* (Grateloup) Kützing, *Plocamium cartilagineum* (Linné) Dixon, *Lophocladia trichoclados* (C. Agardh) Schmitz and *Dictyopteris polypodioides* (De Candolle) Lamouroux.

Distribution: Reported from the Eastern Atlantic coasts (France to Morocco), Azores and the Mediterranean Sea. Ardré (1970) included Bermudas in the distribution of this species. Nevertheless, Taylor (1960) and Wynne (1986) have not reported this taxon from the Western Atlantic coasts.



Figs 1–4.

Fig. 1. *Haraldia lenormandii* (Derbès *et* Solier) J. Feldmann. Detail of margin.

Figs 2–4. *Lomentaria subdichotoma* Ercegovic.

Fig. 2. Habit. Fig. 3. Surface view of segment showing large cortical cells surrounded by a discontinuous layer of small cells.

Fig. 4. Transverse section of segment showing polygonal inner cortical cells and subovoid outer cortical cells.

Lomentaria subdichotoma Ercegovic (Figs 2–4)

Ercegovic, 1956, p. 9, fig. 3; Ballesteros, 1992, fig. 4.

Plants to 20 mm long are constricted into subcylindrical hollow segments, up to 3 mm long. Branching is subdichotomous, rarely trichotomous (Fig. 2). In surface view, two different types of cortical cells are distinguished: large inner ovoid cortical cells, 40–60 μm long, surrounded by a discontinuous layer of small outer ovoid cells, 8–15 μm long (Fig. 3). In transverse section, the inner cortical cells are polygonal, 40–50 μm diameter, and outer cortical cells are subovoid, 8–10 μm long (Fig. 4). Fertile plants were not observed.

Locality: Roque del Oeste (Lanzarote), 23. 06. 1990 (TFC Phyc. 7228).

Ecology: The plants were growing on *Acrosorium venulosum* (Zanardini) Kylin, at 10 m depth, in a sciaphilic algal community. In the Mediterranean Sea it has only been collected from deep-water environments, between 50 and 110 m depth (Ercegovic 1956, Ballesteros 1983, 1992).

Distribution: Reported only from the Mediterranean basin. This species was described by Ercegovic (1956)

from the Adriatic Sea and has recently been reported from the Northwestern Mediterranean (Ballesteros 1983) and the Balearic Islands (Ballesteros 1992).

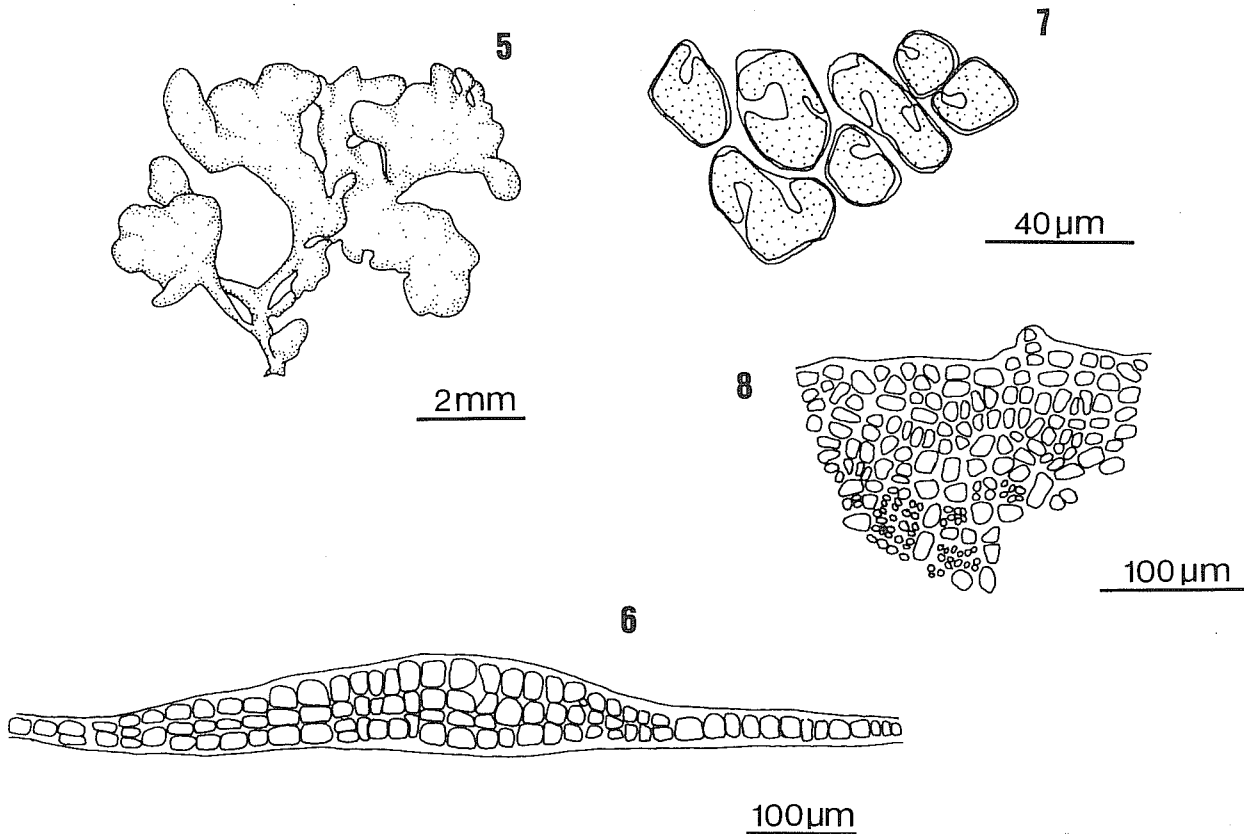
Myriogramme minuta Kylin (Figs 5–8)

Kylin, 1924, p. 57, figs 44–45; Feldmann and Feldmann, 1950, p. 1, figs 1–2; Funk, 1955, p. 105, pl. 11, fig. 2, pl. 12, figs 8–9; Magne, 1957, p. 16, figs 1–22.

Blades measure up to 8 mm long and are more or less rounded or irregularly sinuous (Fig. 5). Midribs and veins are absent, and the blades are monostromatic throughout, except in the central region (Fig. 6). There is one chloroplast per cell which is irregularly lobed (Fig. 7). Both sterile and spermatangial plants were examined (Fig. 8).

Localities: Roque del Oeste (Lanzarote), 23. 06. 1990 (TFC Phyc. 7232); Punta del Hidalgo (Tenerife), 02. 07. 1991 (TFC Phyc. 6995).

Ecology: Specimens from Roque del Oeste were collected on a vertical wall, at 10 m depth, growing on hydrozoan cauloids. Plants from Punta del Hidalgo were growing in an intertidal grove.



Figs 5–8. *Myriogramme minuta* Kylin.

Fig. 5. Habit. Fig. 6. Transverse section of blade. Fig. 7. Detail of cells in surface view showing the irregularly lobed plastids. Fig. 8. Surface view of blade showing spermatangia.

Distribution: Reported from the Eastern Atlantic coasts (from France to Morocco), Azores and the Mediterranean Sea.

Predaea pusilla (Berthold) J. Feldmann (Figs 9–10)
Verlaque, 1990, p. 494, figs 14–35.

Canarian specimens are erect, up to 40 mm tall, gelatinous, spreading from a central discoid holdfast into flattened lobes (Fig. 9). Outer cortical cells are cylindrical and there are no vesicular cells. Carpogonial branches are three celled, without lateral sterile cells; the carpogonium do not divide transversely after fertilization. Nutritive cells are gathered in small chains of 1–5 on each bearing cell and arise from cells one or two cells distant from the auxiliary cells. The gonimoblast initial is formed laterally on the auxiliary cell (Fig. 10).

Locality: Punta del Agua, Montaña Clara (Lanzarote), 24. 06. 1990 (TFC Phyc. 7235).

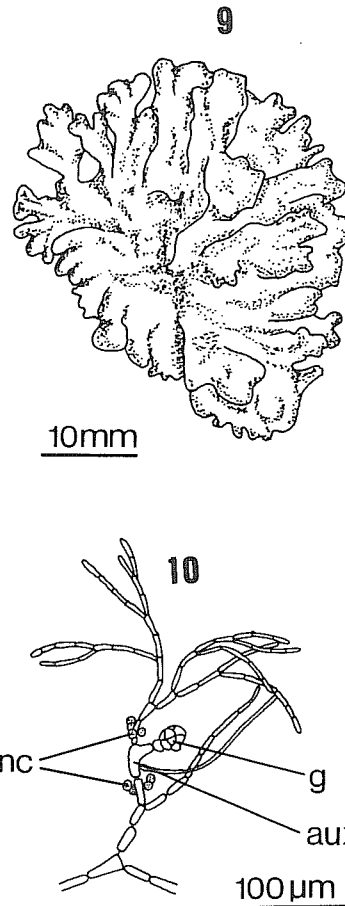
Ecology: *Predaea pusilla* was collected at 43 m depth, on a rocky bottom with a rather dense algal covering made up of *Halopteris filicina* (Grateloup) Kützing, *Cottoniella filamentosa* (Howe) Børgesen, *Asparagopsis armata* Harvey, *Hypnea spinella* (C. Agardh) Kützing and *Scinaia complanata* (Collins) Cotton. The soft coral *Lophogorgia ruberrima* Koch was, also, abundant.

Distribution: This species was described by Berthold (1884), as *Gymnophlaea pusilla*, from the coast of Naples (Italy). It was not recorded again until the work of Verlaque (1990), who rediscovered the species with specimens from Spain, France and Yugoslavia, in the Mediterranean Sea.

Rhodymenia ardissoni J. Feldmann (Figs 11–12)

Feldmann, 1942, p. 77; Codomier *et al.*, 1988, p. 189, figs 1–11.

The fronds are irregularly dichotomously divided (Fig. 11), flattened, up to 5 cm long, 7 mm broad and 180 to 250 μm thick. Stolonerous growth is present. Blades are prostrate, and attachment to the substrate occurs by marginal proliferations of the blades and the stolons, and by a small disc arising from a short stipe. The structure is multiaxial, with a pseudoparenchymatous medulla with 2–4 layers of axially elongated cells, 40–100 μm in diameter in transverse section, and a cortex of 2–3 layers of cells, the external layer measuring 7 μm diameter in transverse section, increasing in size inside (Fig. 12). The specimens collected were devoid of reproductive structures.

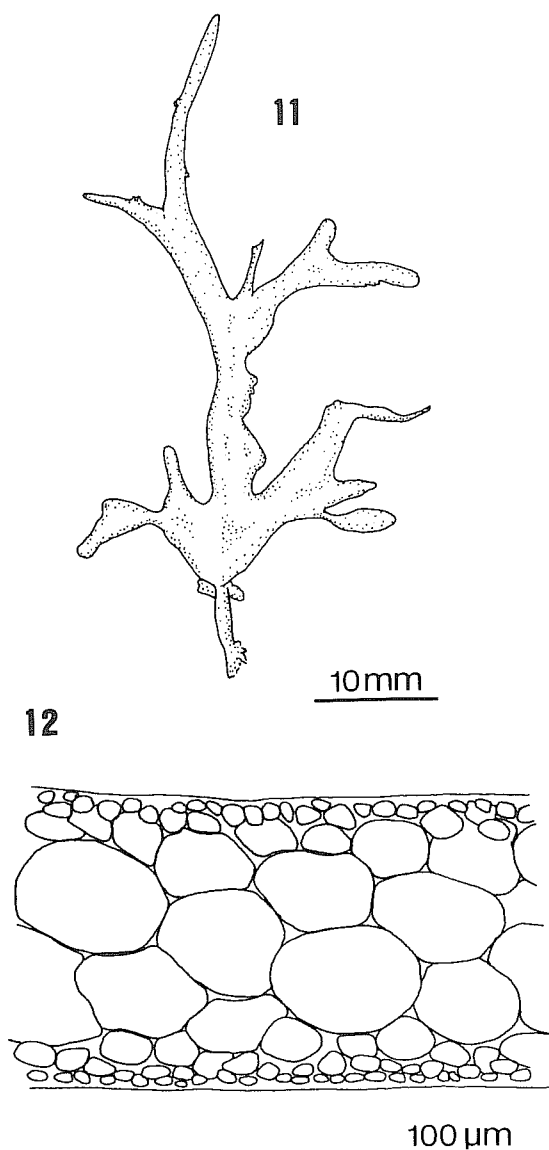


Figs 9–10. *Predaea pusilla* (Berthold) J. Feldmann.
Fig. 9. Habit. Fig. 10. Detail of the initial gonimoblast. Note the lateral origin of gonimoblast (g) from the auxiliary cell (aux) and the small chains of nutritive cells (nc).

These Canarian plants of the genus *Rhodymenia* differ from other species reported from Northeastern Atlantic and the Mediterranean Sea [*Rhodymenia delicatula* Dangeard, *R. holmesii* Ardissoni, *R. pseudopalmeta* (Lamouroux) Silva, *R. coespitosella* Hardy-Halos and *R. phylloides* Hardy-Halos] (see Dangeard 1949, Hardy-Halos 1970, 1976, Guiry 1977, Maggs and Guiry 1982, Irvine and Guiry 1983) in their prostrate habit and the large size of the medullar cells.

Localities: Arrecife (Lanzarote), 22. 06. 1990 (TFC Phyc. 7224); Roque del Este (Lanzarote), 23. 06. 1990; Punta del Hidalgo (Tenerife), fecha 02. 07. 1991 (TFC Phyc. 6855).

Ecology: *Rhodymenia ardissoni* has been collected both in the intertidal (Punta del Hidalgo) and the subtidal (Lanzarote). In Arrecife it was common at 3 m depth, in the lower strata of a photophilic algal community dominated by *Halopteris scoparia* (Linné) Sauvageau, *Corallina elongata* Ellis *et* Solander, *Claustrophus spongiosus* (Hudson) C. Agardh, *Caulerpa*



Figs 11–12. *Rhodymenia ardissonae* J. Feldmann.
Fig. 11. Habit. Fig. 12. Transverse section of frond.

webbiana Montagne and *Caulerpa racemosa* (Forskål) J. Agardh. In Roque del Este it grew in a vertical wall at 10 m depth, together with *Plocamium cartilagineum* (Linné) Dixon, *Lophocladia trichoclados* (C. Agardh) Schmitz, *Heterosiphonia crispella* (C. Agardh) Wynne, and other sciaphilic red algae.

Distribution: Reported from the Western Mediterranean and the Eastern Atlantic coasts south to Mauritania.

Phaeophyta

Carpomitra costata (Stackhouse) Batters (Fig. 13)

Newton, 1931, p. 127, fig. 94; Hamel, 1939, p. 274, fig. 49d–i; Fletcher, 1987, p. 289, fig. 88.

This species is characterized by erect, compressed, pseudodichotomously divided branches with a conspicuous midrib, emerging from a fibrous holdfast. The truncate apices of the branches support a terminal tuft of pigmented filaments (Fig. 13). The pseudoparenchymatous structure of the medulla consists of densely arranged polygonal cells, which gradually decrease in size towards the cortex. The cortex is formed by 1–2 layers of small pigmented cells.

Locality: Punta Tiñosa (Lanzarote), 22. 06. 1990 (TFC Phyc. 7226).

Ecology: *Carpomitra costata* was very common growing on rocks, between 50 and 60 m depth, in a deep water community dominated by the anthozoa *Antipathes wollastoni* (Gray), *Gerardia savaglia* (Bertolini) and *Leptopsammia pruvoti* Lacaze-Duthiers, and the sponges *Axinella damicornis* (Esper), *Crambe crambe* (Schmidt), *Clathrina clathrus* (Schmidt) and *Hexadella racovitzai* Topsent. Other common algae included *Microdictyon tenuius* (C. Agardh) Decaisne and *Halopteris filicina* (Grateloup) Kützinger.

Distribution: Reported from the North Eastern Atlantic coasts (from the British Isles to Portugal, Azores) and the Mediterranean Sea.

Cutleria chilosa (Falkenberg) Silva (sporophyte) Figs 14–15)

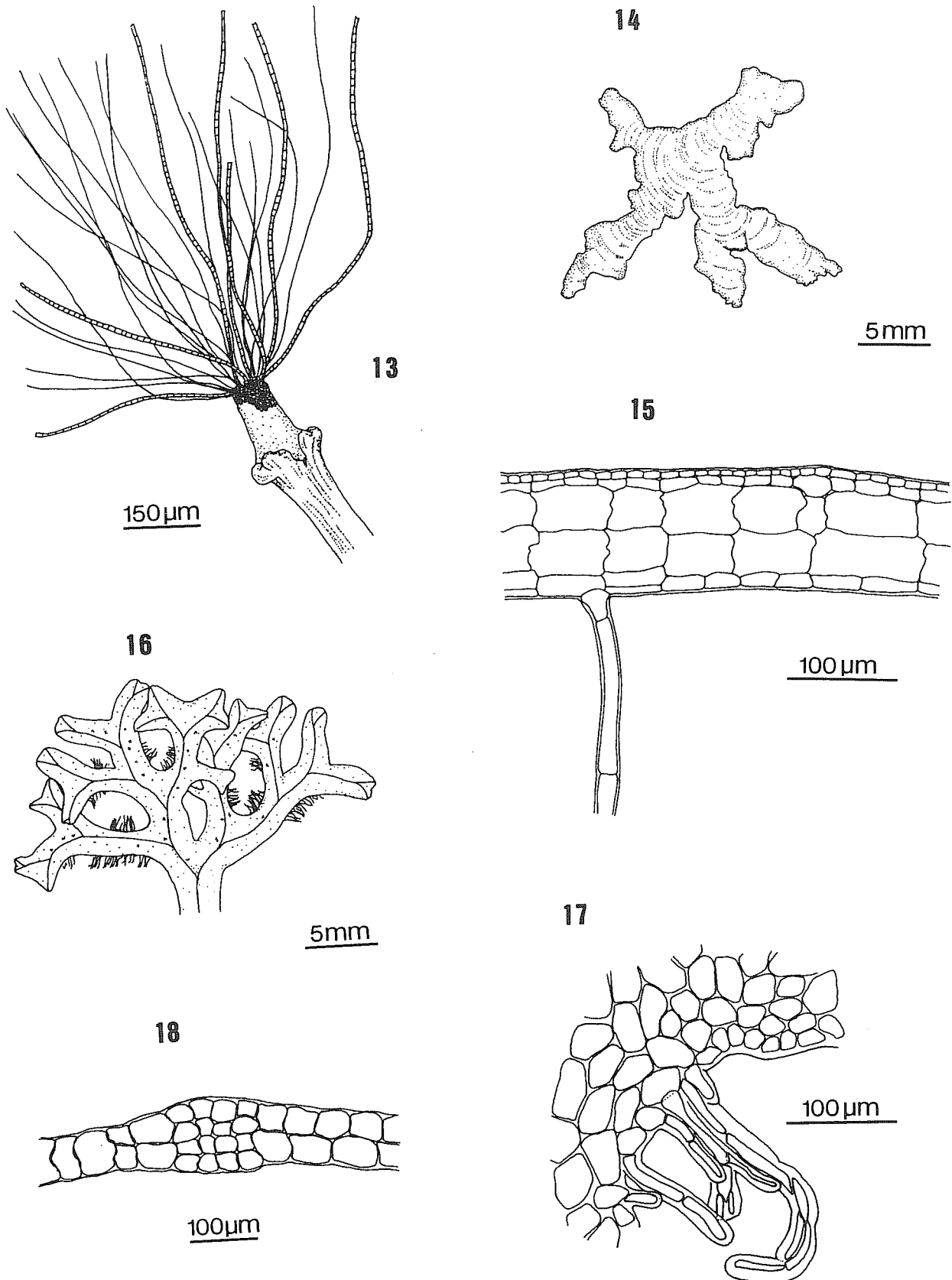
Falkenberg, 1878, p. 244; Sauvageau, 1899, p. 309; Hamel, 1939, p. 328, fig. 55c, g; Seoane-Camba, 1965, p. 81, fig. 22(3); Coppejans, 1983, pls 43, 44, fig. 1.

Thalli are flattened, fleshy, with irregularly lobed margins (Fig. 14), attached by a few ventral pluricellular rhizoids (Fig. 15). In transverse section, plants are formed by a medulla of oblong cells, a ventral commonly unistratose cortex and a dorsal bistratose cortex.

Locality: Morro Jable (Fuerteventura), 19. 06. 1990 (TFC Phyc. 7221).

Ecology: The specimens were collected at 53 m depth, in a maërl bed of *Lithothamnion corallioides* P. et H. Crouan. *Gracilaria verrucosa* (Hudson) Papenfuss, *Rytiphloea tinctoria* (Clemente) C. Agardh, *Halopitys incurvus* (Hudson) Batters, *Hypnea cervicornis* J. Agardh, *Hincksia mitchelliae* (Harvey) Silva, *Alsidium corallinum* C. Agardh and *Dictyota dichotoma* (Hudson) Lamouroux were among the most abundant erect algae.

Distribution: Reported from the North Eastern Atlantic coasts (France and Portugal) and the Western Mediterranean Sea.



Figs 13–18.

Fig. 13. *Carpomitra costata* (Stackhouse) Batters. Apex of the plant showing terminal tuft of pigmented filaments.

Figs 14–15. *Cutleria chilosa* (Falkenberg) Silva.

Fig. 14. Habit. Fig. 15. Transverse section showing one ventral pluricellular rhizoid.

Figs 16–18. *Dictyopteris delicatula* Lamouroux.

Fig. 16. Detail of the habit. Fig. 17. Details of margin showing pluricellular rhizoids. Fig. 18. Transverse section showing the central midrib.

Dictyopteris delicatula Lamouroux (Figs 16–18)

Børgesen, 1914, p. 216, figs 166–167; Chapman, 1963, p. 18, fig. 11a–b; Taylor, 1960, p. 227, pl. 33, fig. 3; Earle, 1969, p. 149, fig. 43; Kusel, 1972, p. 192, pl. 5, fig. 9; Egerod, 1974, p. 150, figs 81–83; Schnetter, 1976, p. 67, pl. 9, fig. a; Lawson and John, 1982, p. 136, pl. 15, fig. 3.

This species is characterized by its delicat strap-like blades, dichotomously branched, with a prominent midrib (Fig. 16). Plants are attached by pluricellular rhizoids distributed along the blades margins (Fig. 17). In transverse section, the thallus consists of uni or bistratose blades of large cells with a central midrib made up of some layers of small polyhedral cells (Fig. 18).

Localities: Roque del Este (Lanzarote), 23. 06. 1990 (TFC Phyc. 7220); El Médano (Tenerife), 28. 11. 1991 (TFC Phyc. 7231).

Ecology: Plants collected in Roque del Este were found on overhangings, at 17 m depth, in a community dominated by hydrozoans and sciaphilic algae such as *Halopteris filicina* (Grateloup) Kützinger, *Plocamium cartilagineum* (Linné) Dixon, *Lophocladia trichoclados* (C. Agardh) Schmitz and *Dictyopteris polypodioides* (De Candolle) Lamouroux. Plants collected in El Médano were growing on a rope, at 30 m depth.

Distribution: Widespread in tropical and warm temperate seas. On the Eastern Atlantic coasts this species has been reported from Mauritania to the Gulf of Guinea and the Cape Verde Islands.

Rosenvingea intricata (J. Agardh) Børgesen

Taylor, 1928, p. 111, pl. 15, figs 15–17; Seoane-Camba, 1965, p. 74; Earle, 1969, p. 207, figs 108–112; Chapman, 1963, p. 14, fig. 8; Lawson and John, 1982, p. 129, pl. 13, fig. 7.

The specimens consist of densely tangled mats, up to 70 mm in diameter and 40 mm high. Branches are tubular, cylindrical or somewhat flattened, 1–10 mm in diameter, abundantly branched, often fused to one another (Fig. 29). In section, the central cavity is occasionally occupied by some branched filaments. The inner cortical layer consists of colourless cells and the outer layer of small pigmented assimilatory cells (Fig. 30). Fertile plants have not been observed.

Localities: Punta Tiñosa (Lanzarote), 22. 06. 1990 (TFC Phyc. 7223); Tazacorte (La Palma), 29. 11. 1990 (TFC Phyc. 7230).

Ecology: *Rosenvingea intricata* was rather common in Punta Tiñosa, between 25 and 30 m depth, in a deep water algal community dominated by *Hypnea cervicornis* J. Agardh, *Microdictyon tenuius* (C. Agardh) Decaisne, *Caulerpa webbiana* Montagne f. *disticha* Weber van Bosse, *Halopteris filicina* (Grateloup) Kützinger, *Lophocladia trichoclados* (C. Agardh) Schmitz and *Lobophora variegata* (Lamouroux) Womersley. In Tazacorte, *Rosenvingea intricata* was growing epilithically, at 25 m depth.

Distribution: According to Lawson and John (1982), this species is widespread in warm temperate and tropical seas. On the Eastern Atlantic coasts it has been reported from Southern Spain, Cameroun and Ghana.

Saccorhiza polyschides (Lightfoot) Batters

Hamel, 1939, p. 304, fig. 52; Gayral, 1966, p. 300, fig. 58; Ardré, 1970, p. 414.

Although no entire plants were found, and only pieces of some fronds were available, they unequivocally correspond to *Saccorhiza polyschides*, after comparing the Canarian material with plants collected in the Mediterranean (Alboran Sea) and the ría de Vigo (CEAB herbarium) or in the British Isles (British Museum Herbarium).

Locality: Roque del Oeste (Lanzarote), 23. 06. 1990 (TFC Phyc. 7236).

Ecology: Only unattached parts of some plants were found at 10 m depth, in the channel between Roque del Oeste and Montaña Clara Islands. The strong currents usually lashing the channel prevented us from diving in deeper waters, where the plants might grow.

Distribution: Reported from the Eastern Atlantic coasts (from Norway to Mauritania) and the Mediterranean Sea. Different authors have discussed the southernmost limit of this species (see Price *et al.* 1978). Beauvois (1805) reported this taxon (as *Ulva bulbosa* Beauvois) growing on rocks in the Gulf of Guinea. According to Price *et al.* (1978), despite the presence of this authenticated plant, the occurrence of the species in the Gulf of Guinea must be considered doubtful.

Sphacelaria plumula Zanardini

Hamel, 1939, p. 251, fig. 47(6–8); Ardré, 1970, p. 389, pl. 37, fig. 4, pl. 38, fig. 5; Prud'homme van Reine, 1982, p. 192, figs 473–507, pl. 5; Coppejans, 1983, pl. 84.

Plants form small tufts of erect branches characterized by their opposite distichous branching as well as by the tribuliform propagula, formed at the second or the third segment of the ultimate branchlets.

Locality: Punta Tiñosa (Lanzarote), 22. 06. 1990 (TFC Phyc. 7225).

Ecology: *Sphacelaria plumula* was found among the small turf-algae growing among *Microdictyon tenuius* (C. Agardh) Decaisne, *Halopteris filicina* (Grateloup) Kützing and *Carpomitra costata* (Stackhouse) Batters, in a deep water community dominated by the anthozoan *Antipathes wollastoni* (Gray), at 55 m depth. Other species in the turf included the blue green alga *Lyngbya sordida* (Zanardini) Gomont, the brown alga *Dictyota linearis* (C. Agardh) Greville, and the red algae *Asparagopsis taxiformis* (Delile) Trevisan (tetrasporophyte), *Centroceras clavulatum* (C. Agardh) Montagne, *Lophocladia trichocladus* (C. Agardh) Schmitz, *Jania adhaerens* Lamouroux and *Polysiphonia scopulorum* Harvey.

Distribution: Reported from the North Atlantic coasts (from Norway to Portugal, Canada) and the Mediterranean Sea.

Chlorophyta

Cladophora hutchinsiae (Dillwyn) Kützing

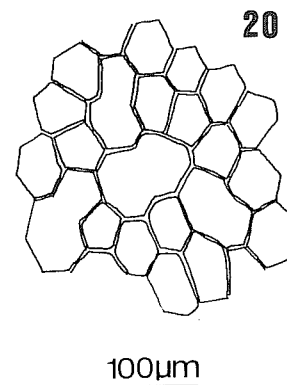
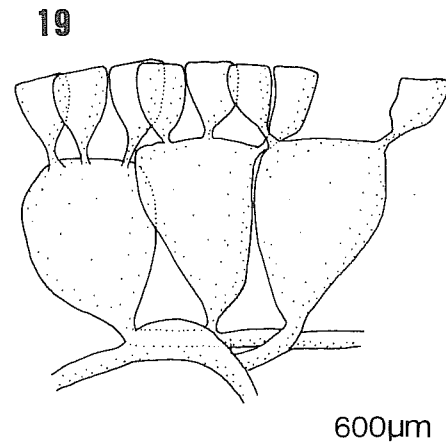
Hamel, 1931, p. 11, figs 1–2; Chapman, 1961, p. 82, fig. 91a–b; Söderström, 1963, p. 126, figs 118–123; van den Hoek, 1963, p. 60, figs 131–145.

Plants consisting of flexuous filaments with pseudo-dichotomous or unilateral branches, non acropetally organized. Lateral branches are obliquely inserted at the distal end of the cells (Fig. 37). Apical cells are rounded and blunt, (90–) 140–160 (–195) μm diameter, 1–4 times as long as broad. Ultimate branches are (100–) 150–170 (–325) μm diameter, 1–4 times as long as broad.

Locality: Punta Agua, Montaña Clara (Lanzarote), 24. 06. 1990 (TFC Phyc. 7229).

Ecology: *Cladophora hutchinsiae* was collected at 43 m depth, on rocks densely covered by *Halopteris filicina* (Grateloup) Kützing, *Cottoniella filamentosa* (Howe) Børgesen, *Asparagopsis armata* Harvey, *Hypnea cervicornis* J. Agardh and *Scinaia complanata* (Collins) Cotton.

Distribution: Reported from the North Atlantic coasts (from the British Isles to Southern Spain, Madeira, Selvagens) and the Mediterranean Sea.



Figs 19–20. *Halimeda discoidea* Decaisne.

Fig. 19. Detail of the utricles in transverse section. Fig. 20. Surface view of utricles showing lateral fusion.

Halimeda discoidea Decaisne (Figs 19–20)

Børgesen, 1913, p. 106, fig. 86; Taylor, 1928, p. 82, pl. 10, fig. 17, pl. 11, fig. 23; Taylor, 1960, p. 179, pl. 24, fig. 2; Egerod, 1952, p. 398, pl. 38, fig. 19b–d; Hillis, 1959, pl. 352, pl. 2, fig. 5, pl. 5, fig. 11, pl. 6, fig. 11, pl. 7, figs 9–10, pl. 8, figs 5–8, pl. 11; Schnetter, 1978, p. 123, pl. 14, fig. n, pl. 22, fig. a; Hillis-Colinvaux, 1980, p. 136, fig. 20–11, 41.

Plants are formed of erect branches with articulate segments, little calcified, discoid to reniform, entire and slightly wavy. Medullary filaments are entangled and give rise to an inner cortex formed by inflated and very large utricles (Fig. 19), while the outer cortex is formed by small utricles, truncate at the ends, occasionally with lateral fusions (Fig. 20).

At the moment, only *Halimeda tuna* (Ellis et Solander) Lamouroux had been reported from the Canary Islands. According to Hillis (1959), *Halimeda discoidea* has frequently been mistaken with *Halimeda tuna*, but there are obvious microscopic differences. All plants

previously collected in Gran Canaria, Lanzarote and Fuerteventura as *Halimeda tuna* and deposited at TFC are misidentifications of *Halimeda discoidea*.

Locality: Corralejo (Fuerteventura), 20. 06. 1990 (TFC Phyc. 7222).

Ecology: *Halimeda discoidea* was rather common at between 3 and 5 m depth, on a rocky bottom densely covered with *Padina pavonica* (Linné) Lamouroux, *Lobophora variegata* (Lamouroux) Womersley, *Sargassum vulgare* C. Agardh, *Dictyota dichotoma* (Hudson) Lamouroux, *Dictyota ciliolata* Kützing, *Cystoseira compressa* (Esper) Gerloff *et* Nizamuddin, *Caulerpa racemosa* (Forsskål) J. Agardh, *Polysiphonia fruticulosa* (Wulfen) Sprengel, *Polysiphonia flexella* J. Agardh and *Liagora distenta* (Mertens) C. Agardh.

Distribution: Pantropical. On the Eastern Atlantic coasts this species has been reported from the Cape Verde Islands.

Conclusions

With these newly reported species for the Canary Islands, the diverse biogeographical affinities of the seaweeds growing in the Canary Islands (Sansón *et al.* 1991) are reemphasized. Two of the species (*Lomentaria subdichotoma* and *Predaea pusilla*) were only previously known from the Mediterranean Sea. Seven

species (*Carpomitra costata*, *Cladophora hutchinsiae*, *Haraldia lenormandii*, *Myriogramme minuta*, *Rhodymenia ardissoni*, *Sphacelaria plumula* and *Cutleria chilosa*) have been previously recorded from the Northeastern Atlantic and the Mediterranean Sea, and the Canary Islands now constitute the known southernmost limit of their distribution. *Apoglossum ruscifolium*, *Rosenvingea intricata* and *Saccorhiza polyschides* have been previously recorded from Subtropical Africa and the Mediterranean. Finally, the tropical to subtropical species *Dictyopteris delicatula* and *Halimeda discoidea*, reported from the Eastern Atlantic, now have their known northernmost limit of distribution in the Canary Islands.

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