

CYSTOSEIRA WILDPRETHII NIZAMUDDIN SP. NOV., FROM CANARY ISLANDS

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Abstract

Cystoseira wildpretii Nizam., sp. nov. is described from the coast of Canary Islands. It is characterized by procumbent, caespitose thallus bearing compressed axes and receptacles.

Introduction

During the study of the collections of *Cystoseira* C. Ag. from the coast of Libya, the author came across another collection of this genus from the Canary Islands present in the Herbarium, Botaniacher Garten und Botanisches Museum, Berlin-Dahlem, Germany. In the latter collection a new species of *Cystoseira* was recognized and is designated as *C. wildpretii* Nizam., after Professor Dr. W. Wildpret de la Tore, Universidad de la Laguna (Tenerife), Catedra Botanica for his devotion and contributions in the field of Phycology.

Materials and Methods

A large number of herbarium sheets of *Cystoseira* was obtained for the study from Universidad de la laguna through the courtesy of Dr. M.C. Gil-Rodrigues. Specimens from TFC PHYC and B were soaked in hot sea-water for anatomical examinations. Free-hand sections were stained either in I_2 -solution or in 1% Anilin blue.

Description

Figs 1-3

Plant procumbent, caespitose, tophuloid, non-vesicular, appendageous, up to 19 cm long, congested. *Holdfast* conico-discoid up to 2.5 cm diam., giving rise to 4-6 or more main axes. *Main axis* short up to 1 cm in length, cylindrical up to 2 mm diam., smooth, radially branched, furcate near the base, basally 3-4 mm thick; apex smooth, prominent but not projecting. *Primary axis* congested, sub-flexuous, tereto-compressed 8-15 cm long, 1 mm across and up to 600 μ m thick, attenuated above, basally thickened and swollen (tophuloid), non-cryptose, basally appendageous. *Secondary axis* compressed, 2-7 cm in length, 650 μ m broad and 200-590 μ m thick, alternate, non-cryptose, bearing alternate, cylindrical appendages with blunt apices up to 4 cm in length and 0.5 mm across. *Tertiary axis* compressed up to 5 cm in length, 635 μ m broad and 430 μ m thick, alternately branched bearing distantly alternate cryptic appendages. *Quaternary axis* small up to 2.5 cm in length, compressed up to 560 μ m broad and 300 μ m thick, alternate, bearing elongate, compressed, cryptic appendages. *Ramuli* compressed up to 1 cm in length, 0.5 mm broad and 350 μ m thick bearing

appendages. Tertiary or quaternary axes or ramuli transformed into fertile part (receptacles). *Receptacles* terminal compressed-flat up to 1 cm in length, 850 μm broad and 500 μm thick, sub-tuberculate, spinose. *Conceptacles* at or near the base of the appendages, compact and bisexual and ostiole circular up to 1 mm diam. *Oogonia* ovoid up to 250 μm long and 125 μm broad. *Antheridia* on branched filaments up to 875 μm long and 12.5 μm broad. *Paraphyses* simple *Tophuloid organs* subglobose, smooth, tuberculate or verrucose, alternately arranged, up to 4 mm long and 3 mm across, tip uni- or bifid. *Appendages* occur throughout the plant, simple, non-cryptose, uni- or bifid, spiniform or feuilles, basally compressed, terminally pointed, up to 2.5 mm long 0.5 mm broad and 200 μm thick; each appendage bears a single crypt at or near its base. One of the appendages become secondary axis. Near the base of the plant one of the primary axes or branches become strongly flattened (leaf-like), which is linear, elongate up to 3 cm long, 1 mm broad and 400 μm thick, simple or branched (may be dichotomous) bearing secondary appendages up to 1.5 cm long and 1 mm broad.

Holotype: berol. no. 36407. Las Palmas, Tenerife (Leg. W. Wildpret and M.C. Gil-, 28-12-1976 labelled as *Cystoseira ericoides* C.A. Agardh ex herb. Fac. Ciencias, Univ. de la Laguna, Tenerife).

Specimens Examined: Montana Clara, Tenerife (Leg-Gramonal, 31-3-1983 TFC PHYC nos. 5610 & 5676) labelled as *Cystoseira tamariscifolia* (Huds.) Papenfuss. Piedra de les Sargos, La-Graciosa (Leg. A. Viera and R. Haroun, 18-4-1984, TFC PHYC no. 4581).

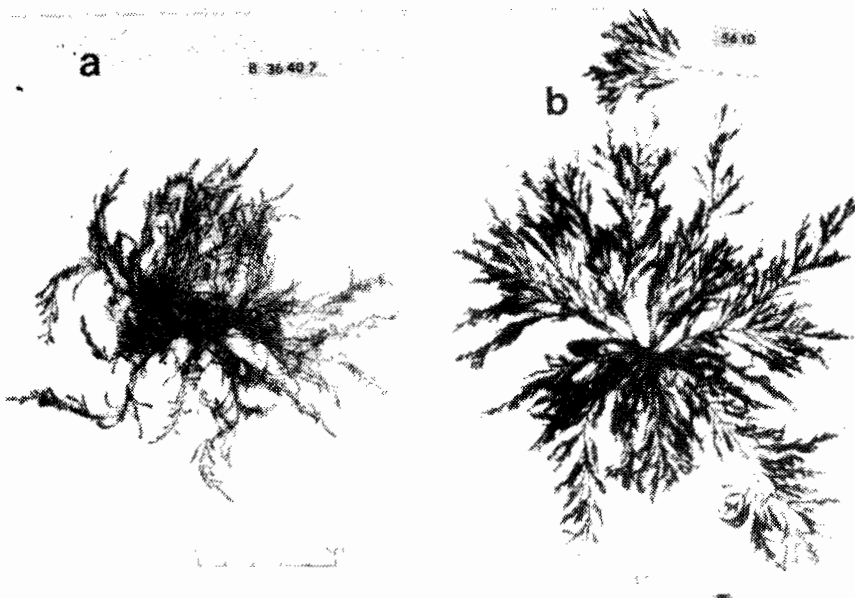


Fig.1. *Cystoseira wildpretii* Nizam., sp. nov.

a) Habit of Holotype no. B36407.

b) Habit of Lectotype no. TFC PHYC 5610

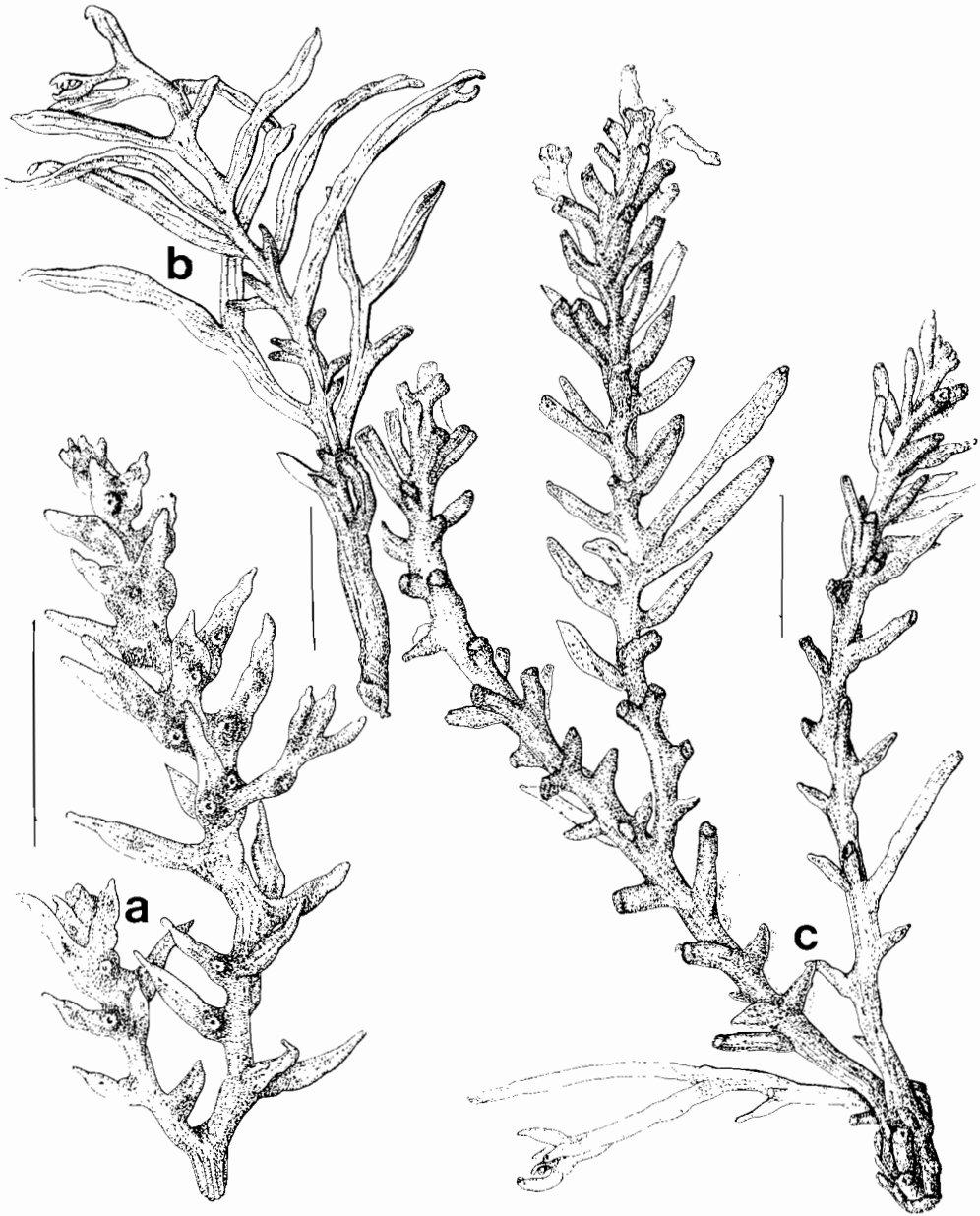


Fig. 2. *Cystoseira wildpretii* Nizam. sp. nov.

A) Axis bearing receptacles and appendages.

b) Basal part of the thallus showing compresso-flat axis.

c) Thallus showing pattern of branching, variable appendages, tophuloid organ.

Scale bar 4 mm.

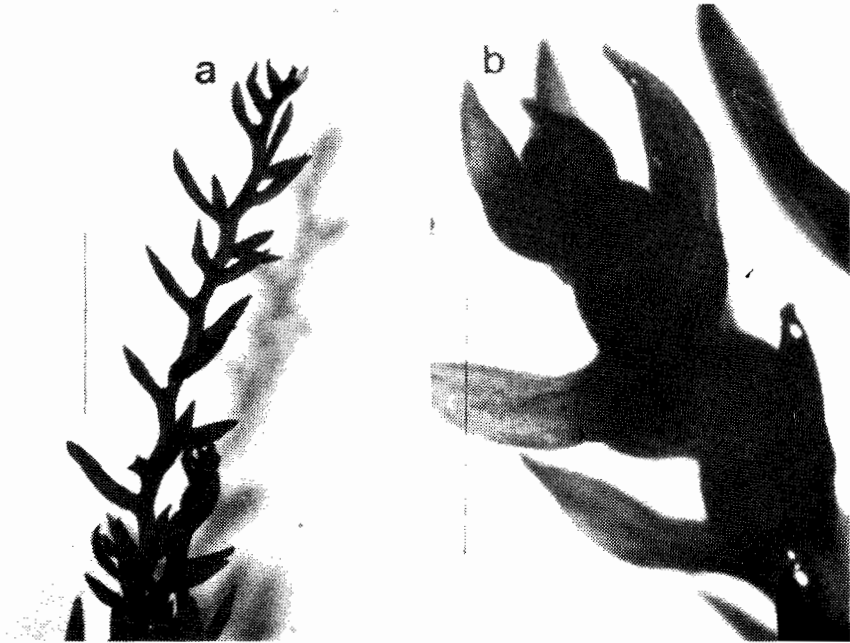


Fig.3. *Cystoseira wildpretii* Nizam. *sp. nov.*,

- a) Primary axis bearing alternate appendages. Scale bar 5 mm.
 b) A receptacle. Scale bar 2.5 mm.

Diagnosis: *Cystoseira wildpretii* Nizam. *sp. nov.* resembles *C. squarrosa* De Not., in general habit and texture but differs in procumbent compressed axes and receptacles rather large receptacles and cylindrical axes in *C. squarrosa* De Not.

Diagnose: *Cystoseira wildpretii* Nizam., *sp. nov.*, in habitu et textura *Cystoseira squarrosa* De Not. affinis similis, sed praecipue differt in magnitudine procumbente compressus axes et receptaculum, potius receptaculum longitudina, cylindraceus in *C. squarrosa* De Not.

Acknowledgements

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