

A NEW SPECIES OF *CEPHALOZIELLA* SPRUCE, *C. MAGNA* UDAR ET NATH
SP. NOV., FROM SHEETLAKHET, ALMORA (WESTERN HIMALAYAS), INDIA*

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ABSTRACT

A new species of *Cephaloziella*, *C. magna*, is described from Sheetlakheth, Almora (Western Himalayas), India. The species is characterized by prostrate, filiform shoots; ovoid to ellipsoid, 2-5 celled, thin-walled gemmae; distinct bifid underleaves; widely spreading, obliquely inserted, 1/3-1/2 bilobed leaves and usually 4-6 spherical or elliptical granuloid oil-bodies.

INTRODUCTION

Cephaloziella Spruce is a member of the family Cephaloziellaceae. The genus is represented in Indian flora by four species and one variety: *C. willisana* (St.) Kitagawa, from Madura, South India, *C. microphylla* (St.) Douin from Sikkim Himalaya (KITAGAWA, 1969), *C. subdentata* Warnst., *C. rubella* var. *latiloba* Kitagawa reported by HATTORI (1966) from east Himalayan territory and *C. herzogiana* (Pande et Srivastava) Udar et Kumar from Pachmarhi, Madhya Pradesh (UDAR & KUMAR, 1976).

A survey of liverworts from different localities of Western Himalayas has shown the presence of an interesting plant from Sheetlakheth (ca. 6000 ft), Almora, Western Himalayas not only different from the above species but also distinct from the other known species of *Cephaloziella* and is described here as a new species, *C. magna* sp. nov.

TAXONOMIC DESCRIPTION

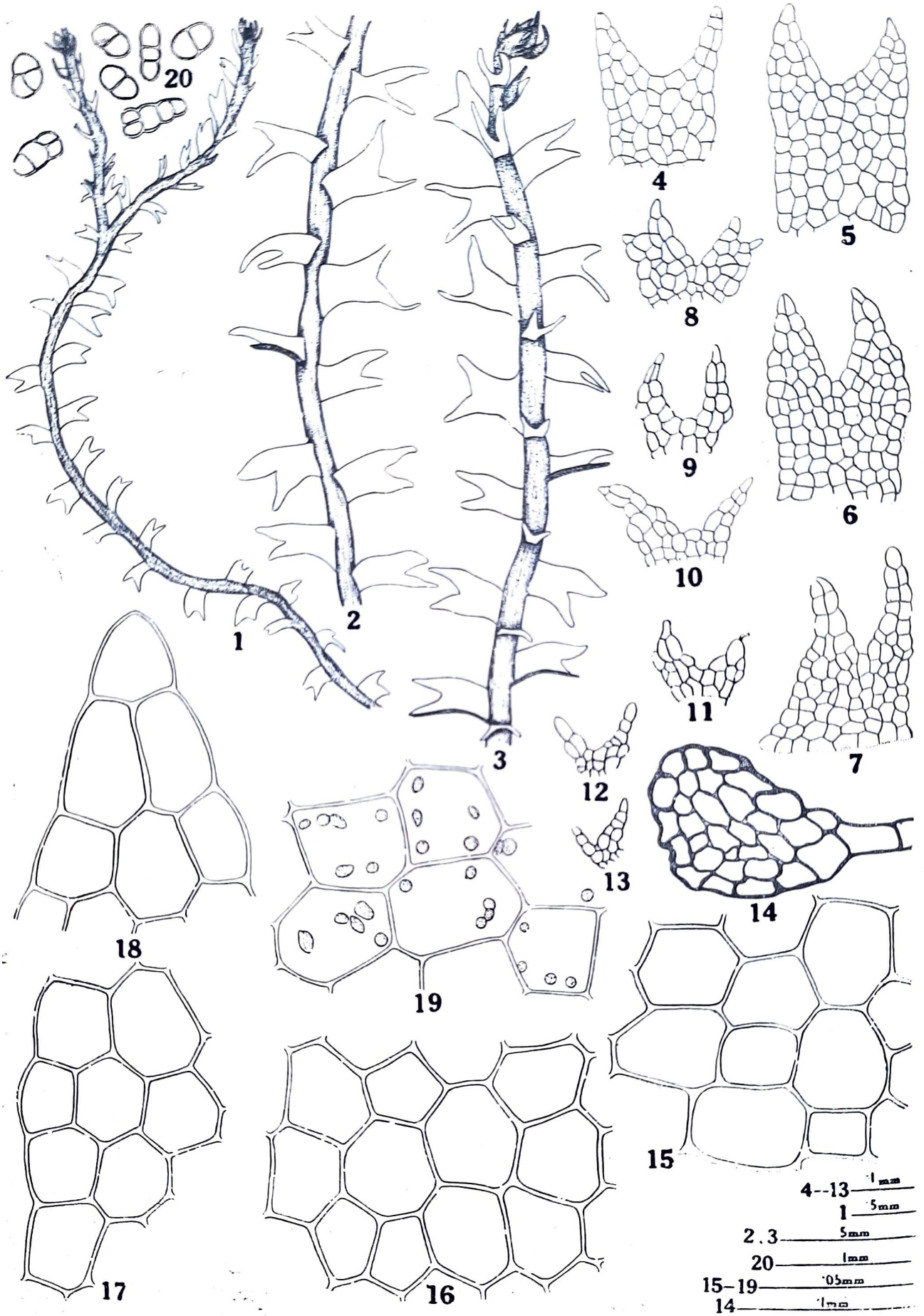
***Cephaloziella magna* sp. nov.**

Diagnosis—Plantae e viridi brunneae, in areis tenuibus laxis dispositae vel dispersae; surculi filiformes procumbentes sparsim ramosi, ramis saepe demum flagelliformibus; folia distantia, oblique inseeta, late ovata, margine integro; sinus per tertium usque ad dimidium longitudinis folii descendens, lobis aequalibus subaequalibusve, subacutis; folia inferioria distincta; cellulae folii tenuitunicatae; guttulae olei in cellula quaque 4-6, sphaericae 2.0-4.07 μm diam. vel ellipticae 2.03-6.1 μm longae 2.03-3.0 μm latae, leviter granuloidae; gemmae 2-5 cellulares, ex ovoideo ellipsoideae, tenuitunicatae.

Typus positus in herbario hepatico, sectionis botanices, Universitatis Lucknow, Lucknow (India), No. 11N, *Cephaloziella magna* sp. nov. in humis super petras crescens. Leg. Ram Udar. Loc. Sheetlakheth, Almora mense May 2, 1971. Det. R. Udar et V. Nath, mense December, anni 1974.

Description—Plants green to brown, in thin loose patches or scattered; shoots filiform, prostrate, up to 10-20 mm long, sparsely branched, branches often becoming flagelliform. Stem subterete, 106-116.4 μm long and 77.6-87.3 μm broad; cortical cells in about 12-14

*Contribution from the Department of Botany, University of Lucknow, India, New Series (Bryophyta) No. 85.



Text figs. 1-20 *Cephaloziella magna* sp. nov. 1. A vegetative plant; 2. A part of a plant in dorsal view; 3. A part of a plant in ventral view; 4-7. Leaf lobes; 8-13. Underleaves; 14. T. S. of stem; 15. Basal leaf cells; 16. Median leaf cells; 17. Marginal leaf cells; 18. Apical leaf cells; 19. Median leaf cells showing oil bodies; 20. Gemmae.

longitudinal rows, large, mostly 12.12-21.82 μm long and 9.7-19.4 μm broad (in cross-section), rather thick-walled; medullary ones small, 9.7-19.4 μm long and 9.7-12.12 μm broad, thin-walled; rhizoids few, colourless. Leaves distant, widely spreading, obliquely inserted, scarcely conduplicate and some times lying nearly in a singly plane, not decurrent, broadly ovate, 322-368 μm long and 207-230 μm wide; margin entire; sinus descending 1/3-1/2 the leaf length; lobes distinctly equal to sub-equal, subacute. Underleaves distinct, ovate to oblong, 155.2-213.4 μm long and 126.1-164.9 μm broad; margin entire; sinus descending more than 1/2 of its length; lobes subacute. Cells of the leaf apex 24.5-34.3 \times 14.7-19.6 μm , in the middle 19.6-29.4 \times 19.6-24.5 μm , at the margin 19.6-29.4 \times 14.7-24.5 μm and at the base 14.7-29.4 \times 14.7-34.3 μm , wall thin, hyaline; trigones indistinct; cuticle smooth. Oil-bodies 4-6 per leaf cell, spherical, 2.0-4.07 μm in diameter or elliptical, 2.03-6.1 μm long and 2.03-3.0 μm broad, granuloid. Gemmae in masses at the apex of the sterile shoots, pale green, 2-5 celled, ovoid to ellipsoid, 24.5-53.9 μm long and 14.7-19.6 μm broad, thin-walled. Fertile plants not represented. (Text-figs. 1-20).

Type specimen deposited in the Hepatic Herbarium, Department of Botany, University of Lucknow, India. No. 11N, *Cephaloziella magna* sp. nov. growing on moist soil over rock. Coll. R. Udar.

Locality—Sheetlakheth, Almora, May 2, 1971. Det. R. Udar and V. Nath, December 1974.

The characters of the Indian species, approaching the one described in this paper, are given below:

Name of Species	Plants	Underleaf	Insertion of leaf	Sinus of leaf	Leaf cells	Oil-bodies	Sexuality
<i>C. willisana</i>	Prostrate, filiform	Absent	Transverse	Descending more than 1/2 the leaf length	Thick-walled	Not known	Monocious
<i>C. subdentata</i>	Ascending to erect, not filiform	Present	Oblique	Descending more than 2/3 the leaf length	Thin-walled	Not known	Dioecious
<i>C. magna</i>	Prostrate, filiform	Present	Oblique	Descending 1/3-1/2 the leaf length	Thin-walled	4-6 per leaf cell, spherical to elliptical granuloid	Not known

ACKNOWLEDGEMENTS

The authors are grateful to Dr. N. Kitagawa, Biological Laboratory, Nara University of Education, Takabatake-cho, Nara, Japan for the loan of specimens and to Edith. K. Cash for Latin rendering of the diagnosis. The junior author is thankful to the State Council of Scientific and Industrial Research, Uttar Pradesh for a Junior Research Fellowship during the tenure of which the present work was completed

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