

branches terminate in a segmented, deciduous hair only at the apex, measuring about 1.0–1.5 mm in length (figure 2a).

Reproduction

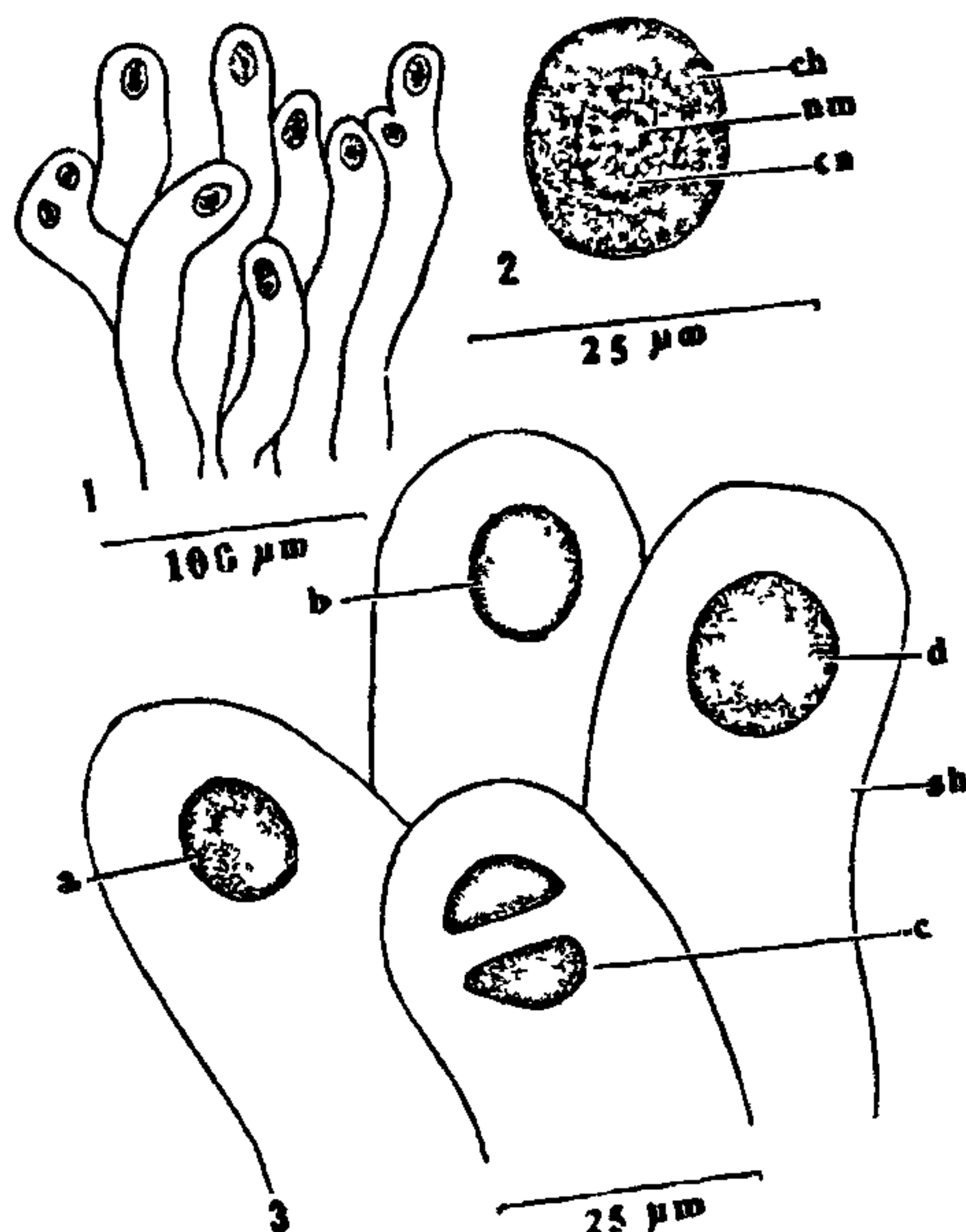
Cametangia are pedicellate and produced on the primary branches, globose in shape. These are free even though strongly calcified and 88–110 μm in diameter. Each one bears a single spherical cyst.

This alga differs from *N. annulata* in having globose and free gametangia; in *N. annulata*, the gametangia are ovoid and cemented together in annular rows by a calcareous sheath.

The above account is in agreement with Egerod².

16 January 1989

1. Chacko, P. I., Mahadevan, S. and Ganesan, R., *Gulf of Mannar Contrib. Mar. Biol. Station, Krusadai Island*, 1955, 3, 1.
2. Egerod, L. E., *Univ. Calif. Publ. Bot.*, 1952, 25, 3225.



Figures 1–3. *Cyanostylon cylindrocellulare* Geitl. & Ruttn. 1, A few cells with cylindrical stalk. 2, A single cell. 3, Cells with division stages. (ch, Chromoplasm; cn, central nodule; nm, nuclear material; sh, sheath; a–d, stages in division.)

bases of several such strands form a mass of mucilage.

Cells are oval or spherical with a diameter of 12.4–18.6 μm . The protoplast is clearly differentiated into an outer granular chromoplasm and an inner transparent centropiasm with distinct nuclear material (figure 2). Reproduction is by binary fission and different stages of division are found in the same colony (figure 3). The nuclear material elongates and divides into two, followed by division of chromoplasm, resulting in the formation of two hemispherical daughter cells (figure 3c). In certain cells the division of the chromoplasm is delayed and 2–5 daughter centropiasmic structures are found in the same cell.

The cell is prokaryotic; still, it is more advanced due to the presence of a spherical transparent centropiasm with prominent nuclear material. Due to its peculiar habitat and structure Fritsch³ suggested that it should be placed in a separate family. More cytological studies are required to confirm its position.

CYANOSTYLON CYLINDROCELLULARE GEITL. & RUTTN., A BLUE-GREEN ALGA NEW TO INDIA

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THE terrestrial blue green alga *Cyanostylon* has been collected from the cuttings of red rocks near Quilon, Kerala State. It was found growing along with *Zygonium*, *Scytonema* and *Stigonema*. This monotypic genus has been described from Europe^{1, 2}. So far there is no record from Asia.

Cells are uninucleate and colonial; colony gelatinous, macroscopic, irregular with spreading patches, 2–8 mm in diameter, slightly yellowish-brown. Each cell is capable of secreting mucilage only on one side and due to this unilateral secretion the cell is pushed towards the opposite direction resulting in the formation of a cylindrical stalk-like structure (figure 1). The finger-shaped mucilage strands may be branched or unbranched and contain one or more cells. The mucilage sheath is homogeneous and 23.3–26.6 μm in diameter. The

21 January 1989

1. Geitler, L., *Arch. Protistenk.*, 1928, 440.
2. Geitler, L. and Ruttner, F., *Arch. Hydrobiol.*, 1935, 14, 308.
3. Fritsch, F. E., *The Structure and Reproduction of the Algae*, 1945, vol. II, p. 818.

NISSLIA EXILIS AND PHYLLACHORA BALANSAE: TWO NEW RECORDS FOR INDIA

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DURING a survey of microfungi the authors collected two ascomycetes hitherto unrecorded from India^{1,2}.

A brief description is given below:

Niesslia exilis (Albertini & Schweinitz ex Fries)
Winter, Robenhorsts Kryptogamen Flora Deutschland
1(2): 196 (1885).

Perithecia globose, superficial, gregarious, minute, brown to dark-brown, 100–120 μm across, covered with radiating, stiff, nonseptate, brown to dark-brown setae, numerous, 60–90 \times 2.5–4.0 μm . Asci cylindrical-clavate, numerous, arise in cluster, unitunicate, hyaline, briefly stipitate, 8-spored, 24–36 \times 4.0–6.5 μm . Ascospores irregularly biseriate, hyaline to very light yellow in cluster, cylindrical to fusoid, 1-septate, smooth, round ends, 5.0–6.5 \times 1.5–2.0 μm (figure 1).

On dead leaves of *Lagerstroemia flos-reginae*, J. N. Agric. Univ. Campus, Jabalpur, India, 30.8.1986, Leg. N. D. Sharma.

The type specimen has been deposited in the Herbarium, CAB International Mycological Institute, Kew, No. 311974.

Niesslia pusilla (Fries) Schroeter, *N. mulleri* Ramachandra Rao and *N. anacardiae* Sathe & Mogarkar was the only three species of *Niesslia* Auerswald apud Gonnermann and Robenhorst recorded from India so far. We collected two species on the same host leaves. The perithecia in *N. mulleri* Ramchandra Rao are pear-shaped with robust, curved and 7–9 setose (figure 2). In the present collection perithecia, asci and ascospores are slightly different³.

Phyllachora balansae Speg. in *Fung. Guar. Pug. I*: 110 (1883); *Syll. Fung. IX.*, 1009, 1891.

Spots black, epiphyllous, separate, distributed all over the leaf, circular, up to 2 mm; stroma black, round, erumpent, amphigenous, generally epiphyllous, scattered 0.5 to 2 mm; 1–4 perithecia in a stroma, perithecia ostiolate, immersed, bowl-shaped, 200 to 600 μm ; asci saccate, briefly stipitate, paraphysate, 1–2-seriate, 8-spored, 40–65 \times 8–16 μm ; ascospores hyaline, subglobose, thick-walled, 5–11 \times 5–9 μm , av. 10 \times 8 μm (figure 3).

On living leaves of *Cedrela toona* Roxb. (Meliaceae), Pachmarhi, India, October, 1968, Leg. N. D. Sharma.

The specimen has been deposited in the Herbarium, CAB International Mycological Institute, Kew, No. 138925.

The authors are grateful to Dr D. L. Hawksworth, Director, and Dr B. C. Sutton, Head, Taxonomic and Identification Service, CAB International Mycological Institute, Kew, England, for their help in the identification of the fungi.

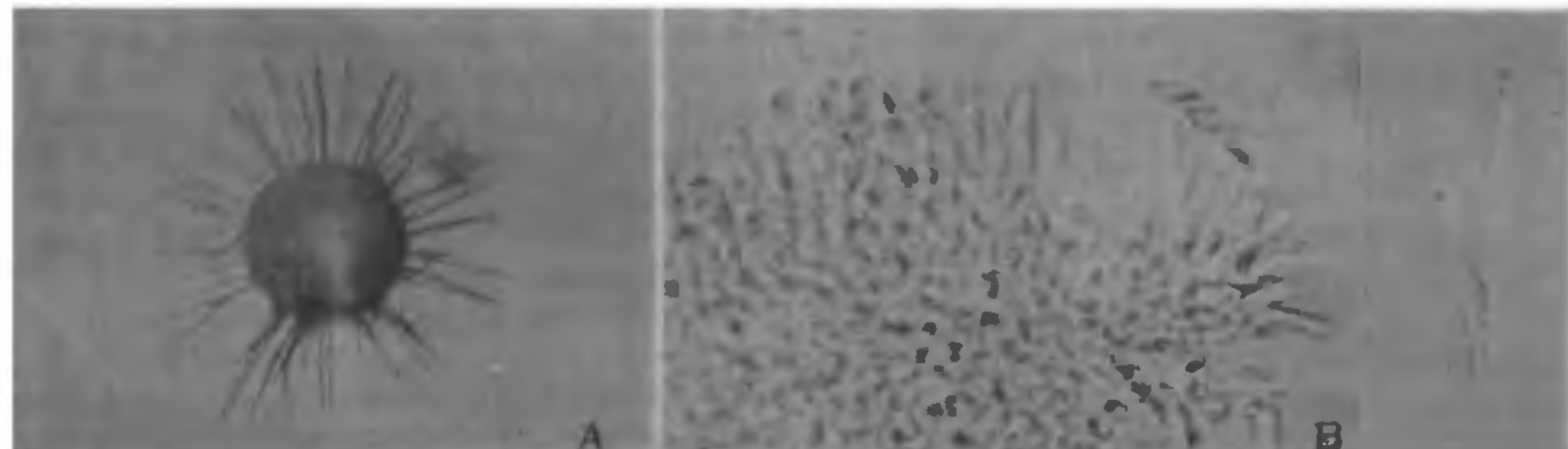


Figure 1. *Niesslia exilis*. A, Perithecium; B, asci.