Table 1 Physicochemical tolerance limits of S. farctum

| Parameter | Concentration (mg/l) (except 1 and 2) |
|-------------------------------|--|
| pH | 7.5–8 5 |
| Temperature | 19–34°C |
| Dissolved oxygen | 3.2-11.2 |
| Total organic matter | 7.7-115.2 |
| Total alkalinity | 24.0-208.0 |
| Alkalinity to phenolphthalein | ND-24.0 |
| Total hardness | 36.0-176.0 |
| Calcium | 16.0-76.0 |
| Magnesium | 1.0-24.3 |
| Carbonate | ND-12.0 |
| Bicarbonate | 24.4-170.8 |
| Chloride | 28.0-108.0 |
| Free and saline ammonia | ND-13.0 |
| Albuminoid ammonia | ND-10.8 |
| Nitrate nitrogen | 1.8-10.7 |

ND, Not detectable.

system cells were cylindrical, 4–6 (8) μ m broad and 5–15 μ m long in young filaments, and 5–27.5 μ m long in mature filaments.

The alga has been identified as Stigeoclonium farctum. It resembles 'strain 5-30' (in width of erect filament cells) and 'strain 7-17' (in nature of hair, presence of extensively developed erect filaments and the length of erect filament cells) of Cox and Bold¹.

Monthly water analysis and studies on Chaeto-phorales of four freshwater ponds of Lucknow during a whole year revealed that S. farctum could not grow throughout the year in all the ponds. In pond I, it was present from August to June, in ponds II and III from October to June, and in pond IV only during September to November. The first three ponds are situated in villages and receive different types of effluents while pond IV is situated in the city and receives urban and industrial effluent. The ranges of physicochemical factors favourable for S. farctum are given in table 1 (ref. 2).

The author thanks UGC, New Delhi, for financial assistance.

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- 1. Cox, E. R. and Bold, H. C., Phycological Studies—VII Taxonomic investigations of Stigeoclonium, The University of Taxas Publications, 1977, pp. 7-81.
- 2. Anonymous, Methods of Sampling and Test (Physical and Chemical) for Water used in Industry, Indian Standard Institution, New Delhi, 1964.

HELICOUBISIA CORONATA, NEW TO INDIA

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DURING a study of fungi associated with decomposing leaf litter of Eucalyptus species in South India a helicosporous fungus was collected from dead fallen leaves of E. tereticornis and subsequently identified as Helicoubisia coronata Lunghini & Rambelli. This rare and interesting helicosporous hyphomycete was originally collected on dead stems from the Ivory Coast by Lunghini and Rambelli¹. Since then further collections of this monotypic fungus have not been reported. Our collection represents the first made outside the type locality and constitutes a valuable addition to Indian fungi. A brief description of the fungus is given below.

Colonies effuse, hairy. Conidiophores macronematous, scattered, straight, simple, dark brown below, paler above, 6–9-septate, up to 110 μ m long, 5–7 μ m thick at the base and 3–4 μ m thick towards the apex. Conidiophores terminating into 3–4 sporogenous cells bearing short denticles, 4–6 × 3–5 μ m, olivaceous brown. Conidia acropleurogenous, coiled,



Figure 1. Helicoubisia coronata Conidiophore with young and mature conidia (×700).

smooth, pale brown, 10-13 μ m in diameter, rounded at the apices, narrowly truncate at the base, 6-8-septate, 4-5 μ m thick.

Collected from leaf litter of E. tereticornis, Vandalur (Tamil Nadu), India, M. Dorai, May 1986, Herb. MUBL No. 3094.

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Lunghini, D. and Rambelli, A., Micol. Ital., 1979,
1, 21.

PACHYKYTOSPORA KOTL. & POUZ. (POLYPORACEAE): A NEW GENERIC RECORD FROM THE HIMALAYAS, INDIA

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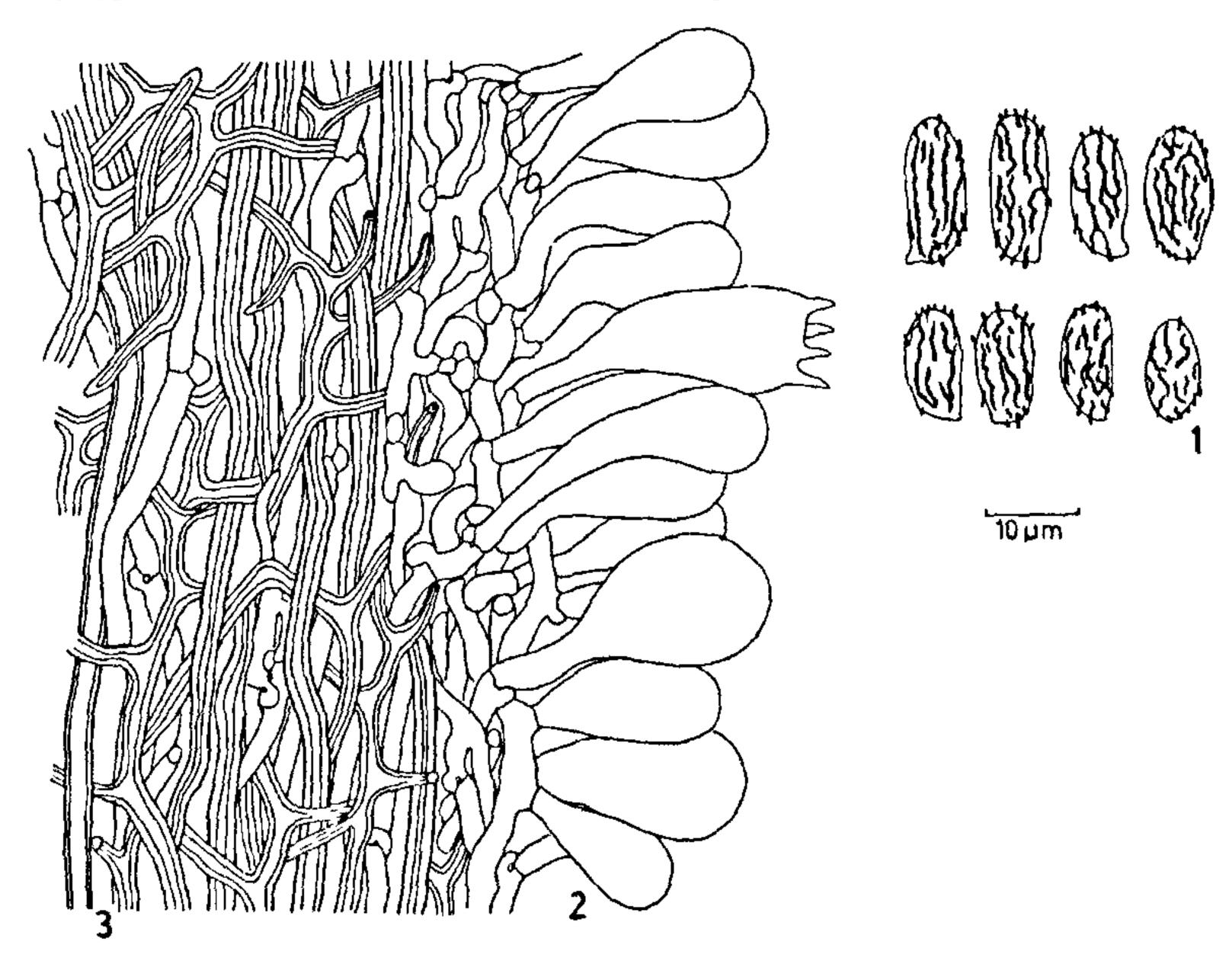
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DURING trips to the eastern Himalayas from 1981 to 1985 many polypores were collected from various

localities of Arunachal Pradesh. The present paper gives an illustrated account of Pachykytospora papyracea (Schw.) Ryv., a new record for India. The genus Pachykytospora is marked by resupinate fruit bodies, and di-trimitic hyphal system with ellipsoid basidiospores ornamented with warts or longitudinal striations staining strongly with cotton blue. Perenniporia Murrill is very close to Pachykytospora in having light-coloured fruit bodies, di-trimitic hyphal system with hyaline hyphae, and large spores. However, it has smooth, truncate basidiospores and dextrinoid hyphae.

Pachykytospora papyracea (Schw.) Ryv. Norw. J. Bot., 19 (3-4): 233, 1972, (figures 1-3).

Fructification annual, resupinate, effused, adnate, pulvinate, soft coriaceous when fresh, brittle on drying, up to 4 cm long, 2.5 cm wide and 3 mm thick. Margin white to cream, concolorous with the pore surface, thinning, sterile, up to 2 mm wide. Pore surface white to cream when fresh, pale brown on drying; pores round to angular, 3-4 per mm, 238-450 μ m in diameter; pore mouth velutinate; tubes in one layer white, up to 2 mm deep in section; dissepiment entire, thick. Context white to cream,



Figures 1-3. Pachykytospora papyracea. 1, Basidiospores; 2, hymenium; 3, part of trama showing trimitic hyphal system in section.