

THE ENDEMIC AND RARE *NOTOTHYLAS ANAPORATA* UDAR & D.K. SINGH (NOTOTHYLACEAE: ANTHOCEROTAE) REDISCOVERED

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Udar and Singh (1979) described *Notothylas anaporata* as a new species and holotypified the name on a Pandé material collected from Khandala in the Western Ghats of Maharashtra. In his regional monograph on the Notothylaceae, represented by the lone genus *Notothylas*, Singh (2002) included 11 species. Of these, 9 including *N. anaporata* are endemic. In the protologue of *N. anaporata* Udar and Singh (1979) cited only one specimen (holotype). However, Singh (2002) included another specimen as well which was also collected by Pandé in Khandala (S.K. Pandé 489 R/WG, Nov. 1955, LWU). Singh (2002) categorically stated that *N. anaporata* is extremely rare. It was earlier known by only two collections. *Notothylas anaporata* has been now collected in the Shendurney Wildlife Sanctuary in the southern Western Ghats which is more than 1000 km away from the type locality. Khandala in the northern Western Ghats is a low rainfall, low humidity and high temperature region when compared to the Shendurney Wildlife Sanctuary. Now that *N. anaporata* has been collected at the other end of the Western Ghats with a totally different environment, it is likely to occur in the intervening regions. Hence, a detailed description and photographs are provided to help find the species elsewhere in the Western Ghats. Specimen cited is deposited at SCCN (herbarium of Scott Christian College, Nagercoil).

Notothylas anaporata Udar & D.K. Singh, Rev. Bryol. Lichénol. 45: 202. 1979; A.K. Asthana & S.C. Srivast., Bryophyt. Biblioth. 42: 98, t. 22, ff. 1 - 10 & t. 44, ff. 1 - 3. 1991; Bapna & Kachroo, Hepatic. India 1: 206. 2000; D.K. Singh, Notothylac. India: 68, tt. 17 - 21. 2002. - Type: India, Maharashtra, W. Ghats, Khandala, c. 500 m, Nov. 1955, S.K. Pandé WG 500 (holotype LWU). (**Plate 1**).

Plants in isolated patches. Thalli 6 - 8 × 3 - 4.5 mm, crenulate to lobed at margin; epidermal cells 80 - 120 × 40 - 80 µm, with a single quadrate-hexagonal chloroplast and a distinct, granular, pyrenoid region. Thalli c. 0.8 × 0.4 mm in cross section, 4 - 6-layered in middle, without mucilage cavities. Rhizoids smooth-walled. Involucre 4-plicate at apex, c. 2.75 × 1.5 mm. Sporogonia c. 3 × 1.5 mm, submarginal, inclined, extending beyond thallus margin, nonstomatiferous; capsule outer wall cells quadrate-rectangular, reddish brown; inner wall cells subquadrate, pale brown with distinct dark brown, transverse to spiral (- semiannular) thickening bands; columella distinct, persistent, purplish brown. Spores 36 - 40 × c. 36 µm, ovoid, granular, with a large copular, circular to semicircular protuberance, dark brown to black with distinct triradiate mark almost reaching periphery. Pseudo-elaters 40 - 80 × 28 - 40 µm, variously shaped, 1-celled, thin-walled with transverse to spiral (- annular) thickening bands, pale purple-brown.

Habitat: Terricolous on red soil, on roadsides, in shade under fallen log, in degraded evergreen forests, at c. 500 m.

Distribution: India: Maharashtra (Khandala) and Kerala (W. Ghats of Kollam), endemic.

Specimen examined: Kerala, Kollam dist., W. Ghats, Shendurney Wildlife Sanctuary, on the way to Palaruvi, c. 500 m, 22.12.2008, *Felix* 544.

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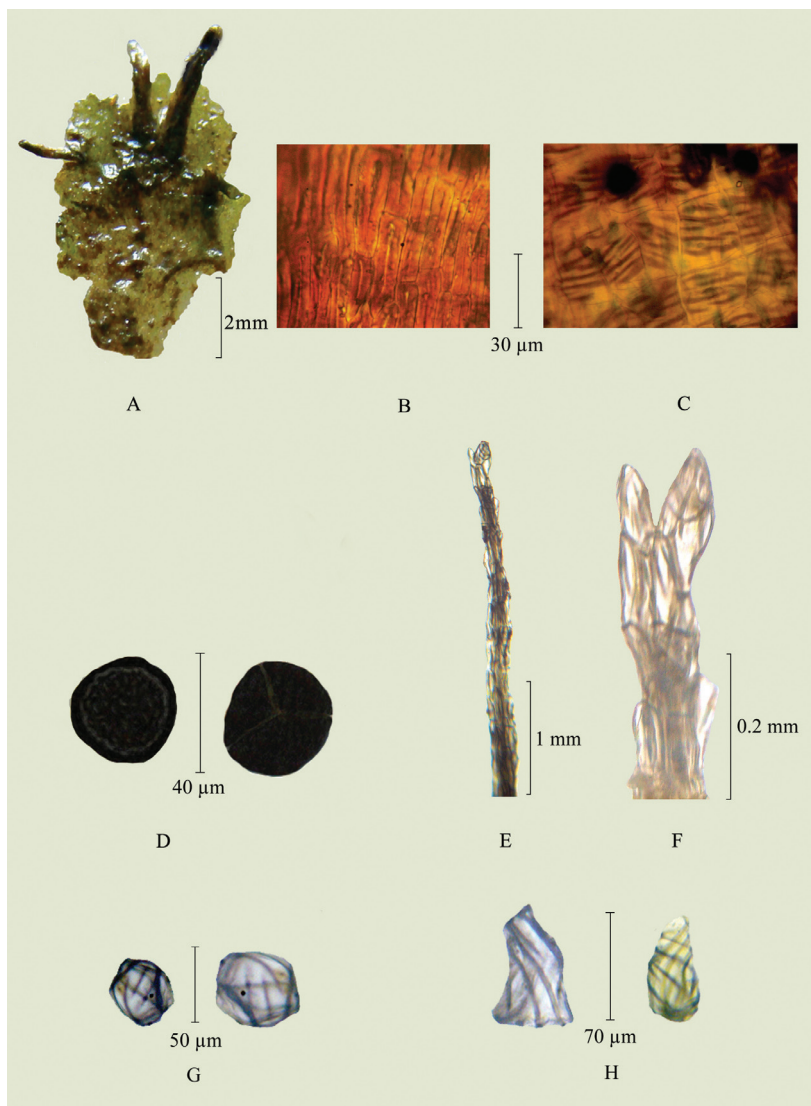


Plate 1: *Notothylas anaporata* Udar & D. K. Singh : A. Plant; B. Capsule outer wall; C. Inner wall; D. Spores (outer & inner faces); E & F. Columella; G & H. Pseudo-elaters (photographed from *Felix* 544).

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