

Genus *Diatrypella* in Eastern Himalayas

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Two species of *Diatrypella* (Diatrypaceae) viz: *D. tocciaeana* de Not., *D. verruciformis* (Ehr.) Sacc. collected from various localities of Eastern Himalayas are described.

Key Words - Ascus *Diatrypella* Himalaya

The genus *Diatrypella* is represented by 30 species, spread all over the world (Hawksworth *et al.* 1983). In India, so far, only 17 species have been reported (Bilgrami *et al.* 1979, Patil 1985, Dargan & Bhatia 1986).

From eastern Himalayas, however, only 2 species *D. citricola* Ell. & Ev. and *D. quercina* (Pers.:Fr.) Cooke have been reported by Kar & Maity (1978). In this paper, two more species of *Diatrypella*, namely *D. verruciformis* and *D. tocciaeana* are described based on collections made from Shillong and Darjeeling. Specimens have been deposited in the Herbarium of Botany Department, Punjab University, Patiala.

Description of Taxa *Diatrypella tocciaeana* de Not. Sper, Ital. p.30 in N.Am.Pyren. p. 584. 1892. Figs. 1-6.

Stromata erumpent, scattered to gregarious 1-2 x 0.5 mm, pustuliform, often angular with a broad base, black, circumscribing line present at base, surface rough due to protruding ostioles; flesh white; perithecia 3-6 in a stroma, 400-600 x 240-425 μ m, globose or angular due to mutual pressure with short, thick necks, ostiolate, ostioles prominent, globose-conical, faintly 4-sulcate or perforated; asci 100-160 x 10-16 μ m, (p.sp.) 50-60 μ m, oblongclavate, apex obtuse; Ascospores 2.5-7.5 x 1.5 μ m, allantoid, hyaline.

Anatomy Ectostroma absent; endostroma distinguished into two zones; outer zone 50-70 μ m wide, textura angularis to textura subepidermoidea, cells 1.5-8.0 x 1.0-3.2 μ m, thick walled, dark brown, mixed with host tissue; inner zone textura intricata, hyphae 1.5-3.0 μ m wide, simple, septate, branched, hyaline. Perithecial wall 24-32 μ m wide, textura angularis, distinguished into two zones; outer zone 16-20 μ m wide, cells 1.5-13.0 x 1.5-2.5 μ m, thick-walled dark brown; inner zone 8-12 μ m wide, cells 8.0-24.0 x 1.0-6.5 μ m, elongated, thin walled, hyaline.

Specimens examined Meghalaya: Shillong, on way to Elephant Fall, on dead angiospermous twigs, A. Sharma 187 (PUN) 1149 Sept. 30, 1986.

This resembles *D. tocciaeana* in all essential features as described by Ellis & Everhart (1892).

D. verruciformis (Ehr.) Sacc. Syll. Fung II 1883. Figs. 7-10.

Stromata erumpent, occur singly, rarely in groups of 2-8, black, 1-5 x 1-3.5 mm, oblong to elliptical, surrounded partly by ruptured epidermis, black, surface rough due to slightly protruding ostioles, perithecia 440-635 μ m in diameter, oblong to pyriform, ostiolate; ostioles simple, slightly protruding; asci 140-220 x 8-12

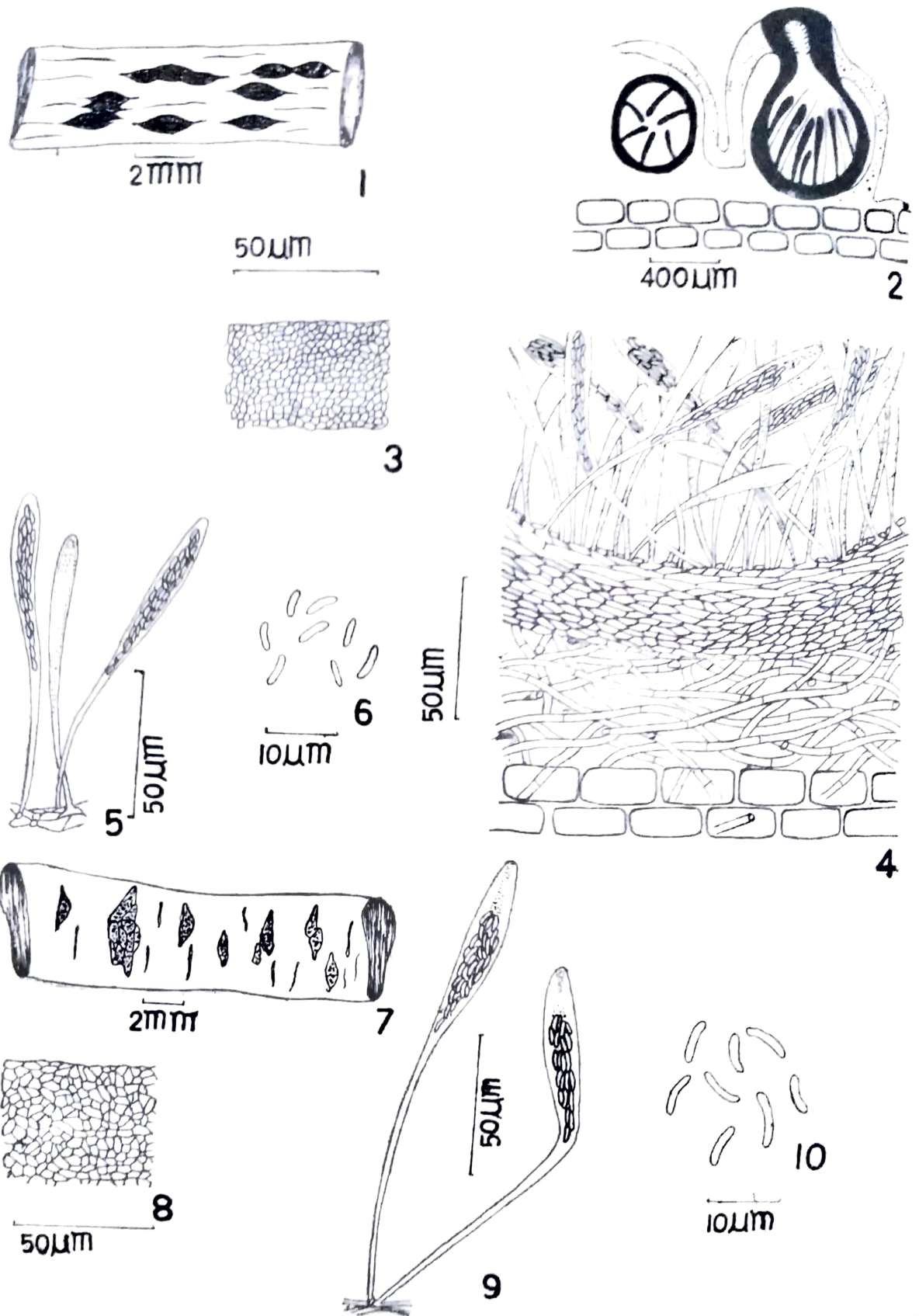


Fig 1-6 *D. tocciacana* 1. Stromata general habit. 2. V.S. part of stroma showing detailed structure. 3. V.S. outer entostroma showing detailed structure. 4. V.S. part of stroma showing detailed structure of perithecial wall and inner entostroma. 5. Asci. 6. Ascospores. 7-10 *D. verrucosa forma* 7. Stromata general habit. 8. V.S. outer entostroma showing detailed structure. 9. Asci. 10. Ascospores.

μm , (p.sp.) 50-70 μm , cylindric to clavate with long slender stalks, apex obtuse, apical pore present. Ascospores 3.2-8.0 x 1.5 μm , allantoid, hyaline; paraphysis 1.5 μm broad at base, simple, aseptate, hyaline.

Anatomy Ectostroma absent; endostroma distinguished into two zones; outer endostroma 40-68 μm wide, black, textura angularis, cells 1.5-9.5 x 1.5-5.0 μm , thick walled, dark brown, inner endostroma textura subintricata, hyphae 4 μm wide, thin wall, light brown; perithecial wall 20-30 μm wide, distinguished into two zones; outer zone 12 μm wide, textura subangularis, cells 1.5-19.0 x 1.5-3.2 μm , thick walled, brown, inner zone 6-12 μm wide, textura angularis, cells 3.5-51.0 x 1.5-6.5 μm elongated, thin walled, hyaline.

Specimens examined West Bengal; Darjeeling; on way to Sonada, on dead angiospermous twigs. A. Sharma 118 (PUN) 1150, October 25, 1985.

This species matches in identity with *D. verrucae formis*, described by Ellis & Everhart (1892) except for slight difference in ascospore size.

This species was previously reported from India from Radhanagri (Kolhapur) by Patil & Thite (1977).

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