ENTODON

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Entodon Müll.Hal., *Linnaea* 18: 704 (1845); from the Greek *ento-* (inside, within) and *odontos* (a tooth), probably in reference to the peristome teeth that are inserted well below the capsule mouth.

Lecto: *E. fissidens* Müll.Hal., *nom. illeg.* [= *E. virens* (Hook.f. & Wilson) Mitt.]

Plants medium-sized to robust, forming glossy green to golden mats. Stems creeping, irregularly branched, terete- to complanate-foliate; central strand present. Leaves crowded, ovate to ovate-lanceolate, smooth, slightly to moderately concave, not decurrent, acute to short-acuminate; costa short and double or absent; mid-laminal cells linear; alar cells numerous, quadrate to subquadrate, forming distinctive ±triangular patches.

Perichaetia along stems and branches; leaves lanceolate, straight to reflexed. Seta yellow to orange, smooth. Capsules erect, cylindrical; stomata few, at the base of the capsule, phaneropore; operculum short-rostrate, straight to oblique. Peristome inserted below the capsule mouth; exostome teeth triangular, orange throughout or red-brown below, fenestrate, with rounded apices, on outer side horizontally striate to 2–4 plates above capsule mouth, often papillose over the striae, obliquely to vertically striate and coarsely papillose above, smooth or papillose at apex; prostome absent; endostome yellow, with a short basal membrane; processes linear, as high as or shorter than exostome teeth, keeled, often fenestrate, smooth to papillose; cilia absent. Spores papillose.

Entodon, a cosmopolitan genus of more than 100 species, is most diverse in montane regions of the tropics (Buck, 1990, 1998), and it is represented in Australia by two non-endemic species. The genus has been divided into two subgenera based primarily on sporogone characters. Both Australian representatives belong to subg. *Entodon*.

References

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Key

Alar patches ascending along the leaf margin by 15–27 cells; stems and branches terete-foliate to very slightly complanate, often turgid ..... **1. E. mackaviensis**

Alar patches ascending along leaf margin by 10–12 cells; stems and branches complanate..... **2. E. plicatus**

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1. Entodon mackaviensis Müll.Hal., *Linnaea* 37: 155 (1871)

Cylindrothecium mackaviense (Müll.Hal.) Paris, *Index Bryol.* 300 (1894); *Entodon mackayensis* Müll.Hal. ex Mitt., *Trans. & Proc. Roy. Soc. Victoria* 19: 85 (1882), *nom. inval.* T: Port Mackay, Qld, ?*A.Dietrich* [Herb. Godeffroy]; iso: NY.

Entodon myosurella Müll.Hal. ex A.Jaeger, *Ber. Thätigk. St. Gallischen Naturwiss. Ges.* 1876–77: 480 (1878), *nom. inval.*

Entodon toowoombae Müll.Hal. ex Geh., Rev. Bryol. 4: 43 (1877), *nom. nud.*

Entodon daemelii Müll.Hal. ex A.Jaeger, *Ber. Thätigk. St. Gallischen Naturwiss. Ges.* 1876–77: 292 (1878), *nom. nud.*

Illustrations: W.R.Buck, *Austral. Syst. Bot.* 3: 703, figs 1–5 (1990); H.Streimann, *The Mosses of Norfolk Island* 65, fig. 28 (2002).

Stems to c. 5 cm long, creeping, with numerous short branches, terete-foliate to very slightly complanate, often turgid. Leaves ovate to broadly ovate, 1.1–1.3 mm long, 0.3–1.0 mm wide, slightly to moderately concave, acute to short-acuminate; costa short and double. Median laminal cells linear, 80–91 × 5.1–6.3 µm, thin-walled; alar cells forming a conspicuous triangular patch 10–15 cells wide at insertion, ascending along the leaf margin by 15–27 cells.

Seta 8.5–15.0 mm long, yellowish to orange. Capsules erect, cylindrical; operculum short-rostrate, often oblique. Spores 10–15 µm diam.

Occurs in Qld, N.S.W. and Vic., in cool-temperate and dry-sclerophyll forests at altitudes up to 1150 m; usually epiphytic, but also terrestrial, or on rotting logs or rocks (usually basalt). Also in Norfolk Island, New Caledonia and the Cook Islands.

Qld: 2 km SE of Kingaroy, *H.Streimann 365* (CANB); opposite Westcott picnic area, E of Bunya Mountains Rd, Bunya Mountains Natl Park, *J.H.Ross 3665* (MEL). N.S.W.: Macquarie Pass Natl Park, 6 km ENE of Robertson, *H.Streimann & J.A.Curnow 35778* (CANB); Cambrewarra, near Moss Vale, *C.Harris 306* (MEL). Vic.: L. Purrumbete, 17 May 1952, *C.Skewes* (MEL).

Most specimens of *E. mackaviensis* are quite distinct from *E. plicatus* in having larger alar patches and terete-foliate leaves. However, while some were found to be slightly but distinctly complanate, these can be reliably assigned to *E. mackaviensis* due to their more extensive alar patches and shorter leaves with shorter and more abrupt acumens. Buck (1990) noted that such forms were more common in New Caledonia.

Buck (1990) described two variants of *E. mackaviensis* in Australia. Thus, plants in more exposed habitats, often on moist rocks, tend to be more robust and more turgid than those that are epiphytic in comparatively sheltered conditions. This variation is clearly habitat-induced and, as indicated by Buck (1990), there are numerous intermediates. It does not warrant any formal nomenclatural recognition.

Possibly authentic material of *E. hartmannii* Müll.Hal ex Geh. (*Rev. Bryol.* 4: 43, 1877), *nom. nud.* in MEL (*C.H.Hartmann 14*) was found to belong to this species.

2. Entodon plicatus Müll.Hal., *Linnaea* 18: 706 (1845)

T: Nilgiri Hills, India, *coll. unknown*; iso: NY.

Entodon tasmanicus Mitt., *Trans. & Proc. Roy. Soc. Victoria* 19: 85 (1882); *Cylindrothecium tasmanicum* (Mitt.) Paris, *Index Bryol.*, Suppl. 110 (1900). T: Hobart, Tas., *Hemmings s.n.*; holo: NY.

Entodon terrae-reginae Dixon, *Proc. Roy. Soc. Queensland* 53(2): 36 (1941). T: North Toohey Creek, Qld, *H.Flecker 3376*; holo: BM.

Illustrations: W.R.Buck, *Austral. Syst. Bot.* 3: 707, figs 6–10 (1990); J.Enroth, *Acta Bot. Fenn.* 143: 47, figs 2a–e (1991).

Stems to c. 7 cm long, creeping, irregularly branched with short side branches, complanate-foliate. Leaves ovate to ovate-lanceolate, 1.5–2.2 mm long, 0.5–0.6 mm wide, canaliculate, occasionally narrowed at the base, acuminate; costa short and double or absent. Laminal cells linear, thin-walled, 70–86 × 6–8 µm wide; alar cells forming a conspicuous triangular patch up to 10 cells wide at insertion, ascending along leaf margin by 10–12 cells.

Seta 10–16 mm long, yellowish to orange, smooth. Capsules erect, cylindrical; operculum oblique, short-rostate. Spores 12–17 µm diam.

Known with certainty only from eastern Qld and N.S.W.; grows in tropical and subtropical rainforest, wet-sclerophyll forest and dry lowland forest at altitudes of 100–1150 m, epiphytic or on fallen logs or rocks, or terrestrial. Also in Mauritius, India, Sri Lanka, SE Asia, Malesia, Lord Howe Island. and South Pacific islands (Vanuatu, New Caledonia, Fiji, Western Samoa, Society Islands and Tubuai Islands).

Qld: Little Crystal Ck, 41 km SSE of Ingham, *H.Streimann & T.Pócs 64320* (CANB); Scrubby Ck, Wongabel S.F., 5km SSE of Atherton, *H.Streimann 27013* (CANB). N.S.W.: Hyland Rd, head of Perrotts Ck, Hyland S.F., 30 km NW of Dorrigo, *H.Streimann 6663* (CANB); Cox Rd, Toonumbar S.F., 29 km NW of Kyogle, *H.Streimann 6969* (CANB).

In the field, *E. plicatus* can be confused with complanate, less turgid, specimens of *E. mackaviensis* (see under the latter for differences).

The species is known from Tasmania only from the type of *E. tasmanicus*, and it has not been collected there since. The fact that *E. plicatus* is otherwise known only from warmer regions suggests that the 'Tasmanian' specimen might have been mislabeled.