

## PSEUDOTAXIPHYLLUM

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*Pseudotaxiphyllum* Z.Iwats., *J. Hattori Bot. Lab.* 63: 448 (1987); from the Greek *pseudo* (false) and the genus name *Taxiphyllum*, the two genera being rather similar.

Type: *P. elegans* (Brid.) Z.Iwats.

Dioicous. Plants forming yellow-green to pale green interwoven mats. Stems creeping, irregularly branched; outer cortical cells small and thick-walled in T.S.; central strand absent. Pseudoparaphyllia absent. Rhizoids smooth, in fascicles between points of leaf insertion. Leaves complanate, broadly ovate-lanceolate, asymmetrical, not decurrent, sharply serrate in the upper half; costa short and double. Upper laminal cells linear, sinuose, smooth, non-porose, shorter at the extreme apex, shorter and somewhat porose at the leaf base; alar cells not or poorly differentiated, irregular and porose. Propagules in the axils of upper leaves, multicellular, often composed of distinctly spirally twisted narrow cells; 2–4 finger-like projections at the apices of propagules, each consisting of 1–3 cells.

Seta elongate, smooth. Capsules inclined to horizontal; operculum long-rostrate; annulus differentiated.

*Pseudotaxiphyllum*, a genus of 11 species is most common and diverse in the Northern Hemisphere, particularly Europe, Asia and Malesia. Recently, *P. pohliaecarpum* was reported for the first time from Australia (Iwatsuki & Ramsay, 2009).

This genus was segregated from *Isopterygium* due to its dioicous sexuality, the absence of pseudoparaphyllia, and in having propagules borne in the axils of apical leaves and differentiated annuli (Iwatsuki, 1987). It exhibits a growth form similar to that of *Taxiphyllum*, and while it also has serrate leaf margins and annulate capsules, *Pseudotaxiphyllum* lacks the conspicuous pseudoparaphyllia with triangular apical cells present in *Taxiphyllum* (Iwatsuki, 1970).

### References

- Iwatsuki, Z. (1970), A revision of *Plagiothecium* and its related genera from Japan and her adjacent areas. I, *J. Hattori Bot. Lab.* 33: 331–380.
- Iwatsuki, Z. (1987), Notes on *Isopterygium* Mitt. (Plagiotheciaceae), *J. Hattori Bot. Lab.* 63: 445–451.
- Iwatsuki, Z. & Deguchi, H. (1981), Propagules found in *Isopterygium pohliaecarpum* and related species, *Hikobia*, Suppl. 1: 105–110.
- Iwatsuki, Z. & Ramsay, H.P. (2009), The genera *Isopterygium* Mitt. (Bryopsida, Hypnaceae) and *Isopterygiopsis* Z.Iwats. (Bryopsida, Plagiotheciaceae). *Telopea* 12:371–384.
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***Pseudotaxiphyllum pohliaecarpum*** (Sull. & Lesq.) Z.Iwats., *J. Hattori Bot. Lab.* 63: 449 (1987)

*Hypnum pohliaecarpum* Sull. & Lesq., *Proc. Amer. Acad. Arts* 4: 280 (1859); *Isopterygium pohliaecarpum* (Sull. & Lesq.) A.Jaeger, *Ber. Thätigk. St. Gallischen Naturwiss. Ges.* 1876–77: 442 (1878). T: on steep shaded banks, Japan, 25 May 1855, *Simoda*; holo: FH.

Illustrations: Z.Iwatsuki & H.Deguchi, *op. cit.* 106, fig. 1: 2, 2'; 107, fig. 2: 1, 2, as *Isopterygium pohliaecarpum*; A.Noguchi, *Illustrated Moss Flora of Japan* 5: 1055, fig. 463B (1994); M.-X.Zhang & S.He,

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*op. cit.* 225, pl. 701.

Plants robust, pale green, often tinged with purple, glossy. Leaves wide-spreading often tinged with red, ovate, with acute apices; margin serrulate above. Apical laminal cells short, rhomboid; median cells linear; basal cells rectangular, with thicker walls; alar cells not differentiated. Propagules occasionally quite evident on branch tips, narrow (*Pohlia*-like), 0.35–0.70 mm long.

Sporophytes not seen in the Australian specimens. Japanese and Chinese material frequently fertile; perichaetial leaves slenderly acuminate; seta elongate, 15–20 mm long; capsules horizontal, with an elongate apophysis narrowing into the seta; operculum long-rostrate. Spores 9–13  $\mu\text{m}$  diam., minutely papillose. Chromosome numbers (Japan):  $n = 11, 13$ , *vide* S.Inoue & Z.Iwatsuki *J. Hattori Bot. Lab* 63: 453–471 (1987).

Rare in eastern N.S.W.; known from a shaded rock face at the base of an escarpment in the Northern Tablelands and in the Blue Mtns. Also in India, Sri Lanka, SE Asia, Malesia, Japan and China.

N.S.W.: Weeping Rocks, New England Natl Park, 72 km SE of Armidale, *H.Streimann 47736* (CANB, NY); Sassafras Valley, Springwood, Blue Mtns, Jan. 1916, *W.W. Watts 10917* (NSW).

*AusMoss* has reported this species from Qld rather than N.S.W.; that is an error.