

## 28. SCHISTOSTEGACEAE Schimper

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**Plants** small. **Stems** erect, arising from a persistent protonema that reflects light, giving off a greenish golden color. **Leaves** of sterile shoots distichous-complanate. **Specialized asexual structures** sometimes present, developing on the protonema. **Sexual condition** apparently dioicous, though male and female plants develop on the same protonemal mat; perichaetial leaves linear-lanceolate, acute, clustered distally on naked stem. **Seta** straight, smooth. **Capsule** with peristome absent. **Operculum** plano-convex. **Calyptra** conic-mitrate. **Spores** sticky, elliptic.

Genus 1, species 1: circumboreal.

SELECTED REFERENCES Edwards, S. R. 1978. Protonemal gemmae in *Schistostega pennata* (Hedw.) Web. et Mohr. *J. Bryol.* 10: 69–72. Ignatov, M. S. and E. A. Ignatova. 2001. On the zoochory of *Schistostega pennata* (Schistostegaceae, Musci). *Arctoa* 10: 83–96.

1. SCHISTOSTEGA D. Mohr, *Observ. Bot.*, 26. 1803 • [Greek *schistos*, split or divided, and *stego*, cover, apparently alluding to erroneous observation that operculum splits]

**Plants** fernlike, bluish gray-green, occasionally with a reddish purple tint, scattered, as clustered or tufted frondiform shoots. **Stems** 4–7 mm from a protonema composed of filamentous strands of tiny, clear, spheric cells.

1. *Schistostega pennata* (Hedwig) F. Weber & D. Mohr, *Index Mus. Pl. Crypt.*, [2]. 1803 [F]



*Gymnostomum pennatum* Hedwig, *Sp. Musc. Frond.*, 31. 1801;  
*Schistostega osmundacea* D. Mohr

**Leaves** of sterile shoots 0.5–1.2 mm, ecostate, median cells smooth, oblong-rhomboidal, thin-walled, 16–20  $\mu\text{m}$  wide, decurrent, confluent at the base, margin entire, weakly bordered by

narrow, elongated cells. **Protonemal gemmae** sticky, obclavate, 80–200  $\times$  15–20  $\mu\text{m}$ , 3–4 cells in length,

tapering and thickened near apex. **Seta** 2–5 mm. **Capsule** erect, light brown, smooth, subglobose or ovoid, annulus absent. **Spores** yellowish green, pitted-reticulate, 10–13  $\mu\text{m}$ .

Capsules mature late spring–early summer. Usually found on mineral soil in crevices on lower, sheltered parts of upturned tree root wads, ceilings of caves, crevices in soil banks, animal burrows, rarely on the shaded sides of deep pits along the upper banks of perennial streams, occasionally on rock; low to high elevations (0–1700 m); Alta., B.C., N.B., Nfld. and Labr. (Nfld.), N.S., Ont., Que.; Alaska, Idaho, Maine, Mich., Minn., Mont., N.H., N.Y., Ohio, Oreg., R.I., Vt., Wash., Wis.; Eurasia.