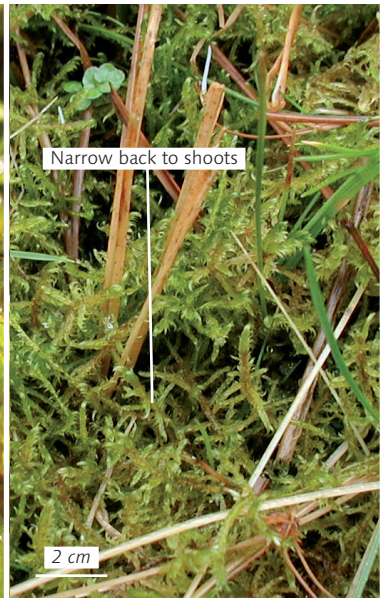
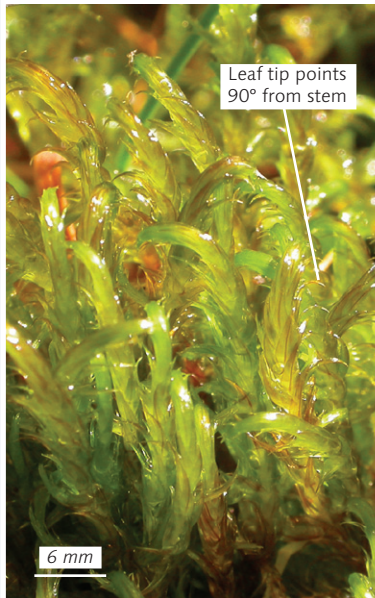
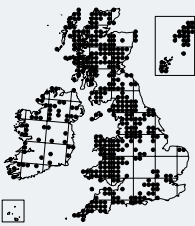


*Warnstorfia exannulata**Drepanocladus exannulatus*, *Sarmentypnum exannulatum*

Ringless Hook-moss

Key 322



Identification *W. exannulata* is the typical Hook-moss of flushes and poor fens, and usually grows as orange or light green, upright, more or less pinnately branched plants. Shoots are 20–30 cm long, with leaves 2.5–4 mm long. Its moderately curved stem leaves typically have the tip pointing at 90° to the stem. They may be more curved, but seldom form a full circle. Capsules are rare.

Similar species *W. exannulata* can be confused with all manner of other Hook-mosses and allies, but pulling a few leaves off the stem provides two useful characters: (i) the cells in the basal corners are long and curved, unlike *Scorpidium cossonii* (p. 722), *S. revolvens* (p. 723), *Sanionia uncinata* (p. 728), *Hamatocaulis vernicosus* (p. 724) and *W. fluitans* (p. 717), and (ii) the stem lacks tiny leaf-like structures, unlike *Palustriella commutata* (p. 698), which is also often orange. The leaves sometimes appear slightly pleated in the field, inviting confusion with *H. vernicosus* and *S. uncinata*.

Habitat This species favours conditions intermediate between the acidic habitats preferred by most *Sphagnum* species and the very base-rich ones that *Palustriella* prefers. It is often abundant in flushes or springheads with neutral water, where *Calliergonella cuspidata* and *Philonotis fontana* are typical associates. Poor fens with *Sphagnum contortum* and *S. teres* are another typical habitat. There is some overlap with *W. fluitans* on the edges of pools, but *W. exannulata* shuns the very base-poor conditions that *W. fluitans* favours.