Brachythecium rivulare
River Feather-moss

Identification
B. rivulare is often characteristically bright, golden or yellow-green. The stem leaves are about 2.5 mm long, broadly to narrowly egg-shaped, concave, somewhat pleated, with finely toothed margins, and have a single nerve extending above mid-leaf. Their most distinctive feature, however, is the formation of a clearly marked colourless patch of cells in the basal angles of the leaves. These run down onto the stem, and in well-marked forms extend onto the stem as broad wings. They are strongest and most easily observed on the main stems (pull away some of the leaves to reveal the base of the others). Capsules are rare and have a roughened seta.

Similar species
B. rivulare may closely resemble B. rutabulum (p. 746), especially when growing on the banks of streams and rivers. It is best to check the leaves of the main stems for the presence of distinct patches of colourless cells, but some forms cannot be distinguished in the field. Plants growing in springs and runnels in the uplands can be more confidently assigned to B. rivulare. Compared with B. rutabulum, the shoots of B. rivulare are more regularly pinnate with erect or sometimes spreading branches, and leaves somewhat appressed and overlapping, standing out from the stem less distinctly than in B. rutabulum. B. plumosum (p. 751), when growing by streams, has curved leaves that lack distinct patches of colourless cells. It is fairly commonly fertile; the seta is slightly roughened, and then only in its upper part. By rocky streams B. rivulare may superficially resemble Hyocomium armoricum (p. 813), but this has broadly triangular leaves with a clasping base, and a short, double nerve. Platyhypnidium riparioides (p. 758) is often fertile, differing in its smooth seta and beaked capsule lid, and it lacks the distinct patch of cells in the basal angles of the leaves. P. alopecuroides (p. 759) also lacks these conspicuous patches, has concave, broadly pointed leaves, and more sparsely branched shoots with long branches.
The rare *Brachythecium glaciale* and *B. reflexum* (p. 750) have patches of distinct cells that run down onto the stem like *B. rivulare*, but have more slender, lax shoots and more triangular stem leaves with a finely pointed tip. *Leptodictyum riparium* (p. 707) occurs in wet places, but differs in its leaves lacking a distinct patch of cells in the basal corners and having entire margins; it often has capsules, and then differs in its smooth setae. *Oxyrrhynchium speciosum* (p. 769), which occurs in wet places, and *O. hians* (p. 768) sometimes resemble *B. rivulare*, but typically have widely spaced leaves that lack a distinct patch of cells in the basal corners and have a shortly pointed tip; these species are also easily distinguished by the beaked lid of the capsules.

**Habitat** Primarily a moss of wet habitats. It is characteristic of springs, runnels and wet ledges in the uplands, and on boulders and slabs by streams. It also occurs widely in low-lying woods and carr, by streams, and in springs and marshes. Exceptionally, it can be found in drier habitats, for example on moist stones at the base of walls.