**Identification**

Unfortunately, the most distinctive feature of these two species – their almost entire underleaves – is not visible when they are growing appressed to a substrate. Instead, the observer has to rely on a difference in colour: *C. neesiana* and *C. integristipula* are noticeably more opaque than other British *Calypogeia* species. Using a ×20 hand lens, a contrast between the translucent cells that form the leaf border and the opaque ones that make up most of the leaf is usually visible. Identification to species level requires a microscope. Shoots of *C. integristipula* are 1.5–3 mm wide, with leaves 1.5 mm long and 1.3 mm wide. Shoots of *C. neesiana* are usually 0.7–1.8 mm wide, with leaves about 1 mm long and wide.

**Similar species**

The most similar species is *C. muelleriana* (p. 86), which has very shallow but clearly visible notches to its underleaves, and is often a slightly different colour to *C. fissa* (p. 85) and so might be imagined as more opaque. Generally, the opaqueness of *C. integristipula* and *C. neesiana* is sufficiently striking that confusion is unlikely.

**Habitat**

Both species are uncommon plants of acidic substrates. *C. neesiana* is most often found on eroding peat on blanket bogs, although it can also grow on peaty hillsides or humus-covered boulders. More rarely it is found on mineral soil or on rotting logs. It favours unshaded sites, whereas *C. integristipula* is primarily a plant of woodlands. The classic area for *C. integristipula* is The Weald, in south-east England, where it grows on sandstone outcrops. It also grows on sandstone in north-west Ireland and northern England, as well as on gritstones and peaty banks.