Orthotrichum affine
Wood Bristle-moss

Identification
This common moss forms loose, slightly branched, dull, mid-green or yellowish-green tufts 0.8–3.5 cm tall. Individual leaves are about 3 mm long, have recurved margins, and end in an acute tip. Its abundant capsules can be found all year round: they ripen in summer, but old capsules persist into the winter. Unripe capsules are covered by a light green, slightly hairy calyptra, which is often tipped pale brown. The outer peristome has 8 pairs of reflexed teeth. Old capsules are light brown, and strongly furrowed when dry.

Similar species
O. affine is very common and remarkably variable. If an Orthotrichum specimen doesn’t closely fit one of the less frequent species then it is likely to be a form of O. affine. Microscopical checking of stomata helps identification. O. striatum (p. 646) has capsules that are not furrowed when old and dry, and more sharply tipped leaves. O. tenellum (p. 651) has smaller, narrower shoots; its calyptrae are distinctively long and narrow. The hairless calyptrae of O. stramineum (p. 653) are very pale, with a very dark tip; its capsules are usually held clear of the rounded cushions. O. rivulare and O. sprucei (p. 650) have a blunt leaf tip. The scarce O. speciosum (Smith, p. 670) is very locally frequent in north-east Scotland, growing on aspen trees and occasionally on various shrubs such as juniper, and has capsules held clear of the loose tufts. The rare O. pallens (Smith, p. 676) has hairless calyptrae.

Habitat
O. affine is the commonest Orthotrichum on trees and shrubs in districts with clean air. It is often abundant on the branches and trunks of a wide range of trees, especially ash (Fraxinus excelsior), hazel (Corylus avellana), sycamore (Acer pseudoplatanus) and willow (Salix). It also sometimes grows on rock or concrete, especially in shaded places.