

Reproduction & Development Contents



About Our Cover

Mugo pine (*Pinus mugo*), also referred to as (Swiss) mountain pine, is a high-altitude European pine native to the southern and central alpine ranges of Europe. It grows mostly between 1000 and 2200 m above sea level within its native range but can be found at lower and higher elevations. Depending on the subspecies, mugo pines develop into tall trees (*P. mugo* ssp. *uncinata*) or low-growing, multistemmed shrubs (*P. mugo* ssp. *mugo*), the latter of which is used extensively as an ornamental planting in many parts of North America. Mugo pine is a two-needle pine and has dark green persistent needles that are 3–6 cm long. The needles are reportedly used by some Bulgarians to make tea. Ovulate or pistillate (female) cones are long-lived, symmetrical, dark brown, and 2–5 cm long. Staminate (pollen) cones as pictured here are short-lived aggregations of microsporangia that produce microspores. These pollen cones swell and ripen, then release microspore pollen grains into the environment that are carried by late-spring and early-summer winds to the ovulate cones of conspecific pines. This photograph was taken in Prince George, British Columbia, on 10 June 2011 by biology instructor Roy Rea of the University of Northern British Columbia with a Canon 5D camera and Canon Zoom lens EF 24-105. E-mail: reav@unbc.ca. The focus of this issue is reproduction and development.

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