

## Abstract

A new two short needle hard pine species of Genus *Pinus* (*P. microphylla* Blada) is described. It occurs in the Romanian Pietrosul Rodnei Massif, between 1646 to 1890 m elevation. It has been found only at high elevations, always associated with mugo pine, most frequently on rocky ledges and on shallow soils on steep subalpine slopes. The species occurs in shrub-like form with stems lying on the ground then up-arching given rise to several crown shapes. Crown diameter, 2 (0.2-4.5) m, normal crown height 1.1 (0.2-2.5) m, and longest extended stem in crown 1.5 (0.3-3.2) m long, i. e. 193.3 % shorter than mugo pine. Annual twig height growth 4.0 (2.0-7.5) cm long, i. e. 167.5 % slower growing than mugo pine.

The species has two needles in each bundle, slightly curved, somewhat twisted and pointed. The needles are 1.5 (1.2-1.8) cm long, 293.3 % shorter than those of mugo pine; the foliage is blackish compared to the dark green foliage of mugo pine. Bundle-sheath hyaline to slightly rose, 7.4 (5.3-9.5) mm long in early first season; beneath the fascicle-sheath, a darkish brown color lanceolate sharp-pointed bract is present. Buds are darkish brown to blackish-brown, ovoid sharp-pointed, 7.2 (6.1-8.3) mm long, 62.5 % shorter than mugo pine. Male strobili are cherry-variegated color, irregular or cylindrical shape, 2.1 (2.0-2.3) cm long, 57.1 % shorter than mugo pine. Female strobili are purplish to reddish-tan color before pollination, but dark bluish to blackish color and spherical shape after pollination, 8.7 (8.5-8.8) mm long, 19.5 % shorter than mugo pine. Seed cones are light shiny brown during the vegetative period, darkish brown to maturity, globular ovoid, 2.3 (2.2-2.4) cm long, 1.7 (1.6-1.8) cm diameter, very short-stalked, borne single or two in cluster, rhombic apophysis, dark brown raised umbo with a short central tiny prickle at the tip; on lowest scales the tips turn downward. Seed cone length and seed cone diameter were 52.2 % and 23.5 %, respectively, shorter than those of mugo pine.

Key words: *Pinus mugo*, *P. uncinata*, *P. microphylla* sp. nova, hard pine, high elevation habitat, short-blackish needles, blackish crown, slow growing.