

**Table S1.** Characteristics of *Pinus mugo* needles with disease symptoms from previous year and current year, studied in 2016 in Chochołowska Valley (Tatra Mountains)

Analyzed Samples, Term	Previous Year Needles, July 2016, 14 Twigs			Current Year Needles, September 2016, 7 Twigs		
	main shoots	lateral shoots	total	main shoots	lateral shoots	total
Shoots types						
Number of double needles analyzed	1639	431	2070	625	1182	1807
Average number of needles per 1 cm (min/max)	11.4 (9.6/15.7)	5.5 (4.3/6.5)	8,3 (4.3/15.7)	11,6 (7.4/14)	8.7 (6.6/11,8)	10.6 (6.6/14.0)
Average length of green needles (cm) (min/max)	5.0 <sup>1</sup> (3.8/6.5)	4.5 <sup>1</sup> (3.7/5.7)	4.8 (3.7/6.5)	4.2 <sup>1</sup> (3.7/4.8)	4.2 (3.4/5.0)	4.2 (3.4/5.0)
Average length of discolored needles (cm) (min/max)	4.2 <sup>1</sup> (2.1/6.5)	4.9 <sup>1</sup> (4.2/5.9)	4.6 (2.1/6.5)	3.0 <sup>1</sup> (1.9/4.8)	4.2 (3.6/5.5)	3.6 (1.9/5.5)
% of discolored needles (min/max) including:	54.1 (11.5/96.2)	77.2 (57.1/100.0)	65.8 (11.5/100.0)	66.7 (16.9/100.0)	89.0 (72.9/100.0)	77.8 (16.9/100.0)
one discolored needle	33.1	36.6	35.0	41.0	45.0	43.0
both discolored needles	21.0	40.6	30.8	25.7	44.0	35.0
% of needles discolored above ¾ length	49.8	71.5	60.7	40.8	78.5	59.7
% of needles with white-gray discoloration (with ascomata of <i>L. sulcigena</i> )	43.0 (34.4)	64.4 (47.7)	53.5 (41.6)	29.4 (2.2)	61.8 (4.7)	45.0 (3.4)

<sup>1</sup> Marked values in the same columns differ statistically (t-test, p=0.05)