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First Report of Leaf Spot of Garden Lupin (*Lupinus polyphyllus* Lindl.) Caused by
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6 Lupinus polyphyllus, common name garden lupin, is a perennial plant with a great number of 7 hybrids that can vary dramatically in colour, used in parks and gardens and also grown as cut 8 flowers. During summer 2011, extensive brown necroses were observed on old and young leaves 9 of plants grown in a private garden near Biella (northern Italy). The disease affected about 50 of two-year-old plants. On older leaves, the first symptoms were usually brown circular to irregular 10 11 lesions, 1-10 mm in diameter, showing in the inner part alternating pale and dark brown circles. 12 Lesions usually interested the entire leaf and showed a yellow halo. On younger leaves, lesions 13 were darker, violet, with a chlorotic halo. When lesions interested the entire leaf, it curled, without 14 falling. Eventually lesions interested also leaf veins and stems and plants died. A fungus was 15 consistently isolated from infected leaves on potato dextrose agar (PDA) at average daily temperature ranging from 21 to 25°C, under 16 h of light and 8 h of darkness. Mature colonies were 16 17 dark olive-green and produced orange-ochre pigments in the medium. The mycelium had 18 olivaceous, septate hyphae that produced abundant dark, intercalary chlamydospores. The conidia 19 were cylindrical to elliptical, slightly curved, with a truncated base, 5-7 transverse septa and 3 20 hyaline appendages. The cells at the ends of conidia were sub-hyaline, whereas the intermediate 21 cells were olive-brown. The conidia measured $76-94 \times 14-9$ (average 85×16) µm. Appendages 22 were up to 84 µm long. On the basis of its morphological characteristics the pathogen was identified 23 as Pleiochaeta setosa. DNA was extracted using Terra PCR Direct Polymerase Mix (Clonte, CH) 24 and PCR carried out using ITS 1/ ITS 4 primer (4). A 570 base pair PCR product was sequenced 25 and a BLASTn search (1) confirmed that the sequence corresponded to Pleiochaeta setosa. The 26 nucleotide sequence has been assigned the GenBank Accession number JQ358708. Pathogenicity 27 tests were performed by inoculating leaves of healthy 5-month-old lupin plants, by placing 8 mm 28 mycelial disks of one isolate of the pathogen grown on PDA in light-dark for 15 days. Five plants 29 were used and ten leaves/plant were inoculated. Five plants inoculated with PDA disks served as 30 control. Plants were covered with plastic bags for 4 days after inoculation and maintained in a 31 growth chamber at $20^{\circ}C \pm 1$. Lesions developed on leaves 3 days after inoculation, whereas 32 control plants remained healthy. P. setosa was consistently reisolated from these lesions. The 33 pathogenicity test was carried out twice. The presence of P. setosa on L. polyphyllus has been

- 34 reported in Australia, USA (2) and Poland (3). This is, to our knowledge, the first report of *P*.
- 35 *setosa* in Italy. The impact of this disease is at present limited.
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