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Bursaphelenchus hofmanni Braasch, 199 growth substrate in hops nurseries

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To date, seven *Bursaphelenchus* species have been reported in surveys of the Czech Republic (Čermák *et al.*, 2013). However, the occurrence of some species, such as *Bursaphelenchus hofmanni* Braasch, 1998, is limited to single detections in imported coniferous wood (unpubl. data in Braasch, 2001). During a survey to determine pathogenic agents on hops (*Humulus lupulus* L.) conducted by State Phytosanitary Administration (CZ) in hops fields and nurseries in 2012, *B. hofmanni* was found in a mixture of peat and soil in a hops seedling nursery in Žatec (Bohemia, Czech Republic). The occurrence of *Bursaphelenchus* species in non-woody plants or substrates has been previously reported for species of the *fungivorus* group, such as *B. gonzalezi* Loof, 1964, *B. hunti* Giblin & Kaya, 1983 and *B. fungivorus* Franklin & Hooper, 1962. Species belonging to the *hofmanni* group are often associated with wood products such as packaging material (Gu *et al.*, 2006) and, to our knowledge, this is the first time that this species has been found associated with peat substrate and soil.

Nematodes were isolated from 60 g of peat substrate (3 parts peat to 1 part soil) associated with hops seedlings

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Short communication

)8 associated with peat in the Czech Republic

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ısing the Baermann funnel technique. ıging to *Bursaphelenchus* were killed and formalin and transferred to pure glycerin Grisse (1969). Two mature females and used to establish a culture maintained in *eliana*, growing on 5% malt extract agar

ntification was confirmed by both mor- molecular analyses (sequencing of the S rDNA loci). DNA was extracted as fol- cimens were collected into 20 μl of ex- 10 mM Tris-HCl, pH 8.8; 1 mM EDTA; 0 (v/v); 100 μg ml^{-1} Proteinase K) in a rf tube. Each sample was ground using ıd incubated at 55°C for 1 h and subse- for 10 min. The mixture was used as a or PCR. The SSU, LSU and ITS regions ımplified using a Phusion High Fidelity e (having $3' \rightarrow 5'$ exonuclease activity))NA polymerase (Promega) was added to ıin/72°C elongation step to create an A-

parts peat to 1 part soil) associated with hops seedlings, overhang for su

bsequent TA cloning. The primers used