

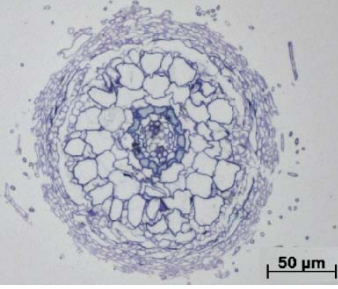
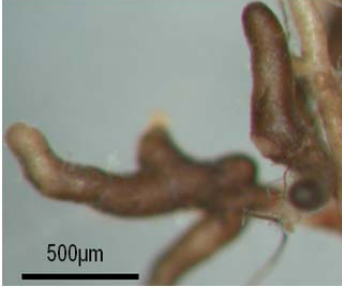
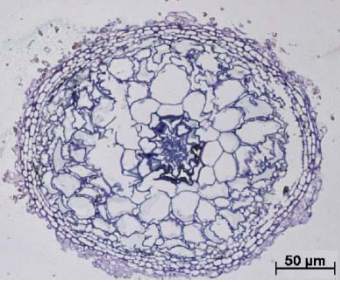
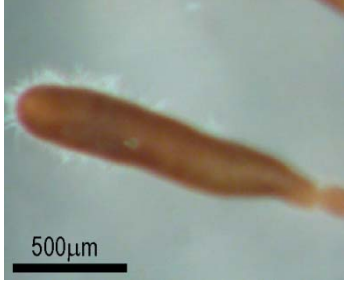
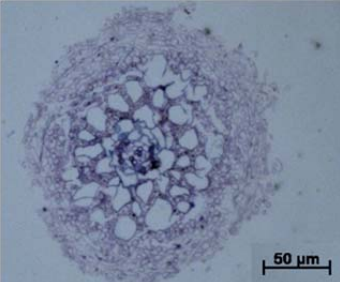

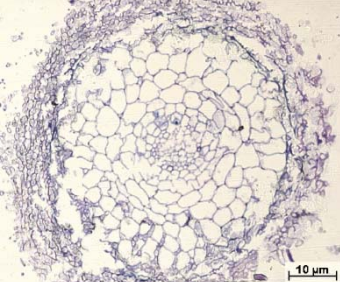
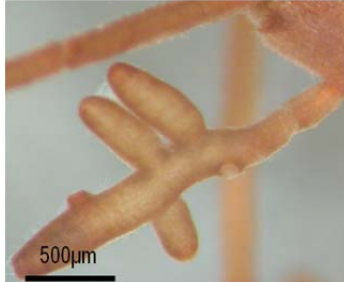

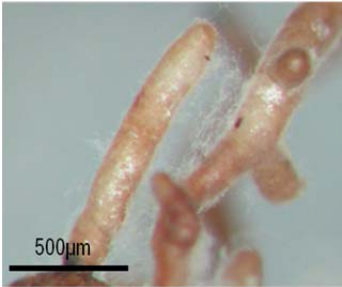





Supplementary Figure S1: Molecular identification, anatomical and morphological characterization of ectomycorrhizal fungal species found on roots of young beech (*Fagus sylvatica*). Column “Species” contains name of species and Genbank accession number, “reference accession number” contains species name identified by best BLAST match and its accession number in either UNITE (all accessions starting with UDB) or Genbank (all other numbers), “Max ident” indicates the length of the nucleotide sequences and their identity (%) with the reference sequence.

Species	Best BLAST match*		Cross section	Morphotype
	Reference accession No.	Max Ident (%)		
<i>Cenococcum geophilum</i>	Not sequenced ¹		 <p>Mantel width: 30.0µm</p>	 <p>Single, black, compact mantle, black rigid hyphae emanating from mantle</p>
<i>Tuber rufum</i> (HM748641)	UDB000996 <i>Tuber rufum</i>	491/493 (99%)	 <p>Mantel width: 22.34µm</p>	 <p>Monopodial-pinnate ramification, light brown, rare whitish emanating hyphae</p>
	FN433168 <i>Tuber rufum</i>	505/512 (99%)		

<i>Tuber</i> sp 2 (HM748637)	UDB001385 <i>Tuber</i> <i>puberulum</i>	286/311 (92%)		
	FM205642 <i>Tuber borchii</i>	459/461 (99%)	Mantel width: 20.5μm	Single or monopodial branched, brown orange, abundant equal-short emanating hyphae
<i>Tomentella</i> <i>punicea</i> (HM748638)	UDB000950 <i>Tomentella</i> <i>punicea</i>	456/458 (99%)		
	AY299299 Unculture Tomentella	457/458 (99%)	Mantel width: 36.8μm	Monopodial irregularly branched, brown, few emanating hyphae
<i>Tuber</i> sp 1 (HM748636)	UDB000121 <i>Tuber</i> <i>maculatum</i>	310/345 (89%)		
	EU668241 Uncultured Tuber isolate	387/387 (100%)	Mantel width: 28.8μm	Monopodial-pinnate, light brown, with short irregular hyphae
UEM Sebacina (HM748642)	UDB000975 <i>Sebacina</i> <i>epigaea</i>	292/303 (96%)		

	EU668267 Uncultured <i>Sebacina</i>	387/394 (98%)		Monopodial ramified, brown yellowish, with white long emanating hyphae
Cortinarius like	Not sequenced ¹			 <p>Irregularly pinnate ramified, brown-reddish, with abundant white emanating hyphae and rhizomorphs</p>
<i>Tomentella badia</i> (HM748639)	UDB000952 <i>Tomentella badia</i>	396/399 (98%)		 <p>Monopodial, brown, with only few emanating hyphae</p>
	GQ478014 Uncultured <i>Tomentella</i>	472/488 (96%)		
UEM <i>Telephoraceae</i> (HM748640)	UDB003313 <i>Tomentella</i>	500/530 (94%)		 <p>Monopodial-pinnate or monopodial-pyramidal, black, with rigid, relative abundant, yellow brownish hyphae</p>
	DQ150126: Uncultured <i>Telephoraceae</i>	400/409 (95%)		

<i>Tomentella viridula</i> (HM748643)	UDB000261 <i>Tomentella viridula</i>	447/448 (99%)		
	EU816647: Uncultured <i>Thelephoraceae</i>	448/448 (100%)		

*Best alignments by UNITE (accession numbers starting with UDB) or NCBI (all other accession numbers) and similarities with known BLAST sequences are shown. ¹sequencing failed and the species were determined by the characteristic morphotypes.