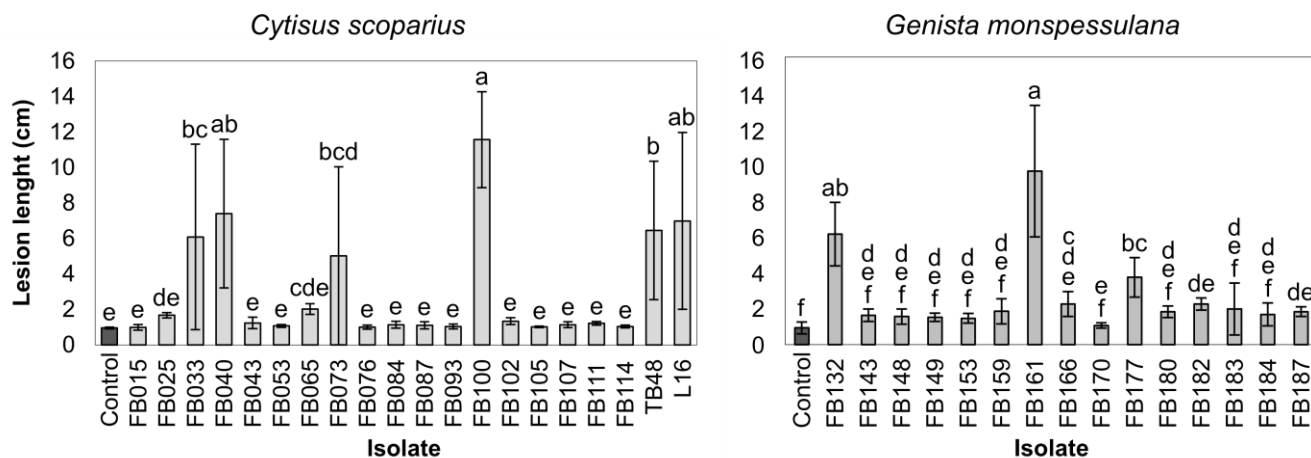


**Supplementary material.** Isolates tested in pathogenicity tests (Koch's postulates) on *Cytisus scoparius* and *Genista monspessulana* seedlings.

**Table S2.** Origin, host, symptom, and identity of isolates used in pathogenicity tests (Koch's postulates). For isolates selected for initial sequencing of the ITS gene region, the best match in BLAST (GenBank) is indicated. Isolates in Bold were selected for further pathogenicity tests and identification with additional gene regions and phylogenetic analyses.

Isolate	Host	Origin	Symptom	Species	BLAST Closest match (ITS)	
					ID (%)	ACC. NO
FB015	<i>Cytisus scoparius</i>	Lautaro	Stem discolouration	–	–	–
FB025	<i>C. scoparius</i>	Lautaro	Collar rot, stem canker	<i>Diaporthe foeniculina</i>	100	NR_145303
<b>FB033</b>	<i>C. scoparius</i>	Tranguilboro	Stem canker	<i>Fusarium solani</i>	100	NR_154227
<b>FB040</b>	<i>C. scoparius</i>	Vegas de Chanquin	Stem canker	<i>Fusarium sambucinum</i>	90.09	OQ190726
FB043	<i>C. scoparius</i>	Vegas de Chanquin	Collar rot (perithecia)	<i>Fusarium avenaceum</i>	–	–
FB053	<i>C. scoparius</i>	Vegas de Chanquin	Stem canker	<i>Fusarium</i> sp.	–	–
FB065	<i>C. scoparius</i>	Vegas de Chanquin	Vascular discolouration	<i>Fusarium lateritium</i>	100	AF310978
<b>FB073</b>	<i>C. scoparius</i>	Calcoy	Stem canker	<i>Neofusicoccum parvum</i>	100	KU679349
FB076	<i>C. scoparius</i>	Calcoy	Stem canker	<i>Diaporthe rudis</i>	99.48	KC343234
FB084	<i>C. scoparius</i>	Calcoy	Stem canker	<i>Pleiochaeta</i> sp.	–	–
FB087	<i>C. scoparius</i>	Calcoy	Stem canker	–	–	–
FB093	<i>C. scoparius</i>	Calcoy	Collar rot	<i>Cylindrocarpon</i> -like	–	–
<b>FB100</b>	<i>C. scoparius</i>	Calcoy	Stem canker	<i>Fusarium sambucinum</i>	98.04	KY605272
FB102	<i>C. scoparius</i>	Calcoy	Stem lesions	<i>Phyllosticta</i> sp.	–	–
FB105	<i>C. scoparius</i>	Licura bajo	Vascular discolouration	<i>Cylindrocarpon</i> -like	–	–
FB107	<i>C. scoparius</i>	Licura bajo	Vascular discolouration	–	–	–
FB111	<i>C. scoparius</i>	Licura bajo	Stem lesions	<i>Epicoccum nigrum</i>	100	MN075407
FB114	<i>C. scoparius</i>	Licura bajo	Collar rot	<i>Cylindrocarpon</i> -like	–	–
<b>L-16</b>	<i>C. scoparius</i>	Lautaro	Collar and root rot	<i>Phytophthora multivora</i>	99.50	NR_147867
<b>FB132</b>	<i>Genista monspessulana</i>	Santa Juana (b)	Stem canker	<i>Neofusicoccum parvum</i>	100	MF578763
<b>FB137</b>	<i>G. monspessulana</i>	Santa Juana (c)	Vascular discolouration	<i>Chondrostereum purpureum</i>	100	MH270445
FB143	<i>G. monspessulana</i>	Santa Juana (c)	Tip dieback	<i>Botryosphaeriaceae</i>	–	–
FB148	<i>G. monspessulana</i>	Santa Juana (c)	Tip dieback	<i>Alternaria</i> sp.	–	–
FB149	<i>G. monspessulana</i>	Santa Juana (c)	Tip dieback	–	–	–
FB153	<i>G. monspessulana</i>	Santa Juana (c)	Tip dieback	–	–	–
FB159	<i>G. monspessulana</i>	Itata (a)	Tip dieback	<i>Alternaria</i> sp.	–	–
<b>FB161</b>	<i>G. monspessulana</i>	Itata (a)	Tip dieback	<i>Neofusicoccum parvum</i>	–	–
FB166	<i>G. monspessulana</i>	Itata (b)	Stem canker	<i>Phomopsis</i> sp.	–	–
FB170	<i>G. monspessulana</i>	Itata (b)	Vascular discolouration	<i>Sordaria</i> sp.	–	–
<b>FB177</b>	<i>G. monspessulana</i>	Cabrero (a)	Stem canker	<i>Fusarium tricinctum</i> s.l.	100	MN594466
FB180	<i>G. monspessulana</i>	Cabrero (b)	Tip dieback	<i>Phomopsis</i> sp.	–	–
FB182	<i>G. monspessulana</i>	Cabrero (b)	Root rot	<i>Fusarium oxysporum</i>	100	MT420651
FB183	<i>G. monspessulana</i>	Cabrero (b)	Root rot	–	–	–
FB184	<i>G. monspessulana</i>	Cabrero (b)	Stem canker	–	–	–
FB187	<i>G. monspessulana</i>	Cabrero (b)	Stem canker	<i>Fusarium</i> sp.	–	–



**Figure S1.** Lesion length after 30 days on plants of *Cytisus scoparius* (left) and *Genista monspessulana* (right) inoculated with 19 and 15 fungal isolates and non-inoculated control, respectively. Error bars indicate standard deviation. Bars with different letters are significantly different according to Wilcoxon Rank Sum tests ( $\alpha=0.01$ ).