

# ABCbot

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## SUPPLEMENTARY MATERIAL

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### **Supplementary TABLE S1**

List of taxa and sequences analysed. Sequences obtained from the GenBank are indicated by an asterisk; unknown data are indicated by a question mark.

### **Supplementary FIG. S1**

Rooted Maximum Likelihood phylogenetic trees constructed for ITS sequences. As an outgroup, *Lindenbergia sinaica* was used. Numbers near branches show bootstrap values. The bar represents the amount of genetic change (nucleotide substitutions per site).

### **Supplementary FIG. S2**

Rooted Maximum Likelihood phylogenetic trees constructed for *trnL-trnF* sequences. As an outgroup, *Lindenbergia sinaica* was used. Numbers near branches show bootstrap values. The bar represents the amount of genetic change (nucleotide substitutions per site).

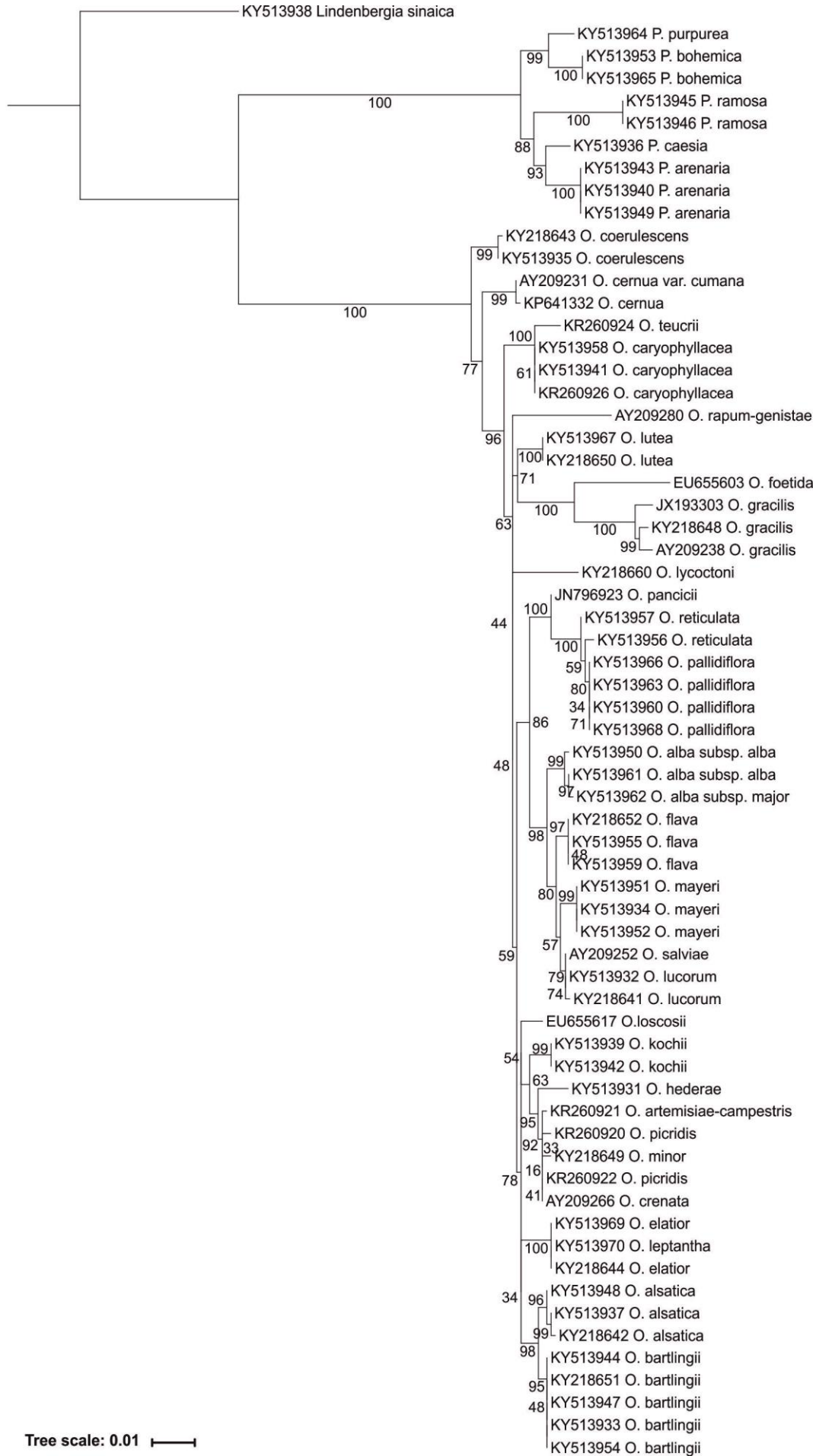
Table S1

Taxon	ITS	trnL-trnF	Country	Voucher information or reference (ITS/trnL-trnF)	Host
<b>Orobanchae</b>					
<i>O. alba</i> subsp. <i>alba</i>	KY513961	KU238873*	Poland	Bieszczady Mts, Połonina Caryńska, 14 Aug 2009, R. Piwowarczyk (KTC) / Kwolek et al. 2017	<i>Thymus pulegioides</i>
<i>O. alba</i> subsp. <i>alba</i>	KY513950	KY484496	Czech Republic	Mikulov, 21 Jun 2014, R. Piwowarczyk (KTC)	<i>Thymus pulegioides</i>
<i>O. alba</i> subsp. <i>major</i>	KY513962	KY484495	Poland	Kąty II, 15 Jul 2006, R. Piwowarczyk (KTC)	<i>Salvia verticillata</i>
<i>O. alsatica</i>		KY484481	Poland	Broczówka, 8 Jun 2007, R. Piwowarczyk (KTC)	<i>Peucedanum cervaria</i>
<i>O. alsatica</i>	KY513937	KY484482	Poland	Kielce, 16 Jun 2013, R. Piwowarczyk (KTC)	<i>Peucedanum cervaria</i>
<i>O. alsatica</i>	KY218642*	KY484483	Poland	Piwowarczyk et al. 2017c/ Długoszyn, 15 Jun 2013, R. Piwowarczyk (KTC)	<i>Peucedanum cervaria</i>
<i>O. alsatica</i>	KY513948	KY484477	Czech Republic	Mikulov, 21 Jun 2014, R. Piwowarczyk (KTC)	<i>Seseli osseum</i>
<i>O. artemisiae-campestris</i>	KR260921	KY484484	Czech Republic	Mikulov, 21 Jun 2014, R. Piwowarczyk (KTC)	<i>Artemisia campestris</i>
<i>O. bartlingii</i>	KY513947	KY484475	Slovakia	Kamenica nad Hronom, 20 Jun 2014, R. Piwowarczyk (KTC)	<i>Seseli osseum</i>
<i>O. bartlingii</i>	KY513933	KY484478	Poland	Podzamcze, 14 Jun 2013, R. Piwowarczyk (KTC)	<i>Seseli libanotis</i>
<i>O. bartlingii</i>	KY513944	KY484479	Poland	Rzędkowice, 6 Jul 2013, R. Piwowarczyk (KTC)	<i>Seseli libanotis</i>
<i>O. bartlingii</i>	KY218651*	KY484480	Slovakia	Piwowarczyk et al. 2017c/ Podbiel, Biela skala, 7 Aug 2011, R. Piwowarczyk (KTC)	<i>Seseli libanotis</i>
<i>O. bartlingii</i>	KY513954	KY484476	Slovakia	Podbiel, Červená skala, 7 Aug 2011, R. Piwowarczyk (KTC)	<i>Seseli libanotis</i>
<i>O. caryophyllacea</i>	KR260926*	KY484466	Poland	Piwowarczyk et al. 2017c/ Kików, 30 May 2013, R. Piwowarczyk (KTC)	<i>Galium mollugo</i>
<i>O. caryophyllacea</i>	KY513958	KY484465	Poland	Bogucice, 6 Jun 2007, R. Piwowarczyk (KTC)	<i>Galium odoratum</i>
<i>O. caryophyllacea</i>	KY513941	KU238869*	Poland	Chomentówek, 30 May 2013, R. Piwowarczyk (KTC) / Kwolek et al. 2017	<i>Galium boreale</i>
<i>O. cernua</i>	KP641332*	KU238874*	Georgia	Piwowarczyk et al. 2015, Kwolek et al. 2017	<i>Artemisia</i> sp.
<i>O. cernua</i> var. <i>cumana</i>	AY209231*		Georgia	Schneeweiss et al. 2004a, Carlón et al. 2005	<i>Artemisia meyeriana</i>
<i>O. coerulescens</i>	KY513935	KU238865*	Poland	Dobrowoda, 16 Jun 2013, R. Piwowarczyk (KTC)	<i>Artemisia campestris</i>
<i>O. coerulescens</i>	KY218643*	KU238864*	Poland	Piwowarczyk et al. 2017c/ Pasturka, 14 Jun 2013, R. Piwowarczyk (KTC)	<i>Artemisia campestris</i>
<i>O. crenata</i>	AY209266*		Greece	Schneeweiss et al. 2004a	?
<i>O. elatior</i>	KY218644*	KU328866*	Poland	Piwowarczyk et al. 2017c / Kwolek et al. 2017	<i>Centaurea scabiosa</i>
<i>O. elatior</i>	KY513969	KY484474	Poland	Zielone, 1 Jul 2014, M. Smoczyk (KTC)	<i>Centaurea scabiosa</i>
<i>O. flava</i>	KY218652*	KY484492	Poland	Piwowarczyk et al. 2017c/ Szczawnica, Pieniny Mts, 1 Aug 2009, R. Piwowarczyk (KTC)	<i>Petasites kablikianus</i>
<i>O. flava</i>	KY513959	KY484494	Poland	Mała Łąka valley, Tatra Mts, 22 Jun 2009, R. Piwowarczyk (KTC)	<i>Petasites kablikianus</i>
<i>O. flava</i>	KY513955	KY484493	Slovakia	Nízke Tatry Mts., Ohnište, 4 Aug 2011, R. Piwowarczyk (KTC)	<i>Petasites kablikianus</i>
<i>O. foetida</i>	EU655603*		Spain	Unpublished	?
<i>O. gracilis</i>	KY218648*	KU238871*	Austria	Piwowarczyk et al. 2017c/ Kwolek et al. 2017	<i>Anthyllis vulneraria</i> , <i>Dorycnium germanicum</i>
<i>O. gracilis</i>	JX193303*		Austria	Piednoël et al. 2012	<i>Chamaecytisus</i> sp.
<i>O. gracilis</i>	AY209238*		Spain	Schneeweiss et al. 2004a	?
<i>O. gracilis</i>		NC_023464*		Wicke et al. 2013	<i>Chamaecytisus</i> sp.

<i>O. kochii</i>	KY513939	KY484469	Poland	Pęczelice, 29 Jun 2013, R. Piwowarczyk (KTC)	<i>Centaurea scabiosa</i>
<i>O. kochii</i>		KY484470	Poland	Boria, 29 Jun 2013, R. Piwowarczyk (KTC)	<i>Centaurea scabiosa</i>
<i>O. kochii</i>	KY513942	KY484471	Poland	Boria, 29 Jun 2013, R. Piwowarczyk (KTC)	<i>Centaurea scabiosa</i>
<i>O. lucorum</i>	KY218641*	KY484491	Poland	Piwowarczyk et al. 2017c/ Warsaw, botanical garden, 10 Jul 2009, R. Piwowarczyk (KTC)	<i>Berberis vulgaris</i>
<i>O. lucorum</i>	KY513932	KY484490	Switzerland	Ramosch (Inn distr.), 30 Jun 2006, J. Koopman (herb. J. Koopman)	<i>Berberis vulgaris</i>
<i>O. lycoctoni</i>	KY218660*		Switzerland	Piwowarczyk et al. 2017c/ Helvetia, St. Gallen, Alpes de Glaris, 27 July 2004, G. Gomez Casares & G. Moreno Moral (herb. O. Sanchez Pedraja)	<i>Aconitum lycoctonum</i>
<i>O. lutea</i>	KY218650*	KY484467	Poland	Piwowarczyk et al. 2017c/ Chomentówek, 30 May 2013, R. Piwowarczyk (KTC)	<i>Medicago sativa</i> , <i>M. falcata</i>
<i>O. lutea</i>	KY513967	KY484468	Poland	Pasturka, 30 May 2013, R. Piwowarczyk (KTC)	<i>Medicago sativa</i>
<i>O. mayeri</i>	KY513951	KY484489	Poland	Pieniny Mts, Trzy Korony, 30 Jun 2009, R. Piwowarczyk (KTC)	<i>Laserpitium latifolium</i>
<i>O. mayeri</i>	KY513952	KY484488	Poland	Pieniny Mts, Białe Skały, 29 Jun 2009, R. Piwowarczyk (KTC)	<i>Laserpitium latifolium</i>
<i>O. mayeri</i>	KY513934	KY484487	Germany	Schwäbische Alb, Zeller Horn, 11 Jul 2015, H. Uhlich (KTC)	<i>Laserpitium latifolium</i>
<i>O. minor</i>	KY218649	KY484485	Poland	Ułanica, 31 Jun 2014, M. Wolanin (KTC)	<i>Trifolium pratense</i>
<i>O. pallidiflora</i>	KY513963	KY484497	Poland	Bieszczady Mts, 14 Aug 2009, R. Piwowarczyk (KTC)	<i>Carduus personata</i>
<i>O. pallidiflora</i>	KY513960	KY484499	Poland	Mysłów, 15 Jul 2011, R. Piwowarczyk (KTC)	<i>Cirsium oleraceum</i>
<i>O. pallidiflora</i>	KY513968		Poland	Ryszewo, Jul 2014, P. Pluciński (KTC)	<i>Cirsium oleraceum</i>
<i>O. pallidiflora</i>	KY513966	KY484498	Poland	Lubiatowo, Jun 2014, R. Piwowarczyk (KTC)	<i>Cirsium arvense</i>
<i>O. pancicii</i>		KT387724*	?	Cusimano and Wicke 2016	?
<i>O. pancicii</i>	JN796923*		Austria	Piednoël et al. 2012	<i>Knautia drymeia</i>
<i>O. picridis</i>	KR260922	KY484486	Poland	Pasturka, 1 Jul 2014, R. Piwowarczyk (KTC)	<i>Picris hieracioides</i>
<i>O. picridis</i>	KR260920*	KU238867*	Poland	Piwowarczyk et al. 2017c/ Kwolek et al. 2017	<i>Picris hieracioides</i>
<i>O. rapum-genistae</i>		MF964232	Spain	El Rocio (Huelva province), Spain	<i>Cytisus</i> sp.
<i>O. rapum-genistae</i>	AY209280*		France	Schneeweiss et al. 2004a	?

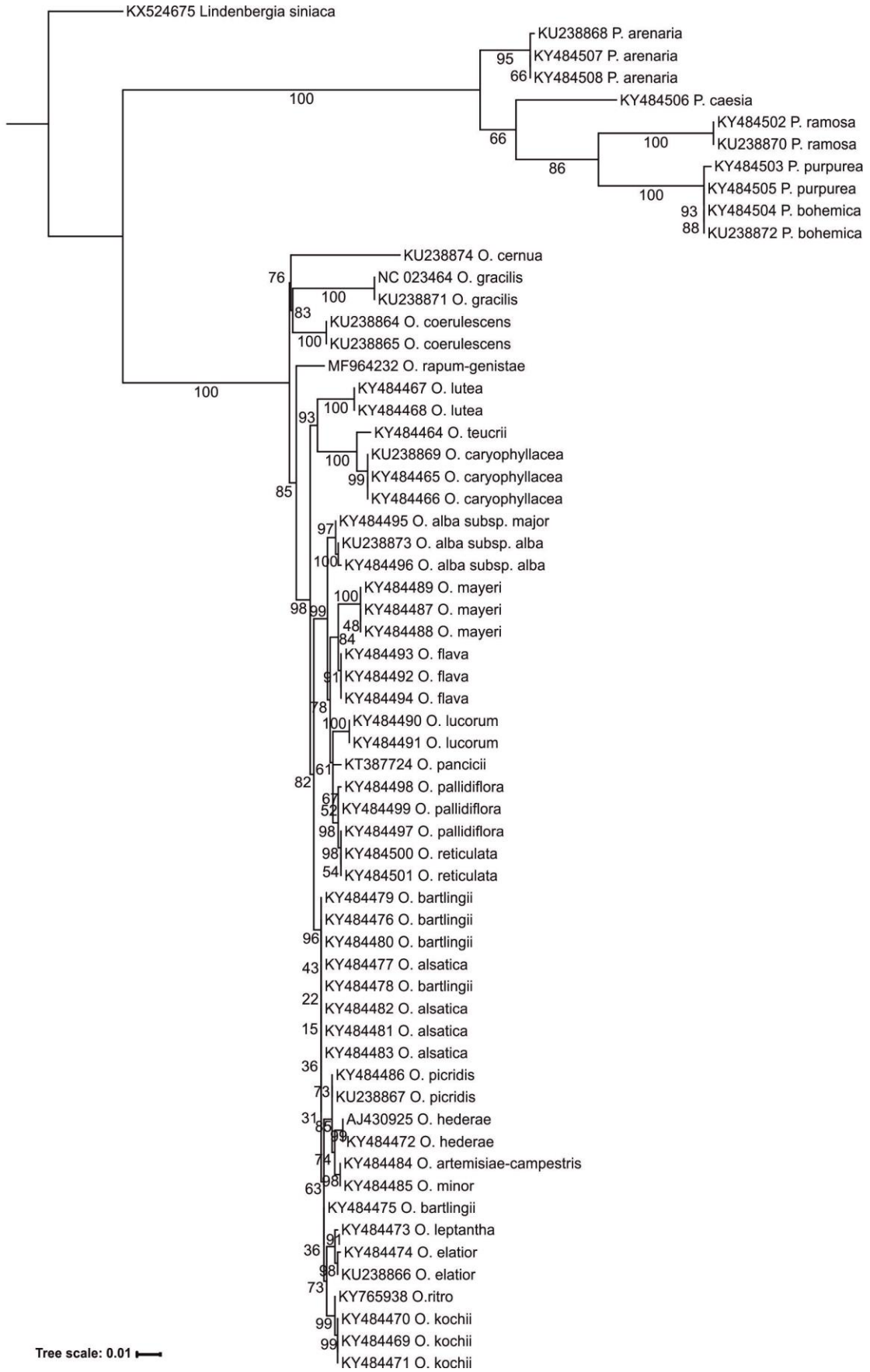
<i>O. reticulata</i>	KY513956	KY484500	Slovakia	Nízke Tatry Mts., Krakova hoľa, Pusté, 5 Aug 2011, R. Piwowarczyk (KTC)	<i>Carduus glaucinus</i>
<i>O. reticulata</i>	KY513957	KY484501	Slovakia	Nízke Tatry Mts., Ohnište, 4 Aug 2011, R. Piwowarczyk (KTC)	<i>Carduus glaucinus</i>
<i>O. salviae</i>	AY209252*		Austria	Schneeweiss et al. 2004a	<i>Salvia glutinosa?</i>
<i>O. teucrii</i>	KR260924	KY484464	Austria	Hundsheim, 21 Jun 2014, R. Piwowarczyk (KTC)	<i>Teucrium montanum</i>
<i>O. hederiae</i>	KY513931	KY484472	Montenegro	Ulcinj, Montenegro, 6 May 2015, R. Piwowarczyk (KTC)	<i>Hedera helix</i>
<i>O. hederiae</i>		AJ430925*	?	Bremer et al. 2002	?
<i>O. leptantha</i>	KY513970	KY484473	Spain	Calpe (prov. Alicante), Spain, 28 Apr 2009, R. Piwowarczyk (KTC)	<i>Centaurea</i> sp.
<i>O. loscosii</i>	EU655617*		Spain	Barbastro (prov. Huesca), Spain,, 2 June 2007, G. Gómez Casares&G. Moreno Moral (herb. Sánchez Pedraja 12889)	<i>Echinops ritro</i> subsp. <i>ritro</i>
<i>O. ritro</i>		KY765938	Russia	Volgograd region: Sarepta, Jul 1853, A. Becker (LE)	<i>Echinops ritro</i>
<b>Phelipanche</b>					
<i>P. arenaria</i>	KY513943	KY484507	Poland	Zawiercie-Bzów, 6 Jul 2013, R. Piwowarczyk (KTC)	<i>Artemisia campestris</i>
<i>P. arenaria</i>	KY513940	KU238868*	Poland	Zwierzyniec, 6 Jul 2013, R. Piwowarczyk (KTC) / Kwolek et al. 2017	<i>Artemisia campestris</i>
<i>P. arenaria</i>	KY513949	KY484508	Czech Republic	Mikulov, 21 Jun 2014, R. Piwowarczyk (KTC)	<i>Artemisia campestris</i>
<i>P. bohémica</i>	KY513953	KU238872*	Poland	Zawiercie-Bzów, 11 Jun 2010, R. Piwowarczyk (KTC) / Kwolek et al. 2017	<i>Artemisia campestris</i>
<i>P. bohémica</i>	KY513965	KY484504	Poland	Raduń, Jul 2014, P. Pluciński (KTC)	<i>Artemisia campestris</i>
<i>P. caesia</i>	KY513936	KY484506	Ukraine	Askania Nova, 16 Jun 2011, R. Piwowarczyk (KTC)	<i>Artemisia austriaca</i>
<i>P. purpurea</i>		KY484503	Poland	Chrzanów, 21 Jun 2014, R. Piwowarczyk (KTC)	<i>Achillea millefolium</i> s.l.
<i>P. purpurea</i>	KY513964	KY484505	Poland	Zatoń Dolna, Jun 2014, P. Pluciński (KTC)	<i>Achillea millefolium</i> s.l.
<i>P. ramosa</i>	KY513946	KY484502	Poland	Brzeziny, 15 Sep 2013, R. Piwowarczyk (KTC)	<i>Nicotiana tabacum</i>
<i>P. ramosa</i>	KY513945	KU238870*	Poland	Szewce, 15 Sep 2013, R. Piwowarczyk (KTC)/ Kwolek et al. 2017	<i>Lycopersicon esculentum</i>
<b>Lindenbergia</b>					
<i>Lindenbergia sinaica</i>	KY513938	KX524675*	Israel	Eliat, 31 Jan 1998, E. Gabrielian & O. Fragman (ERE), Kwolek et. al 2017	-

# S1



Tree scale: 0.01

S2



Tree scale: 0.01