

Table S2. Voucher information of species used in this study.

Lineage	Species	PS type	Herbarium/voucher ID
Cam-phorosmeae	<i>Threlkeldia diffusa</i> R. Br.	C ₃	Millenium Seed Bank serial number: 0381990; cultivated at Botanical Garden Mainz, living coll. no 076 (voucher MJG 027679)
	<i>Sedobassia sedoides</i> (Pall.) Freitag & G.Kadereit	C ₂	G. Somogyi s.n., Hungary, Besenyötelek, Csuportos-legelő, N 47,688119°, E 20,461372°, 2012 (cultivated at Botanical Garden Mainz, living coll. no 002; voucher at MJG)
	<i>Bassia prostrata</i> (L.) Beck	C ₄	G. Somogyi s.n., Hungary, Besenyötelek, Csuportos-legelő, N 47,685817°, E 20,465919°, 2012 (cultivated at Botanical Garden Mainz, living coll. no 001; voucher at MJG)
Salsoleae	<i>Salsola webbii</i> Moq.	C ₃	Elena Voznesenskaya s.n., Southern Spain, collected in 2011; (cultivated at Pullman Univ., Washington and Botanical Garden Mainz; living coll. number 67; voucher at MJG)
	<i>Salsola divaricata</i> Masson ex Link Pop-184	C ₂	Gil González, J. s.n., 2013-10-21, Spain, Canary Islands, Lanzarote, Haria, Punta Mujeres (MJG 014225)
	<i>Salsola divaricata</i> Masson ex Link Pop-198	C ₂	Anonymous collector, Spain, Gran Canaria, Cuesta Ramón, Jinamar, Zona 28R, UTM: E 458720,932 N 3102402,105 (cultivated at Botanical Garden Mainz, living collection no 198II; MJG 013542)
	<i>Salsola soda</i> L.	C ₄ *	Kaligarič, M. s.n. 2009-09-14, Slovenia, Sv. Katarina (Ankaran) near Koper (cultivated at Botanical Garden Mainz living collection no. 125; MJG 013542)
	<i>Hammada scoparia</i> (Pomel) Iljin synonym of <i>Haloxylon scoparium</i> Pomel	C ₄	Millenium Seed Bank serial number 0089920, cultivated at Botanical Garden Mainz, living coll. no 087 and 089.
	<i>Salsola oppositifolia</i> Desf.	C ₄	H. Freitag 40002; SW Morocco 18 km N Agadir, near Tamrhakt, behind coastal cliff, most common along roadside (cultivated at Botanical Garden Mainz, living coll. number 173; MJG 013564)