

Table S2 *Leymus* species and other related genera in Triticeae used in this study

Taxa	Abbreviation	Accession No.	Genome (ploidy)	Origin	GenBank Accession No. <i>Acc1</i>
<i>Aegilops</i> L.					
<i>Aegilops bicornis</i>	AEBI	ND	S^b (2×)	The Middle East	<u>AF343521</u>
<i>Aegilops longissima</i>	AELO	ND	S^l (2×)	The Middle East	<u>AF343531</u>
<i>Aegilops searsii</i>	AESE	ND	S^s (2×)	The Middle East	<u>AF343529</u>
<i>Aegilops sharonensis</i>	AESH	ND	S^{sh} (2×)	The Middle East	<u>AF343525</u>
<i>Aegilops speltoides</i> ssp. <i>ligustica</i>	AESL	ND	S (2×)	The Middle East	<u>AF343535</u>
<i>Aegilops speltoides</i> ssp. <i>speltoides</i>	AESP	ND	S (2×)	The Middle East	<u>AF343527</u>
<i>Aegilops tauschii</i>	AETA	ND	D (2×)	The Middle East	<u>AF343496</u>
<i>Agropyron</i> Gaertn.					
<i>Agropyron cristatum</i>	ACRIa	PI 277352	P (2×)	Russian Federation	DQ453692
<i>Agropyron cristatum</i>	ACRIb	PI 499388	P (2×)	Xinjiang, China	
<i>Agropyron mongolicum</i>	AMON	PI 499392	P (2×)	Inner Mongolia, China	DQ456970
<i>Australopyrum</i> (Tsvelev.) Á. Löve					
<i>Australopyrum retrofractum</i>	AURE	PI 533013	W (2×)	New South Wales, Australia	DQ497807
<i>Crithopsis</i> (Schult.) Roshev.					
<i>Crithopsis delileana</i>	CDEL	ND	K (2×)	Greece	DQ497804
<i>Dasypyrum</i> (L.) Candargy					
<i>Dasypyrum villosum</i>	DVIL	PI 251478	V (2×)	Turkey	DQ456971
<i>Dasypyrum hordeaceum</i>	DHOR	PI 516547	V (2×)	Morocco	DQ497802
<i>Eremopyrum</i> Jaub. et Spach.					
<i>Eremopyrum distans</i>	EDIS	TA 2229	F (2×)	Afghanistan	DQ453691
<i>Eremopyrum triticeum</i>	DTRI	Y 206	F (2×)	Xinjiang, China	DQ453690

<i>Henrardia</i> C. E. Hubb.					
<i>Henrardia persica</i>	HEPE	PI 401349	O (2×)	Turkey	GQ228396
<i>Heteranthelium</i> Hochst.					
<i>Heteranthelium piliferum</i>	HEPI	PI 401351	Q (2×)	Iran	DQ497808
<i>Hordeum</i> Linn.					
<i>Hordeum bogdanii</i>	HBOG	PI 531761	H (2×)	Xinjiang, China	DQ319185
<i>Hordeum chilense</i>	HCHI	PI 531781	H (2×)	Chile	DQ497805
<i>Hordeum vulgare</i>	HVUL	Betzes	I (2×)	ND	<u>AF343509</u>
<i>Lophopyrum</i> (Host) Á. Löve					
<i>Lophopyrum elongatum</i>	LOEL	PI 531719	E^e (2×)	St. Angulf, France	DQ355219
<i>Peridictyon</i> O. Seber, S. Frederiksen & C. Baden					
<i>Peridictyon sanctum</i>	PESA	H 3841	Xp (2×)	Greece	GQ228397
<i>Psathyrostachys</i> Nevski					
<i>Psathyrostachys fragilis</i>	PSAF	Y 882	Ns (2×)	Iran	FJ449595
<i>Psathyrostachys huashanica</i>	PSAH	ZY 3157	Ns (2×)	Shaanxi, China	DQ335577
<i>Psathyrostachys juncea</i>	PSAJ	PI 222050	Ns (2×)	Afghanistun	DQ335578
<i>Psathyrostachys lanuginosa</i>	PSAL	Y 1567	Ns (2×)	Xinjiang, China	GQ228398
<i>Pseudoroegneria</i> (Nevski) Á. Löve					
<i>Pseudoroegneria libanotica</i>	PSEL	PI 228392	St (2×)	Iran	DQ335574
<i>Pseudoroegneria spicata</i>	PSES	PI 232123	St (2×)	Washington, USA	DQ306262
<i>Pseudoroegneria stipifornia</i>	PSESTI	PI 440095	St (2×)	Yankuls kaya, Russian	DQ335576
<i>Pseudoroegneria strigosa</i>	PSEST	PI 499637	St (2×)	Xinjiang, China	DQ335575
<i>Secale</i> L.					
<i>Secale cereale</i>	SECE	Imperial	R (2×)	ND	<u>AF343516</u>
<i>Taeniatherum</i> (L.) Nevski					
<i>Taeniatherum caput-medusae</i>	TACA	PI 220591	Ta (2×)	Afghanistan	DQ497803

<i>Thinopyrum</i> (Savul. & Rayss) Á. Löve					
<i>Thinopyrum bessarabicum</i>	TBES	PI 531711	E ^b (2×)	Crimea, Ukraine	DQ355220
<i>Triticum</i> L.					
<i>Triticum monococcum</i>	TRMO	TA 2025	A ^m (2×)	The Middle East	<u>AF343517</u>
<i>Triticum urartu</i>	TRUR	TA 763	A (2×)	Lebanon	<u>AF343518</u>
<i>Leymus</i> Hochst.					
<i>Leymus akmolinensis</i>	LAKM	PI 440306	4×	Russian Federation	EU301812
<i>Leymus ambiguus</i>	LAMB	PI 531795	8×	Colorado, USA	FJ449626, DQ319178
<i>Leymus angustus</i>	LANG	PI 531797	12×	Urumqi, Xinjiang, China	DQ319179, FJ449613
<i>Leymus arenarius</i>	LARE	PI 272126	4×	Alma-Ata, Kazakhstan	FJ449625, DQ319177
<i>Leymus chinensis</i>	LCHI	PI 499515	4×	Xilinhote, Inner Mongolia, China	FJ449609, FJ449612
<i>Leymus cinereus</i>	LCIN	PI 469229	8×	Saskatchewan, Canada	EU301817, EU301818
<i>Leymus coreanus</i>	LCOR	W6 14259	4×	Primorye, Russian Federation	DQ319184
<i>Leymus crassiusculus</i>	LCRA	ZY 06059	4×	Guinan, Qinghai, China	FJ449596, FJ449624
<i>Leymus duthiei</i>	LDUT	ZY 2004	4×	Chongzhou, Sichuan, China	DQ335570, EU301816
<i>Leymus duthiei</i> var. <i>longearistatus</i>	LLON	ZY 2005	4×	Tokyo, Japan	DQ335571
<i>Leymus flexus</i>	LFLE	ZY 06044	4×	Xinghai, Qinghai, China	FJ449614, FJ449597
<i>Leymus innovatus</i>	LINN	PI 236818	4×	Canada	EU301820, EU301821
<i>Leymus karelinii</i>	LKAR	PI 598525	12×	Dafeng, Xinjiang, China	FJ449607, FJ449629
<i>Leymus komarovii</i>	LKOM	ZY 06001	4×	Heilongjiang, China	EU301810, EU301811
<i>Leymus leptostachys</i>	LLEP	ZY 06053	4×	Guinan, Qinghai, China	FJ449602, FJ449620
<i>Leymus multicaulis</i>	LMUL	PI 440326	4×	Dzhambul, Kazakhstan	FJ449608
<i>Leymus ovatus</i>	LOVA	ZY 06039	4×	Xining, Qinghai, China	FJ449615, FJ449599
<i>Leymus paboanus</i>	LPAB	PI 531808	8×	Estonia	FJ449611, DQ319181
<i>Leymus pendulus</i>	LPEN	ZY 05003	4×	Hongyuan, Sichuan, China	FJ449605, FJ449623
<i>Leymus pseudoracemosus</i>	LPSE	PI 531810	4×	Geermu, Qinghai, China	EU366386, EU366387

<i>Leymus qinghaicus</i>	LQIN	ZY 07008	4×	Hongyuan, Sichuan, China	FJ449604, FJ449622
<i>Leymus racemosus</i>	LRAC	PI 478832	4×	Montana, United States	EU366388, EU366389
<i>Leymus ramosus</i>	LRAM	PI 499653	4×	Xinjiang, China	FJ449616
<i>Leymus salinus</i>	LSAL	PI 531816	8x	Uath, United States	EU366390, EU366391
<i>Leymus secalinus</i>	LSEC	ZY 06063	4×	Gonghe, Qinghai, China	FJ449618, FJ449600
<i>Leymus shanxiensis</i>	LSHA	ZY 06045	4×	Xining, Qinghai, China	FJ449601, FJ449619
<i>Leymus tianschanicus</i>	LTIA	Y 2036	4×	Tianshan, Xinjiang, China	FJ449606, FJ449628
<i>Leymus triticoides</i>	LTRI	PI 516194	4×	Oregon, United States	EU301813, EU301814
<i>Leymus yiwuensis</i>	LYIW	ZY 06089	4×	Qinghai, China	FJ449598, FJ449617
<i>Bromus</i> L.					
<i>Bromus inermis</i>	--	PI 618974		Xinjiang, China	EU366392

The underlined GenBank accession numbers with bold represent previously published sequences from the GenBank (<http://www.ncbi.nlm.nih.gov>). ND: not determined.