

**Paule J., Kolář F. & Dobeš C. (2015): Arctic-alpine and serpentine differentiation in polyploid *Potentilla crantzii*. – *Preslia* 87: 195–215**

Electronic Appendix 1. – Literature review of the *Potentilla crantzii* chromosome counts. Country codes follow ISO 3166-1 alpha-3, \* indicates aneuploidy.

Locality	Chromosome count	Ploidy level	Reference
AUT, N, Bernstein: über Serpentinegestein	2n=28	4x	Dobeš & Vitek (2000)
AUT, St, Ennstaler Alpen, Jagdsteig zwischen Kainzengabel und Gamssteinscharte S des Ödsteins, ca 1480 m	2n=28	4x	Dobeš & Vitek (2000)
AUT, K, Gurktaler Alpen, Turrach, Scharte ober dem Zgartensee (zwischen Hoarzhöhe und Bretthöhe), ca. 4 km E der Turracherhöhe, ca 2200 m	2n=28	4x	Dobeš & Vitek (2000)
AUT, T, Ötztaler Alpen, Venter Tal, Wiesen N und W der Ortschaft 1890-1920m	2n=42	6x	Dobeš & Vitek (2000)
CHE, Graubünden, Bernina Range, Isla Persa	2n=42	6x	Scholte in Löve (1977)
CZE, forest in the valley Sedlický potok ca. 400 m., on serpentine soil near Dolní Kralovice	2n=28	4x	Czapik in Löve (1967)
ESP, Huesca Ansó: Peña Ezcaurri	2n=42	6x	Asker (1985)
ESP, Huesca Hecho: Sierra del Agüeri, 1750 m	2n=28	4x	Asker (1985)
ESP, León: Pico Espigüete, 2400 m	2n=42	6x	Asker (1985)
ESP, Palencia: Puerto de Piedrasluengas	2n=42	6x	Delgado et al. (2000)
ESP, Santander: Fuente Dé, Collado de Áliva	2n=35	5x	Delgado et al. (2000)
ESP, Santander: Fuente Dé, Collado de Áliva	2n=42	6x	Delgado et al. (2000)
EST, West Estonia, island Osmussaar	2n=42	6x	Leht & Paal (1998)
FRA, Col de Lautaret	2n=28	4x	Thomas Gregor pers. comm.
FRA, Col de Lautaret	2n=42	6x	Thomas Gregor pers. comm.
FRA, Department Hautes Alpes, Plateau d'Emparis, between Lac Noir und Lac Lerié, 2450 m	2n=35	5x	Dobeš et al. (2012)
GBR, Durham, Upper Teesdale, Widdy Bank Fell	2n=49	7x	Smith et al. (1971)
GBR, Durham, Upper Teesdale, Winch Bridge	2n=49	7x	Smith et al. (1971)
GBR, Forfar, Caenlochan alt. 2750 ft	2n=42	6x	Smith et al. (1971)
GBR, M.W. Yorkshire, Malham Tarn	2n=42	6x	Smith et al. (1971)
GBR, M.W. Yorkshire, Malham Tarn	2n=48	7x*	Smith et al. (1971)
GBR, M.W. Yorkshire, Malham Tarn	2n=49	7x	Smith et al. (1971)
GBR, Mid-Perth, Beinn Heasgarnich, head of Glen Lochay, alt. 2500 ft	2n=49	7x	Smith et al. (1971)
GBR, Mid-Perth, Ben Lawers, steep rocks at north end of Crag an Lochan	2n=42	6x	Smith (1963), Smith et al. (1971)
GBR, Mid-Perth, Head of Glen Lyon near Carn Gorm, alt 2750 ft	2n=42	6x	Smith et al. (1971)
GBR, Scotland, Creag an Dail	2n=63	9x	Smith (1963)
GBR, Scotland, Inchnadamph	2n=42	6x	Smith (1963)
GBR, Sutherland, hill above Loch Mhaolach-Coire, grazed oped limestone turf, alt. c. 1500 ft	2n=42	6x	Smith et al. (1971)
GRL, BW1, SW Greenland	2n=42	6x	Jørgensen et al. (1958)
GRL, Nugssuaq, NW Greenland	2n=42	6x	Jørgensen et al. (1958)
ITA, National Park Gran Paradiso, Col de Lausson, ±2900 m	2n=28	4x	Gadella et Kliphuis (1970)
ITA, National Park Gran Paradiso, Rifugio Vittorio Sella, ±2540 m	2n=28	4x	Gadella et Kliphuis (1970)
ITA, National Park Gran Paradiso, In a meadow, between Rifugio Vittorio Sella and Valnontey, ±2200 m	2n=42	6x	Gadella et Kliphuis (1970)
ITA, Veneto, Monte Baldo 1700m	2n=49	7x	Asker (1985)
ITA, South Tyrol, Tuxer Alps, between Riedbergalm and Rollspitze, 2040 m	2n=42	6x	Dobeš et al. (2012)

NOR, Fossli	2n=42	6x	Müntzing (1958), Asker (1977)
POL, West Tatras, higher parts of the valley Smytnia (c. 1500 m a.s.l.)	2n=28	4x	Skalinska & Czapik (1958)
POL, West Tatras, Kominy Tylkowe (1800 m a.s.l.)	2n=28	4x	Skalinska & Czapik (1958)
POL, West Tatras, on steep calcareous rocks over Valley Kościeiska near Ornak (1050-1100 m a.s.l.)	2n=28	4x	Skalinska & Czapik (1958)
POL, West Tatras, pass Iwaniacka, calcareous soil (1459 m a.s.l.)	2n=28	4x	Skalinska & Czapik (1958)
RUS, ZSSR, Gd Kavkazskij chr.	2n=42	6x	Sokolovskaja & Strelkova (1948) in Agapova (1993)
RUS, USSR, Kolijskij p-ov, Chibiny – O-v Kolguev	2n=42	6x	Sokolovskaja & Strelkova (1960) in Agapova (1993)
RUS, USSR, okr Mamisonskoj vysokogornoj meteost.	2n=28	4x	Charadae et al. (1973, 1976) in Agapova (1993)
SLO, Julian Alps, Mangart saddle, below Mangart summit, 2056 m	2n=28	4x	Dobeš et al. (2012)
SLO, Velika Planina	2n=35	5x	Druskovic & Lovka (1995)
SVK, Belianske Tatry, Tatranská Javorina, kóta Nový	2n=42	6x	Májovský et al. (1978)
SVK, Belianske Tatry, Tatranská Kotlina, Chalet Hviezdoň [Plesnivec], above Tatranská Kotlina	2n=42	6x	Walters (1968)
SVK, Belianske Tatry, Ždiar, Tristarská dolina (ex Botanical Garden Tatranská Lomnica)	2n=42	6x	Paule (2007)
SVK, Malá Fatra, Mt. Chleb, 1600 m., above the village Šútovo	2n=28	4x	Czapik in Löve (1967)
SVK, Vysoké Tatry, Kežmarské Žlaby, Kežmarská chata	2n=41	6x*	Walters (1968)
SWE, Dalarna province, Folkärna	2n=42	6x	Müntzing (1958)
SWE, Dalarna province, Hedemora	2n=42	6x	Müntzing (1958)
SWE, Dalarna province, Rättvik	2n=42	6x	Müntzing (1958)
SWE, Dalarna province, Rättvik	2n=48	7x*	Müntzing (1958)
SWE, Gotland, Endre	2n=42	6x	Asker (1985)
SWE, Gästrikland province, Hamrånge (Axmar)	2n=42	6x	Müntzing (1958)
SWE, Härjedalen, Bruksvallarna: Ljusnan	2n=42	6x	Asker (1985)
SWE, Härjedalen, Ramundberget	2n=42	6x	Asker (1985)
SWE, Härjedalen, Rockvallen – Kariknallarna	2n=42	6x	Asker (1985)
SWE, Härjedalen, Ö. Storbäckstjärn	2n=42	6x	Asker (1985)
SWE, Jämtland province, Ulriksfors	2n=42	6x	Müntzing (1958)
SWE, Lappland province, Kvikkjoltk	2n=42	6x	Müntzing (1958)
SWE, Lappland province, Låktatjocko	2n=42	6x	Müntzing (1958)
SWE, Lappland province, Nuolja	2n=42	6x	Müntzing (1958)
SWE, Lappland province, Pallemjokk	2n=42	6x	Müntzing (1958)
SWE, Lappland province, Saxnäs	2n=42	6x	Müntzing (1958)
SWE, the province of Västergötland	2n=42	6x	Müntzing (1928), Müntzing (1931)
SWE, Uppland province, Bondkyrka (Kvarnbo and Hällby)	2n=42	6x	Müntzing (1958), Asker (1970)
SWE, Uppland province, Börje (Broby)	2n=42	6x	Müntzing (1958)
SWE, Uppland province, Old Upsala (Björkeby and Flogsta)	2n=42	6x	Müntzing (1958)
SWE, Uppland province, Old Upsala (Björkeby)	2n=49	7x	Müntzing (1958)

#### Literature

- Agapova, N. D., Arkharova K. B., Vakhtina L. I., Zemskova E. A., & Tarvis L. V. (1993): Numeri Chromosomatum Magnoliophytorum Florae URSS, Moraceae-Zygophyllaceae. – Russian Academy of Science "Nauka", St. Petersburg.
- Asker S. (1970): Apomixis and sexuality in the *Potentilla argentea* complex I. Crosses with other species. – Hereditas 66: 127–144.
- Asker S. (1977): Pseudogamy, hybridization and evolution in *Potentilla*. – Hereditas 87: 179–184.

- Asker S. (1985): Chromosome studies in *Potentilla*. – *Hereditas* 102: 289–292.
- Delgado L., Gallego F. & Rico E. (2000): Karyosystematic study of *Potentilla* L. subgen. *Potentilla* (Rosaceae) in the Iberian Peninsula. – *Bot. J. Linn. Soc.* 132: 263–280.
- Dobeš C., Scherbantin A., Paule J., Striegel M. & Kais B. (2012): Rosaceae. – In: Marhold K. (ed.), IAPT/IOPB Chromosome data 13. *Taxon*, 61: 894, E16-E17.
- Dobeš C. & Vitek E. (2000): Documented Chromosome Number Checklist of Austrian Vascular Plants. – Verlag des Naturhistorischen Museums Wien, Vienna.
- Druskovic B. & Lovka M. (1995): IOPB chromosome data 9. – *Int. Organ. Pl. Biosyst. Newslett.* 24: 15–19.
- Gadella T. W. J. & Kliphuis E. (1970): Cytotaxonomic investigations in some Angiosperms collected in the valley of Aosta and in the National Park Gran Paradiso. – *Caryologia*, 23: 363–379.
- Jørgensen C. A., Sørensen T. H. & Westergaard M. (1958): The flowering plants of Greenland: A taxonomical and cytological survey. – *Biol. Skr. Dan. Vid. Selsk.* 9: 1–172.
- Leht M. & Paal J. (1998): Variation in *Potentilla* sect. *Aureae* (Rosaceae) in the Baltic states. – *Nordic J. Bot.* 18: 339–351.
- Löve A. (ed.) (1967): IOPB Chromosome Number Reports X. – *Taxon* 16: 146–157.
- Löve A. (ed.) (1977): IOPB Chromosome Number Reports LVI. – *Taxon* 26: 257–274.
- Májovský J. et al. (1978): Index of chromosome numbers of Slovakian flora (Part 6). – *Acta Fac. Rerum Nat. Univ. Comenianae, Botanica* 26: 1–42.
- Müntzing A. (1928): Pseudogamie in der Gattung *Potentilla*. – *Hereditas* 11: 267–283.
- Müntzing A. (1931): Note on the cytology of some apomictic *Potentilla*-species. – *Hereditas* 15: 166–178.
- Müntzing A. (1958): Heteroploidy and polymorphism in some apomictic species of *Potentilla*. – *Hereditas* 44: 280–329.
- Paule J. (2007): [New record in *Potentilla*] – In: Marhold K., Mártonfi P., Mered'a P. jun., Mráz P. (eds), Chromosome number survey of the ferns and flowering plants of Slovakia, p. 465, Veda, Bratislava.
- Skalinska M. & Czapik R. (1958): Studies in the cytology of the genus *Potentilla* L. – *Acta Biol. Cracov. Ser. Bot.* (1): 137–149.
- Smith G. L. (1963): Studies in *Potentilla* L. II. Cytological aspects of apomixis in *P. Crantzii* (Cr.) Beck ex Fritsch. – *New Phytol.* 62: 283–300.
- Smith G. L., Bozman V. G. & Walters S. M. (1971): Studies in *Potentilla* L. III. Variation in British *P. Tabernaemontani* Aschers. and *P. Crantzii* (Cr.) Beck Ex Fritsch. – *New Phytologist* 70: 607–618.
- Walters S. M. (1968): Chromosome numbers of European species of *Potentilla* L. Grex *Aureae* Wolf. – *Acta Fac. Rerum Nat. Univ. Comenianae, Botanica* 14: 7–11.

Electronic Appendix 2. – List of studied *Potentilla crantzii* accessions and performed experiments. Serp – serpentine locality (NS – non-serpentine, S - serpentine), FCM – flow cytometry (cc – chromosomes counted\*, s- silicagel dried material used for FCM), FCSS – flow cytometric seed screen, AFLP – amplified fragment length polymorphism. Country codes follow ISO 3166-1 Alpha-3. Collector abbreviations: AH – Andreas Hilpold, AT – Andreas Tribsch, CD – Christoph Dobeš, FK – Filip Kolář, JP – Juraj Paule, K.B.W & T.D - K.B. Westergaard & T. Dahl.

Mat Nr	PopID	Locality	Serp	FCM	AFLP	Haplotype	GenBank No.	Herbarium No.
Ptl3716		ITA; Südtirol, between Penserjoch and Täschspitze, CD	NS	6x	-	-	-	HEID805509, HEID805510
Ptl3718		ITA; Südtirol, St. Martin in Thurn, Peitlerscharte, AH	NS	6x	-	-	-	HEID805512
Ptl4011	Pop076	AUT; Nordtirol, Hebertaljoch, CD	NS	7x	-	ZA	KM081706	HEID806908 to HEID806910
Ptl4012	Pop076	AUT; Nordtirol, Hebertaljoch, CD	NS	7x_s	-	ZA	KM081707	HEID806911
Ptl4013	Pop076	AUT; Nordtirol, Hebertaljoch, CD	NS	7x	-	ZA	KM081708	HEID806912, HEID806913
Ptl4015	Pop076	AUT; Nordtirol, Hebertaljoch, CD	NS	7x	-	ZA	KM081709	HEID806915, HEID806916,
Ptl4020	Pop076	AUT; Nordtirol, Hebertaljoch, CD	NS	7x	-	ZA	KM081710	HEID806921, HEID806922
Ptl4111	Pop082	ITA; Südtirol, between Riederbergalm and Rollspitze, CD	NS	cc_6x	-	ZA	GQ384982	HEID807079
Ptl4112	Pop082	ITA; Südtirol, between Riederbergalm and Rollspitze, CD	NS	6x	-	ZB	KM081711	HEID807080, HEID807081
Ptl4113	Pop082	ITA; Südtirol, between Riederbergalm and Rollspitze, CD	NS	6x_s	-	ZB	KM081712	HEID807082
Ptl4114	Pop082	ITA; Südtirol, between Riederbergalm and Rollspitze, CD	NS	6x	-	ZA	KM081713	HEID807083, HEID807084
Ptl4115	Pop082	ITA; Südtirol, between Riederbergalm and Rollspitze, CD	NS	-	-	ZB	KM081714	HEID807085
Ptl4116	Pop082	ITA; Südtirol, between Riederbergalm and Rollspitze, CD	NS	6x	-	-	-	HEID807086
Ptl4118	Pop082	ITA; Südtirol, between Riederbergalm and Rollspitze, CD	NS	7x	-	-	-	HEID807088, HEID807089
Ptl4120	Pop082	ITA; Südtirol, between Riederbergalm and Rollspitze, CD	NS	7x	-	-	-	HEID807092, HEID807093
Ptl4231	Pop184	SLO; Gorenjska, Mangart saddle, JP	NS	cc_4x	-	ZC	KM081715	HEID807309, HEID807310
Ptl4232	Pop184	SLO; Gorenjska, Mangart saddle, JP	NS	4x_s	-	ZD	KM081716	HEID807311
Ptl4233	Pop184	SLO; Gorenjska, Mangart saddle, JP	NS	4x	-	ZD	KM081717	HEID807312, HEID807313
Ptl4234	Pop184	SLO; Gorenjska, Mangart saddle, JP	NS	4x	-	-	-	HEID807314
Ptl4235	Pop184	SLO; Gorenjska, Mangart saddle, JP	NS	4x	-	ZE	KM081718	HEID807315, HEID807316
Ptl4238	Pop184	SLO; Gorenjska, Mangart saddle, JP	NS	4x	-	-	-	HEID807319
Ptl4371	Pop109	ITA; Lombardia, Passo del Vivione, CD	NS	4x	-	ZF	KM081719	HEID807501, HEID807502
Ptl4373	Pop109	ITA; Lombardia, Passo del Vivione, CD	NS	-	-	ZD	KM081720	HEID807503
Ptl4374	Pop109	ITA; Lombardia, Passo del Vivione, CD	NS	-	-	ZD	KM081721	HEID807504
Ptl4375	Pop109	ITA; Lombardia, Passo del Vivione, CD	NS	-	-	ZD	KM081722	HEID807505, HEID807506
Ptl4390		ITA; Lombardia, Pizzo Camino, Passo Ezendola, CD	NS	4x	-	-	-	HEID807526, HEID807527
Ptl4431	Pop079	AUT; Nordtirol, Ötztal, Zwieselstein, CD	NS	6x_s	-	-	-	-
Ptl4434	Pop080	AUT; Nordtirol, Obbergurgl, Rotmoostal valley, CD	NS	-	-	Q	HQ433330	-
Ptl4435	Pop080	AUT; Nordtirol, Obbergurgl, Rotmoostal valley, CD	NS	-	-	Q	JX276839	-
Ptl4436	Pop080	AUT; Nordtirol, Obbergurgl, Rotmoostal valley, CD	NS	-	-	Q	JX276840	-
Ptl4437	Pop080	AUT; Nordtirol, Obbergurgl, Rotmoostal valley, CD	NS	-	-	Q	KM081723	-
Ptl4438	Pop080	AUT; Nordtirol, Obbergurgl, Rotmoostal valley, CD	NS	-	-	Q	KM081724	-
Ptl4471	Pop110	ITA; Lombardia, Passo della Presolana, CD	NS	4x	-	ZB	KM081725	HEID807556, HEID807557
Ptl4472	Pop110	ITA; Lombardia, Passo della Presolana, CD	NS	-	-	ZB	KM081726	HEID807558
Ptl4473	Pop110	ITA; Lombardia, Passo della Presolana, CD	NS	-	-	ZB	KM081727	HEID807559
Ptl4474	Pop110	ITA; Lombardia, Passo della Presolana, CD	NS	-	-	ZA	KM081728	HEID807560
Ptl4475	Pop110	ITA; Lombardia, Passo della Presolana, CD	NS	-	-	ZD	KM081729	HEID807561
Ptl4651	Pop215	ITA; Abruzzo, bt Campo Imperatore and Monte Portella, CD	NS	4x	-	ZH	KM081730	HEID807637, HEID807638

Ptl4652	Pop215	ITA; Abruzzo, bt Campo Imperatore and Monte Portella, CD	NS	-	-	ZH	KM081731	-
Ptl4653	Pop215	ITA; Abruzzo, bt Campo Imperatore and Monte Portella, CD	NS	-	-	ZI	KM081732	HEID807639
Ptl4654	Pop215	ITA; Abruzzo, bt Campo Imperatore and Monte Portella, CD	NS	-	-	ZH	KM081733	-
Ptl4655	Pop215	ITA; Abruzzo, bt Campo Imperatore and Monte Portella, CD	NS	-	-	ZH	KM081734	-
Ptl4941	Pop209	ITA; Marche, Monte Catria, CD	NS	-	-	ZE	KM081735	-
Ptl4942	Pop209	ITA; Marche, Monte Catria, CD	NS	-	-	ZE	KM081736	-
Ptl4943	Pop209	ITA; Marche, Monte Catria, CD	NS	-	-	ZE	KM081737	-
Ptl4944	Pop209	ITA; Marche, Monte Catria, CD	NS	-	-	ZE	KM081738	-
Ptl4945	Pop209	ITA; Marche, Monte Catria, CD	NS	-	-	ZE	KM081739	-
Ptl4950	Pop209	ITA; Marche, Monte Catria, CD	NS	-	-	-	-	HEID807771
Ptl5229	Pop130	NOR; Troms, Kafjord, Ankerlia, (Index Seminum ex BG Univ. of Oulu)	NS	6x	X	ZJ	KM081740	HEID806819, HEID806820
Ptl5230	Pop130	NOR; Troms, Kafjord, Ankerlia, (Index Seminum ex BG Univ. of Oulu)	NS	6x	X	ZJ	KM081741	HEID806821, HEID806822
Ptl5231	Pop130	NOR; Troms, Kafjord, Ankerlia, (Index Seminum ex BG Univ. of Oulu)	NS	6x	X	-	-	HEID806823
Ptl5232	Pop130	NOR; Troms, Kafjord, Ankerlia, (Index Seminum ex BG Univ. of Oulu)	NS	6x	-	-	-	HEID806824
Ptl6278	Pop396	SVK; Belianske Tatry, Tristarská dolina (ex BG Tatranská Lomnica)	NS	7x	-	Q	KM081743	HEID806238, HEID806239
Ptl6279	Pop396	SVK; Belianske Tatry, Tristarská dolina (ex BG Tatranská Lomnica)	NS	7x	-	Q	KM081744	HEID806240, HEID806241
Ptl6280	Pop396	SVK; Belianske Tatry, Tristarská dolina (ex BG Tatranská Lomnica)	NS	-	-	ZK	KM081745	HEID806242
Ptl7031	Pop244	FRA; Alpes-de-Haute-Provence, Sommet du Carton, CD	NS	4x	X	ZA	KM081746	HEID805825, HEID805826
Ptl7032	Pop244	FRA; Alpes-de-Haute-Provence, Sommet du Carton, CD	NS	4x	X	ZL	KM081747	HEID805827
Ptl7033	Pop244	FRA; Alpes-de-Haute-Provence, Sommet du Carton, CD	NS	4x	X	ZL	KM081748	HEID805828, HEID805829
Ptl7034	Pop244	FRA; Alpes-de-Haute-Provence, Sommet du Carton, CD	NS	4x	X	ZA	KM081749	HEID805830, HEID805831
Ptl7035	Pop244	FRA; Alpes-de-Haute-Provence, Sommet du Carton, CD	NS	4x	X	ZA	KM081750	HEID805832
Ptl7040	Pop244	FRA; Alpes-de-Haute-Provence, Sommet du Carton, CD	NS	4x	-	-	-	HEID805841, HEID805842
Ptl7051	Pop255	FRA; Hautes-Alpes, between Lac Noir and Lac Lerié, CD	NS	-	X	ZA	KM081751	HEID805857, HEID805858
Ptl7052	Pop255	FRA; Hautes-Alpes, between Lac Noir and Lac Lerié, CD	NS	8x	X	ZM	KM081752	HEID805859, HEID805860
Ptl7053	Pop255	FRA; Hautes-Alpes, between Lac Noir and Lac Lerié, CD	NS	8x	X	ZM	KM081753	HEID805861, HEID805862
Ptl7054	Pop255	FRA; Hautes-Alpes, between Lac Noir and Lac Lerié, CD	NS	-	X	ZN	KM081754	HEID805863
Ptl7055	Pop255	FRA; Hautes-Alpes, between Lac Noir and Lac Lerié, CD	NS	-	X	ZM	KM081755	HEID805864
Ptl7056	Pop255	FRA; Hautes-Alpes, between Lac Noir and Lac Lerié, CD	NS	cc_5x	-	-	-	HEID805865, HEID805866
Ptl7057	Pop255	FRA; Hautes-Alpes, between Lac Noir and Lac Lerié, CD	NS	5x	-	-	-	HEID805867, HEID805868
Ptl7058	Pop255	FRA; Hautes-Alpes, between Lac Noir and Lac Lerié, CD	NS	cc_5x	-	-	-	HEID805869, HEID805870
Ptl7060	Pop255	FRA; Hautes-Alpes, between Lac Noir and Lac Lerié, CD	NS	5x	-	-	-	HEID805872, HEID805873
Ptl7151	Pop315	CHE; Graubünden, Engadin Silvretta, Muot da l'Horn, CD	NS	6x	-	-	-	-
Ptl7152	Pop315	CHE; Graubünden, Engadin Silvretta, Muot da l'Horn, CD	NS	6x	-	-	-	W2012-02616
Ptl7153	Pop315	CHE; Graubünden, Engadin Silvretta, Muot da l'Horn, CD	NS	6x	-	-	-	W2012-02617
Ptl7154	Pop315	CHE; Graubünden, Engadin Silvretta, Muot da l'Horn, CD	NS	6x	-	-	-	W2012-02618
Ptl7155	Pop315	CHE; Graubünden, Engadin Silvretta, Muot da l'Horn, CD	NS	6x	-	-	-	W2012-02619
Ptl7156	Pop315	CHE; Graubünden, Engadin Silvretta, Muot da l'Horn, CD	NS	6x	-	-	-	W2012-02620
Ptl7157	Pop315	CHE; Graubünden, Engadin Silvretta, Muot da l'Horn, CD	NS	6x	-	-	-	W2012-02621
Ptl7158	Pop315	CHE; Graubünden, Engadin Silvretta, Muot da l'Horn, CD	NS	6x	-	-	-	W2012-02622
Ptl7159	Pop315	CHE; Graubünden, Engadin Silvretta, Muot da l'Horn, CD	NS	6x	-	-	-	W2012-02623
Ptl7160	Pop315	CHE; Graubünden, Engadin Silvretta, Muot da l'Horn, CD	NS	6x	-	-	-	W2012-02624
Ptl7331	Pop251	FRA; Hautes-Alpes, Queyras, Col d'Agnel, CD	NS	4x	-	ZM	KM081756	HEID805950

Ptl7332	Pop251	FRA; Hautes-Alpes, Queyras, Col d'Agnel, CD	NS	-	-	ZM	KM081757	-
Ptl7333	Pop251	FRA; Hautes-Alpes, Queyras, Col d'Agnel, CD	NS	-	-	ZM	KM081758	-
Ptl7334	Pop251	FRA; Hautes-Alpes, Queyras, Col d'Agnel, CD	NS	-	-	ZM	KM081759	-
Ptl7335	Pop251	FRA; Hautes-Alpes, Queyras, Col d'Agnel, CD	NS	-	-	ZM	KM081760	-
Ptl7351	Pop259	NOR; Svalbard, Ny Ålesund, Ossian Sarsfjellet, AT	NS	6x_s	X	ZJ	KM081761	-
Ptl7352	Pop259	NOR; Svalbard, Ny Ålesund, Ossian Sarsfjellet, AT	NS	-	X	ZJ	KM081762	-
Ptl7353	Pop259	NOR; Svalbard, Ny Ålesund, Ossian Sarsfjellet, AT	NS	-	X	ZJ	KM081763	-
Ptl7354	Pop259	NOR; Svalbard, Ny Ålesund, Ossian Sarsfjellet, AT	NS	-	X	ZJ	KM081764	-
Ptl7355	Pop259	NOR; Svalbard, Ny Ålesund, Ossian Sarsfjellet, AT	NS	-	X	ZJ	KM081765	-
Ptl7356	Pop259	NOR; Svalbard, Ny Ålesund, Ossian Sarsfjellet, AT	NS	-	-	-	-	HEID805952
Ptl7411	Pop326	CHE; Uri, SE from Klausenpass, CD	NS	4x	-	-	-	W2012-02473
Ptl7412	Pop326	CHE; Uri, SE from Klausenpass, CD	NS	4x	-	-	-	-
Ptl7413	Pop326	CHE; Uri, SE from Klausenpass, CD	NS	4x	-	-	-	-
Ptl7414	Pop326	CHE; Uri, SE from Klausenpass, CD	NS	4x	-	-	-	-
Ptl7415	Pop326	CHE; Uri, SE from Klausenpass, CD	NS	4x	-	-	-	-
Ptl7416	Pop326	CHE; Uri, SE from Klausenpass, CD	NS	4x	-	-	-	-
Ptl7417	Pop326	CHE; Uri, SE from Klausenpass, CD	NS	4x	-	-	-	-
Ptl7418	Pop326	CHE; Uri, SE from Klausenpass, CD	NS	4x	-	-	-	-
Ptl7419	Pop326	CHE; Uri, SE from Klausenpass, CD	NS	4x	-	-	-	-
Ptl7512	Pop295	ISL; Akureyn, Krókárgerdisfjall, KBW & TD	NS	-	-	-	-	HEID805962
Ptl7513	Pop295	ISL; Akureyn, Krókárgerdisfjall, KBW & TD	NS	6x_s	X	ZM	KM081771	-
Ptl7514	Pop295	ISL; Akureyn, Krókárgerdisfjall, KBW & TD	NS	-	X	ZM	KM081772	-
Ptl7515	Pop295	ISL; Akureyn, Krókárgerdisfjall, KBW & TD	NS	-	X	ZJ	KM081773	-
Ptl7516	Pop295	ISL; Akureyn, Krókárgerdisfjall, KBW & TD	NS	6x_s	X	ZJ	KM081774	-
Ptl7517	Pop295	ISL; Akureyn, Krókárgerdisfjall, KBW & TD	NS	-	X	-	-	-
Ptl8628	Pop373	AUT; Burgenland, Bernstein, FK (BERN1)	S	4x	-	-	-	PRC404660
Ptl8629	Pop373	AUT; Burgenland, Bernstein, FK (BERN2)	S	4x	X	ZA	KM081782	-
Ptl8630	Pop373	AUT; Burgenland, Bernstein, FK (BERN3)	S	-	X	ZA	KM081783	PRC404659
Ptl8631	Pop373	AUT; Burgenland, Bernstein, FK (BERN4)	S	4x	-	ZA	KM081784	-
Ptl8632	Pop373	AUT; Burgenland, Bernstein, FK (BERN5)	S	4x	X	ZA	KM081785	-
Ptl8633	Pop373	AUT; Burgenland, Bernstein, FK (BERN6)	S	-	-	ZA	KM081786	-
Ptl8634	Pop373	AUT; Burgenland, Bernstein, FK (BERN7)	S	-	X	ZA	KM081787	-
Ptl8635	Pop373	AUT; Burgenland, Bernstein, FK (BERN8)	S	-	X	ZA	KM081788	-
Ptl8636	Pop373	AUT; Burgenland, Bernstein, FK (BERN9)	S	-	-	ZA	KM081789	-
Ptl8637	Pop373	AUT; Burgenland, Bernstein, FK (BERN10)	S	4x	-	ZA	KM081781	-
Ptl8638	Pop374	AUT; Oberösterreich, Ebensee, FK (EBEN1)	NS	4x	X	ZA	KM081810	PRC404657
Ptl8639	Pop374	AUT; Oberösterreich, Ebensee, FK (EBEN2)	NS	4x	X	ZA	KM081811	-
Ptl8640	Pop374	AUT; Oberösterreich, Ebensee, FK (EBEN3)	NS	4x	X	ZA	KM081812	-
Ptl8641	Pop374	AUT; Oberösterreich, Ebensee, FK (EBEN4)	NS	4x	X	ZA	KM081813	-
Ptl8642	Pop374	AUT; Oberösterreich, Ebensee, FK (EBEN5)	NS	4x	X	ZA	KM081814	-
Ptl8643	Pop374	AUT; Oberösterreich, Ebensee, FK (EBEN6)	NS	4x	-	ZA	KM081815	-
Ptl8644	Pop375	CZE; Středočeský kraj, Bernartice, FK (BORO1)	S	4x	-	ZA	KM081790	-
Ptl8645	Pop375	CZE; Středočeský kraj, Bernartice, FK (BORO2)	S	4x	-	ZM	KM081792	-

Ptl8646	Pop375	CZE; Středočeský kraj, Bernartice, FK (BORO3)	S	4x	-	ZM	KM081793	-
Ptl8647	Pop375	CZE; Středočeský kraj, Bernartice, FK (BORO4)	S	4x	-	ZA	KM081794	-
Ptl8648	Pop375	CZE; Středočeský kraj, Bernartice, FK (BORO5)	S	4x	X	ZA	KM081795	-
Ptl8649	Pop375	CZE; Středočeský kraj, Bernartice, FK (BORO6)	S	-	X	ZD	KM081796	-
Ptl8650	Pop375	CZE; Středočeský kraj, Bernartice, FK (BORO7)	S	-	X	ZM	KM081797	-
Ptl8651	Pop375	CZE; Středočeský kraj, Bernartice, FK (BORO9)	S	-	X	ZA	KM081798	-
Ptl8652	Pop375	CZE; Středočeský kraj, Bernartice, FK (BORO10)	S	-	X	ZO	KM081791	-
Ptl8653	Pop376	DEU, Bayern, Berchtesgaden, FK (BERC1)	NS	4x	-	-	-	PRC404661
Ptl8654	Pop376	DEU, Bayern, Berchtesgaden, FK (BERC2)	NS	4x	X	ZA	KM081776	-
Ptl8655	Pop376	DEU, Bayern, Berchtesgaden, FK (BERC3)	NS	-	X	ZA	KM081777	PRC404662
Ptl8656	Pop376	DEU, Bayern, Berchtesgaden, FK (BERC6)	NS	-	-	ZA	KM081778	-
Ptl8657	Pop376	DEU, Bayern, Berchtesgaden, FK (BERC7)	NS	-	X	ZA	KM081779	-
Ptl8658	Pop376	DEU, Bayern, Berchtesgaden, FK (BERC9)	NS	-	X	ZA	KM081780	-
Ptl8659	Pop376	DEU, Bayern, Berchtesgaden, FK (BERC10)	NS	-	-	ZA	KM081775	-
Ptl8660	Pop377	FRA; Hautes-Alpes, Col D'Izoard, FK (IZOA1)	NS	4x	X	ZR	KM081825	PRC404651
Ptl8661	Pop377	FRA; Hautes-Alpes, Col D'Izoard, FK (IZOA2)	NS	4x	X	ZL	KM081826	-
Ptl8662	Pop377	FRA; Hautes-Alpes, Col D'Izoard, FK (IZOA3)	NS	4x	X	ZL	KM081827	-
Ptl8663	Pop377	FRA; Hautes-Alpes, Col D'Izoard, FK (IZOA4)	NS	4x	X	ZM	KM081828	-
Ptl8664	Pop377	FRA; Hautes-Alpes, Col D'Izoard, FK (IZOA5)	NS	4x	X	ZM	KM081829	-
Ptl8666	Pop378	FRA; Haut-Rhin, Vosges, Hohneck, JP (HOHN1)	NS	4x_s	-	ZA	KM081822	-
Ptl8667	Pop378	FRA; Haut-Rhin, Vosges, Hohneck, JP (HOHN2)	NS	-	-	ZM	KM081823	-
Ptl8668	Pop378	FRA; Haut-Rhin, Vosges, Hohneck, JP (HOHN3)	NS	-	-	ZA	KM081824	-
Ptl8669	Pop379	FRA; Hautes-Alpes, Villar D'Arène, Romanche Valley, FK (ROMA)	NS	7x	-	-	-	PRC404650
Ptl8670	Pop380	ISL; Eskifjörður, Helgustadir, FK (HELG)	NS	6x	-	-	-	PRC404665
Ptl8671	Pop381	ISL; Hvammstangi, FK (HVAM)	NS	6x	-	-	-	PRC404658
Ptl8672	Pop382	ISL; Hveragerði, FK (HVER)	NS	6x	-	-	-	PRC404655
Ptl8673	Pop383	MNE; Durmitor, Žabljak, FK (DURM1)	NS	-	X	ZP	KM081805	PRC404664
Ptl8674	Pop383	MNE; Durmitor, Žabljak, FK (DURM2)	NS	-	X	ZP	KM081806	-
Ptl8675	Pop383	MNE; Durmitor, Žabljak, FK (DURM3)	NS	4x	X	ZA	KM081807	-
Ptl8676	Pop383	MNE; Durmitor, Žabljak, FK (DURM4)	NS	-	X	ZA	KM081808	-
Ptl8677	Pop383	MNE; Durmitor, Žabljak, FK (DURM5)	NS	4x	X	ZA	KM081809	-
Ptl8678	Pop384	MNE; Prokletije, Gusinje, FK (PROK1)	NS	4x	X	ZA	KM081835	PRC404663
Ptl8679	Pop384	MNE; Prokletije, Gusinje, FK (PROK2)	NS	4x	X	ZP	KM081836	-
Ptl8680	Pop384	MNE; Prokletije, Gusinje, FK (PROK3)	NS	4x	X	ZA	KM081837	-
Ptl8681	Pop384	MNE; Prokletije, Gusinje, FK (PROK4)	NS	4x	X	ZM	KM081838	-
Ptl8682	Pop384	MNE; Prokletije, Gusinje, FK (PROK5)	NS	4x	X	ZP	KM081839	-
Ptl8683	Pop385	NOR; Dovrefjell, Dombas, FK (DOVR1)	NS	-	X	ZM	KM081799	PRC404653
Ptl8684	Pop385	NOR; Dovrefjell, Dombas, FK (DOVR2)	NS	6x	-	-	-	-
Ptl8685	Pop385	NOR; Dovrefjell, Dombas, FK (DOVR3)	NS	-	X	ZM	KM081802	PRC404654
Ptl8686	Pop385	NOR; Dovrefjell, Dombas, FK (DOVR4)	NS	6x	X	ZM	KM081800	-
Ptl8687	Pop385	NOR; Dovrefjell, Dombas, FK (DOVR7)	NS	-	-	ZJ	KM081803	-
Ptl8688	Pop385	NOR; Dovrefjell, Dombas, FK (DOVR8)	NS	-	X	ZM	KM081804	-
Ptl8689	Pop385	NOR; Dovrefjell, Dombas, FK (DOVR10)	NS	-	-	ZJ	KM081801	-

Ptl8690	Pop386	NOR; Hardangervidda, Hellevasdallen, FK (HELL1)	NS	-	X	ZJ	KM081816	PRC404652
Ptl8691	Pop386	NOR; Hardangervidda, Hellevasdallen, FK (HELL2)	NS	6x	X	ZJ	KM081817	-
Ptl8692	Pop386	NOR; Hardangervidda, Hellevasdallen, FK (HELL3)	NS	-	X	ZJ	KM081818	-
Ptl8693	Pop386	NOR; Hardangervidda, Hellevasdallen, FK (HELL4)	NS	-	-	ZJ	KM081819	-
Ptl8694	Pop386	NOR; Hardangervidda, Hellevasdallen, FK (HELL6)	NS	6x	-	-	-	-
Ptl8695	Pop386	NOR; Hardangervidda, Hellevasdallen, FK (HELL7)	NS	-	X	ZJ	KM081820	-
Ptl8696	Pop386	NOR; Hardangervidda, Hellevasdallen, FK (HELL9)	NS	6x	X	ZJ	KM081821	-
Ptl8697	Pop387	NOR; Sør-Trondelag, Trolheimen, FK (TROLL)	NS	6x	-	-	-	PRC404656
Ptl8698	Pop388	NOR; Oppland, Jotunheimen, FK (JOTUN)	NS	6x	-	-	-	-
Ptl8699	Pop389	GBR; Scotland, Loch Lednoch, FK (LOLED)	NS	7x	-	-	-	-
Ptl8701	Pop392	ITA; Südtirol, Wolkenstein, CD	NS	4x_s	-	-	-	-
Ptl8702	Pop393	ITA; Südtirol, Dolomites, Col Raiser, close to Regensburger Hütte, CD	NS	4x_s	-	-	-	-
Ptl8721	Pop397	ESP; Palencia, Piedrasluengas	NS	-	-	ZJ	KM081834	MA631874
Ptl8722	Pop398	AND; Orillas del rio Valira, Bordas de Envalira	NS	-	-	ZA	KM081830	MA514288
Ptl8723	Pop399	ESP; Gerona, Tosses, Niu d'Iiga	NS	-	-	ZA	KM081831	MA529127
Ptl8724	Pop400	ESP; Huesca, Barranco de Montinier	NS	-	-	ZS	KM081832	MA544750
Ptl8725	Pop401	ESP; Navarra, Ochagavía, Orhy desde Puerte Larraun	NS	-	-	ZT	KM081833	MA544776

\*Dobeš, C., Scherbantin, A., Paule, J., Striegel, M. & Kais, B. 2012. IAPT/IOPB chromosome data 13. Taxon 61: 894, E16–E17