

Supplementary Material (Appendix I)

“Phylogenetic incongruences derail the identification of correlates of diversification in *Gentiana* in the European Alpine System”— **Alpine Botany**

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Appendix I List of samples, collection information, and accession numbers of raw data (alternatively GenBank accessions) used for phylogenetic reconstructions. GenBank accession numbers (plastid genome, rDNA cistron), as well as NCBI BioSamples and SRA number. For previously available data, NCBI BioSamples and genomic data (raw reads) are deposited under BioProject PRJNA607882 at the NCBI Sequence Read Archive (SRA). An asterisks (*) indicates new genomic data, deposited under the BioProject PRJNA748834 at the NCBI Sequence Read Archive (SRA). An en-dash (–) indicates missing sequences/information.

			GenBank accessions		Raw Data	
Section, species	Collector, n°, Year, Herb.	Locality, Province (Country)	plastid	rDNA cistron	NCBI BioSamples	SRA number
<i>Calathianae</i>						
<i>G. bavarica</i>	A. Favre, AFAT_20001 2020 (FR)	Schafkogel, Hinterstoder, Upper Austria (AUT) 47°39'30.384" N, 14°10'36.731" E, 1915 m	—	—	SAMN20345394*	SRR15212116*
<i>G. brachyphylla</i>	A. Favre, AFCH_19003 2019 (FR)	Savoleyres, Verbier, Valais (CHE) 46°7'19.524" N, 7°12'55.224"E, 2340 m	—	—	SAMN20345395*	SRR15212115*
<i>G. nivalis</i>	A. Favre, AFCH_18013 2018 (FR)	Emosson Lake, Finhaut, Valais (CHE) 46°05'05.7200" N, 06°55'09.3000" E, 1963 m	—	—	SAMN14389655	SRR11321333
<i>G. pumila</i>	A. Favre, AFAT_19001 2019 (FR)	Aflenzer Bürgeralm, Styria (AUT) 47°34'57.252" N, 15°13'36.083" E, 1790 m	—	—	SAMN20345396*	SRR15212110*
<i>G. rostanii</i>	Lippert et al. 20323 1984 (M)	Lago di Brignola, Cuneo (ITA) no coordinates, 2100-2250 m	—	—	SAMN20345397*	SRR15212109*
<i>G. schleicheri</i>	A. Favre, AFCH_19010 2019 (FR)	Lac des Dix, Hérémence, Valais (CHE) 46°2'9.996" N, 7°23'35.483" E, 2580 m	—	—	SAMN20345398*	SRR15212108*
<i>G. terglouensis</i>	A. Favre, AFIT_20002 2020 (FR)	Forcella del Diavolo, Misurina, Belluno (ITA) 46°34'42.888" N, 12°16'24.203" E, 2350 m	—	—	SAMN20345399*	SRR15212107*
<i>G. utriculosa</i>	A. Favre, AFCH_19020 2019 (FR)	Mayens de Niva, Évolène, Valais (CHE) 46°5'42.72" N, 7°29'25.692" E, 1980m	—	—	SAMN20345400*	SRR15212106*
<i>G. verna</i>	A. Favre, AFIT_19002 2019 (FR)	Towards Rifugio Montecristo, L'Aquila (ITA) 42°24'33.98" N, 13°32'50.48" E, 1346 m	—	—	SAMN14389701	SRR11321292
<i>Ciminalis</i>						
<i>G. acaulis</i>	A. Favre, AFIT_18001 2018 (FR)	Grand-Saint-Bernard Pass, Aosta Valley, Italy 45°52'06.5424" N, 07°09'17.8020" E, 2348 m	—	—	SAMN14389659	SRR11321289

<i>G. alpina</i>	A. Favre, AFCH_19002 2019 (FR)	Croix-de-cœur Pass, Verbier, Valais (CHE) 46°7'19.272" N, 7°12'51.155" E, 2340 m	—	—	SAMN20345401*	SRR15212105*
<i>G. angustifolia</i>	A. Favre, AFCH_18022 2018 (FR)	Jardin Botanique <i>Gentiana</i> , Leysin, Vaud (CHE) 46°20'09.5900" N, 07°00'55.2300" E, 1190 m	—	—	SAMN20345402*	SRR15212104*
<i>G. clusii</i>	A. Favre, AFCH_18007 2018 (FR)	Lower Fully Lake, Fully, Valais (CHE) 46°10'02.9568" N, 07°06'13.7304" E, 2084 m	—	—	SAMN14389660	SRR11321288
<i>G. dinarica</i>	A. Favre, AFIT_19000 2019 (FR)	Towards Campo Imperatore, L'Aquila (ITA) 42°23'34.246" N, 13°33'33.818" E, 1500 m	—	—	SAMN20345403*	SRR15212103*
<i>G. occidentalis</i>	A. Favre, AFCH_18024 2018 (FR)	Jardin Botanique <i>Gentiana</i> , Leysin, Vaud (CHE) 46°20'09.5900" N, 07°00'55.2300" E, 1190 m	—	—	SAMN14389671	SRR11321325
<i>Gentiana</i>						
<i>G. asclepiadea</i>	A. Favre, AFAT_19006 2019 (FR)	Teichalm, Fladnitz an der Teichalm, Styria (AUT) 47°20'38.6" N, 15°28'21.089" E, 1190 m	—	—	SAMN20345404*	SRR15212114*
<i>G. burseri</i>	A. Favre, AFFR_19002 2019 (FR)	Col du Lautaret, Hautes-Alpes (FRA) 45°2'12.516" N, 6°24'6.192" E, 2100 m	—	—	SAMN20345405*	SRR15212113*
<i>G. froelichii</i>	A. Favre, AFAT_18005 2018 (FR)	Koroška Rinka, Carinthia (AUT) 46°22'23.7200" N, 14°33'45.4100" E, 2080 m	—	—	SAMN14389662	SRR11321286
<i>G. lutea</i>	A. Favre, AFCH_18001 2018 (FR)	Lake Tseuzier, Ayent, Valais (CHE) 46°21'03.9600" N, 07°26'23.7840" E, 1850 m	—	—	SAMN14389663	SRR11321285
<i>G. pannonica</i>	A. Favre, 1280 2012 (LZ)	Seehornsee, Weißbach bei Lofer, Salzburg (AUT) 47°30'54.38 N, 12°50'17.05 E, 1785 m	—	—	SAMN14389664	SRR11321332
<i>G. punctata</i>	A. Favre, AFCH_19011 2019 (FR)	Hospizio Bernina, Samedan, Grisons (CHE) 46°24'51.43" N, 10°1'8.572" E, 2580 m	—	—	SAMN20345406*	SRR15212112*
<i>G. purpurea</i>	A. Favre, AFCH_18004 2018 (FR)	Lower Fully Lake, Fully, Valais (CHE) 46°09'54.6696" N, 07°06'07.0884" E, 2052 m	—	—	SAMN14389665	SRR11321331
<i>Cruciata</i>						
<i>G. cruciata</i>	A. Favre, AFCH_18005 2018 (FR)	Chiboz, Fully, Valais, Switzerland 46°10'12.1008" N, 07°09'02.0412" E, 1396 m	—	—	SAMN14389672	SRR11321324
<i>G. dahurica</i>	Zhou et al. 2018*	Tianzhu, Gansu, China 102.54° E, 37.01° N	NC039572	—	—	—
<i>G. lhassica</i>	voucher Z2018XZ003	unknown	MK790135	—	—	—
<i>Frigida</i>						
<i>G. frigida</i>	A. Favre, AFAT_19004 2018 (FR)	Hämmerkogel, St. Marein-Feistritz, Styria (AUT)	MW405446	—	—	—
<i>G. susanneae</i>	A. Favre, AFCN_18201 2018 (KUN)	Cuopu Lakes, Litang, Sichuan (CHN)	MW218877	MW248482	SAMN14389694	SRR11321299
<i>Isomeria</i>						

<i>G. georgei</i>	A. Favre, AFCN_18225 2018 (KUN)	Tianbaoshan range, Shangri-La, Yunnan (CHN) 27°37'00.10" N, 99°53'53.85" E, 4055 m	—	—	SAMN14389669	SRR11321327
<i>G. stipitata</i>	A. Favre, AFCN_18181 2018 (HNWP)	XiongDengSi, Daocheng, Sichuan (CHN) 29°04'29.98" N, 100°22'23.84" E, 4029 m	—	—	SAMN14389695	SRR11321298
<i>Kudoa</i>						
<i>G. coelestis</i>	A. Favre, AFCN_18151 2018 (KUN)	Yulongyidifeng, Lijiang, Yunnan (CHN) 27°01'42.57" N, 100°10'53.43" E, 3958 m	—	—	SAMN14389676	SRR11321319
<i>G. hexaphylla</i>	Favre, Gebauer & Tkach, AFCN_18076 2018 (HNWP)	Huanglong NP, Sichuan (CHN) 32°44'58.04" N, 103°43'30.98" E, 4066 m	—	—	SAMN14389678	SRR11321317
<i>G. ornata</i>	A. Favre 1272 2012 (LZ)	Towards Khayar Lake, Annapurna, Pokara (NPL) 28°29'56.5 N, 83°45'31.4 E, 4663 m	—	—	SAMN14389684	SRR11321310
<i>Microsperma</i>						
<i>G. suborbisepala</i>	Favre, Gebauer & Tkach, AFCN_18094 2018 (HNWP)	Haizigou valley, Rilong, Sichuan (CHN) 31°00'09.18" N, 102°51'56.54" E, 3660 m	—	—	SAMN14389685	SRR11321309
<i>G. yunnanensis</i>	A. Favre, AFCN_18148 2018 (KUN)	Wenhaicun, Lijiang, Yunnan (CHN) 27°00'16.16" N, 100°09'53.40" E, 3253 m	—	—	SAMN14389686	SRR11321308
<i>Monopodiae</i>						
<i>G. cephalantha</i>	A. Favre, AFCN_18243 2018 (KUN)	Cangshan, Dali, Yunnan (CHN) 25°43'16.37" N, 100°06'13.31" E, 2746 m	—	—	SAMN14389697	SRR11321296
<i>G. harrowiana</i>	A. Favre, AFCN_18159 2018 (KUN)	towards HeHai, Habacun, Yunnan (CHN) 27°23'22.85" N, 100°04'43.83" E, 3705 m	—	—	SAMN14389666	SRR11321330
<i>Pneumonanthe</i>						
<i>G. affinis</i>	A. Favre, AFUS_19016 2019 (FR)	Glendale, Kane County, Utah (USA) 37°22'25.176" N, 112°35'40.74" W, 1900 m	—	—	SAMN20345407*	SRR15212111*
<i>G. pneumonanthe</i>	A. Favre, AFCH_18020 2018 (FR)	Marais de la Tropaz, Chésereux, Vaud (CHE) 46°24'42.7200" N, 06°09'15.2000" E, 650 m	—	—	SAMN14389690	SRR11321304
<i>Tetramerae</i>						
<i>G. praeclara</i>	A. Favre, AFCN_18132 2018 (KUN)	Lige, Lugu Hu, Yunnan (CHN) 27°44'03.13" N, 100°45'40.24" E, 2737 m	—	—	SAMN14389693	SRR11321301
<i>M. gentilis</i>	A. Favre, AFCN_18157 2018 (KUN)	Xishan, Kunming, Yunnan (CHN) 24°57'7.02" N, 102°37'56.84" E, 2308 m	—	—	SAMN14389692	SRR11321302

* Zhou T, Wang J, Jia Y, Li W, Xu F, Wang X (2018) Comparative chloroplast genome analyses of species in *Gentiana* section *Cruciata* (Gentianaceae) and the development of authentication markers. Int J Mol Sci 19, 1962. doi:10.3390/ijms19071962