

Lorenzo Peruzzi, Angela Peterson, Jean-Marc Tison and Dörte Harpke 2011. What is *Gagea brentae* Evers? Insights from typification of the name, karyology and molecular systematics shed new light into phylogeny and taxonomy of Eurasian *Gagea villosa*-*G. fragifera* complex (Liliaceae). – Nord. J. Bot. 29: 722–733.

Supplementary material

Appendix 1. List of specimens included in the morphological study.

G. lutea – Italy, Tuscany, 2007, *L. Peruzzi & K. F. Caparelli s.n.* (PI); Italy, Tuscany, 2007, *G. Gestri s.n.* (PI); Italy, Tuscany, 2008, *P. L. Fantozzi & B. Pierini s.n.* (PI); Italy, Tuscany, 2008, *L. Peruzzi & E. Mancuso s.n.* (PI); Italy, Latium, 2005, *L. Peruzzi & F. Minutillo 14921* (CLU); Italy, Calabria, 2004, *L. Peruzzi, G. Aquaro & D. Gargano 12696* (CLU); Italy, Calabria, 2005, *L. Peruzzi & D. Gargano 16805* (CLU). **G. brentae** – Italy, Trentino-Alto Adige, Dolomiti di Brenta, *locus classicus*, 2007, *L. Peruzzi & K. F. Caparelli s.n.* (PI); Italy, Trentino-Alto Adige, Dolomiti di Brenta, 1895, *G. Evers 8936* (GZU, *typus*). **G. fragifera** – China, Xinjiang Thianchi Lake, 2009, *M. Schnittler, A. & J. Peterson 107895, 107896, 107898* (HAL); Kazakhstan, 2001, *s.c. 101796* (HAL); Ukraine, Krym, 1998, *I. G. Levichev 101797* (HAL); Bulgaria, Pirin, 1967, *E. Weinert 070407* (HAL); Switzerland, Graubenden, 1986, *Huber 23864* (ZT); Switzerland, 1879, *Chenevard 37515* (HAL); France, 1999, *L. Bernardo 9276* (CLU); France, 2007, *L. Peruzzi & K. F. Caparelli s.n.* (PI); France, Pyrenees, 1957, *Streitberg & Stor 81251* (HAL); France, Maritime Alps, 1993, *J.-M. Tison 104325* (HAL); Italy, Calabria, 2004, *L. Peruzzi, G. Aquaro & D. Gargano 12693* (CLU); Italy, Calabria, 2004, *L. Peruzzi, G. Aquaro & N. G. Passalacqua 12694* (CLU); Italy, Calabria, 1991, *L. Bernardo & M. Codogno 9260* (CLU); Italy, Calabria, 1985, *M. Codogno & D. Puntillo 9261* (CLU); Italy, Calabria, 1996, *L. Bernardo 9262* (CLU); Italy, Calabria, 1996, *L. Bernardo & T. Schumacher 9263* (CLU); Italy, Calabria, 1979, *G. Cesca 9264* (CLU); Italy, Sicily, 2004, *L. Peruzzi & K. F. Caparelli 12692* (CLU, n. 12692). **G. glacialis** – Turkey, 2009, *E. Pasche & H. Kerndorff 0928* (HAL, PI); Turkey, 2008, *E. Pasche 0902* (HAL, PI); Turkey, *locus classicus*, 2009, *E. Pasche 0907* (HAL, PI); Turkey, 2009, *E. Pasche 0901* (HAL, PI); Turkey, 2009, *E. Pasche 0906* (HAL, PI). **G. microfistulosa** – Ukraine, Krym, 1998, *I. G. Levichev 101728* (HAL). **G. villosa** – Moldova, 1996, *s.c. 101807* (HAL); Bulgaria, 2008, *D. Uzunov s.n.* (PI); Greece, Epiros, 2001, *Authier 107420* (HAL); Turkey, 2009, *E. Pasche & H. Kerndorff 0923* (HAL, PI); France, Optevoz, 1999, *J.-M. Tison 107421* (HAL); France, Maritime Alps, 1999, *J.-M. Tison 107422* (HAL); France, Corse, 2000, *J.-M. Tison 107419* (HAL); Germany, near Wohnsheim, 2006,

A. & J. Peterson 103612 (HAL); Italy, Piedmont, 2007, K. F. Caparelli & L. Peruzzi s.n. (PI); Italy, Abruzzo, 2004, L. Bernardo 13216, 13218 (CLU); Italy, Abruzzo, 2005, L. Peruzzi & F. Bartolucci 14928 (CLU); Italy, Abruzzo, 2006, F. Bartolucci 19789 (CLU); Italy, Calabria, 2003, J.-M. Tison, L. Peruzzi, D. Gargano 9272 (CLU); Italy, Calabria, 1999, L. Bernardo 9273, 9274, 9275 (CLU); Italy, Calabria, 2005, L. Peruzzi, D. Gargano, G. Aquaro & D. Uzunov 15219 (CLU).

Appendix 2. Sources of the studied material of the *G. villosa*–*G. fragifera* complex and

EMBL/NCBI accession numbers: **Taxon: (code)**, origin, voucher, *trnL*–*trnF* IGS, *psbA*–*trnH* IGS, ITS1+5.8SrDNA+ITS2 (ITS clones).

Gagea brentae Evers: **(B-1)** Italy: Dolomiti di Brenta, Malga Massodi, 1985 m, PI s.n., FN868221, FN868195, FN868160; **B-2**, Italy: Dolomiti di Brenta, Malga Massodi, 1985 m, FN868222, FN868196, FN868161 (**B-2a**: FN868168, **B-2b**: FN868169, **B-2c**: FN868170, **B-2d**: FN868171, **B-2e**: FN868172, **B-2f**: FN868173, **B-2g**: FN868174, **B-2h**: FN868175, **B-2i**: FN868176, **B-2j**: FN868177); ***G. fragifera*** (Vill.) Ehr. Bayer & G. López Gonzales (= *G. liotardii* (Sternberg) Schult. &Schult f.): **(F-1)** Bulgaria: Pirin Mountains, Vichren, 2200 m, HAL 070407, AJ890368, AJ973158, AM162677; **(F-2)** China: Xinjiang, Tianchi Lake, 2146 m, HAL 107898, FN868226, FN868198, FN868162; **(F-3)** China: Xinjiang, Tianchi Lake, 2250 m, HAL 107896, FN868227, FN868199, FN868163; **(F-4)** China: Xinjiang, Tianchi Lake, 2350 m, HAL 107894, FN868228, FN868200, FN868164; **(F-5)** France: Alpes-Maritimes, Saint-Dalmas-le-Selvage, 1950 m, HAL 104325, FN868223, FN868197, FN868165; **(F-6)** Italy: Calabria, Verbicaro-Orsomarso mountains, 1263 m, CLU 12693, AM283103, AM282994, AM422468; **(F-7)** Italy: Sicily, Madonie, 1650 m, CLU 12692, AM283102, AM282995, AM287285; **(F-8)** France: Francia meridionale, versante meridionale di Col de la Cayolle, 2000 m, PI s.n., FN868224, FN868201 FN868166; **(F-9)** Italy: Piemonte, Valle di Bellino (Cuneo), sopra Rif. Melezè, PI s.n., FN868225, FN868202, FN868167; **(F-10)** Kazakhstan: HAL 101796, AM161467, AM238521, AM180455; **(F-11)** Ukraine: Crimea, 1200 m, HAL 101797, AM161466, AM238522, AM265532; **(F-12)** Switzerland: Canton Graubuenden, Jufner Alp, 2150 m, ZT-10726, AJ890375, AM238531; ***G. glacialis*** K. Koch: **(G-1)** Turkey: Rize district Ovitdagi Gecidi, 2800 m, HAL 101647, AM287281, AM265586, AM265535 (AM931554-AM931560); **(G-2A)** Turkey: MeloDag, Prov. Artvin, 1780 m, HAL 107879, FN868231, FN868203, FN868178; **(G-2B)** Turkey: MeloDag, Prov. Artvin, 1780 m, HAL 107879, FN868232, FN868204, FN868179; **(G-3A)** Turkey: Zigana Pass, Prov. Trabzon, 2150 m, HAL

107881, FN868233, FN868205, FN868180; **(G-3B)** Turkey: Zigana Pass, Prov. Trabzon, 2150 m, HAL 107881, FN868234, FN868206, FN868181; **(G-4A)** Turkey: Goelyurt-Pass, Prov. Erzurum, 2380 m, HAL 107880, FN868229, FN868207, FN868182; **(G-4B)** Turkey: Goelyurt-Pass, Prov. Erzurum, 2380 m, HAL 107880, FN868230, FN868208, FN868183; **(G-5A)** Turkey: Ovit Pass, Prov. Rize, 2588m, HAL 107882, FN868235, FN868209 FN868184; **(G-5B)** Turkey: Ovit Pass, Prov. Rize, 2588m, HAL 107882, FN868236, FN868210, FN868185; *G. microfistulosa* I.G. Levichev: **(M-1)** Ukraine: Crimea, HAL 101728, AM265517, AM265589, AM409332 (AM931569-AM931578); *G. polidorii* J.-M. Tison: **(P-1)** Corsica: CO 2B - Sorio: au niveau du col entre les Monte Grimaesta et Astu, 1450 m, HAL 107416, FN868238, FN868212, FN868186; **(P-2)** Italy: Calabria, Verbicaro-Orsomarso mountains, 1263 m, CLU 12700, AM283104, AM282999, AM903053; **(P-3)** France: Alpes-Maritimes, Saint-Dalmas-le-Selvage, 1950 m, HAL 107417, FN868237, FN868211, FN868187; *G. villosa* (M. Bieb.) Sweet: **(V-1)** Austria: AU Niederoesterreich – Wien: Tuerkenschanzpark, 300 m, HAL 107418, FN868246, FN868220, FN868188; **(V-2)** Bulgaria: Village Sushevo sul margine di campi coltivati, suolo cernizem, 230 m, PI s.n., FN868239, FN868214, FN868189; **(V-3)** Corsica: CO 2B - Sorio: au niveau du col entre les Monte Grimaesta et Astu, 1450 m, HAL 107419, FN868244, FN868218, FN868190; **(V-4)** France: Alpes-Maritimes, Saint-Dalmas-le-Selvage, 1500 m, HAL 107422, FN868242, FN868213, -; **(V-5)** France: GA 38 – Optevoz: cimetièrre, 300 m, HAL 107421, FN868245, FN868219, FN868191; **(V-6)** Germany: Brandenburg, -, AJ419163, AJ416373, AJ427545; **(V-7)** Germany: Saxony-Anhalt, -, AJ419163, AJ416373, AJ427545; **(V-8)** Greece: GR EPIROS – Monts Timfi, parc national du Vikos-Aoos, HAL 107420, FN868243, FN868217, FN868192; **(V-9)** Italy: Abruzzo, Barisciano, 800 m, CLU 14928, AM265605, AM282991, AM287283; **(V-10)** Italy: Calabria, Verbicaro-Orsomarso Mountains, 1000 m, CLU 15219, AM265604, AM282992, AM409345; **(V-11)** Italy: Valle Stura di Demonte, 1600 m, PI s.n., FN868240, FN868215, FN868193; **(V-12)** Moldova, HAL 101807, AM238538, AJ973170, AM180453; **(V-13)** Turkey: 40 km south of Nigde, 1500 m, HAL 107883, FN868241, FN868216, FN868194.