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Species delimitation in the Caribbean *Gesneria viridiflora* complex (Gesneriaceae) reveals unsuspected endemism

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Table S1. Information of herbarium specimens used in the morphological analyses.

Experimental number	Country	Subnational division	Collector, collector number and herbarium
H13	Haiti	Sud	*Clark & al. 14467* (UNA; MT)
H12	Haiti	Sud	*Ekman 7572* (US)
Ac1	Haiti	Ouest	*Ekman H5728* (S)
Ac3	Dominican Republic	San José de Ocoa	*Ekman H11645* (S)
Ac5	Dominican Republic	Independencia	*Liogier & al. 14635* (NY)
Ac8	Dominican Republic	Concepción de La Vega	*Liogier 11710* (NY)
Ac14	Dominican Republic	Independencia	*Zanoni & al. 24953* (US)
Ac20	Haiti	Ouest	*Axelrod & Tremblay 10634* (US)
Ac22	Haiti	Ouest	*Judd & Skean 4427* (FLAS)
Ac24	Haiti	Ouest	*Lambert & Joly 2014–028* (MT)
Ac25	Haiti	Ouest	*Clark & al. 14522* (MT)
Qu1	Dominican Republic	Salcedo	*García & Jiménez 4190* (S)
Qu2	Dominican Republic	Espaillat	*Ekman 12577* (S)
Qu3	Dominican Republic	Santiago	*Zanoni & al. 38307* (NY)
Qu5	Dominican Republic	Puerto Plata	*Liogier 11866* (NY)
Qu7	Dominican Republic	Hato Mayor	*Zanoni & al. 34210* (NY)
Qu8	Dominican Republic	Hato Mayor	*Smith 10388* (NY)
Qu9	Dominican Republic	Samaná	*Zanoni & al. 20753* (NY)
Qu11	Dominican Republic	Monte Plata	*García & al. 653* (NY)
Qu13	Dominican Republic	Hato Mayor	*Liogier & Liogier 24694* (NY)
Qu16	Dominican Republic	Puerto Plata	*Liogier 15543* (NY)
Qu18	Dominican Republic	Hato Mayor	*Marcano & Jiménez 5051* (NY)
Qu20	Dominican Republic	Monte Plata	*Liogier & Liogier 18871* (NY)
Qu21	Dominican Republic	Puerto Plata	*Talpey 34* (US)
Qu23	Dominican Republic	Samaná	*Abbott 457* (US)
Qu24	Dominican Republic	Hato Mayor	*Miller s.n.* (US)
Qu26	Dominican Republic	Santiago	*Zanoni & al. 38307* (US)
Qu31	Dominican Republic	Hato Mayor	*Zanoni & al. 35942* (US)
Qu32	Dominican Republic	Hermanas Mirabal	*Martén-Rodríguez & Velozo 1230* (US)
Qu33	Dominican Republic	Hato Mayor	*Zanoni & al. 36183* (US)
Qu36	Dominican Republic	Puerto Plata	*Jiménez 3728* (US)
Qu37	Dominican Republic	Santiago	*Marcano & Jiménez 5131* (US)
Qu38	Dominican Republic	Hermanas Mirabal	*Hahn & al. 400* (US)
Qu39	Dominican Republic	Santiago	*Skog 1593* (US)
Qu40	Dominican Republic	Santiago	*Zanoni & al. 40557* (US)
Qu41	Dominican Republic	Puerto Plata	*Liogier 11204* (US)
Qu42	Dominican Republic	Hato Mayor	*Zanoni & al. 35369* (US)
Qu43	Dominican Republic	Samaná	*Zanoni & al. 24738* (US)
Qu46	Dominican Republic	Hato Mayor	*Zanoni & al. 21179* (US)
Qu47	Dominican Republic	Hermanas Mirabal	*Jiménez & al. 2131* (FLAS)
Qu50	Dominican Republic	Santiago	*Liogier 15386* (NY) Holotype
Si1	Puerto Rico	Rio Grande	*Knudsen & Ståhl 78* (S)
Si5	Puerto Rico	Naguabo	*Axelrod & Axelrod 7503* (NY)
Si6	Puerto Rico	Rio Grande	*Britton & Cowell 7601* (NY)

Table S1. Continued.

Experimental number	Country	Subnational division	Collector, collector number and herbarium
Si7	Puerto Rico	Rio Grande	*Boom 10068* (NY)
Si10	Puerto Rico	Rio Grande	*Boynton 8221* (NY)
Si11	Puerto Rico	Rio Grande	*Boom 9792b* (NY)
Si14	Puerto Rico	Naguabo	*Britton & Cowell 2209* (NY)
Si15	Puerto Rico	Rio Grande	*Lumer 1376* (NY)
Si16	Puerto Rico	Naguabo	*Acevedo-Rodríguez & al. 4656 (US)*
Si17	Puerto Rico	Rio Grande	*Acevedo-Rodríguez & al. 6215 (US)*
Si21	Puerto Rico	Rio Grande	*Martén-Rodríguez 1252* (US)
Si23	Puerto Rico	Rio Grande	*Sargent B131* (US)
Si24	Puerto Rico	Rio Grande	*Schubert & Winters 401* (US)
Si26	Puerto Rico	Rio Grande	*Talpey 23* (US)
Si27	Puerto Rico	Naguabo	*Shafer 3527* (US)
Si28	Puerto Rico	Rio Grande	*Clark & al. 13757* (MT)
ViC2	Cuba	Cienfuegos	*Ekman 18521* (S)
ViC3	Cuba	*Sancti-Spíritus*	*Ekman 18933* (S)
ViC6	Cuba	*Sancti-Spíritus*	*Britton & Britton 5087* (NY)
ViC10	Cuba	*Sancti-Spíritus*	*Morton 10308* (FLAS)
ViC11	Cuba	*Sancti-Spíritus*	*Jack 8111* (NY)
ViE2	Cuba	Granma	*Ekman 10342* (S)
ViE3	Cuba	Santiago de Cuba	*Ekman 14811* (S)
ViE5	Cuba	Holguín	*Ekman 3350* (S)
ViE8	Cuba	Granma	*Ekman 8745* (S)
ViE9	Cuba	Santiago de Cuba	*Ekman 8055* (S)
ViE11	Cuba	Santiago de cuba	*Wright 354* (S)
ViE12	Cuba	Santiago de Cuba	*Ekman 1538* (NY)
ViE17	Cuba	Santiago de Cuba	*Léon & al. 9821* (NY)
ViE18	Cuba	Santiago de Cuba	*Shafer 8949* (NY)
ViE19	Cuba	Santiago de Cuba	*Hioram 2310* (NY)
ViE21	Cuba	Granma	*Morton & Acuna 3627* (US)
ViE26	Cuba	Granma	*Acuna & Darlington s.n.* (US)
ViE27	Cuba	Santiago de Cuba	*Figueras 2760* (US)
ViE28	Cuba	Santiago de Cuba	*Figueras 2690* (US)
ViE29	Cuba	Santiago de Cuba	*Léon 22389* (US)
ViE30	Cuba	Granma	*Morton 9477* (US)

Table S2. Voucher information and GenBank accession numbers of DNA sequences included in the genetic analyses. Accession numbers beginning with MF represent new sequences.

Taxon	Voucher	*CHI*	*F3H*	*GCYC*	*UF3GT*
Gesneria acrochordonanthe (L.E.Skog) Borhidi	Haiti, Sud, *Clark & al. 14467* (UNA; MT)	MF318846	MF318702	MF318763	–
Gesneria quisqueyana Alain	Dominican Republic, Hermanas Mirabal, *Jestrow & al. 2013-DR-73* (FTBG)	–	–	MF318752	–
	Dominican Republic, Hermanas Mirabal, *Jestrow & al. 2013-DR-73* (FTBG)	–	MF352014	MF318753	–
	Dominican Republic, Hermanas Mirabal, *Jestrow & al. 2013-DR-73* (FTBG)	–	MF318707	MF318754	MF318606
	Dominican Republic, Monte Plata, *Hahn & al. 454* (SRP)	–	MF318704	–	–
Gesneria sintenisii Urb.	Puerto Rico, Rio Grande, *Clark 13757* (UNA; MT)	MF318841	MF318708	MF318759	MF318611
	Puerto Rico, Luquillo, *Martén- Rodríguez 1252* (US)	–	–	GU323250	MF352012
	Puerto Rico, Caguas, *Monsegur-Rivera & Sanchez 863* (US)	–	–	MF318760	MF318607
Gesneria sylvicola Alain	Haiti, Ouest, *Lambert & Joly 2014-027* (MT)	MF318842	MF352013	MF318764	MF352011
	Haiti, Ouest, *Lambert & Joly 2014-028* (MT)	MF318843	MF318722	MF318765	MF318585
	Dominican Republic, Independencia, *Hahn & al. 447* (US)	–	–	MF352015	MF318608
	Dominican Republic, Independencia, *Hahn & al. 440* (SRP)	–	MF318703	AY626227	–
Gesneria viridiflora (Decne.) Kuntze	Cuba, Sancti-Spíritus, *Clark & al. 10041* (UNA)	MF318845	–	MF318766	MF318610
	Cuba, Granma, *Clark & al. 10509* (UNA)	MF318854	MF318726	MF318767	–
	Cuba, Granma, *Clark & al. 10524* (UNA)	–	MF318706	MF318768	MF318584
	Cuba, Granma, *Clark & al. 10540* (UNA)	–	MF318709	MF318769	MF318609
	Cuba, Guantánamo, *Clark & al. 10561* (UNA)	–	MF318725	MF318770	MF318586

Table S3. Pearson correlation coefficient of quantitative morphological characters with each of the three first axes of the PCoA. For qualitative nominal characters, square roots of the ANOVA R^2 are reported with the sign of the regression coefficient. *p*-values in bold are those that remain significant after Sidák correction for 117 tests.

	Principal coordinate 1		Principal coordinate 2		Principal coordinate 3	
Characters	*r*	*p*-value	*r*	*p*-value	*r*	*p*-value
ApexRes	–0.2587	0.02218	**–0.3976**	**0.0003121**	–0.2042	0.07288
BarkCol	–0.1728	0.7249	–0.02057	0.861	**–0.6328**	**6.701e–10**
CalLobApex	–0.5466	0.4335	0.4094	0.002151	–0.1274	0.2796
CalLobApexThick	**–0.6885**	**6.29e–12**	**0.5231**	**1.248e–06**	0.2503	0.02919
CalLobApexWid	**–0.5605**	**1.696e–07**	**0.4856**	**1.006e–05**	0.0488	0.6776
CalLobBaseWid	0.02548	0.8271	0.2281	0.04751	–0.1724	0.1364
CalLobLen	**0.6081**	**5.659e–09**	–0.09851	0.3972	–0.2019	0.08025
CalLobVer	**–0.8848**	**3.028e–26**	–0.2507	0.02891	0.2256	0.05004
CalVer	**–0.8527**	**1.478e–22**	–0.1551	0.181	0.1985	0.08567
CapLen	**–0.5334**	**8.358e–07**	0.07729	0.5098	–0.2503	0.03031
CapRes	–0.1894	0.1037	0.2512	0.02973	–0.1995	0.08623
CapWid	**–0.4995**	**5.067e–06**	–0.03541	0.7629	–0.2521	0.02909
CarVer	**–0.6753**	**3.036e–11**	**0.6026**	**1.062e–08**	–0.04382	0.7089
CenVeinRes	0.1096	0.3393	0.1917	0.09275	**–0.4745**	**1.137e–05**
CenVeinVer	–0.07466	0.5159	–0.3086	0.005984	–0.1708	0.135
CorLeav	0.09196	0.4233	**0.8743**	**1.463e–25**	–0.2946	0.008844
FlwNb	**0.6404**	**2.732e–10**	–0.1399	0.2219	0.1087	0.3434
LeavAbaCol	**–0.8106**	**3.446e–16**	0.9045	0.06416	**0.7974**	**2.537e–05**
LeavApex	–0.3623	0.1297	**0.7083**	**8.304e–08**	–0.2222	0.08289
LeavBase	–0.08244	0.473	**–0.3922**	**0.0003828**	**–0.547**	**2.196e–07**
LeavLen	–0.2861	0.01112	–0.2341	0.0391	0.1664	0.1453
LeavMainVein	–0.02358	0.8376	**–0.7338**	**2.13e–14**	–0.3439	0.002049
LeavMarg	0.2106	0.1167	**0.8616**	**8.739e–24**	–0.6786	0.1497
LeavMinVein	–0.2507	0.02685	0.02368	0.8369	**–0.6016**	**5.72e–09**
LeavMTooS	–0.08394	0.465	0.371	0.0008276	**0.5857**	**1.774e–08**
LeavShape	0.3291	0.003262	0.205	0.07174	0.3006	0.007483
LeavWid	–0.02677	0.816	**–0.5038**	**2.581e–06**	0.1854	0.1042
LeavWidPt	–0.2483	0.02841	–0.1233	0.282	0.07204	0.5308
PedCol	0.2923	0.009407	0.1869	0.1014	**–0.5535**	**1.472e–07**
PedDiam	0.137	0.2315	–0.2648	0.01916	0.1242	0.2785
PediLen	**–0.6051**	**4.402e–09**	–0.2287	0.04402	–0.02939	0.7984
PedLen	**0.5195**	**1.097e–06**	0.04048	0.7249	0.02698	0.8146
PedRes	–0.3678	0.0009239	**0.4171**	**0.0001453**	**–0.4516**	**3.318e–05**
PedVer	**–0.5473**	**2.157e–07**	–0.1523	0.1831	–0.2052	0.07149
PetCol	–0.1846	0.5034	–0.09247	0.4241	–0.3437	0.002233
PetLen	**–0.4753**	**1.098e–05**	–0.1913	0.09339	0.1173	0.3063
PetRes	0.34	0.002326	–0.1617	0.1573	**–0.3699**	**0.0008578**
PetVer	–0.2947	0.008815	–0.3554	0.001406	–0.2001	0.07902
VerWid	**–0.6971**	**2.656e–12**	0.3756	0.000827	0.2904	0.01092

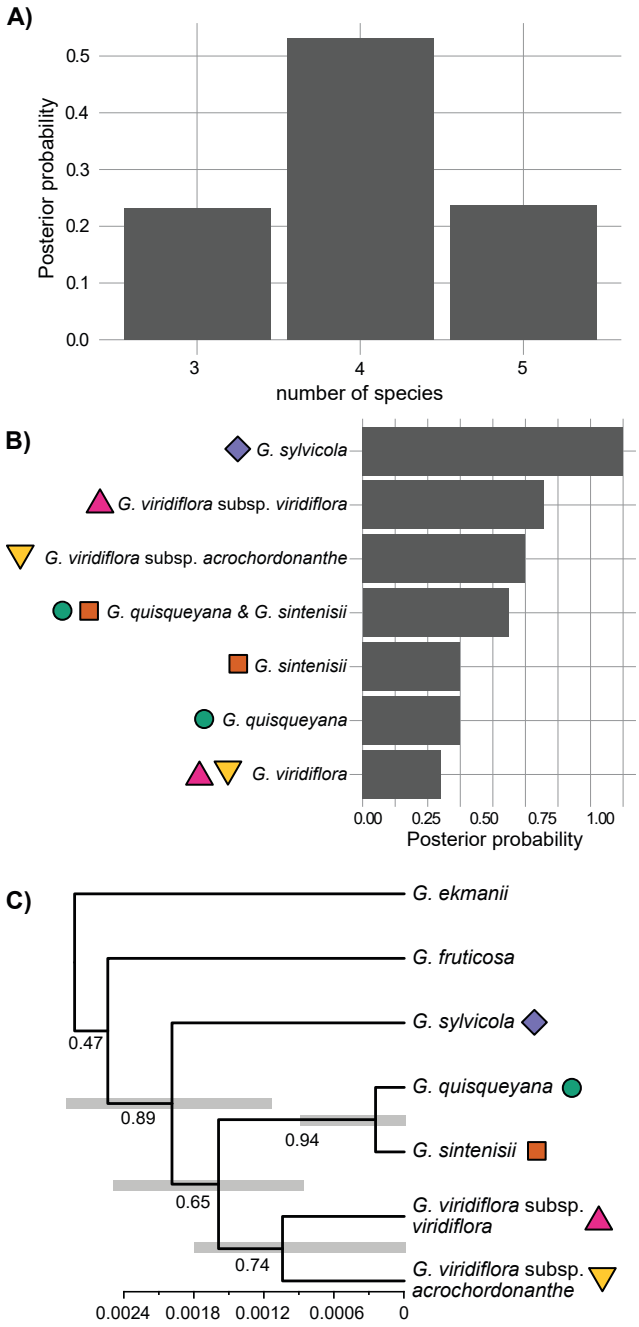

Fig. S1. Species delimitation results obtained with BPP when considering the downward triangles as a distinct group in the analysis. **A,** Posterior probability for the total number of species according to the data (excluding outgroups); **B,** Posterior probability for all group delimitations (either single a priori defined groups or merged groups) that received more than 0.001 PP in the analysis; **C,** Maximum clade credibility species phylogeny for the scenario with 5 species plus outgroups. Nodes bars indicate 95% credible intervals for node heights and number below branches indicate clade posterior probability.

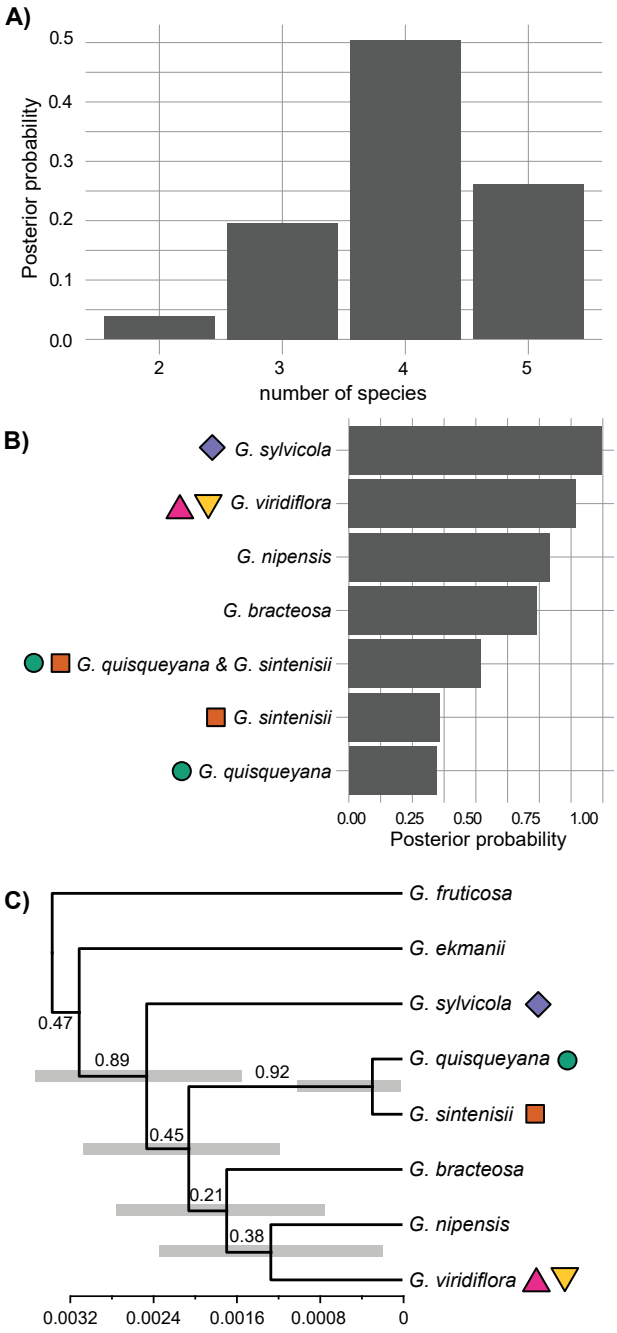

Fig. S2. Species delimitation results obtained with BPP when *G. bracteosa* and *G. nipensis* are included in the analysis. A, Posterior probability for the total number of species according to the data (excluding outgroups); B, Posterior probability for all group delimitations (either single a priori defined groups or merged groups) that received more than 0.001 PP in the analysis; C, Maximum clade credibility species phylogeny for the scenario with 6 species plus outgroups. Nodes bars indicate 95% credible intervals for node heights and number below branches indicate clade posterior probability.