

Table S1. Sambles, vouchers, and accession number of ETS and ITS sequences used in this study. Accession number in bold letter indicates the sequences determined in this study.

Taxon name	code	ETS	ITS	voucher	References
<i>Agastache pallida</i> (Lindl.) Cory		JQ669144	JQ669075	B.Drew 118	
<i>Agastache rugosa</i> Kuntze		JQ669145	JQ669076	H.Kanai, K Hasegawa, K.Ohkubo 8916	
<i>Caryopteris incana</i> Miq.		KY552620	EF508064	PNLI20120421-1	Li et al. 2017
<i>Glechoma longituba</i> (Nakai) Kuprian.		KM886687	KM886722	T.Deng 415 (KUN)	Deng et al. 2015
<i>Glechoma biondiana</i> (Diels) C.Y.Wu & C.Chen		KM886693	KM886728	D.G.Zhang 4446(KUN)	Deng et al. 2015
<i>Glechoma biondiana</i> (Diels) C.Y.Wu & C.Chen		KM886691	KM886726	D.G.Zhang 4731(KUN)	Deng et al. 2015
<i>Glechoma biondiana</i> v. <i>angustituba</i> C.Y.Wu & C.Chen		KM886685	KM886720	D.G.Zhang 4583(KUN)	Deng et al. 2015
<i>Glechoma hederacea</i> L.		JQ669171	JQ669099	B.Drew 69	
<i>Hyptis laniflora</i> Benth,		JF304259	JF301548	JP Lewis 2034(K)	unpublished
<i>Lamium album</i> L.		JX893206	JX893229	Liu and Xiang 128	
<i>Lycopus cavaleriei</i> H. Lév.	China	KM886695	KM886730	SNJ Exped.20110807071(KUN)	
<i>Lycopus cavaleriei</i> H. Lév.	Japan	LC202992	LC542952	J.Oda 8240(KYO)	Takano & Oda 2017, present study
<i>Lycopus uniflorus</i> Michx.		LC202993	LC542953	J.Oda & A.Muranaga 8555(KYO)	Takano & Oda 2017, present study
<i>Lepechinialeucophylloides</i> (Ramamoorthy, Hiriart & Medrano) B.T.Drew, Cacho & Sytsma		JF301327	JF301354	B.Drew 129	Drew & Sytsma 2011. Syst.Bot. 36: 1038-1049
<i>Nepeta cataria</i> L.		JQ669202	JQ669126	B.Drew 72	Drew & Sytsma 2012
<i>Melissa officinalis</i> L.		JF301325	JF301353	B.Drew 70	Drew & Sytsma 2011. Syst.Bot. 36: 1038-1049
<i>Prunella vulgaris</i> L.		JQ669206	JQ669130	J.Walker 3225	Drew & Sytsma 2012
<i>Meehania cordata</i> (Nutt.) Britton		JQ669187	JQ669112	A.E. Radford 45379	
<i>Meehania urticifolia</i> (Miq.)Makino	China	JQ669188	JQ669113	L.S.S.Hanrong	
<i>Meehania urticifolia</i> (Miq.)Makino	Korea	KM886713	KM886746	#39114 (AJOU)	Deng et al. 2015
<i>Meehania urticifolia</i> (Miq.)Makino	Japan	LC542935	LC542954	S.Fuse 2411(HYO)	Present study
<i>Meenania faberi</i> (Hemsl.) C.Y.Wu		KM886698	KM886733	T.Deng 438	Deng et al. 2015
<i>Meehania fargesii</i> (H. Lév.) C.Y.Wu var. <i>pedunculata</i> (Hemsl.) C.Y.Wu		KM886700	KM886735	D.G.Zhang 6091	Deng et al. 2015
<i>Meehania fargesii</i> (H. Lév.) C.Y.Wu		LC542936	LC542955	D.Takahashi s.n. (HYO)	Present study
<i>Meehania fargesii</i> (H. Lév.) C.Y.Wu		LC542937	LC542956	S.Sakaguchi s.n.(HYO)	Present study
<i>Meehania fargesii</i> var. <i>pinetorum</i> (Hand.-Mazz.)C.Y.Wu		KM886703	KM886737	C.L.Xiang 056	Deng et al. 2015
<i>Meehania fargesii</i> var. <i>pinetorum</i> (Hand.-Mazz.)C.Y.Wu		KM886704	KM886738	C.L.Xiang 357	Deng et al. 2015
<i>Meehania fargesii</i> var. <i>radicans</i> (Vaniot)C.Y.Wu		KM886704	KM886739	D.G.Zhang 6502	Deng et al. 2015
<i>Meehania henryi</i> (Hemsl.) Y.Z.Sun ex C.Y.Wu var. <i>kaitcheensis</i> (H. Lév.) C.Y.Wu		KM886708	KM886741	D.G.Zhang L.Xu109	Deng et al. 2015
<i>Meehania hongliniana</i> B.Y.Ding & X.F.Jin		LC542938	LC542957	living collection at Zhejiang BG	Present study
<i>Meehania montis-koyae</i> Ohwi	Suichang	LC542939	LC542958	X.-L. Xie XL170009 (HZU)	Present study
<i>Meehania montis-koyae</i> Ohwi	Songyang	LC542940	LC542959	X.-L. Xie XL170209 (HZU)	Present study
<i>Meehania montis-koyae</i> Ohwi	Taishun	LC542941	LC542960	X. Liu LP173032 (HZU)	Present study
<i>Meehania montis-koyae</i> Ohwi	Chun'an55	LC542942	LC542961	Z.-H. Chen LP174755 (HZU)	Present study
<i>Meehania montis-koyae</i> Ohwi	Chun'an58	LC542943	LC542962	Z.-H. Chen LP174758(HZU)	Present study
<i>Meehania montis-koyae</i> Ohwi	Chun'an	LC542944	LC542963	Xia 150521 (ZJFC)	Present study
<i>Meehania montis-koyae</i> Ohwi	Suichang2	LC542945	LC542964	Xia 160413 (ZJFC)	Present study
<i>Meehania montis-koyae</i> Ohwi	Xia 215	KM886710	KM886743	G.H.Xia 215(KUN)	Deng et al. 2015
<i>Meehania montis-koyae</i> Ohwi	Tonglu	LC542946	LC542965	living collection at Zhejiang BG	Present study
<i>Meehania montis-koyae</i> Ohwi	Sayo	LC542947	LC542966	A.Takano 090520-1(HYO)	Present study
<i>Meehania montis-koyae</i> Ohwi	Shiso	LC542948	LC542967	A.Takano 090520-11(HYO)	Present study
<i>Meehania montis-koyae</i> Ohwi	Kamino	—	—	A.Takano 090520-12(HYO)	Present study
<i>Meehania montis-koyae</i> Ohwi	Seppiko	LC542949	LC542968	A.Takano 090519-3(HYO)	Present study
<i>Meehania montis-koyae</i> Ohwi	Ayu	LC542950	LC542969	A.Takano 130531-1(HYO)	Present study
<i>Meehania montis-koyae</i> Ohwi	Onaru	—	—	A.Takano 090519-4(HYO)	Present study
<i>Meehania montis-koyae</i> Ohwi	Kogayano	LC542951	LC542970	A.Takano 090520-9(HYO)	Present study