

Li, X., Guo, Z., Li, Y., Zhou, P., Chen, X., Li, Z. and Xiang, X. 2019. *Hemiboea guangdongensis* comb. & stat. nov., a cryptic species segregated from *H. subcapitata* (Gesneriaceae) based on morphological and molecular data. – Nordic Journal of Botany 2019: e02574

## Appendix 1

Table A1. GenBank accession numbers of the sequences used in the present study.

Species	Vouchers	ITS	<i>matK</i>	<i>rbcL</i>	<i>rpS16</i> intron	<i>atpB-rbcL</i>
<i>Hemiboea albiflora</i>	XXG, GZY & WZW 2017054 (PE)	MN334629	MN367403	MN367386	MN367331	MN328737
<i>H. cavaleriei_1</i>	LZY, JXH & XSZ 13334 (PE)	-	MN367404	MN367379	MN367332	-
<i>H. cavaleriei_2</i>	LZY & XXG 20150604020 (PE)	-	MN367405	MN367382	MN367333	MN328738
<i>H. cavalerier var. paucinervis</i>	LMT 2011023 (PE)	MN334630	-	-	MN367334	-
<i>H. crystallina_1</i>	SYM B2005-12 (KUN)	MN334631	MN367406	MN367387	MN367335	MN328739
<i>H. crystallina_2</i>	SYM CKF217 (KUN)	MN334632	MN367407	MN367388	MN367336	MN328740
<i>H. fangii</i>	XXG & LXJ 201508108 (PE)	MN334633	MN367408	MN367372	MN367337	MN328741
<i>H. flaccida</i>	YC1501 (PE)	MN334634	MN367409	MN367381	MN367338	MN328742
<i>H. follicularis</i>	LZY & XXG 20150604012 (PE)	-	MN367410	-	MN367339	MN328743
<i>H. gracilis</i>	LZY & XXG 20150604009 (PE)	MN334635	MN367411	MN367375	MN367340	MN328744
<i>H. gracilis var. pilobracteata</i>	LPW 2014099 (PE)	-	MN367412	-	MN367341	-
<i>H. latisepala</i>	Peng & Shui 18605 (PE)	MN334636	MN367413	-	MN367342	MN328745
<i>H. longgangensis</i>	LZY & XXG 20150604007 (PE)	MN334637	MN367414	MN367376	MN367343	MN328746
<i>H. longzhouensis</i>	LZY & XXG 20150604016 (PE)	MN334638	MN367415	MN367371	MN367344	MN328747
<i>H. magnibracteata</i>	GZY sn. (PE)	MN328762	MN367402	MN367384	MN367330	-
<i>H. malipoensis</i>	JXH 16804 (PE)	MN334639	MN367416	MN367383	MN367345	-
<i>H. mollifolia</i>	LZY & XXG 20150604021 (PE)	MN334640	MN367417	MN367373	MN367346	MN328748

<i>H. omeiensis</i>	SYM B2012-062-3 (KUN)	MN334641	MN367418	-	MN367347	MN328749
<i>H. pterocaulis</i> _1	LZY & XXG 20150605040 (PE)	MN334642	MN367419	MN367389	MN367348	MN328750
<i>H. pterocaulis</i> _2	LZY & XXG 20150604036 (PE)	MN334643	MN367420	MN367390	MN367349	-
<i>H. purpurea</i>	LZY & XXG 20150605045 (PE)	MN334644	MN367421	MN367378	MN367350	MN328751
<i>H. purpureotincta</i>	LZY & XXG 20150604038 (PE)	MN334645	MN367422	MN367374	MN367351	MN328752
<i>H. rubribracteata</i>	ZQ 2017067 (IBK)	MN334646	MN367423	MN367385	MN367352	-
<i>H. strigosa</i>	HMQ G015 (PE)	MN334647	MN367424	-	MN367353	-
<i>H. subcapitata</i> (Guilin, Guangxi)	LZY & XXG 20150604001 (PE)	MN334648	MN367425	MN367391	MN367354	MN328753
<i>H. subcapitata</i> (Linan, Zhejiang)	SYM <i>sn.</i> (KUN)	MN334649	MN367426	MN367392	MN367355	MN328754
<i>H. subcapitata</i> (Rongjiang, Guizhou)	LPW 2016049 (PE)	MN334650	MN367427	MN367393	MN367356	MN328755
<i>H. subcapitata</i> (Xianfeng, Hubei)	YX & FCY 2014084 (PE)	MN334651	MN367428	MN367394	MN367357	MN328756
<i>H. subcapitata</i> (Fengjie, Chongqin)	HMQ & LSW 830 (PE)	MN334652	MN367429	MN367395	MN367358	MN328757
<i>H. subcapitata</i> (Zhengan, Guizhou)	HMQ & LSW 728 (PE)	MN334653	MN367430	MN367396	MN367359	MN328758
<i>H. subcapitata</i> (Youyang, Chongqin)	HMQ & LSW 750 (PE)	MN334654	MN367431	MN367397	MN367360	-
<i>H. subcapitata</i> (Malipo, Yunnan)	QZJ, FCY & PY QZJ-0964 (PE)	-	-	-	MN367361	MN328759
<i>H. subcapitata</i> (Shennongjia, Hubei)	FCY 2014074 (PE)	-	MN367432	-	MN367362	-
<i>H. subcapitata</i> (Wulingyuan, Hunan)	LZY, FXH, YSX, ZHM & LZ 13167 (PE)	MN334655	MN367433	-	MN367363	-
<i>H. subcapitata</i> (Taijiang, Guizhou)	FCY 2014059 (PE)	MN334656	MN367434	-	MN367364	-
<i>H. subcapitata</i> (Xihu, Zhejiang)	LPW 2013121 (PE)	MN334657	MN367435	-	MN367365	-
<i>H. guangdongensis</i>	LPQ <i>sn.</i> (PE)	MF625025	MN367436	MN367398	MN367366	MN328760
<i>H. subacaulis</i>	LXQ 20190409 (PE)	MN334658	MN367437	MN367380	MN367367	MN328761
<i>H. suiyangensis</i>	HMQ 851 (PE)	MN334659	MN367438	MN367377	MN367368	-

### Outgroups

<i>Anna submontana</i>	SYM 83033 (KUN)	FJ501362	MN367401	MN367399	MN367370	FJ501422
<i>Lysionotus microphyllus</i>	SYM 201508111 (KUN)	MN334660	MN367439	MN367400	MN367369	MN328762
<i>Petrocosmea minor</i>		KU985106	-	-	KR006515	-

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Table A2. List of primers used in this study.

Regions	Primer	Sequence5'-3'	Reference
ITS	ITS 5P	GGAAGGAGAAGTCGTAACAAGG	Möller and Cronk 1997
	ITS 8P	CACGCTTCTCCAGACTACA	
<i>matK</i>	AF	CTATATCCACTTATCTTTCAGGAGT	Ooi et al. 1995
	8R	AAAGTTCTAGCACAAGAAAGTCGA	
<i>rbcL</i>	1F	ATGTCACCACAAACAGAACTAAAGCAAGT	Soltis et al. 1992
	1351R	CTTCACAAGCAGCAGCTAGTTCAGGACTCC	
<i>rpS16</i> intron	rpsF	GTGGTAGAAAGCAACGTGCGACTT	Oxelman et al. 1997
	rpsR2	TCGGGATCGAACATCAATTGCAAC	
	rpsMF	GTGCGGAAATCCCTCGTTCATATGA	
	rpsMR2	GGTTTAGACATTACTTCGTTGA	
<i>atpB-rbcL</i>	JF31	TTTCAAGCGTGGAACCCCAG	Ehrendorfer et al. 1994
	JF5	TACAGTTGTCCATGTACCAG	

Table 3. Summary of DNA sequences used in present study.

DNA region	Aligned length	Variable characters	Informative characters	Model
ITS	888	213	114	TIM+I+G
<i>matK</i>	1220	87	39	GTR
<i>rbcL</i>	723	23	8	TrN
<i>rpS16</i> intron	954	110	38	TVM+G
<i>atpB-rbcL</i>	927	43	19	K81uf+I
cpDNA combined	3824	263	104	TVM+G

## References

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