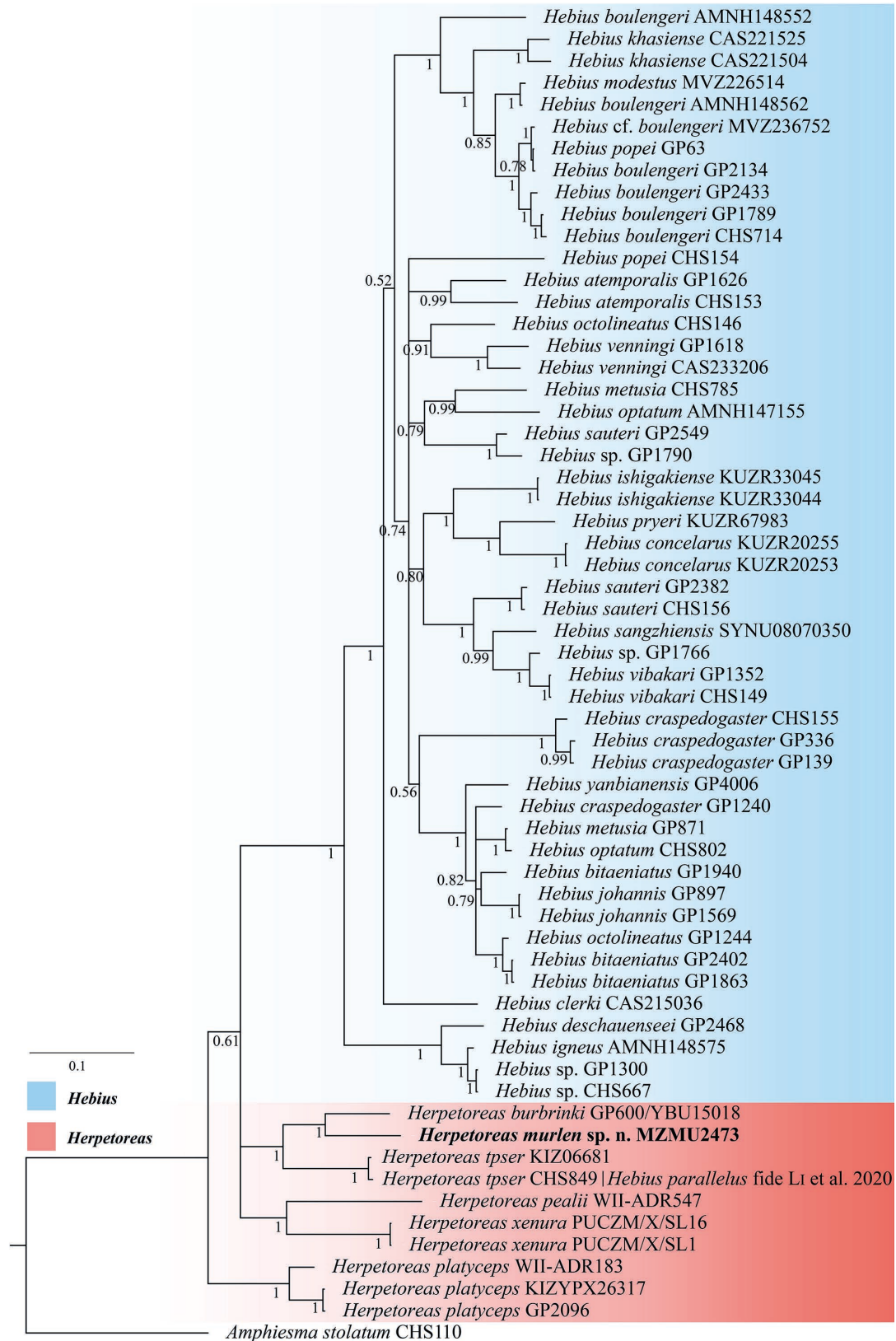


**Supplementary Table S1.** Newly generated sequences and GenBank sequences used in this study. Unavailable data are indicated as “–”.

Species	Locality	Specimen vouchers	GenBank Accession Nos.		References
			Cytb	16S	
<i>Herpetoreas murlen</i> sp. n	Mizoram, India	MZMU2473	ON204025	ON117512	This study
<i>H. platyceps</i>	China	KIZYPX26317	MW111464	–	XU et al. 2021
<i>H. platyceps</i>	India	WII-ADR183	MT571587	MT578066	DAS et al. 2020
<i>H. platyceps</i>	Xizang, China	GP2096	KJ685690	–	GUO et al. 2014
<i>H. pealii</i>	India	WII-ADR547	MT571586	MT578065	DAS et al. 2020
<i>H. xenura</i>	India	PUCZM/X/SL1	MN993850	MT003007	LALRONUNGA et al. 2020
<i>H. xenura</i>	India	PUCZM/X/SL16	MN993851	MT003008	LALRONUNGA et al. 2020
<i>H. burbrinki</i>	Xizang, China	GP600/YBU071128	GQ281781	–	GUO et al. 2012
<i>H. tpser</i>	China	KIZO6681	MW111476	–	XU et al. 2021
<i>Hebius parallelus</i>	Motuo, Linzhi, Tibet, China	CHS849	MK201567	–	LI et al. 2020
<i>H. sangzhiensis</i>	Hunan, China	SYNU 08070350	MK340763	–	ZHOU et al. 2019
<i>H. yanbianensis</i>	Sichuan, China	GP4006/YBU 15018	MH532291	–	LIU et al. 2018
<i>H. clerki</i>	Yunnan, China	CAS 215036	KJ685666	–	GUO et al. 2014
<i>H. boulengeri</i>	Jinpenshan, Jiangxi, China	CHS714	MK201483	MK194165	LI et al. 2020
<i>H. boulengeri</i>	Guangdong, China	GP1789	KJ685684	–	GUO et al. 2014
<i>H. boulengeri</i>	Hainan, China	GP2134	KJ685691	–	GUO et al. 2014
<i>H. boulengeri</i>	Fujian, China	GP2433	KJ685699	–	GUO et al. 2014
<i>H. boulengeri</i>	Ha Giang, Vietnam	AMNH: 148562	KJ685664	–	GUO et al. 2014
<i>H. cf. boulengeri</i>	Hainan, China	MVZ: 236752	KJ685710	–	GUO et al. 2014
<i>H. modestus</i>	Vinh Phu, Vietnam	MVZ: 226514	KJ685709	–	GUO et al. 2014
<i>H. johannis</i>	Yunnan, China	GP897	KJ685708	–	GUO et al. 2014
<i>H. johannis</i>	Yunnan, China	GP1569	KJ685678	–	GUO et al. 2014
<i>H. metusia</i>	Wawushan, Sichuan, China	CHS785	MK201526	MK194220	LI et al. 2020
<i>H. metusia</i>	Sichuan, China	GP871	KJ685707	–	GUO et al. 2014
<i>H. sauteri</i>	Mianyang, Sichuan, China	CHS156	MK201302	MK193951	LI et al. 2020
<i>H. sauteri</i>	Sichuan, China	GP2382	KJ685696	–	GUO et al. 2014
<i>H. sauteri</i>	Taiwan	GP2549	KJ685701	–	GUO et al. 2014
<i>H. popei</i>	Hunan, China	CHS154	MK201300	MK193949	LI et al. 2020
<i>H. popei</i>	Hainan, China	GP63	KJ685705	–	GUO et al. 2012
<i>H. craspedogaster</i>	Huang Shan, Anhui, China	CHS155	MK201301	MK193950	LI et al. 2020
<i>H. craspedogaster</i>	China	GP139	JQ687429	–	GUO et al. 2012
<i>H. craspedogaster</i>	Sichuan, China	GP336	KJ685703	–	GUO et al. 2014
<i>H. craspedogaster</i>	Guizhou, China	GP1240	KJ685672	–	GUO et al. 2014
<i>H. deschauenseei</i>	Thailand	GP2468	KJ685700	–	GUO et al. 2014
<i>H. venningi</i>	Myanmar	GP1618	KJ685679	–	GUO et al. 2014
<i>H. venningi</i>	Kachin, Myanmar	CAS 233206	KJ685670	–	GUO et al. 2014
<i>H. bitaeniatus</i>	Guizhou, China	GP1863	KJ685686	–	GUO et al. 2014
<i>H. bitaeniatus</i>	Guangxi, China	GP1940	KJ685688	–	GUO et al. 2014
<i>H. bitaeniatus</i>	Guizhou, China	GP2402	KJ685698	–	GUO et al. 2014
<i>H. atemporalis</i>	Mengzi, Yunnan, China	CHS153	MK201299	MK193948	LI et al. 2020
<i>H. atemporalis</i>	Guangdong, China	GP1626	KJ685680	–	GUO et al. 2014
<i>H. vibakari</i>	Harbin, China	CHS149	MK201296	MK193944	LI et al. 2020
<i>H. vibakari</i>	Heilongjiang, China	GP1352	KJ685677	–	GUO et al. 2014
<i>H. boulengeri</i>	Quang Nam, Vietnam	AMNH 148552	KJ685663	–	GUO et al. 2014
<i>H. khasiense</i>	Kachin, Myanmar	CAS 221504	KJ685668	–	GUO et al. 2014
<i>H. khasiense</i>	Kachin, Myanmar	CAS 221525	KJ685669	–	GUO et al. 2014
<i>H. octolineatus</i>	Longchuan, Yunnan, China	CHS146	KJ685673	MK193942	LI et al. 2020
<i>H. octolineatus</i>	Guizhou, China	GP1244	KJ685674	–	GUO et al. 2014

Supplementary Table S1 continued

Species	Locality	Specimen vouchers	GenBank Accession Nos.		References
			Cytb	16S	
<i>H. igneus</i>	Ha Giang, Vietnam	AMNH 148575	KJ685665	–	GUO et al. 2014
<i>H. optatum</i>	Vinh Phu, Vietnam	AMNH 147155	KJ685662	–	GUO et al. 2014
<i>H. optatum</i>	Hua Ping, Guangxi, China	CHS802	MK201537	MK194235	LI et al. 2020
<i>H. ishigakiense</i>	Okinawa, Japan	KUZ: R33044	AB989294	–	KAITO & TODA 2016
<i>H. ishigakiense</i>	Okinawa, Japan	KUZ: R33045	AB989296	–	KAITO & TODA 2016
<i>H. conelarus</i>	Okinawa, Japan	KUZ: R20253	AB989268	–	KAITO & TODA 2016
<i>H. conelarus</i>	Okinawa, Japan	KUZ: R20255	AB989272	–	KAITO & TODA 2016
<i>H. pryeri</i>	Kyushu, Japan	KUZ: R67983	AB989102	–	KAITO & TODA 2016
<i>Hebius</i> sp.	Mengla, Yunnan, China	CHS667	MK201460	MK194134	LI et al. 2020
<i>Hebius</i> sp.	Yunnan, China	GP1300	KJ685675	–	GUO et al. 2014
<i>Hebius</i> sp.	Jiangxi, China	GP1766	KJ685683	–	GUO et al. 2014
<i>Hebius</i> sp.	Guangdong, China	GP1790	KJ685685	–	GUO et al. 2014
<i>Amphiesma stolum</i>	Huangshan, Anhui, China	CHS110	MK201270	MK193918	LI et al. 2020
<i>Gongylosoma scriptum</i>	Mizoram, India	MZMU2041	ON204026	MZ360014	This study
<i>G. scriptum</i>	Teuk Chou, Kampot Prov., Cambodia	NCSM 99033	MT090063	–	SOM et al. 2020
<i>Liopeltis frenatus</i>	Putau, Kachin, Myanmar	CAS 225548	KX660457	KX660184	FIGUEROA et al. 2016
<i>L. frenatus</i>	Tongbiguan, Yunnan, China	CHS841	MK201561	MK194261	LI et al. 2020
<i>L. stoliczkae</i>	Mizoram, India	MZMU965	ON204027	ON117509	This study
<i>L. stoliczkae</i>	Mizoram, India	MZMU1420	ON204028	ON117510	This study
<i>L. stoliczkae</i>	Yunnan, China	CHS842	MK201562	–	LI et al. 2020
<i>L. tricolor</i>	Pulau Langkawi, Kedah, Peninsular Malaysia	LSUHC 11579	MT090060	–	SOM et al. 2020
<i>L. pallidonuchalis</i>	Bach Ma, Thua Thien-Hue Prov., Vietnam	DTU307	MK639009	–	POYARKOV et al. 2019
<i>L. pallidonuchalis</i>	Kon Chu Rang, Gia Lai Prov., Vietnam	ZMMU: R15682	MK639008	–	POYARKOV et al. 2019
<i>L. philippina</i>	Palawan Island, Palawan Prov., Philippines	KU327731	MT090058	–	SOM et al. 2020
<i>L. tiomanica</i>	Pulau Tioman, Pahang State, Peninsular Malaysia	LSUHC 5037	MT090059	–	SOM et al. 2020
<i>Liopeltis</i> sp.	India	NCBSBH645	–	MH818406	MIRZA et al. unpubl.
<i>Sibynophis collaris</i>	Mizoram, India	MZMU1454	–	ON117511	This study
<i>S. collaris</i>	Honghe, Yunnan, China	CHS244	MK201362	MK194010	LI et al. 2020
<i>S. collaris</i>	Not provided	ROM 25618	–	KX694665	ALENCAR et al. 2016
<i>S. chinensis</i>	Mangshan, Hunan, China	CHS245	MK201363	MK194011	LI et al. 2020
<i>S. chinensis</i>	Heihe, ShaanXi, China	CHS246	MK201364	MK194012	LI et al. 2020
<i>Elaphe cantoris</i>	Pailong, Tibet, China	CHS844	MK201564	MK194263	LI et al. 2020



**Supplementary Figure S1.** Bayesian inference (BI) phylogenetic tree of the genera *Herpetoreas* and *Hebius*, based on the mitochondrial cytochrome b gene. Bayesian posterior probabilities (PP) are provided at each node. The sequence generated in this study is outlined in bold.