Supplemental Tables

Sup. Table 1. Specimens of *Microhyla* and Outgroup used in the molecular analyses 16s mtDNA

No	Group	Species	Voucher Number	Locality	Accession Number	Author
1	Achatina Group	*M. borneensis*	UNIMAS FN 1874ZAC600	Kidi, Sarawak, Malaysia	MN534550 & MN534557	Gorin *et al*. 2020
2	Achatina Group	*M. orientalis*	KUHE 55048	Wongaya Gede, Bali, Indonesia	AB781465	Matsui *et al*. 2011
3	Achatina Group	*M. sriwijaya*	MZB Amph 31747	Belitung, Indonesia	MW865481	Eprilurahman *et al*. 2021
4	Achatina Group	*M. malang*	KUHE:53018	Serapi, Sarawak, Malaysia	AB598319	Matsui 2011
5	Achatina Group	*M. nepenthicola*	KUHE:53165	Serapi, Sarawak, Malaysia	AB598329	Matsui 2011
6	Achatina Group	*M. mantheyi*	USNM:587898	Ywahilu, Tanintharyi, Myanmar	MT609024	Zug & Mulcahy 2020
7	Achatina Group	*M. mantheyi*	USNM:587899	Nint Tenku, Tanintharyi, Myanmar	MT609023	Zug & Mulcahy 2020
8	Achatina Group	*M. mantheyi*	KUHE:15726	Selangor, Malaysia	AB598333	Matsui 2011
9	Achatina Group	*M. mantheyi*	KUHE:52556	Pahang, Malaysia	AB598334	Matsui 2011
10	Achatina Group	*M. mantheyi*	MZB Amph 31522	Hutan Harapan NF, Jambi, Indonesia	PQ526727	**This Study**
11	Achatina Group	*M. minuta*	ZMMU:A5048-91	Cat Tien National Park, Dong Nai, Vietnam	MN534560	Gorin *et al*. 2020
12	Achatina Group	*M. gadjahmadai*	MZB Amph 15293	Tanggamus,Lampung, Indonesia	MK034334	Atmaja *et al*. 2018
13	Achatina Group	*M. achatina*	MDK 21	Gede Pangrango, West Java, Indonesia	AB634657	Atmaja *et al*. 2018
14	Achatina Group	*M. nakkavaram*	SDBDU 4200	Campbell Bay, Great Nicobar, India	OL828246	Garg *et al*. 2022
15	Achatina Group	*M. ninthuanensis*	HAO185	Phuoc Binh, Ninh Thuan, Vietnam	MT808934	Hoang *et al*. 2021
16	Achatina Group	*M. hmongorum*	IEBR A.4913	Kon Plong, Kon Tum, Vietnam	ON745755	Hoang *et al*. 2022
17	Achatina Group	*M. heymonsi*	KUHE:50505	Taiwan, China	LC465686	Tominaga *et al*. 2019
18	Achatina Group	*M. daklakensis*	VNMN06818	Nam Kar, Dak Lak, Vietnam	MT808945	Hoang *et al*. 2021
19	Achatina Group	*M. xodangorum*	IEBR A.4913	Kon Plong, Kon Tum, Vietnam	ON745755	Hoang *et al*. 2022
20	Achatina Group	*M. irrawaddy*	ZMMU:A5966	Pakkoku, Magway, Myanmar	MK208928	Poyarkov *et al*. 2019
21	Achatina Group	*M. kodial*	F1	Mangaluru, Karnataka, India	MF919453	Vineeth *et al*. 2018
22	Achatina Group	*M. neglecta*	ZMMUA7303	Bidoup–Nui Ba Nantional Park, Vietnam	MW147155	Poyarkov *et al*. 2020
23	Achatina Group	*M. pineticola*	ZMMU A5043	Bidoup Mt., Bidoup-Nui Ba NP, Vietnam	MN534468 & MN534569	Gorin *et al*. 2020
24	Achatina Group	*M. fodiens*	ZMMU:A5960	Kan Pauk, Magway, Myanmar	MK208926	Poyarkov *et al*. 2019
25	Fissipes Group	*M. mukhlesuri*	KUHE:35165	Thong Pha Phum, Kanchanaburi, Thailand	AB201186	Matsui *et al*. 2005
26	Fissipes Group	*M. mukhlesuri*	Morn -Bd11 (IABHU 3879)	Raozan, Chittagong, Bangladesh	AB543608	Hasan *et al*. 2012
27	Fissipes Group	*M. mukhlesuri*	Morn -Bd12 (IABHU 3880)	Raozan, Chittagong, Bangladesh	AB543609	Hasan *et al*. 2012
28	Fissipes Group	*M. mukhlesuri*	KUHE:22064	Bangkok, Thailand	AB634666	Matsui *et al*. 2011
29	Fissipes Group	*M. mukhlesuri*	NA	NA	AF215371	Vences 2000
30	Fissipes Group	*M. mukhlesuri*	NA	NA	AF215373	Vences 2000

No	Group	Species	Voucher Number	Locality	Accession Number	Author
31	Fissipes Group	*M. mukhlesuri*	NA	TZ52	AF285202	Vences 2000
32	Fissipes Group	*M. mukhlesuri*	ZFMK 86426	Phong Nha-Ke Bang National Park, Vietnam	EU157074	Hendrix *et al*. 2008
33	Fissipes Group	*M. mukhlesuri*	ZFMK 86370	Phong Nha-Ke Bang National Park, Vietnam	EU157075	Hendrix *et al*. 2008
34	Fissipes Group	*M. mukhlesuri*	ZFMK 86752	Phong Nha-Ke Bang National Park, Vietnam	EU157076	Hendrix *et al*. 2008
35	Fissipes Group	*M. mukhlesuri*	NA	NA	JQ621935	Gao & Fan 2012
36	Fissipes Group	*M. mukhlesuri*	KIZHERP 0138	NA	JX678905	Li *et al*. 2012
37	Fissipes Group	*M. mukhlesuri*	CAS:HERP:230957	Ma Gawe Reserve, Myanmar	KC179995	de Sá *et al*. 2012
38	Fissipes Group	*M. mukhlesuri*	JAM 1991	Perlis, Malaysia	KC822490	Blackburn *et al*. 2013
39	Fissipes Group	*M. mukhlesuri*	ZMMU A6041	Myanmar, Magway, Pakkoku	MK208933	Gorin *et al*. 2020
40	Fissipes Group	*M. mukhlesuri*	ZMMU:NAP8311	Myanmar, Kachin, Indawgyi, In Gyin Taung mt.	MK208934	Gorin *et al*. 2020
41	Fissipes Group	*M. mukhlesuri*	ZMMU NAP-04121	Thailand, Satun, Thale Ban NP	MN534479 & MN5344580	Gorin *et al*. 2020
42	Fissipes Group	*M. mukhlesuri*	ZMMU A4633	Vietnam, Ba Ria-Vung Tau, Con Dao NP, Con Son	MN534480 & MN5344581	Gorin *et al*. 2020
43	Fissipes Group	*M. mukhlesuri*	ZMMU A5550	Vietnam, Quang Binh	MN534481 & MN5344582	Gorin *et al*. 2020
44	Fissipes Group	*M. mukhlesuri*	ZMMU A4686-15	Vietnam, Dak Lak, Yok Don NP	MN534482 & MN5344583	Gorin *et al*. 2020
45	Fissipes Group	*M. mukhlesuri*	ZMMU NAP-04108	Thailand, Suratthani, Khao Sok NP	MN534483 & MN5344584	Gorin *et al*. 2020
46	Fissipes Group	*M. mukhlesuri*	IABHU-3959	Bangladesh, Chittagong	MN534484 & MN5344585	Gorin *et al*. 2020
47	Fissipes Group	*M. mukhlesuri*	ZISP FN-00236	Laos, Khammouan, Nakai-Nam Theun	MN534485 & MN5344586	Gorin *et al*. 2020
48	Fissipes Group	*M. mukhlesuri*	ZMMU NAP-6829	Malaysia, Tasik Pedu Lake, Kedah	MN534486 & MN5344587	Gorin *et al*. 2020
49	Fissipes Group	*M. mukhlesuri*	MZB Amph 23551	Kuala Namu, Sumatra Utara, Indonesia	LC213133	Pradana *et al*. 2017
50	Fissipes Group	*M. mukhlesuri* (*M.* sp. aff. *fissipes* Sumatra)	UTA (ENS 16264)	Kuala Namu, Sumatra Utara, Indonesia	LC213134	Pradana *et al*. 2017
51	Fissipes Group	*M. mukhlesuri* (*M.* sp. aff. *fissipes* Sumatra)	MZB Amph 26091	Aceh besar, Aceh, Indonesia	LC213135	Pradana *et al*. 2017
52	Fissipes Group	*M. mukhlesuri* (*M.* sp. aff. *fissipes* Sumatra)	MZB Amph 26092	Tanah putih, Riau, Indonesia	LC213136	Pradana *et al*. 2017
53	Fissipes Group	*M. mukhlesuri* (*M.* sp. aff. *fissipes* Sumatra)	MZB Amph 28443	Bagansiapiapi, Riau, Indonesia	LC213145	Pradana *et al*. 2017
54	Fissipes Group	*M. fissipes*	KUHE32943	Huangshan, Anhui, China	AB201185	Matsui *et al*. 2005
55	Fissipes Group	*M. fissipes*		Taiwan, China	MF673131	Lin & Liu 2017

No	Group	Species	Voucher Number	Locality	Accession Number	Author
56	Fissipes Group	*M. chakrapanii*	NA	Andaman Islands, India	MH807389	Garg *et al*. 2019
57	Fissipes Group	*M. mymensinghensis*	Morn-Bd10	Golapganj, Sylhet, Bangladesh	AB543607	Hasan *et al*. 2012
58	Fissipes Group	*M. dabieshanensis*	AHU2021QP01	Jingzhai, Luan, Anhui, China	OM414712	Zhang *et al*. 2022
59	Fissipes Group	*M. okinavensis*	IABHU5263	Okinawa, Japan	AB303950	Igawa *et al*. 2008
60	Fissipes Group	*M. kuramotoi*	URE0394	Midaragawa, Okinawa, Japan	LC465657	Tominaga *et al*. 2019
61	Fissipes Group	*M. beilunensis*	CIBBL002	Beilun, Ningbo, Zhejiang, China	MH234535	Zhang *et al*. 2018
62	Fissipes Group	*M. mixtura*	CIB:20070248	Sichuan, China	AB634669	Matsui *et al*. 2010
63	Fissipes Group	*M. fanjingshanensis*	CIBFJS20180425006	Fanjing Mountain, Guizhou, China	MK087856	Li *et al*. 2019
64	Berdmorei Group	*M. picta*	ZMMU A4918-43	Phuoc Buu NR, Vietnam	MN534509 & MN534611	Gorin *et al*. 2020
65	Berdmorei Group	*M. pulchra*	KUHE 22113	Kanchaburi, Thailand	AB634676	Matsui *et al*. 2010
66	Berdmorei Group	*M. berdmorei*	Msp-Bd1	Golapganj, Sylhet, Bangladesh	AB530540	Hasan *et al*. 2012
67	Ornata Group	*M. ornata*	ZSIK-A9119	Dharwad, Karamana, India	AB201188	Matsui *et al*. 2005
68	Ornata Group	*M. taraiensis*	JRK201525	Jamun Khadi, Jhapa,district, Nepal	MF496241	Khatiwada *et al*. 2018
69	Ornata Group	*M. nilphamariensis*	MHLB00206	Berakhuti, Barua, Nilphamari, Bangladesh	LC090057	Hasan *et al*. 2015
70	Ornata Group	*M. mihintalei*	DZ1410	Makandura, Sri Lanka	KU214857	Wijayathilaka *et al*. 2016
71	Ornata Group	*M. rubra*	released (toe tip)	Karnataka, India	AB201192	Matsui *et al*. 2005
72	Butleri Group	*M. butleri*	KUHE 33557	Bangkok, Thailand	AB201189	Matsui *et al*. 2005
73	Butleri Group	*M. butleri*	KUHE 40649	Nongten, Vientiane, Laos	AB598339	Matsui 2011
74	Butleri Group	*M. butleri*	KUHE 40591	Vietnam, Thua Thien-Hue, A Luoi	AB634664	Matsui *et al*. 2011
75	Butleri Group	*M. butleri*	KUHE 44203	China, Taiwan, Tainan	AB634665	Matsui *et al*. 2011
76	Butleri Group	*M. butleri*	TZ9874	Vietnam	AF285199	Ziegler 2000
77	Butleri Group	*M. butleri*	CAS HERP 210751	Hlawgaw Wildlife Park, Yangon, Myanmar	KC180042	de Sá *et al*. 2012
78	Butleri Group	*M. butleri*	USNM Herp 586947	Yeybu village, Tanintharyi, Myanmar	MG935892	Mulcahy *et al*. 2018
79	Butleri Group	*M. butleri*	MBM-JBS2952	Hlawgaw Wildlife Park, Yangon, Myanmar	MG935893	Mulcahy *et al*. 2018
80	Butleri Group	*M. butleri*	USNM Herp 586948	Yeybu village, Tanintharyi, Myanmar	MG935894	Mulcahy *et al*. 2018
81	Butleri Group	*M. butleri*	MZB Amph 23116	Deli Serdang, North Sumatra, Indonesia	PQ526728	**This Study**
82	Butleri Group	*M. butleri*	MZB Amph 24059	Deli Serdang, North Sumatra, Indonesia	PQ526729	**This Study**
83	Butleri Group	*M. aurantiventris*	ITBCZ 4360	Gia Lai, Tram Lap,Vietnam	MH286426	Nguyen *et al*. 2019
84	Superciliaris Group	*M. laterite*	GL3302	Manipal, Karnataka, India	KT600670	Seshadri *et al*. 2016
85	Superciliaris Group	*M. zeylanica*	DZ 1419	Horton plains, Sri Lanka	MH807428	Garg *et al*. 2019
86	Superciliaris Group	*M. karunaratnei*	DZ 1529	Morningside, Sinharaja, Sri Lanka	MH807392	Garg *et al*. 2019
87	Superciliaris Group	*M. darreli*	ZSI/WGRC/V/A/962	Thiruvananthapuram, Karamana, India	MH807390	Garg *et al*. 2019
88	Superciliaris Group	*M. sholigari*	GL3360	Biligirirangan Hills, Karnataka, India	KT600675	Seshadri *et al*. 2016
89	Superciliaris Group	*M. eos*	ZSI A 14399	Arunapachal Pradesh, Indian	MN160599	Biju *et al*. 2016
90	Superciliaris Group	*M. superciliaris*	KUHE 52558	Pahang, Temerloh, Malaysia	AB634682	Matsui *et al*. 2010
91	Superciliaris Group	*M. tetrix*	ZMMU A6032	Khao Sok Dist., Surat Thani, Thailand	MN534526 & MN534631	Gorin *et al*. 2020

No	Group	Species	Voucher Number	Locality	Accession Number	Author
92	Palmipes Group	*M. palmipes*	UTA ENS 16234	Kencana Mt., West Java, Indonesia	LC213140	Pradana *et al*. 2017
93	Outgroup	*N. annectens*	KUHE 53373	Selangor, Genting, Malaysia	AB634658	Matsui *et al*. 2010
94	Outgroup	*N. marmorata*	KUHE 32455	Houapan, Xamneua, Laos	AB634668	Matsui *et al*. 2010
95	Outgroup	*N. perparva*	KUHE 53675	Sarawak, Mulu, Malaysia	AB634673	Matsui *et al*. 2010
96	Outgroup	*N. petrigena*	BORN 22412	Sabah, Maliau Basin, Malaysia	AB634674	Matsui *et al*. 2010

Sup. Table 2. Uncorrected p-distance (%) of *Microhyla* spp. (479 bp)

No	Group	Species	1	2	3	4	5	6
1		*M. borneensis*						
2		*M. orientalis*	1.05					
3		*M. sriwijaya*	4.63	4.84				
4		*M. malang*	4.85	4.64	6.75			
5		*M. nepenthicola*	4.85	4.22	5.49	2.32		
6		*M. mantheyi*	5.49-5.92	5.27-5.71	6.12-6.98	6.33-6.54	5.06-5.71	0-1.05
7		***M. mantheyi* Sumatra**	5.27	5.06	5.91	6.33	5.27	0.84-1.69
8		*M. minuta*	5.92	5.92	6.98	5.07	4.86	6.13-6.99
9		*M. achatina*	6.54	6.12	8.44	7.38	6.54	6.75-6.98
10	*M. achatina* Group	*M. gadjahmadai*	5.91	6.33	7.59	6.96	6.12	5.06-5.71
11		*M. nakkavaram*	8.26	8.26	9.32	7.86	8.07	8.28-8.92
12		*M. ninthuanensis*	8.03	8.03	8.25	6.57	7.20	8.69-8.90
13		*M. hmongorum*	7.19	6.77	7.82	5.93	5.72	6.57-6.78
14		*M. heymonsi*	6.36	6.36	7.42	6.16	6.37	7.43-7.64
15		*M. daklakensis*	6.13	6.13	7.61	5.93	5.72	6.36-6.78
16		*M. xodangorum*	6.98	6.55	7.61	6.36	5.72	7.63-8.05
17		*M. irrawaddy*	7.63	7.63	7.84	7.86	7.22	7.64-7.86
18		*M. kodial*	6.99	6.57	8.69	6.58	5.94	6.16-6.37
19		*M. neglecta*	9.55	9.55	11.25	9.15	9.57	10.00-10.21
20		*M. pineticola*	7.63	7.63	9.32	7.01	7.22	7.43-7.64
21		*M. fodiens*	12.24	11.81	13.29	12.03	11.81	11.39-11.42
22		*M. mukhlesuri*	7.42-8.05	7.42-8.47	9.75-10.59	6.99-7.42	7.84-9.11	7.01-8.90
23		***M. mukhlesuri* Sumatra** (formerly *M.* sp. aff. *fissipes* Sumatra)	7.84-8.05	7.63-7.84	9.53-9.75	7.20-7.42	8.26-8.47	7.42-7.84
24		*M. fissipes* China	7.42	6.78	9.53	7.42	7.63	6.99-7.2
25		*M. chakrapanii*	8.90	8.47	10.81	8.26	8.26	7.42-7.63
26	*M. fissipes* Group	*M. mymensinghensis*	8.47	7.84	10.38	7.63	7.63	7.42-7.63
27		*M. dabieshanensis*	6.57	6.57	9.32	6.57	6.99	6.58-6.78
28		*M. okinavensis*	7.63	8.05	10.17	8.69	8.26	8.05-8.26
29		*M. kuramotoi*	6.55	6.98	8.88	6.98	7.19	6.98-7.40
30		*M. beiluensis*	6.14	6.57	8.47	6.57	6.78	5.93-6.39
31		*M. mixtura*	6.14	6.57	8.47	6.57	6.78	5.93-6.36
32		*M. fanjingshanensis*	6.78	6.78	9.11	6.57	6.78	5.73-6.14

33	*M. berdmorei* Group	*M. picta*	12.47	11.84	13.95	12.68	12.47	11.63-12.26
34		*M. pulchra*	11.21	11.63	13.32	11.21	12.05	11.21-11.63
35		*M. berdmorei*	9.94	9.73	11.21	10.36	9.94	9.30-9.75
36	*M. ornata* Group	*M. ornata*	12.29	11.86	13.56	11.23	11.23	11.65-11.86
37		*M. taraiensis*	12.71	12.29	13.98	11.65	11.02	10.17-10.59
38		*M. nilphamariensis*	10.57	10.36	11.63	10.15	9.73	9.73-10.17
39		*M. mihintalei*	11.02	10.38	12.29	10.17	10.17	9.75-10.19
40		*M. rubra*	11.44	10.81	12.71	10.38	10.38	10.17-10.62
41	*M. butleri* Group	*M. butleri*	11.68-12.71	11.04-12.08	12.10-12.92	9.77-10.85	10.62-11.28	10.62-12.29
42		***M. butleri* Sumatra**	12.53-12.74	11.89-12.10	11.89-12.20	11.04-11.25	11.46-11.68	11.68-12.31
43		*M. aurantiventris*	11.44	11.23	12.92	10.38	10.59	9.96-10.81
44	*M. superciliaris* Group	*M. laterite*	12.29	11.86	13.77	11.86	11.86	11.02-11.65
45		*M. zeylanica*	13.14	12.71	14.41	12.08	12.29	11.44-12.08
46		*M. karunaratnei*	12.26	11.84	12.68	10.99	11.21	11.63-12.26
47		*M. darreli*	12.08	11.65	13.14	11.23	11.02	11.23-11.86
48		*M. sholigari*	12.29	11.86	13.98	11.86	11.65	11.02-11.44
49		*M. eos*	11.23	10.81	12.08	10.38	10.59	9.75-10.17
50		*M. superciliaris*	11.63	11.21	12.26	10.78	11.21	10.15-10.38
51		*M. tetrix*	12.26	11.63	12.90	10.78	10.78	10.36-10.99
52	*M. palmipes* Group	*M. palmipes*	12.47	12.47	11.42	11.44	11.44	12.08-12.29
53		Outgroup	11.60-13.29	10.97-12.66	12.66-13.92	10.34-12.03	9.92-12.03	11.42-12.66

No	**Group**	**Species**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
9	*M. achatina* Group	*M. achatina*								
10		*M. gadjahmadai*	5.27							
11		*M. nakkavaram*	9.55	9.98						
12		*M. ninthuanensis*	8.90	8.47	4.02					
13		*M. hmongorum*	7.20	7.63	4.86	4.01				
14		*M. heymonsi*	7.43	8.07	4.65	4.02	3.59			
15		*M. daklakensis*	7.63	7.20	5.29	4.22	4.01	3.81		
16		*M. xodangorum*	7.63	7.84	6.55	6.12	5.49	6.34	5.70	
17		*M. irrawaddy*	6.58	7.01	8.47	8.05	6.99	6.36	6.57	7.84
18		*M. kodial*	7.22	7.01	7.84	7.42	6.36	5.93	4.87	7.20
19		*M. neglecta*	8.72	9.36	11.04	9.34	10.19	8.92	9.55	9.98
20		*M. pineticola*	8.70	8.07	8.70	8.26	8.05	7.43	7.84	7.42
21		*M. fodiens*	11.18	11.60	11.25	10.38	10.38	10.19	10.38	11.65
22	*M. fissipes* Group	*M. mukhlesuri*	8.26-9.53	7.42-8.69	7.02-8.32	5.96-7.23	6.81-8.30	6.17-7.23	6.38-7.23	7.45-8.51

23		***M. mukhlesuri* Sumatra** (formerly *M.* sp. aff. *fissipes* Sumatra)	8.69-8.90	7.84-8.05	8.51-8.72	7.02-7.23	7.45-7.66	6.60-6.81	7.02-7.23	8.09-8.30
24		*M. fissipes*	8.26	7.42	7.87	6.60	7.02	5.96	6.38	7.02
25		*M. chakrapanii*	9.32	8.05	8.30	7.87	7.87	7.66	7.66	7.87
26		*M. mymensinghensis*	7.84	7.84	7.66	6.81	7.23	7.02	7.23	7.66
27		*M. dabieshanensis*	7.20	6.57	7.25	6.38	6.81	5.33	6.60	7.45
28		*M. okinavensis*	7.84	7.63	8.96	7.87	8.94	7.04	7.87	9.15
29		*M. kuramotoi*	7.82	6.55	8.09	6.79	7.43	6.38	7.43	7.64
30		*M. beiluensis*	7.42	6.14	7.25	6.38	7.45	5.97	6.38	7.23
31		*M. mixtura*	7.42	6.14	7.25	6.38	7.45	5.97	6.38	7.23
32		*M. fanjingshanensis*	7.42	6.57	7.25	5.96	6.81	5.33	6.17	6.81
33	*M. berdmorei* Group	*M. picta*	10.57	12.05	12.34	11.68	11.89	12.55	11.68	13.59
34		*M. pulchra*	9.30	10.57	10.43	10.19	10.83	10.43	10.83	12.53
35		*M. berdmorei*	8.03	9.30	10.85	10.19	9.98	11.28	9.98	11.25
36	*M. ornata* Group	*M. ornata*	10.38	11.44	11.28	10.62	10.83	10.64	11.25	10.83
37		*M. taraiensis*	11.86	10.81	12.13	11.46	10.62	11.70	11.25	12.31
38		*M. nilphamariensis*	9.51	9.09	11.04	10.38	9.32	10.19	9.96	10.38
39		*M. mihintalei*	9.96	9.53	11.28	9.77	9.77	10.43	10.62	11.04
40		*M. rubra*	9.53	9.96	10.64	9.98	10.40	11.06	10.83	12.10
41	*M. butleri* Group	*M. butleri*	11.04-11.86	11.04-11.86	11-30-11.97	10.02-11.28	9.81-11.06	9.81-11.06	10.23-11.06	11.94-12.98
42		***M. butleri* Sumatra**	11.46-11.68	11.89-12.10	12.15-12.37	11.30-11.51	11.09-11.30	11.09-11.30	11.09-11.30	12.79-13.01
43		*M. aurantiventris*	11.86	10.59	11.30	11.70	10.43	11.09	9.57	11.49
44	*M. superciliaris* Group	*M. laterite*	11.86	11.44	12.15	12.77	11.49	11.09	11.28	12.34
45		*M. zeylanica*	11.65	12.29	12.58	12.34	11.70	11.30	11.91	11.91
46		*M. karunaratnei*	11.63	12.26	11.06	11.25	11.04	10.21	10.83	11.25
47		*M. darreli*	11.65	12.29	11.30	11.70	11.49	11.30	11.06	11.49
48		*M. sholigari*	11.86	11.65	11.94	12.13	11.91	11.73	10.64	11.91
49		*M. eos*	10.81	10.59	10.02	10.21	9.36	9.81	10.21	11.06
50		*M. superciliaris*	11.84	11.63	9.36	9.34	9.77	9.36	10.19	11.68
51		*M. tetrix*	10.15	12.26	10.64	10.62	9.77	10.00	9.55	11.25
52	*M. palmipes* Group	*M. palmipes*	12.50	11.23	12.29	11.21	11.21	9.53	10.99	10.36
53	Outgroup		10.76-13.08	10.55-12.45	11.04-11.89	10.38-11.02	10.38-11.44	10.83-12.10	10.17-11.23	11.44-11.86

No	Group	Species	17	18	19	20	21	22	23	24
17		*M. irrawaddy*								
18		*M. kodial*	5.29							
19	*M. achatina* Group	*M. neglecta*	10.21	10.43						
20		*M. pineticola*	8.51	8.09	5.94					
21		*M. fodiens*	11.46	11.25	10.85	10.83				
22		*M. mukhlesuri*	7.02-8.32	5.74-7.23	8.53-9.38	7.46-8.74	10.19-11.65	0-2.54		
23		***M. mukhlesuri* Sumatra** (formerly *M.* sp. aff. *fissipes* Sumatra)	7.45-7.66	6.17-6.38	8.96-9.17	7.89-8.10	11.02-11.23	0.42-2.54	0-0.21	
24		*M. fissipes*	7.02	5.74	8.74	7.68	10.81	1.27-2.97	1.69-1.91	0
25		*M. chakrapanii*	8.30	7.45	10.02	8.53	11.23	3.60-5.30	4.45-4.66	3.18
26	*M. fissipes* Group	*M. mymensinghensis*	7.45	5.96	9.38	8.32	11.02	2.75-4.66	3.81-4.03	2.97
27		*M. dabieshanensis*	7.04	6.40	7.69	6.61	9.96	3.61-5.31	4.03-4.25	3.18
28		*M. okinavensis*	8.32	8.32	7.48	8.32	9.96	5.31-6.58	5.73-5.94	5.31
29		*M. kuramotoi*	6.81	6.81	7.68	7.23	9.51	4.25-5.52	4.67-4.88	3.82
30		*M. beiluensis*	6.40	5.97	7.69	6.61	9.53	3.61-4.88	4.03-4.25	3.40
31		*M. mixtura*	6.40	5.97	7.69	6.61	9.53	3.61-4.88	4.03-4.25	3.40
32		*M. fanjingshanensis*	7.25	5.54	7.48	6.61	9.53	4.46-5.73	4.88-5.10	4.25
33		*M. picta*	12.98	11.70	11.51	12.77	10.99	10.40-11.89	11.04-11.25	11.25
34	*M. berdmorei* Group	*M. pulchra*	11.49	11.28	10.45	12.13	10.78	9.36-10.83	9.98-10.19	10.19
35		*M. berdmorei*	10.43	10.64	10.23	11.49	9.94	10.19-11.46	10.62-10.83	10.62
36		*M. ornata*	11.91	11.70	9.62	11.30	10.59	8.53-10.00	9.57-9.79	9.15
37		*M. taraiensis*	11.49	10.43	12.39	12.79	11.44	10.00-11.06	10.43-10.64	10.00
38	*M. ornata* Group	*M. nilphamariensis*	9.77	10.19	9.59	10.00	10.57	8.94-10.40	9.55-9.77	9.13
39		*M. mihintalei*	11.28	10.85	10.47	11.51	11.23	9.79-11.06	10.21-10.43	9.79
40		*M. rubra*	11.28	11.28	10.90	11.51	11.65	9.36-10.43	10.00-10.21	9.57
41	*M. butleri* Group	*M. butleri*	10.66-11.49	10.21-11.11	11.94-12.58	12.37-12.85	11.65-12.53	9.15-11.68	10.21-11.46	9.79-10.83
42		***M. butleri* Sumatra**	11.30-11.51	11.30-11.51	12.61-12.82	13.03-13.25	12.53	10.00-11.73	10.21-10.64	10.64-10.85
43		*M. aurantiventris*	11.73	10.23	11.75	11.51	10.59	10.43-11.91	10.85-11.06	10.64
44	*M. superciliaris* Group	*M. laterite*	12.79	11.94	14.53	13.43	11.23	10.43-11.51	10.85-11.06	10.43
45		*M. zeylanica*	13.01	12.58	14.74	13.43	12.92	10.64-11.73	11.06-11.28	10.64
46		*M. karunaratnei*	12.55	11.49	13.22	12.13	10.99	10.19-11.49	11.25-11.46	10.62
47		*M. darreli*	12.37	11.73	13.03	11.94	11.23	10.43-11.30	11.06-11.28	10.43
48		*M. sholigari*	12.58	11.51	13.46	12.79	11.23	9.79-11.06	10.85-11.06	10.43
49		*M. eos*	10.87	9.81	12.18	11.30	10.81	9.15-9.79	9.57-9.79	9.57
50		*M. superciliaris*	11.49	10.43	12.79	12.34	11.21	8.49-9.98	9.34-9.55	8.92

51		*M. tetrix*	12.13	11.06	10.23	11.28	11.21	9.13-9.98	9.55-9.77	9.34
52	*M. palmipes* Group	*M. palmipes*	10.62	11.46	12.74	12.50	12.08	8.72-9.57	8.30-8.51	8.72
53	Outgroup		11.25-12.10	10.40-11.89	12.34-14.47	11.89-13.80	10.97-12.66	10.17-12.50	10.59-11.86	10.17-11.02

No	**Group**	**Species**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
25	*M.fissipes* Group	*M. chakrapanii*								
26		*M. mymensinghensis*	2.54							
27		*M. dabieshanensis*	4.25	3.82						
28		*M. okinavensis*	6.58	6.16	3.39					
29		*M. kuramotoi*	5.10	4.67	2.33	3.18				
30		*M. beiluensis*	5.10	4.25	2.33	3.18	2.12			
31		*M. mixtura*	5.10	4.25	2.33	3.18	2.12			
32		*M. fanjingshanensis*	5.73	4.88	2.54	3.81	3.81	2.33	2.33	
33	*M. berdmorei* Group	*M. picta*	11.25	11.46	11.04	11.04	11.44	10.83	10.83	10.62
34		*M. pulchra*	10.40	9.98	8.92	8.70	8.90	8.70	8.70	9.13
35		*M. berdmorei*	11.46	10.83	10.40	10.19	10.17	9.55	9.55	9.55
36	*M. ornata* Group	*M. ornata*	9.36	8.72	9.57	9.15	9.77	9.79	9.79	9.79
37		*M. taraiensis*	10.85	9.79	10.21	11.06	9.98	9.79	9.79	10.43
38		*M. nilphamariensis*	9.34	8.49	8.49	9.34	8.05	8.28	8.28	9.13
39		*M. mihintalei*	10.21	10.21	9.36	11.70	10.19	9.79	9.79	9.57
40		*M. rubra*	10.43	10.00	9.15	11.49	10.19	9.57	9.57	9.79
41	*M. butleri* Group	*M. butleri*	10.64-11.68	10.43-11.25	9.59-10.58	11.49-12.34	8.94-9.79	8.94-9.79	9.36-10.64	9.36-10.62
42		***M. butleri* Sumatra**	11.49-11.70	11.28-11.49	10.45-10.66	12.15-12.37	11.28-11.49	9.59-9.81	9.59-9.81	10.45-10.66
43		*M. aurantiventris*	10.64	10.00	9.57	10.64	9.34	8.94	8.94	10.00
44	*M. superciliaris* Group	*M. laterite*	11.06	11.06	11.06	11.28	10.83	10.64	10.64	11.91
45		*M. zeylanica*	10.85	11.49	11.70	11.91	11.04	11.28	11.28	12.55
46		*M. karunaratnei*	11.68	11.25	10.62	11.25	10.81	9.98	9.98	11.04
47		*M. darreli*	11.28	10.64	10.43	11.06	10.62	9.79	9.79	10.85
48		*M. sholigari*	11.28	10.85	10.85	11.28	11.04	10.21	10.21	10.85
49		*M. eos*	9.79	9.36	9.57	11.06	9.77	9.15	9.15	9.79
50		*M. superciliaris*	10.19	9.77	9.13	11.04	10.17	8.92	8.92	8.70
51		*M. tetrix*	9.98	9.77	9.34	9.55	10.81	8.92	8.92	9.13
52	*M. palmipes* Group	*M. palmipes*	9.57	9.57	10.00	10.85	10.40	9.15	9.15	9.79
53	Outgroup		9.96-11.65	9.96-11.44	9.32-11.44	10.81-12.92	10.57-12.47	9.75-11.02	9.75-11.02	9.96-10.81

No	**Group**	**Species**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
33	*M. berdmorei* Group	*M. picta*								
34		*M. pulchra*	6.34							

35		*M. berdmorei*	8.25	8.25						
36		*M. ornata*	9.77	9.77	9.55					
37		*M. taraiensis*	11.46	10.40	10.40	6.98				
38	*M. ornata* Group	*M. nilphamariensis*	9.11	9.32	9.11	4.86	5.07			
39		*M. mihintalei*	9.34	9.34	9.77	7.63	7.42	6.13		
40		*M. rubra*	9.55	9.98	9.34	7.84	7.20	6.34	2.96	
41		*M. butleri*	10.40-11.68	10.83-11.46	10.43-10.90	10.21-10.68	8.94-9.77	8.53-9.83	8.74-9.36	0-2.55
42	*M. butleri* Group	***M. butleri* Sumatra**	10.00-10.21	11.06-11.28	11.28-11.49	11.09-11.30	10.87-11.09	9.57-9.79	10.02-10.23	9.38-9.59
43		*M. aurantiventris*	10.40	9.98	10.62	9.15	9.15	7.64	9.57	10.64
44		*M. laterite*	14.23	13.16	11.89	10.85	12.13	10.83	11.49	11.28
45		*M. zeylanica*	14.86	14.01	12.31	11.28	12.55	12.10	12.13	11.91
46		*M. karunaratnei*	12.92	13.14	12.08	9.77	11.25	10.17	10.62	10.62
47	*M. superciliaris*	*M. darreli*	12.31	12.53	11.25	9.15	10.21	8.92	9.79	9.36
48	Group	*M. sholigari*	12.31	12.31	9.98	9.79	10.00	9.55	10.43	9.79
49		*M. eos*	12.53	10.83	10.19	8.72	9.15	8.70	8.72	8.94
50		*M. superciliaris*	11.23	11.02	11.02	8.92	8.49	8.90	8.07	8.70
51		*M. tetrix*	10.59	11.23	10.59	8.07	10.19	9.11	9.34	9.55
52	*M. palmipes* Group	*M. palmipes*	12.31	11.89	12.95	8.94	10.00	9.13	10.64	10.85
53	Outgroup		11.63-13.11	11.63-12.26	9.94-11.84	9.75-11.02	11.23-12.08	10.15-11.42	10.59-11.65	10.38-11.65

No	**Group**	**Species**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
41		*M. butleri*								
42	*M. butleri* Group	***M. butleri* Sumatra**	0.42-2.13	0.42						
43		*M. aurantiventris*	6.17-7.22	7.01-7.22						
44		*M. laterite*	10.21-12.10	11.70	8.28					
45		*M. zeylanica*	11.49-13.38	12.55	10.40	4.03				
46		*M. karunaratnei*	8.94-10.40	9.57	8.07	4.24	5.30			
47	*M. superciliaris*	*M. darreli*	9.79-11.25	10.43-10.85	8.49	4.03	5.30	2.33		
48	Group	*M. sholigari*	10.00-11.46	10.64-11.06	9.34	4.66	5.72	4.66	3.18	
49		*M. eos*	8.51-10.62	10.21	8.70	6.99	8.69	7.42	7.20	7.84
50		*M. superciliaris*	6.58-8.05	7.86-8.07	8.05	9.53	10.81	7.84	8.69	9.32
51		*M. tetrix*	8.07-9.32	8.70-8.92	7.63	8.69	9.32	7.63	7.84	8.69
52	*M. palmipes* Group	*M. palmipes*	10.00-10.66	9.81-10.02	10.64	12.55	13.19	11.68	11.70	11.91
53	Outgroup		9.11-11.49	9.77-11.68	9.75-10.81	11.23-13.14	11.86-13.77	10.78-12.05	11.02-12.50	11.65-12.71

No	**Group**	**Species**	**49**	**50**	**51**	**52**	**53**
49		*M. eos*					

50		*M. superciliaris*	6.36				
51		*M. tetrix*	7.84	6.13			
52	*M. palmipes* Group	*M. palmipes*	10.00	9.98	9.77		
53	Outgroup		9.51-11.21	9.94-10.57	9.30-10.57	10.17-11.02	5.66-7.55

Sup. Table 3. Uncorrected p-distance (%) of *Microhyla* new record species for Sumatra, Indonesia (479 bp). Detail matrix of genetic distance results available as Sup. Table 2.

***Microhyla* sp. aff. *fissipes* Sumatra**	
Within *M.* sp. aff. *fissipes* Sumatra	0–0.21
M. sp. aff. *fissipes* Sumatra vs. other *M. mukhlesuri*	0.42–2.54
M. sp. aff. *fissipes* Sumatra vs. *M. fissipes* China	1.69–1.91
Other *M. mukhlesuri* vs. *M. fissipes* China	1.27–2.97
M. sp. aff. fissipes Sumatra vs. other *M. fissipes* group species	3.81–5.94
Microhyla mantheyi	
M. mantheyi Sumatra vs. other *M. mantheyi*	0.84–1.69
M. mantheyi Sumatra vs. other *M. achatina* group species	5.06–11.39
Other *M. mantheyi* vs. other *M. achatina* group species	5.06–11.42
Microhyla butleri	
Within *M. butleri* Sumatra	0.42
M. butleri Sumatra vs. other *M. butleri*	0.42–2.13
M. butleri Sumatra vs. other *M. butleri* group species	7.01–7.22

Sup. Table 4. Morphometric characters of *Microhyla mantheyi* from Sumatra, original description from Das *et al*. 2007 (Peninsular Malaysia), and Thai populations (Juthong 2015). SVL (Mean ± SD) and mean of raw morphometric data followed by ranges.

Characters	Sumatra (This Study)		Peninsular Malaysia (Das *et al*. 2007)				*M. mantheyi* Thailand (Juthong 2015)
	Male (N=2)		Male (N=13)		Female (N=2)		Male (N=4)
SVL	15.9 ± 1.4	(14.4–17.3)	19.2 ± 0.87	(15.0–29.2)	18.95 ± 1.58	(14.8–24.1)	20.6 ± 1.5
HL	5.9	(5.5–6.3)	4.4	(3.5–5.9)	4.2	(3.5–4.6)	8.7
HW	5.4	(5.4–5.5)	5.6	(4.5–7.5)	5.3	(4.4–5.9)	10
HD	3	(2.9–3.0)	3.4	(2.6–4.3)	3.4	(2.7–3.9)	n.a
EL	1.6	(1.5–1.6)	n.a	n.a	n.a	n.a	n.a
NE	1.7	(1.7–1.8)	1.8	(1.4–2.4)	1.9	(1.2–2.5)	n.a
SL	2.9	(2.8–3.0)	2.9	(2.6–3.7)	2.9	(2.0–3.6)	n.a
IND	2.1	(2.1–2.2)	1.9	(1.4–2.7)	1.7	(1.3–2.1)	1.9
IOD	2.9	(2.8–3.0)	3.5	(2.7–4.1)	3.4	(2.7–3.9)	3.6
UEW	1.1	(1.0–1.1)	0.9	(0.8–1.2)	1	(0.9–1.1)	n.a
FLL	11.1	(11–11.1)	n.a	n.a	n.a	n.a	12.1
LAL	7.8	(7.8–7.9)	n.a	n.a	n.a	n.a	8.4
HLL	40.7	(39.2–42.2)	n.a	n.a	n.a	n.a	38.8
TiL	13.00	(12.3–13.7)	12.7	(10.8–14.6)	12.6	(9.8–15.6)	13
FeL	9.9	(9.4–10.5)	n.a	n.a	n.a	n.a	8.5
IMTL	0.9	(0.8–1)	n.a	n.a	n.a	n.a	n.a
OMTL	0.9	(0.8–0.9)	n.a	n.a	n.a	n.a	n.a

Sup. Table 5. Morphometric characters of *Microhyla butleri* from Sumatra and other population: Singapore and Thailand by Taylor (1962) and Juthong (2015), Vietnam by Nguyen *et al*. (2019). SVL (Mean ± SD) and mean of raw morphometric data followed by ranges

Characters	***M. butleri* Sumatra This Study**				***M. butleri* Singapore (Taylor 1962)**		***M. butleri* Thailand (Taylor 1962)**	***M. butleri* Vietnam (Nguyen *et al*. 2019)**			***M. butleri* Thailand (Juthong 2015)**	
	Male (n=10)		**Female (n=5)**		**Male (n=2)**		**Female (n=1)**	**Male (n=13)**		**Female (n=1)**	**Male (n=7)**	**Female (n=8)**
SVL	17.6 ± 1.8	(15.3–20.2)	21.3 ± 1.7	(19.5–23.4)	22.2	(21.4–23)	22.50	20.8	(20.6–21.0)	23.9	18.3 ± 2.2	19.9 ± 1.9
HL	5.4	(4.6–6.1)	6.3	(5.8–7.0)	7.1	(7–7.1)	6.8	7.3	(6.5–7.8)	7.3	5.7	5.9
HW	5.1	(4.4–5.8)	5.8	(5.4–6.7)	7.1	(7–7.2)	7	8.3	(7.9–9.0)	8.1	6.1	6.8
HD	3.1	(2.6–3.3)	3.2	(2.7–3.4)	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
EL	1.9	(1.6–2.4)	2.3	(1.9–3.0)	n.a	n.a	n.a	2	(2.0–2.1)	2.1	n.a	n.a
NL	1.4	(1.1–1.6)	1.7	(1.6–1.9)	n.a	n.a	n.a	1.4	(1.2–1.6)	1.1	n.a	n.a
SL	2.4	(2.0–2.6)	2.8	(2.5–3.0)	2.8	2.8	2.7	2.9	(2.8–3.0)	3.3	n.a	n.a
IND	1.6	(1.4–1.9)	1.8	(1.5–2.2)	n.a	n.a	n.a	1.8	(1.7–2.0)	1.9	1.7	1.6
IOD	2	(1.6–2.4)	2.4	(1.9–3.0)	n.a	n.a	n.a	2.4	(2.3–2.6)	2.5	2.9	3.2
UEW	1.2	(0.9–1.9)	1.3	(1.1–1.6)	n.a	n.a	n.a	2.5	(2.3–2.7)	2.6	n.a	n.a
FLL	11.3	(9.6–13.0)	12.4	(9.2–14.1)	12.3	(12–12.3)	11.5	14.7	(13.8–15.3)	14.8	11.1	12.4
LAL	7.9	(6.7–10.0)	9.5	(8.4–10.8)	n.a	n.a	n.a	9	(8.1–9.5)	9.6	7.2	8.1
HLL	36	(31.2–40.3)	44.1	(36.0–54.0)	36.5	(36.0–37.0)	34	40.2	(39.6–40.8)	44.1	27.5	36.7
TiL	10.3	(8.9–11.3)	12.4	(10.6–14.6)	11.9	(11.5–12.2)	11.2	11.5	(10.9–12.1)	13	10.8	11.3
FeL	9.2	(8.0–10.8)	10.9	(9.7–12.1)	17.6	(17.2–18)	17.2	17.7	(17.2–17.9)	20	14.9	15.2
IMTL	0.8	(0.5–1.0)	1	(0.8–1.1)	n.a	n.a	n.a	0.9	(0.8–1.0)	0.9	n.a	n.a
OMTL	0.9	(0.4–1.7)	0.9	(0.8–1.0)	n.a	n.a	n.a	0.6	(0.4–0.7)	0.7	n.a	n.a

Sup. Table 6. Morphometric characteristics of *Microhyla* sp. aff. *fissipes* Sumatra, *M. fissipes* China, and *M. mukhlesuri* Bangladesh. SVL (Mean ± SD) and relative values (R) of each characteristic to SVL (in %) followed by ranges

Characters	***M.* sp. aff. *fissipes* Sumatra This Study**				***M. fissipes* China Hasan *et al*. 2014**				***M. mukhlesuri* Bangladesh Hasan *et al*. 2014**			
	Male (N=14)		**Female (N=5)**		**Male (N=13)**		**Female (N=2)**		**Male (N=5)**		**Female (N=5)**	
SVL	20.64 ± 1.7	(18.74–22.78)	19.22± 1.3	(17.99–21.04)	21.78 ± 0.9	(20.6–23.4)	22.2 ± 0.1	(22.1–22.2)	17.98± 0.87	(16.50–21.00)	17.68 ± 1.58	(17.30–18.40)
RHL	29.3	(25.8–32.7)	30.6	(27.6–32.5)	23.9	(19.0–27.4)	23.0	(20.8–25.2)	39.8	(32.7–46.6)	39.1	(35.3–45.3)
RHW	27.9	(25.7–30.0)	28.6	(25.3–34.3)	30.6	(26.0–35.9)	28.9	(26.7–31.1)	35.3	(30.3–40.4)	37.8	(35.3–45.3)
RIND	8.1	(6.9–8.9)	8.3	(7.5–9.3)	9.3	(8.4–10.4)	9.3	(9.0–9.5)	8.8	(8.3–9.7)	8.7	(6.3–9.8)
RIOD	9.9	(8.4–11.4)	10.0	(9.2–11.3)	7.0	(6.3–8.3)	10.6	(10.4–10.8)	13.6	(12.1–15.1)	14.2	(12.0–16.8)
RUEW	6.5	(5.3–7.7)	6.6	(5.7–7.6)	7.0	(6.3–8.3)	6.3	(5.4–7.2)	6.4	(5.7–7.2)	6.1	(5.2–7.6)
REL	10.5	(9.1–13.5)	11.3	(9.5–12.8)	8.9	(7.9–10.2)	8.4	(8.1–8.4)	9.1	(9.0–9.3)	8.8	(8.1–10.0)
RNE	8.3	(7.2–9.5)	8.1	(6.7–8.9)	8.4	(7.4–9.2)	8.1	(7.7–8.6)	8.0	(7.1–8.8)	9.1	(6.9–12.1)
RSL	13.4	(11.9–15.7)	13.1	(11.5–15.0)	15.0	(13.3–17.9)	14.2	(13.5–14.9)	12.4	(10.0–14.0)	13.1	(11.0–16.8)
RS-NL	5.1	(4.9–6.7)	5.1	(4.3–6.2)	6.6	(6.8–6.9)	6.5	(6.3–6.8)	4.4	(3.9–5.4)	4.1	(3.3–4.6)
RFLL	58.3	(50.9–64.7)	58.9	(55.1–64.5)	57.2	(53.8–59.8)	56.9	(54.5–59.3)	48.7	(46.4–50.9)	47.7	(44.5–49.7)
RLAL	41.6	(35.5–46.0)	39.7	(35.8–45.2)	40.1	(31.6–43.5)	40.9	(40.1–41.6)	38.4	(36.2–40.6)	39.2	(36.0–42.4)
RFAW	5.1	(4.2–7.4)	5.2	(3.9–5.9)	6.7	(5.3–8.1)	7.4	(6.8–8.1)	3.9	(3.0–4.7)	4.1	(3.5–4.6)
RHAL	22.8	(15.0–27.5)	24.3	(22.5–27.3)	23.9	(22.4–25.4)	24.2	(23.9–24.4)	21.3	(20.0–23.6)	22.1	(20.6–22.8)
RF1	3.8	(2.8–4.9)	5.0	(2.7–7.4)	5.4	(4.4–6.7)	5.6	(4.5–6.8)	3.8	(3.0–4.2)	4.0	(2.3–5.7)
RF2	6.6	(5.4–8.6)	7.1	(5.9–8.5)	11.1	(9.5–12.5)	11.5	(10.4–12.6)	8.9	(7.1–9.7)	7.3	(4.6–8.6)
RF3	12.8	(9.2–15.7)	14.5	(11.4–19.0)	17.1	(14.3–17.1)	18.3	(18.0–18.6)	13.6	(10.0–15.8)	14.8	(10.4–17.4)
RF4	7.1	(4.4–9.9)	7.6	(6.3–8.5)	10.3	(8.5–12.5)	10.8	(10.4–11.3)	6.4	(4.8–8.5)	6.7	(5.8–9.1)
RHLL	187.6	(165.9–199.1)	183.2	(156.2–204.3)	155.8	(136.5–168.7)	152.1	(147.1–157.2)	152.6	(147.3–157.2)	167.6	(160.9–174.6)
RFeL	40.3	(36.1–49.4)	42.2	(38.5–46.2)	43.2	(38.0–46.9)	43.3	(42.1–44.6)	42.0	(36.7–47.7)	41.8	(39.7–43.4)
RTiL	52.5	(47.7–58.4)	54.5	(48.7–63.5)	50.2	(48.1–53.4)	49.4	(48.4–50.5)	52.7	(48.6–55.8)	55.5	(53.7–57.2)
RFoL	48.2	(41.6–58.1)	47.7	(41.7–53.3)	52.7	(47.2–55.5)	51.7	(45.9–57.5)	48.6	(40.5–53.3)	52.7	(50.3–55.5)
RT1	6.2	(4.2–9.5)	5.9	(4.7–6.8)	7.0	(5.1–8.5)	8.3	(7.2–9.5)	4.5	(3.6–5.5)	6.0	(4.6–7.5)
RT2	11.0	(8.0–12.9)	9.7	(6.5–12.7)	16.6	(14.9–18.1)	15.4	(14.4–16.3)	13.5	(10.8–15.8)	14.8	(13.1–16.3)
RT3	18.5	(13.5–22.8)	18.7	(16.4–22.1)	27.6	(25.5–306)	26.2	(25.8–26.6)	23.2	(21.2–24.8)	24.2	(22.3–26.1)
RT4	29.3	(24.5–36.1)	29.0	(25.9–32.1)	37.1	(34.1–40.3)	38.4	(37.1–39.6)	27.8	(20.5–32.7)	30.5	(27.4–33.2)
RT5	14.1	(10.2–20.2)	14.1	(12.4–16.3)	18.9	(16.0–21.7)	20.3	(20.3–20.4)	15.7	(12.1–20.0)	14.4	(9.1–16.8)
RIMTL	4.4	(3.4–5.5)	4.5	(3.7–5.3)	4.2	(3.2–5.6)	4.7	(4.5–5.0)	4.5	(3.1–5.7)	4.2	(3.2–5.8)

Sup. Table 7. One way analysis of variance (ANOVA) and Tukey honestly significant difference (HSD) test on 23 morphometric characters: **A.** *Microhyla* sp. aff. *fissipes* Sumatra, **B.** *M. fissipes* China, and **C.** *M. mukhlesuri*. The asterisk symbol (*) denotes the mean difference of morphometric characteristics between each species is significant at the 0.05 level.

	HL	HW	EL	IND	IOD	S-NL	UEW	FLL	LAL	HLL	TiL	FoL
One Way ANOVA	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.006*	0.000*	0.000*	0.000*
A vs. B	0.003*	0.001*	0.001*	0.000*	0.000*	0.000*	0.017*	0.676	0.784	0.000*	0.007*	0.000*
A vs. C	0.473	0.000*	0.000*	0.008*	0.000*	0.000*	0.013*	0.000*	0.021*	0.000*	0.125	0.997
B vs. C	0.000*	0.042*	0.775	0.001*	0.377	0.000*	0.000*	0.000*	0.007*	0.007*	0.000*	0.002*

	FeL	HAL	F1	F2	F3	F4	T1	T2	T3	T4	T5
One Way ANOVA	0.003*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*
A vs. B	0.917	0.998	0.006*	0.000*	0.000*	0.000*	0.229	0.000*	0.000*	0.000*	0.000*
A vs. C	0.006*	0.000*	0.019*	0.975	0.188	0.000*	0.000*	0.152	0.247	0.000*	0.184
B vs. C	0.005*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*

Sup. Table 8. Principal component analysis (PCA) loading values, eigen values, variance explained, and cumulative variance explained for 23 morphometric characteristics

Characters	PC1	PC2	PC3
HL	**-0.14**	-0.016	-0.633
HW	0.036	-0.345	**-0.404**
EL	0.027	**0.344**	-0.1
IND	0.177	**-0.285**	0.124
IOD	0.043	**-0.383**	-0.201
S-NL	0.255	0.059	**0.284**
UEW	**0.211**	0.071	0.193
FLL	0.238	**0.273**	-0.061
LAL	0.174	0.148	**-0.266**
HLL	0.05	0.41	**-0.235**
TiL	**-0.194**	0.038	0.126
FoL	**0.229**	-0.118	-0.131
FeL	0.146	**0.189**	-0.052
HAL	0.208	**0.237**	-0.22
F1	**0.221**	0.016	-0.012
F2	**0.27**	-0.154	0.09
F3	**0.269**	-0.042	-0.032
F4	**0.292**	0.013	-0.056
T1	**0.197**	0.155	0.015
T2	**0.235**	-0.224	0.005
T3	**0.258**	-0.221	-0.046
T4	**0.292**	0.061	0.088
T5	**0.258**	-0.032	-0.127
Eigen Value	9.571	4.401	1.424
Variance %	41.613	19.135	6.191
Cumulative Variance %	41.613	60.749	66.940