Supplementary Materials

Supplementary Table S1. Samples used for mtDNA analysis in this study, including voucher specimens, collection locality, GenBank accession numbers, and references. '*' means type locality of species.

ID	Species	Voucher no.	Locality	GenBank no.	References
1	*O. shiwandashanensis* **sp. nov.**	NNU202103284	*Guangxi, China	MZ747455	This study
2	*O. shiwandashanensis* **sp. nov.**	NNU202103285	*Guangxi, China	MZ747456	This study
3	*O. shiwandashanensis* **sp. nov.**	NNU202103320	*Guangxi, China	MZ747457	This study
4	*O. shiwandashanensis* **sp. nov.**	NNU202103321	*Guangxi, China	MZ747458	This study
5	*O. baluensis*	FMNH 242747	Sipitang, Sabah	DQ283143	Frost et al., 2006
6	*O. berbeza*	KUHE 17327	*Matang, Sarawak	LC593607	Matsui et al., 2021
7	*O. diminutiva*	KU 321225	*Pasonanca, Philippines	MT820199	Chan et al., 2021
8	*O. laevis*	PNM 7446	Luzon, Philippines	AY313684	Evans et al., 2003
9	*O. lima*	CAS 213254	Yangon, Myanmar	DQ283224	Frost et al., 2006
10	*O. magnapustulosa*	GK_7395	Thailand	MW217488	Köhler et al., 2021
11	*O. martensii*	AMNH A161171	HaTinh, Vietnam	DQ283357	Frost et al., 2006
12	*O. myanhessei*	SMF 103797	*Thanlyin, Yangon, Myanmar	MW217501	Köhler et al., 2021
13	*O. sumatrana*	MZB Amph 16392	Java	LC593611	Matsui et al., 2021
14	*O. swanbornorum*	JnUZool-A0719	*Chattogram, Bangladesh	MN705433	Trageser et al., 2021
15	*Ingerana tenasserimensis*	CAS 205064	Myanmar	AY322302	Roelants et al., 2004
16	*Fejervarya iskandari*	UI unnumbered	Java	AB526324	Matsui et al., 2010
17	*Limnonectes jarujini*	KUHE 20127	Thailand	AB558944	Matsui et al., 2010
18	*Alcalus baluensis*	FMNH 231085	Danum Valley, Sabah	DQ283142	Frost et al., 2006
19	*Ceratobatrachus guentheri*	AMS R137134	Solomon	DQ283197	Frost et al., 2006

Supplementary Table S2. Uncorrected *p*-distances (in %) for 16S fragments (~550 bp) in *Occidozyga*.

	1	2	3	4	5	6	7	8	9	10
O. shiwandashanensis **sp. nov.**	0–1.6									
O. baluensis	15.5									
O. berbeza	13.9	19.5								
O. diminutiva	14.5	9.6	16.2							
O. laevis	15.1	17.5	18.3	17.0						
O. lima	15.1	16.1	18.2	17.3	16.7					
O. magnapustulosa	15.8	19.0	18.7	19.2	18.1	17.1				
O. martensii	15.8	18.4	18.4	18.3	16.7	16.3	4.4			
O. myanhessei	16.3	19.7	18.8	20.0	17.3	17.4	6.0	6.2		
O. sumatrana	14.6	14.3	16.8	14.5	12.6	16.0	17.1	16.3	16.7	
O. swanbornorum	16.3	19.4	18.9	18.5	17.7	17.9	5.6	7.6	6.4	17.1

Supplementary Table S3. Measurements of *Occidozyga shiwandashanensis* **sp. nov.** (in mm). Abbreviations defined in text.

Measurements	Males (n=22)		Females (n=10)	
	Ranges	Mean ± SD	Ranges	Mean ± SD
SVL	25.2–33.8	29.8±2.3	34.9–38.9	36.8±1.5
HL	7.8–11.8	9.6±1.3	9.8–14.5	11.4±1.4
HW	8.8–12.8	11.2±1.2	12.2–15.7	13.0±1.1
EN	1.3–1.9	1.5±0.2	1.5–2.7	2.0±0.3
SNT	3.3–4.5	3.8±0.3	3.6–5.1	4.4±0.4
ED	2.4–4.3	3.6±0.4	3.4–4.6	4.0±0.3
N–EL	1.3–2.0	1.5±0.2	1.5–2.9	2.1±0.4
IN	1.3–2.8	2.1±0.5	1.5–2.9	2.4±0.5
IOD	1.1–2.0	1.5±0.3	1.6–2.2	1.9±0.2
UEW	1.9–2.9	2.4±0.2	2.0–3.1	2.7±0.3
FLL	10.3–13.3	11.6±0.8	11.9–14.7	13.2±0.9
HAL	6.0–8.1	7.3±0.6	7.7–9.5	8.3±0.5
TIB	11.5–15.6	13.6±1.0	15.3–17.9	16.2±0.8
FL	12.4–15.1	13.7±0.7	14.3–17.6	16.0±0.9
THL	11.4–15.9	14.3±1.2	15.3–19.9	16.7±1.3
1TOEL	4.2–6.1	5.2±0.5	5.6–6.8	6.0±0.3
IMTL	1.6–2.7	2.1±0.2	2.3–2.8	2.6±0.2

Supplementary Table S4. Selected diagnostic characters for species in *Occidozyga*.

Supplementary Table S4 are listed as a separate excel file due to its large size.

REFERENCES

Chan KO, Schoppe S, Rico ELB, Brown RM. 2021. Molecular systematic investigation of Philippine puddle frogs (Anura: Dicroglossidae: *Occidozyga* Kuhl and Van Hasselt,
1822) reveals new candidate species and a novel pattern of species dyads. *Philippine Journal of Systematic Biology*, **14**(1): 1–14.

Evans BJ, Brown RM, McGuire JA, Supriatna J, Andayani N, Diesmos A, et al. 2003. Phylogenetics of fanged frogs: testing biogeographical hypotheses at the interface of the Asian and Australian faunal zones. *Systematic Biology*, **52**: 794–819.

Frost DR, Grant T, Faivovich JN, Bain RH, Haas A, Haddad CFB, et al. 2006. The amphibian tree of life. *Bulletin of the American Museum of Natural History*, **297**: 1–370.

Köhler G, Vargas J, Than NL, Schell T, Janke A, Pauls SU, et al. 2021. A taxonomic revision of the genus *Phrynoglossus* in Indochina with the description of a new species and comments on the classification within Occidozyginae (Amphibia, Anura, Dicroglossidae). *Vertebrate Zoology*, **71**:1−26.

Matsui M, Nishikawa K, Eto K, Hamidy A, Hossman Y, Fukuyama I. 2021. A new *Occidozyga* from Sarawak, Malaysian Borneo (Anura: Dicroglossidae). *Zootaxa*, **4926(4)**: 535−546.

Matsui M, Panha S, Khonsue W. Kuraishi N. 2010. Two new species of the "*kuhlii*" complex of the genus *Limnonectes* from Thailand (Anura: Dicroglossidae). *Zootaxa*, **2615 (1)**: 1−22.

Roelants K. Jiang J, Bossuyt F. 2004. Endemic ranid (Amphibia: Anura) genera in southern mountain ranges of the Indian subcontinent represent ancient frog lineages: evidence from molecular data. *Molecular Phylogenetics and Evolution*, **31**: 730–740.

Trageser S, Al-Razi H, Maria M, Nobel F, Asaduzzaman M, Rahman SC. 2021. A new species of *Phrynoglossus* Peters, 1867; Dicroglossidae) from southeastern Bangladesh, with comments on the genera *Occidozyga* and *Phrynoglossus*. *PeerJ*, **9**: e11998.