Amphibians and reptiles in a karst landscape: first record of herpetofauna diversity on a small island in southern Philippines (Supplementary materials)

Maxine Prado-de Vega[a,c], Anna Pauline O. de Guia[b,c], Phillip A. Alviola[b,c], Ma. Niña Regina M. Quibod[c,d,*]

[a]The Marine Science Institute, University of the Philippines, Diliman, Quezon City 1101, Philippines; [b]Animal Biology Division, Institute of Biological Sciences, College of Arts and Sciences, University of the Philippines Los Baños, Laguna, 4031, Philippines; [c]Museum of Natural History, University of the Philippines Los Baños, Los Baños, Laguna, 4031, Philippines; [d]Center for Integrative Conservation & Yunnan Key Laboratory for Conservation of Tropical Rainforests and Asian Elephants, Xishuangbanna Tropical Botanical Garden, Menglun, Mengla, Yunnan 666303, China

*Corresponding author. E-mail: mquibod@gmail.com

List of supplementary tables

Supplementary Table S1. Physical characteristics of caves with herpetofauna records (n = 17) in Samal Island, Davao del Norte (Mindanao Island), Philippines.

Cave sites	Presence/ absence of water	Average temperature (°C)	Average relative humidity (%)	Vegetation outside the cave	Herpetofauna species recorded
Asquilla	Absent	29.40	> 90	Outside the cave there was a coconut plantation.	*(1) Draco cyanopterus*
Baga	Present	28.89	> 90	The cave was located in a coconut plantation; however, a few forest species were identified around the cave. Plants included were *Cocos nucifera*, *Lantana* sp., several bamboo species, *Boehmeria nivea*, *Musa* sp., *Desmodium* sp., *Lansium domesticum*, *Mangifera indica*, *Alocacia* sp., *Leucaena leucocephala*, *Psidium guajava*, *Macaranga tanarius*, *Chromolaena odorata*, *Ficus* sp., *Vitex parviflora* and several species of ferns.	*(1) Brachymeles pathfinderi* *(2) Draco cyanopterus* *(3) Polypedates leucomystax* *(4) Sphenomorphus fasciatus* *(5) Cyrtodactylus* sp.
Cacao	Present	31.15	> 90	The area where the cave was located is an agricultural area planted mainly with corn and coconut. Other plants identified were *Piper* sp., *Ficus* sp, molave (*Vitex parviflora*), *Ficus balete*, *Xanthostemmon* sp., and *Ervatamia pandacaqui*.	*(1) Draco cyanopterus*
Gudin	Absent	31.52	> 90	Gudin Cave is located inside a coconut plantation. However, forest plants can be observed surrounding the cave entrance like *Pongamia pinnata*, *Artocarpus blancoi*, *Selaginella* sp., *Ervatamia pandacaqui* and species of mangroves and ferns. There were also mango trees found in the surroundings of the cave.	*(1) Hemidactylus platyurus* *(2) Cyrtodactylus* sp.
Ipil-Ipil A	Absent	29.02	> 90	Outside the cave there is a coconut plantation. Other plant species observed in the cave entrance were *Musa* sp., *Macaranga* sp., and *Ficus nota*.	*(1) Sphenomorphus fasciatus* *(2) Sphenomorphus variegatus*
Kaputian	Absent	30.00	> 90	The cave was located in a mixed coconut-banana plantation, wherein the opening was 22.50 m from the road.	*(1) Hemidactylus platyurus* *(2) Kalophrynus pleurostigma* *(3) Kaloula conjuncta* *(4) Naja samarensis*
Kimoko	Absent	27.40	> 90	The general vegetation around the cave was mixed agroforest. Within the vicinity of the cave, around 10 m from the cave entrance, forest plants were observed. However, 50 m from the cave entrance, the vegetation was already a coconut plantation. Plant species observed were *Pterocarpus indicus*, *Acacia terminalis*, *Trema orientalis*, *Asplenium* sp., *Syzygium* sp., *Ardisia* sp., *Lantana* sp., *Semecarpus anacardium*, *Adenanthera pavonina*, *Melia azedarach*, *Macaranga* sp., *Leucaena leucocephala*, and *Morinda citrifolia*.	*(1) Cyrtodactylus* sp.
Lasang 1	Absent	28.70	> 90	The cave was located at the edge of the forest. The dominant vegetation observed around the cave were aroids and ferns. *Ficus* sp., *Artocarpus blancoi*, *Artocarpus* sp., *Semecarpus cuneiformis*, *Zingiber officinale*, *Caryota* sp. *and Dipterocarpus grandiflorus* were also sighted.	*(1) Ahaetulla prasina* *(2) Cyrtodactylus annulatus* *(3) Kalophrynus pleurostigma* *(4) Limnonectes leytensis* *(5) Pinoyscincus coxi* *(6) Pulchrana (Hylarana) grandocula* *(7) Platymantis* sp.
Lasang 2	Absent	30.25	> 90	Like Lasang Cave 1, Lasang Cave 2 was located in a forest edge dominated	*(1) Brachymeles pathfinderi*

Cave sites	Presence/ absence of water	Average temperature (°C)	Average relative humidity (%)	Vegetation outside the cave	Herpetofauna species recorded
				with species of *Ficus*. Other plants identified were aroids, ferns, *Artocarpus blancoi*, *Artocarpus* sp., *Semecarpus cuneiformis*, *Zingiber officinale*, *Caryota* sp., *Dipterocarpus grandiflorus*, *Begonia pseudolateralis*, *Derris elliptica*, *Pandanus* sp., *Artocarpus altilis*, *Kolowratia elegans* and *Caryota mitis*.	*(2) Pulchrana (Hylarana) grandocula* *(3) Sphenomorphus fasciatus* *(4) Sphenomorphus variegatus* *(5) Cyrtodactylus* sp. *(6) Platymantis* sp.
Libertad	Present	30.89	> 90	The area outside the cave was an agricultural land planted with corn and coconut (*Cocos nucifera*). Other plant species observed were bamboo, *Selaginella* sp., *Artocarpus odoratissimus*, *Sterculia philippinensis* and *Musa* sp.	*(1) Draco cyanopterus* *(2) Oxyrhabdium leporinum*
Lim	Absent	30.18	> 90	The general vegetation type outside the cave (10 meters from the entrance) is composed of agricultural crops dominated by corn and mango. Other plant species observed around the cave entrance were wild chili (*Capsicum frutescens*) and *Artocarpus* sp.	*(1) Dendrelaphis marenae* *(2) Kalophrynus pleurostigma* *(3) Polypedates leucomystax* *(4) Pulchrana (Hylarana) grandocula* *(5) Platymantis* sp.
Linggasakan	Present	28.47	> 90	The cave lies within a forest over limestone which is a watershed reserve. Plants observed to dominate the watershed were *Begonia* sp., ferns, *Selaginella* sp., *Vitex parviflora*, *Artocarpus* sp., *Artocarpus blancoi*, *Kolowratia elegans*, *Durio zibethinus*, and *Zingiber officinale*. Around the 50 m radius from the cave entrance, crops such as banana, mango and coconut were observed.	*(1) Polypedates leucomystax* *(2) Cyrtodactylus* sp.
Matanos 1	Absent	29.38	> 90	The cave system is within a forest over limestone overlooking the sea. Dominant species included *Vitex parviflora*, *Cocos nucifera*, *Xanthostemmon* sp., *Manilkara zapota*, *Macaranga* sp., *Carica papaya*, *Ficus* sp., *Dendrocnide meyeniana*, and ferns. A coconut plantation nearby (within 50 m radius) Matanos Cave 1 is considered a disturbance outside the cave. Inside the cave, burned coconut husk and coir and bamboo poles are proof of possible bat hunting activities.	*(1) Sphenomorphus fasciatus* *(2) Cyrtodactylus* sp.
Sion Bat	Present	28.85	> 90	The cave can be found in an agroforest. Plant species surrounding the cave entrance include *Vitex parviflora*, *Capsicum frutescens*, *Dendrocnide meyeniana*, *Pterospermum* sp., *Artocarpus blancoi*, *Livistona rotundifolia*, *Gnetum gnenom*, *Artocarpus* sp., ferns, and bamboo. Crops such as coconut, papaya, banana, and mango were also observed within 50 m radius from the cave entrance.	*(1) Limnonectes magnus* *(2) Pulchrana (Hylarana) grandocula* *(3) Cyrtodactylus* sp.
Taklobo	Present	30.53	> 90	The land around the cave, 50 m from the cave entrance, is planted with mangoes, bananas, and coconuts (agricultural area). Other species identified in the cave entrance were *Leucaena leucocephala*, *Trema orientalis*, *Pongamia pinnata*, *Premna odorata*, *Macaranga* sp., and *Chromolaena odorata*.	*(1) Coelognathus erythrurus* *(2) Cyrtodactylus* sp.
Tomas	Absent	27.65	> 90	The surrounding of the cave was dominated by coconut.	*(1) Cyrtodactylus annulatus* *(2) Pulchrana (Hylarana) grandocula*
Vito	Present	30.43	>90	The cave was in a forest over limestone dominated by *Ficus* sp. and *Vitex parviflora*. Other plant species identified were *Cocos nucifera*, *Pteris* sp., *Adianthum* sp., *Homalomena philippinensis*, *Ficus balete*, *Pinanga* sp., *Arenga* sp., *Zingiber officinale*, *Ficus nota*, *Nauclea orientalis*,	*(1) Aplopeltura boa* *(2) Bronchocela* cf. *cristatella* *(3) Gehyra mutilate* *(4) Kaloula conjuncta*

Cave sites	Presence/ absence of water	Average temperature (°C)	Average relative humidity (%)	Vegetation outside the cave	Herpetofauna species recorded
				Asplenium sp., *Muntingia* sp., *Ficus variegata, Solanum* sp., *Kolowratia elegans, Colocasia nitens, Piper* sp., *Acalypha* sp., *Drynaria* sp., *Selaginella* sp., *Ficus pseudopalma, Kleinhovia hospita, Stachytarpheta* sp., *Mikania cordata*, and species of ferns and bamboo.	*(5) Kaloula picta* *(6) Limnonectes leytensis* *(7) Limnonectes magnus* *(8) Pulchrana (Hylarana) grandocula* *(9) Cyrtodactylus* sp.

Supplementary Table S2A. List of amphibian species recorded by different published studies across Davao del Norte (Mindanao Island), Philippines.

Accepted scientific name	Endemicity	IUCN Red List Category*	DAO 2019-09**	This study	Delima et al. (2007)	Relox et al. (2011)	Ibañez et al. (2012)	Supsup et al. (2017)	Dacalus et al. (2017)	Jabon et al. (2019)	Baron et al. (2019)	Gersava et al. (2020)	Medina et al. (2020)	Baron et al. (2022)	Tagoon et al. (2022)	Gamalo et al. (2023)	Rosales et al. (2023)	Gamalo et al. (2024)
Mindanao Faunal Region endemics																		
Ansonia muelleri (Boulenger, 1887)	Mindanao endemic	LC	OTS		X	X	X	X					X		X		X	
Kalophrynus sinensis (Peters, 1867)	Mindanao endemic	NE	OWS					X	X					X		X	X	X
Leptobrachium lumadorum (Brown, Siler, Diesmos & Alcala, 2010)	Mindanao endemic	LC	OWS				X	X	X				X	X	X			
Leptomantis bimaculatus (Peters, 1867)	Mindanao endemic	LC	OWS			X	X									X		
Limnonectes diuatus (Brown & Alcala, 1977)	Mindanao endemic	VU	VU		X		X											
Limnonectes magnus (Stejneger, 1910)	Mindanao endemic	NT	OTS	X	X	X	X	X	X				X	X	X		X	X
Nyctixalus spinosus (Taylor, 1920)	Mindanao endemic	LC	OWS				X	X						X				
Pelobatrachus (Megophrys) stejnegeri (Taylor, 1920)	Mindanao endemic	LC	OTS		X	X	X	X					X	X	X		X	
Pelophryne brevipes (Peters, 1867)	Mindanao endemic	LC	OWS											X	X			
Philautus acutirostris (Peters, 1867)	Mindanao endemic	LC	OWS		X	X	X	X	X		X		X	X	X			
Philautus leitensis (Boulenger, 1897)	Mindanao endemic	LC	OWS						X		X							
Philautus poecilius (Brown & Alcala, 1994)	Mindanao endemic	LC	OWS		X				X				X					
Philautus worcesteri (Stejneger,	Mindanao endemic	VU	OWS						X		X				X			

Accepted scientific name	Endemicity	IUCN Red List Category*	DAO 2019-09**	This study	Delima et al. (2007)	Relox et al. (2011)	Ibañez et al. (2012)	Supsup et al. (2017)	Dacalus et al. (2017)	Jabon et al. (2019)	Baron et al. (2019)	Gersava et al. (2020)	Medina et al. (2020)	Baron et al. (2022)	Tagoon et al. (2022)	Gamalo et al. (2023)	Rosales et al. (2023)	Gamalo et al. (2024)
1905)																		
Platymantis guentheri (Boulenger, 1882)	Mindanao endemic	LC	OWS		X		X	X					X					
Platymantis rabori (Brown, Alcala, Diesmos & Alcala, 1997)	Mindanao endemic	LC	OWS		X	X		X					X					
Pulchrana (Hylarana) grandocula (Taylor, 1920)	Mindanao endemic	LC	OWS	X	X	X	X	X					X	X	X		X	
Rhacophorus bimaculatus (Peters, 1863)	Mindanao endemic	LC	OWS														X	
Sanguirana everetti (Boulenger, 1882)	Mindanao endemic	NT	OWS		X		X	X						X				
Staurois natator (Günther, 1858)	Mindanao endemic	LC	OWS		X	X	X	X									X	
Philippine endemics																		
Fejervarya vittigera (Wiegmann, 1835)	Philippine endemic	LC	OWS											X	X	X		
Kaloula conjuncta (Peters, 1863)	Philippine endemic	LC	OWS	X												X		
Kaloula picta (Duméril and Bibron, 1841)	Philippine endemic	LC	OWS	X														
Kurixalus appendiculatus (Günther, 1858)	Philippine endemic	LC	OWS													X		
Limnonectes leytensis (Boettger, 1893)	Philippine endemic	LC	OWS	X				X				X		X	X	X	X	X
Occidozyga laevis (Günther, 1858)	Philippine endemic	LC	OWS												X			
Philautus surdus (Peters, 1863)	Philippine endemic	LC	OWS		X		X	X	X		X		X	X	X			
Platymantis corrugatus (Duméril, 1853)	Philippine endemic	LC	OWS		X	X		X										
Native/non-endemics																		

Accepted scientific name	Endemicity	IUCN Red List Category*	DAO 2019-09**	This study	Delima et al. (2007)	Relox et al. (2011)	Ibañez et al. (2012)	Supsup et al. (2017)	Dacalus et al. (2017)	Jabon et al. (2019)	Baron et al. (2019)	Gersava et al. (2020)	Medina et al. (2020)	Baron et al. (2022)	Tagoon et al. (2022)	Gamalo et al. (2023)	Rosales et al. (2023)	Gamalo et al. (2024)
Fejervarya moodiei (Taylor, 1920)	Native/ non-endemic	LC	OWS				X							X		X		
Kalophrynus pleurostigma (Tschudi, 1838)	Native/ non-endemic	LC	OWS	X		X												
Leptobrachium hasseltii (Tschudi, 1838)	Native/ non-endemic	LC	OWS		X													
Polypedates leucomystax (Gravenhorst, 1829)	Native/ non-endemic	LC	OWS	X			X	X				X	X	X	X	X	X	X
Rhacophorus pardalis (Günther, 1858)	Native/ non-endemic	LC	OWS				X											
Introduced species																		
Eleutherodactylus planirostris (Cope, 1862)	Introduced	LC	OWS											X				X
Hoplobatrachus rugulosus (Wiegmann, 1834)	Introduced	LC	OWS							X		X		X		X		X
Hylarana erythraea (Schlegel, 1837)	Introduced	LC	OWS				X											
Kaloula pulchra (Gray, 1831)	Introduced	LC	OWS							X		X		X		X		X
Rhinella marina (Linnaeus, 1758)	Introduced	LC	OWS				X	X		X		X	X	X	X	X		X
Unidentified species																		
Philautus sp. 1		NE	OWS		X													
Philautus sp. 2		NE	OWS				X											
Platymantis sp. 1		NE	OWS					X										
Platymantis sp. 2		NE	OWS	**X**														

* Current conservation status based on IUCN (2025): NT: near threatened; VU: vulnerable; LC: least concern; NE: not evaluated

** DAO 2019-09 (Updated national list of threatened Philippine fauna): VU: vulnerable; OTS: other threatened species; OWS: other wildlife species

"X": the species was only recorded in this study.

Supplementary Table S2B. List of reptile species recorded by different published studies across Davao del Norte (Mindanao Island), Philippines.

Accepted scientific name	Endemicity	IUCN Red List Category*	DAO 2019-09**	This study	Delima et al. (2007)	Relox et al. (2011)	Supsup et al. (2017)	Medina et al. (2020)	Gamalo et al. (2023)	Rosales et al. (2023)	Gamalo et al. (2024)
Mindanao Faunal Region Endemics											
Brachymeles gracilis (Fischer, 1885)	Mindanao endemic	LC	OWS		X		X			X	
Brachymeles orientalis (Brown & Rabor, 1967)	Mindanao endemic	LC	OWS		X						
Brachymeles pathfinderi (Taylor, 1925)	Mindanao endemic	DD	OWS	X							
Brachymeles schadenbergi (Fischer, 1885)	Mindanao endemic	LC	OWS				X				
Brachymeles taylori (Brown, 1956)	Mindanao endemic	LC	OWS							X	
Cyclocorus nuchalis (Taylor, 1923)	Mindanao endemic	LC	OWS				X				
Cyrtodactylus annulatus (Taylor, 1915)	Mindanao endemic	LC	OWS	X	X		X		X	X	
Draco cyanopterus (Peters, 1867)	Mindanao endemic	LC	OWS	X							X
Eutropis caraga (Barley, Diesmos, Siler, Martinez & Brown, 2020)	Mindanao endemic	LC	OWS								X
Eutropis englei (Taylor, 1925)	Mindanao endemic	LC	OWS			X	X				
Eutropis multicarinata (Gray, 1845)	Mindanao endemic	LC	OWS			X					
Gekko intermedium (Taylor, 1915)	Mindanao endemic	LC	OTS						X		
Lycodon dumerilii (Boulenger, 1893)	Mindanao endemic	LC	OWS			X	X				
Naja samarensis (Peters, 1861)	Mindanao endemic	LC	OTS	X					X		X
Oligodon maculatus (Taylor, 1918)	Mindanao endemic	LC	OWS			X	X				
Oxyrhabdium modestum (Duméril, 1853)	Mindanao endemic	LC	OWS				X				X
Parvoscincus kitangladensis (Brown, 1995)	Mindanao endemic	LC	OWS							X	
Rhabdophis lineatus (Peters, 1861)	Mindanao endemic	LC	OWS		X		X				
Sphenomorphus diwata (Brown & Rabor, 1967)	Mindanao endemic	DD	OWS		X		X				
Sphenomorphus fasciatus (Gray, 1845)	Mindanao endemic	LC	OWS	X	X		X		X		X
Tropidonophis dendrophiops (Günther, 1883)	Mindanao endemic	LC	OWS				X				
Tropidophorus davaoensis (Bacon, 1980)	Mindanao endemic	LC	OWS		X		X				
Philippine endemics											

Accepted scientific name	Endemicity	IUCN Red List Category*	DAO 2019-09**	This study	Delima et al. (2007)	Relox et al. (2011)	Supsup et al. (2017)	Medina et al. (2020)	Gamalo et al. (2023)	Rosales et al. (2023)	Gamalo et al. (2024)
Calamaria gervaisii (Duméril, Bibron & Duméril, 1854)	Philippine endemic	LC	OWS			X	X				
Cyrtodactylus philippinicus (Steindachner, 1867)	Philippine endemic	LC	OWS		X		X			X	
Draco bimaculatus (Günther, 1864)	Philippine endemic	LC	OWS		X		X		X		
Eutropis borealis (Brown & Alcala, 1980)	Philippine endemic	LC	OWS				X				
Eutropis cumingi (Brown & Alcala, 1980)	Philippine endemic	LC	OWS							X	
Eutropis indeprensa (Brown & Alcala, 1980)	Philippine endemic	LC	OWS				X				
Gekko mindorensis (Taylor, 1919)	Philippine endemic	LC	OWS			X	X				X
Gonocephalus interruptus (Boulenger, 1885)	Philippine endemic	LC	OTS							X	
Gonocephalus semperi (Peters, 1867)	Philippine endemic	LC	OTS			X	X	X			
Hemibungarus calligaster (Wiegmann, 1835)	Philippine endemic	LC	OWS							X	
Hologerrhum philippinum (Günther, 1858)	Philippine endemic	LC	OWS							X	
Hydrosaurus pustulatus (Eschscholtz, 1829)	Philippine endemic	LC	OTS						X		X
Lipinia pulchella (Gray, 1845)	Philippine endemic	LC	OWS		X	X	X				
Oxyrhabdium leporinum (Günther, 1858)	Philippine endemic	LC	OWS	X		X	X				
Parvoscincus beyeri (Taylor, 1922)	Philippine endemic	VU	OWS			X	X				
Parvoscincus decipiens (Boulenger, 1895)	Philippine endemic	LC	OWS		X		X				
Pinoyscincus coxi (Taylor, 1915)	Philippine endemic	LC	OWS	X	X		X				
Ramphotyphlops cumingii (Gray, 1845)	Philippine endemic	DD	OWS				X				
Rhabdophis auriculatus (Günther, 1858)	Philippine endemic	LC	OWS		X		X				
Trimeresurus (Parias) flavomaculatus (Gray, 1842)	Philippine endemic	LC	OTS		X		X	X			
Varanus cumingi (Martin, 1839)	Philippine endemic	LC	OTS						X		X
Native/non-endemics											
Ahaetulla prasina (Boie, 1827)	Native/non-endemic	LC	OWS	X			X			X	X
Aplopeltura boa (Boie, 1828)	Native/non-endemic	LC	OWS	X			X				
Boiga cynodon (Boie, 1827)	Native/non-endemic	LC	OTS				X	X			X
Boiga dendrophila (Boie, 1827)	Native/non-endemic	LC	OTS			X	X				

Accepted scientific name	Endemicity	IUCN Red List Category*	DAO 2019-09**	This study	Delima et al. (2007)	Relox et al. (2011)	Supsup et al. (2017)	Medina et al. (2020)	Gamalo et al. (2023)	Rosales et al. (2023)	Gamalo et al. (2024)
Bronchocela cf. *cristatella* (Kuhl, 1820)	Native/non-endemic	LC	OTS	X							
Calamaria lumbricoidea (H. Boie in F. Boie, 1827)	Native/non-endemic	LC	OWS								X
Calliophis intestinalis (Laurenti, 1768)	Native/non-endemic	LC	OWS		X		X				
Chrysopelea paradisi (H. Boie in F. Boie, 1827)	Native/non-endemic	LC	OWS						X		X
Coelognathus erythrurus (Duméril, Bibron & Duméril, 1854)	Native/non-endemic	LC	OTS	X							X
Cuora amboinensis (Riche in Daudin, 1801)	Native/non-endemic	EN	OTS						X		X
Dendrelaphis marenae (Vogel & Van Rooijen, 2008)	Native/non-endemic	LC	OWS	X			X				X
Dendrelaphis philippinensis (Günther, 1879)	Native/non-endemic	LC	OWS						X		X
Draco volans (Linnaeus, 1758)	Native/non-endemic	LC	OWS							X	
Eutropis multifasciata (Kuhl, 1820)	Native/non-endemic	LC	OWS								X
Gehyra mutilata (Wiegmann, 1834)	Native/non-endemic	LC	OWS	X					X		
Gekko c.f. monarchus (Schlegel in Duméril & Bibron, 1836)	Native/non-endemic	LC	OWS						X		
Gekko gecko (Linnaeus, 1758)	Native/non-endemic	LC	OTS						X		X
Gonyosoma oxycephalum (Boie, 1827)	Native/non-endemic	LC	OTS				X		X		X
Hemidactylus frenatus (Schlegel in Duméril & Bibron, 1836)	Native/non-endemic	LC	OWS						X		X
Hemidactylus platyurus (Schneider, 1792)	Native/non-endemic	LC	OWS	X					X		X
Lamprolepis smaragdina (Lesson, 1829)	Native/non-endemic	LC	OWS		X		X		X		X
Lipinia quadrivittata (Peters, 1867)	Native/non-endemic	LC	OWS		X		X				
Lycodon capucinus (H. Boie in F. Boie, 1827)	Native/non-endemic	LC	OWS						X		X
Malayopython reticulatus (Schneider, 1801)	Native/non-endemic	LC	OTS			X	X		X		X
Ophiophagus hannah (Cantor, 1836)	Native/non-endemic	VU	OTS					X	X		X
Psammodynastes pulverulentus (Boie, 1827)	Native/non-endemic	LC	OWS		X	X	X			X	
Sphenomorphus variegatus (Peters, 1867)	Native/non-endemic	LC	OWS	X	X	X	X				
Tropidolaemus subannulatus (Gray, 1842)	Native/non-endemic	LC	OTS				X		X		X

Accepted scientific name	Endemicity	IUCN Red List Category*	DAO 2019-09**	This study	Delima et al. (2007)	Relox et al. (2011)	Supsup et al. (2017)	Medina et al. (2020)	Gamalo et al. (2023)	Rosales et al. (2023)	Gamalo et al. (2024)
Tropidolaemus wagleri (Boie, 1827)	Native/non-endemic	LC	OWS			X					
Introduced species											
Indotyphlops braminus (Daudin, 1803)	Native/non-endemic	LC	OWS								X
Unidentified species											
Bronchocela sp. 1		NE	OWS				X				
Cyrtodactylus sp. 1		NE	OWS	X							
Dendrelaphis sp. 1		NE	OWS							X	
Parvoscincus sp. 1		NE	OWS						X		
Sphenomorphus sp. 1		NE	OWS							X	
Sphenomorphus sp. 2		NE	OWS							X	

* Current conservation status based on IUCN (2025): DD: data deficient; EN: endangered; VU: vulnerable; LC: least concern; NE: not evaluated

** DAO 2019-09 (Updated national list of threatened Philippine fauna): VU: vulnerable; OTS: other threatened species; OWS: other wildlife species

"X": the species was only recorded in this study.

REFERENCES

Dacalus, C., Calunsag, A., Hoshino, L., Peralta, D., & Baron, E.M. 2017. Anuran assemblage on forest edges of Datu Salumay, Davao City, Philippines. *University of Mindanao International Multidisciplinary Research Journal* 2(1), 1–7. URL: https://www.researchgate.net/profile/Elsa-May-Baron-2/publication/324681049_Anuran_assemblage_on_forest_edges_in_Datu_Salumay_Davao_City_Philippines/links/5adbc6ad458515c60f5e06dc/Anuran-assemblage-on-forest-edges-in-Datu-Salumay-Davao-City-Philippines.pdf

Delima, E.M.M., Diesmos, A.C., & Ibañez, J.C. 2007. The herpetological importance of Mt. Hamiguitan Range, Mindanao Island, Philippines. *Banwa* 4(1), 27–40. URL: https://www.researchgate.net/profile/Elsa-May-Baron-2/publication/324681123_Delima_Diesmos_and_Ibanez/links/5adbc585aca272fdaf85a27b/Delima-Diesmos-and-Ibanez.pdf

Delima-Baron, E.M., Ruales, C.A.S., Tripole, C., Tagoon, M.D.T., & Susulan, T.B. 2022. Anurans of select green spaces of Davao City, Mindanao Island, Philippines. *Biodiversitas* 23 (9), 4810–4815. doi: 10.13057/BIODIV/D230949

Gamalo, L.E., Achondo, M.J.M., Dela Torre, V.C.P., Ates-Camino, F.B., Gamboa, R., Sabanal, B., Quibod, M.N.R.M., & De Los Reyes, N.C.L. 2024. Kidaiyahan sa Kinaiyan: A Glimpse of Vertebrate Diversity in the University of the Philippines Mindanao.

Gamalo, L.E.D., Cabrera, S.M.E., De Los Reyes, N.C.L., De Cadiz, A.E., Chavez Jr, J.B., Raganas, A.F.M., & Quibod, M.N.R.M. 2023. Inventory of terrestrial vertebrate wildlife species in a private-owned forest patch in Tagum City, Mindanao, Philippines. *Biodiversitas Journal of Biological Diversity* 24(2), 0–12. doi: https://doi.org/10.13057/biodiv/d240250

Gersava, J.R., Abad, R., Camino, F., Responte, M., Achondo, M.J.M., & Gamalo, L.E. 2020. Native and invasive alien anuran species in urbanized areas in Davao City, Philippines, with preliminary study of feeding biology. *Biological Diversity and Conservation* 13(1), 1–8. doi: 10.46309/biodicon.2020.729824

Ibañez, J., Tampos, G., Maglinte, P., Reazonda, M., Villanueva, A., & Bañes, A. 2012. *Talomo-Lipadas and Panigan-Tamugan Watersheds: resource and socio-economic assessment (Final Technical Report 2012).* Philippine Eagle Foundation, Interface Development Interventions, Inc., and Foundation for the Philippine Environment. URL: 10.13140/RG.2.1.3251.1843

Jabon, K.J., Gamalo, L.E., Responte, M., Abad, R., Gementiza, G.D., & Achondo, M.J.M. 2019. Density and diet of invasive alien anuran species in a disturbed landscape: a case in the University of the Philippines Mindanao, Davao city, Philippines. *Biodiversitas Journal of Biological Diversity* 20(9), 2554–2560. doi: 10.13057/biodiv/d200917

Medina, M.N.D., Cabras, A.A., & Ponce, R.G. 2020. List of threatened fauna in Mt. Hamiguitan Range Wildlife Sanctuary, Davao Oriental, Mindanao Island, Philippines. *Asian*

Journal of Biodiversity 10(1), 14–25. doi: 10.7828/ajob.v10i1.1280

Relox, R.E., Leano, E.P., & Ates-Camino, F.B. 2011. Herpetofaunal endemism and diversity in tropical forests of Mt. Hamiguitan in the Philippines. *Herpetological Conservation and Biology* 6(1), 107–113. URL: https://www.researchgate.net/profile/Fritzie-Ates/publication/298454156_Herpetofaunal_endemism_and_diversity_in_tropical_forests_of_Mt_Hamiguitan_in_the_Philippines/links/5b3bafc6a6fdcc8506eeb022/Herpetofaunal-endemism-and-diversity-in-tropical-forests-of-Mt-Hamiguitan-in-the-Philippines.pdf

Rosales, J.R., Yu, J.A.G., Nanual, B.J., & Ponce, A.G. 2023. Inventory of herpetofauna in the buffer zone of Mt. Hamiguitan Range Wildlife Sanctuary, San Isidro, Davao Oriental, Philippines. *Davao Research Journal* 14(2), 50–65. doi: 10.59120/drj.v14i2.45

Supsup, C.E., Guinto, F.M., Redoblado, B.R., & Gomez, R.S. 2017. Amphibians and reptiles from the Mt. Hamiguitan range of eastern Mindanao Island, Philippines: new distribution records. *Check List* 13(3), 2121. doi: 10.15560/13.3.2121

Tagoon, M.D., Donato, J.L., Susulan, T.B., Vitor, K.C.A., Mamora, S.H.T., Delima-Baron, E.M. 2022. Rapid assessment of anurans of Panigan-Tamugan watershed, Davao City, Mindanao Island, Philippines. *Journal of Animal Diversity* 4(4), 15–27. doi: 10.52547/JAD.2022.4.4.3

Supplementary Table S3. Accession numbers of herpetofauna collected from the caves and their vicinities in Samal Island, Davao del Norte (Mindanao Island), Philippines. Voucher specimens are catalogued and deposited in the University of the Philippines Los Baños – Museum of Natural History.

Herpetofauna species	Field numbers (MNMQ)	Accession numbers (UPLB MH Z-NS)
Amphibians		
(1) *Pulchrana (Hylarana) grandocula*	MNMQ 015–018, 051–053, 101–109, 159–160, 292, 324	UPLB MH Z-NS 1897–1890, 1901–1914
(2) *Limnonectes leytensis*	MNMQ 054–058, 318–321, 330–335	UPLB MH Z-NS 1880–1894
(3) *Kalophrynus pleurostigma*	MNMQ 019, 026–029, 291, 293–294	UPLB MH Z-NS 1915–1922
(4) *Kaloula conjuncta*	MNMQ 020–025, 323, 326	UPLB MH Z-NS 1923–1930
(5) *Platymantis* sp.	MNMQ 062–064, 354–355	UPLB MH Z-NS 1875–1879
(6) *Polypedates leucomystax*	MNMQ 244–245, 352–353	UPLB MH Z-NS 1934–1937
(7) *Kaloula picta*	MNMQ 327–329	UPLB MH Z-NS 1931–1933
(8) *Limnonectes magnus*	MNMQ 104, 322	UPLB MH Z-NS 1895–1896
Reptiles		
(9) *Cyrtodactylus* sp.	MNMQ 031, 059, 105, 110–113, 135, 150, 152–153, 174–176, 243, 278, 314	UPLB MH Z-NS 1938, 1941–1956
(10) *Brachymeles pathfinderi*	MNMQ 154–155, 230–242	UPLB MH Z-NS 1967–1981
(11) *Sphenomorphus fasciatus*	MNMQ 119, 151, 156–157, 212–218	UPLB MH Z-NS 1983–1993
(12) *Draco cyanopterus*	MNMQ 002, 049, 171–173, 264	UPLB MH Z-NS 1961–1966
(13) *Cyrtodactylus annulatus*	MNMQ 158, 357	UPLB MH Z-NS 1939–1940
(14) *Bronchocoela* cf. *cristatella*	MNMQ 316–317	UPLB MH Z-NS 1959–1960
(15) *Ahaetulla prasina*	MNMQ 100	UPLB MH Z-NS 1995
(16) *Aplopeltura boa*	MNMQ 315	UPLB MH Z-NS 1996
(17) *Coelognathus erythrurus*	MNMQ 134	UPLB MH Z-NS 1998
(18) *Dendrelaphis marenae*	MNMQ 358	UPLB MH Z-NS 1997
(19) *Gehyra mutilata*	MNMQ 325	UPLB MH Z-NS 1957
(20) *Hemidactylus platyurus*	MNMQ 161	UPLB MH Z-NS 1958
(21) *Naja samarensis*	MNMQ 001	UPLB MH Z-NS 2000
(22) *Oxyrhabdium leporinum*	MNMQ 050	UPLB MH Z-NS 1999
(23) *Pinoyscincus coxi*	MNMQ 060	UPLB MH Z-NS 1982
(24) *Sphenomorphus variegatus*	MNMQ 030	UPLB MH Z-NS 1944