

SUPPLEMENTAL INFORMATION

**THE HERPETOFAUNAL DIVERSITY OF THE MUNYWANA
CONSERVANCY, KWAZULU-NATAL PROVINCE, SOUTH AFRICA**

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The following material is provided by the authors and was not subjected to peer review or editing by *Herpetological Conservation and Biology*.

Table S1. The current amphibian inventory for the Munywana Conservancy, indicating the various sources informing the inclusion of species from literature records, curated material, results from field studies, and digital citizen science records. Where no records could be located for a species for Munywana itself, but the species had been observed close to the protected area within the extent of the three QDSs, and the appropriate habitat occurs on Munywana, we listed the species as likely to occur based on neighboring records indicated with the observation number followed by a “*”. If the record originated from another conservation area, the “*” is followed by the abbreviation for that protected area. CCA:EJ=CC Africa: Ecological Journal; DM=Durban Museum; FB=False Bay; FM=BDI FrogMap; iNat=iNaturalist; MGR=Mkhuze Game Reserve; PEM=Port Elisabeth Museum.

Amphibian species	SOURCES OF AMPHIBIAN RECORDS FOR MUNYWANA				
	Publications	PFT survey vouchers	Curated material excluding the 2017/18 PFT survey	Digital Citizen Science Records before the PFT survey	Confirmed field guide records
Arthroleptidae					
<i>Arthroleptis stenodactylus</i> Pfeffer 1893 Shovel-footed squeaker	Branch 2005				X
<i>Leptopelis mossambicus</i> Poynton 1985 Brown-backed tree frog	Branch & Kiplin 2005; Russell & Downs 2012	FM 13563			X
Brevicipitidae					
<i>Breviceps carruthersi</i> Minter, Netherlands, & Du Preez 2017 Phinda Rain Frog	Minter et al. 2017	PEM A15321, PEM A15328, PEM A15332			X
<i>Brevices mossambicus</i> Peters 1854 Mozambique Rain Frog		FM 14440		iNat*	
Bufoidea					
<i>Poyntonophrynus fenoulheti</i> (Hewitt & Methuen 1913) Northern Pygmy Toad	Branch 2005	PEM A15329	PEM A07509		
<i>Schismaderma carens</i> (Smith 1848) Red Toad	Russell & Downs 2012			FM 1905	X
<i>Sclerophrys capensis</i> Tschudi 1838 Raucous Toad		PEM A15327			X

<i>Sclerophrys garmani</i> (Meek 1897) Eastern Olive Toad	Russell & Downs 2012	FM 13722			X
<i>Sclerophrys guttaralis</i> (Power 1927) Guttural Toad	Russell & Downs 2012	FM 13723			X
Hemisotidae					
<i>Hemisis guttatus</i> (Rapp 1842) Spotted Shovel-nosed Frog	Russell & Downs 2012				
<i>Hemisis marmoratus</i> (Peers 1854) Mottled Shovel-nosed Frog	Branch 2005; Russell & Downs 2012	PEM A15331, PEM A15355			
Hyperoliidae					
<i>Afrixalus aureus</i> Pickersgill 1984 Golden Leaf-folding Frog	Branch 2005	FM 13565			
<i>Afrixalus delicatus</i> Pickersgill 1984 Delicate Leaf-folding Frog				PEM A90225, PEM A90556, PEM A09227	
<i>Afrixalus fornasinii</i> (Bianconi 1849) Greater Leaf-folding Frog					X
<i>Hyperolius argus</i> Peters 1854 Argus Reed Frog	Russell & Downs 2012				
<i>Hyperolius marmoratus taeniatus</i> Peters 1854 Painted reed frog	Russell & Downs 2012		PEM A09228	iNat	X
<i>Hyperolius poweri</i> Loveridge 1938 Power's Reed Frog	Russell & Downs 2012				
<i>Hyperolius pusillus</i> (Cope 1862) Water lily frog	Russell & Downs 2012				X
<i>Hyperolius tuberilinguis</i> Smith 1849 Tinker reed frog	Russell & Downs 2012				
<i>Kassina senegalensis</i> Dumeril & Bibron 1841 Bubbling kassina	Branch 2005; Russell & Downs 2012	PEM A15318, PEM A15332, PEM A15334			X
<i>Plyctimantis maculatus</i> (Dumeril 1853) Red-legged Kassina					X

Microhylidae

<i>Phrynomantis bifasciatus</i> (Smith 1847) Banded Rubber Frog	Branch 2005	PEM A15323, PEM A15325	PEM A7511
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Phrynobatrachidae

<i>Phrynobatrachus mababiensis</i> FitzSimons 1932 Dwarf Puddle Frog		FM 14441	
<i>Phrynobatrachus natalensis</i> (Smith 1849) Snoring Puddle Frog		PEM A15333	PEM A07507

Ptycadenidae

<i>Hildebrandtia ornata</i> (Peters 1878) Southern Ornate Frog	Branch 2005		PEM A7513
<i>Ptychadena anchietae</i> (Bocage 1867) Plain Grass Frog	Branch 2005		
<i>Ptychadena mossambica</i> (Peters 1854) Broad-backed Grass Frog	Branch 2005; Russell & Downs 2012	PEM A15317, PEM A15324	PEM A07510
<i>Ptychadena nilotica</i> (Seetzen 1855) Nile grass frog			FM 8433*
<i>Ptychadena oxyrhynchus</i> (Smith 1849) Sharp-nosed Grass Frog	Russell & Downs 2012		

Pipidae

<i>Xenopus laevis</i> (Daudin 1802) African Clawed Frog	Russell & Downs 2012	FM 13568		X
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Pyxicephalidae

<i>Amietia delalandii</i> (Dumeril & Bibron 1841) Common River Frog	Russell & Downs 2012			X
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<i>Cacosternum boettgeri</i> (Boulenger 1882) Boettger's caco	Branch 2005	PEM A15320	PEM A07503, PEM A07504, PEM A07505, PEM A07506
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<i>Cacosternum nanum</i> Boulenger 1887 Bronze Caco				X
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<i>Pyxicephalus edulis</i> Peters 1854 African bullfrog	CCA:EJ 2001; Russell & Downs 2012	FM 13566	PEM A09229	FM 1906	X
<i>Tomopterna cryptotis</i> Boulenger 1907/ <i>Tomopterna adiaastola</i> Channing & du Preez 2020 Tremelo Sand Frog	Russell & Downs 2012	PEM A15319			
<i>Tomopterna krugerensis</i> Passmore & Carruhers 1975 Knocking Sand Frog	Branch 2005; Russell & Downs 2012	PEM A15326, PEM A15330	PEM A07508		
<i>Tomopterna natalensis</i> (Smith 1849) Natal Sand Frog	Russell & Downs 2012				
Rhacophoridae					
<i>Chiromantis xerampelina</i> Peters 1854 Southern foam nest frog	CCA:EJ 2001; Branch 2005; Russell & Downs 2012			FM 1904 (2732CD)	X

**NUMBER OF SPECIES DERIVED FOR EACH
CATEGORY (AND NUMBER OF SPECIES ONLY
RECORDED FOR THAT SOURCE)**

28 (7)

19 (1)

10 (1)

6 (1)

17 (3)

TOTAL RECORDED SPECIES

38

Table S2. The current reptile inventory for the Munywana Conservancy, indicating the various sources informing the inclusion of species from literature records, curated material, results from field studies, and digital citizen science records. Where no records could be located for a species for Munywana itself, but the species had been observed close to the protected area within the extent of the three QDSs, and the appropriate habitat occurs on Munywana, we listed the species as likely to occur based on neighboring records indicated with the observation number followed by a “*”. If the record originated from another conservation area, the “*” is followed by the abbreviation for that protected area. CCA:EJ=CC Africa: Ecological Journal; DM=Durban Museum; FB=False Bay; iNat=iNaturalist; MGR=Mkhuze Game Reserve; PEM=Port Elisabeth Museum; RM=BDI Reptile Map; * likely to occur based on neighboring records.

SPECIES	SOURCES OF REPTILE RECORDS FOR MUNYWANA				
	Publications	PFT survey vouchers	Curated material excluding the 2017/18 PFT survey	Digital Citizen Science Records	Reports from Professional Guides
CHELONIA					
Pelomedusidae					
<i>Pelomedusa galeata</i> (Schoepff 1792) South African Marsh Terrapin	Price et al. 2021			iNat; RM 7151	X
<i>Pelusios castenoides</i> Hewitt 1931 Yellow-bellied Hinged Terrapin				RM 154158*FB	
<i>Pelusios sinuatus</i> (Smith 1838) Serrated Hinged Terrapin	Steffney et al. 2002; Price et al. 2021			RM 7157	
<i>Pelusios subniger</i> (Bonnaterre 1789) Black-bellied Hinged Terrapin				RM 164410	
Testudinidae					
<i>Kinixys zombensis</i> Hewitt 1931 South-eastern hinged-back Tortoise			PEM R17099	iNat; RM 181905	X
<i>Stigmochelys pardalis</i> (Bell 18828) Leopard Tortoise				RM 7150; RM 7150	X
CROCODYLIDAE					
<i>Crocodylus niloticus</i> (Laurenti 1768) Nile crocodile	Robinson et al. 2003	-	-	iNat; RM 7160	X

SAURIA**Agamidae**

Acanthocercus atricollis (Smith 1849)
Southern Tree Agama

Robinson et al. 2003

RM 179651

iNat

X

Amphisbaenidae

Zygaspis arenicola Broadley & Broadley 1997
Sand-dwelling Dwarf Worm Lizard

PEM R28249

PEM R17930,
PEM R28224,
PEM R28225,
PEM R28226

Chamaeleonidae

Chamaeleo dilepis Leach 1819
Flap-neck Chameleon

Steffney et al. 2002

RM 156254*FB

X

Cordylidae

Smaug warreni (Boulenger 1908)
Lebombo Dragon Lizard

X

Gekkonidae

Afrodura marleyi (FitzSimons 1930)
Marley's Flat Gecko

RM 15026*FB

Hemidactylus mabouia (Moreau de Jonnes 1818)
Common Tropical House Gecko

PEM R28187

RM 750539

Homopholis wahlbergi (Smith 1849)
Wahlberg's Velvet Gecko

RM 7158

X

Lygodactylus capensis (Smith 1849)
Common Dwarf Gecko

PEM R28177

RM 169161

Pachydactylus maculatus Gray 1845
Spotted Gecko

Steffney et al. 2002

RM 197533

Pachydactylus vansoni FitzSimons 1933
Van Son's Gecko

RM 197532

Gerrhosauridae

Broadleysaurus major (Dumeril 1851)
Rough-scaled Plated Lizard

CCA:EJ 2001

RM 8334

X

<i>Gerrhosaurus flavigularis</i> Wiegmann 1828 Yellow-throated Plated Lizard		PEM R28151, PEM R28160			
<i>Tetradactylus africanus</i> (Gray 1838) Eastern Long-tailed Seps	Jordaan et al. 2022		PEM R05487	RM 162402	
Licertidae					
<i>Ichnotropis capensis</i> (Smith 1838) Cape Rough-scaled Lizard		PEM R28190			
<i>Meroles squamulosa</i> (Peters 1854) Savanna Lizard		PEM R28174, PEM R28178, PEM R28192			
<i>Nucras intertexta</i> (Smith 1838) Spotted Sandveld lizard		PEM R28153			
<i>Nucras ornata</i> (Grey 1864) Ornate sandveld lizard	CCA:EJ 2001				
Scincidae					
<i>Acontias plumbeus</i> Bianconi 1849 Giant Legless Skink	CCA:EJ 2001; Steffney et al. 2002		PEM R17924	iNat	X
<i>Panaspis walbergi</i> (Smith 1849) Wahlberg's Snake-eyed Skink		PEM R28152			
<i>Scelotes bidigittatus</i> FitzSimons 1930 Lowveld Dwarf Burrowing Skink	Jordaan & Steyl 2023		DM 1187, PEM R28222, PEM 28223	RM 181980	
<i>Scelotes mossambicus</i> (Peters 1882) Mozambique Dwarf Burrowing Skink				RM 156257*	
<i>Trachylepis depressa</i> (Peters 1854) Eastern Coastal Skink				RM 163313*	
<i>Trachylepis margaritifera</i> (Peters 1854) Rainbow Skink				iNat; RM 165414	
<i>Trachylepis striata</i> (Peters 1844) Striped Skink	Steffney et al. 2002	PEM R28149, PEM R28159		iNat; RM 8518	

Trachylepis varia (Peters 1867)
Variable Skink

PEM R28168,
PEM R2818,
PEM R28184

Varanidae

Varanus albigularis (Daudin 1802)
Rock Monitor

RM 179649

iNat

X

Varanus niloticus (Linnaeus 1762)
Nile Monitor

CCA:EJ 2001;
Steffney et al. 2002

iNat

X

SERPENTES

Atractaspidae

Amblyodipsas concolor (Smith 1849)
Natal Purple-glossed Snake

X

Amblyodipsas polylepis (Bocage 1873)
Common Purple-glossed Snake

CCA:EJ 2001

RM 7154

Aparallactus capensis Smith 1849
Black-headed Centepede-eater

PEM R28183

DM 1152

Atractaspis bibronii Smith 1849
Bibron's Stiletto Snake

PEM R28193

Homoroselaps dorsalis (Smith 1849)
Striped Harlequin Snake

RM
13555*MGR

Macrelaps microlepidotus (Günther 1860)
Natal Black Snake

Steffney et al. 2002

Xenocalamus bicolor lineatus Roux 1907
Striped Quill-snouted Snake

RM 156704*

Xenocalamus transvaalensis Methuen 1919
Speckled Quill-snouted Snake

PEM R28250

Colubridae

Crotaphopeltis hotamboeia (Laurenti 1768)
Red-lipped Snake

RM 182743

PEM R05488

X

Dasypeltis medici (Bianconi 1859)
East African Egg-eater

X

<i>Dasypeltis scabra</i> (Linnaeus 1758) Rhombic Egg-eater		PEM R28248			X
<i>Dipsadoboa aulica</i> (Günther 1864) Marbled Tree Snake	Steffney et al. 2002			iNat	
<i>Dispholidus typus viridus</i> (Smith 1828) Northern Boomslang				RM 152206*	X
<i>Philothamnus hoplogaster</i> (Günther 1863) Southeastern Green Snake					X
<i>Philothamnus natalensis</i> (Smith 1848) Natal Green Snake		RM 197531	PEM R05905	iNat	X
<i>Philothamnus semivariegatus</i> (Smith 1840) Spotted Bush Snake			PEM R17267	RM 182741; RM 182742	
<i>Teloscopus semiannulatus</i> Smith 1849 Eastern Tiger Snake				RM 1522*FB	
<i>Thelotornis capensis</i> Smith 1849 Southern Twig Snake	Steffney et al. 2002			RM 7156	
Elapidae					
<i>Dendroaspis angusticeps</i> (Smith 1849) Green Mamba				RM 165859	X
<i>Dendroaspis polylepis</i> Günther 1864 Black Mamba	CCA:EJ 2001				X
<i>Naja annulifera</i> Peters 1854 Snouted Cobra				RM 158449*FB	X
<i>Naja mossambica</i> Peters 1854 Mozambique Spitting Cobra				iNat	X
<i>Naja subfulva</i> Laurent 1955 Brown Forest Cobra	CCA:EJ 2001; Steffney et al. 2002; Robinson et al. 2003				X
Lamprophiidae					
<i>Boaedon capensis</i> Dumeril, Bibrob & Dumeril 1854 Brown House Snake		RM 179648			X

<i>Gracililima nyassae</i> (Günther 1888) Black File Snake		PEM R28150, PEM R28156		
<i>Limaformosa capensis</i> (Smith 1847) Common File Snake			RM 159535	
<i>Lycodonomorphus obscuriventris</i> FitzSimons 1964 Floodplain Water Snake			RM 153684*	
<i>Lycophidion capense</i> (Smith 1831) Cape Wolf Snake	Jordaan & Steyl 2023		RM 181986	
<i>Lycophidion pygmaeum</i> Broadley 1996 Pygmy Wolf Snake	Steffney et al. 2002			
Psammophiidae				
<i>Psammophis brevirostris</i> Peters 1881 Short-snouted Grass Snake	Jordaan & Steyl 2023		RM 181987	
<i>Psammophis mossambicus</i> Peters 1882 Olive Grass Snake	Robinson et al. 2003	RM 179650	iNat	
Prosymnidae				
<i>Prosymna stuhlmanni</i> (Pfeffer 1893) East African Shovel-snout	CCA:EJ 2001	PEM R28251	iNat	
Pseudaspidae				
<i>Pseudaspis cana</i> (Linnaeus 1758) Mole snake				X
Pseudoxyrhophiidae				
<i>Duberia variegata</i> (Peters 1854) Variegated Slug-eater			RM 8335	
Pythonidae				
<i>Python natalensis</i> Smith 1840 Southern African Python	CCA:EJ 2001; Steffney et al. 2002; Robinson et al. 2003		iNat; RM 8516	X
Leptotyphlopidae				
<i>Leptotyphlops conjunctus</i> (Jan 1861) <i>sensu lato</i> Cape Thread snake	Busschau et al. 2020		PEM R17531	

Leptotyphlops scutifrons (Peters 1854)
Peter's Thread Snake

PEM R28242,
PEM R28243,
PEM R28244

DM 1151,
DM 1193

Typhlopidae

Afrotyphlops fornasini (Bianconi 1849)
Fornasini's Blind Snake

CCA:EJ 2001

Afrotyphlops schlegelii (Bianconi 1849)
Schlegel's Blind Snake

Steffney et al. 2002

PEM R28253

X

Viperidae

Bitis arietans (Merrem 1820)
Puff Adder

Jordaan & Steyl 2023

iNat;
RM 181981

X

Causus rhomeatus (Lichtenstein 1823)
Rhombic Night Adder

X

**NUMBER OF SPECIES DERIVED FOR EACH
CATEGORY (AND NUMBER OF SPECIES ONLY
RECORDED FROM THAT SOURCE)**

29 (2)

26 (9)

11 (0)

45 (11)

30 (4)

TOTAL RECORDED SPECIES

75