

Supporting Information

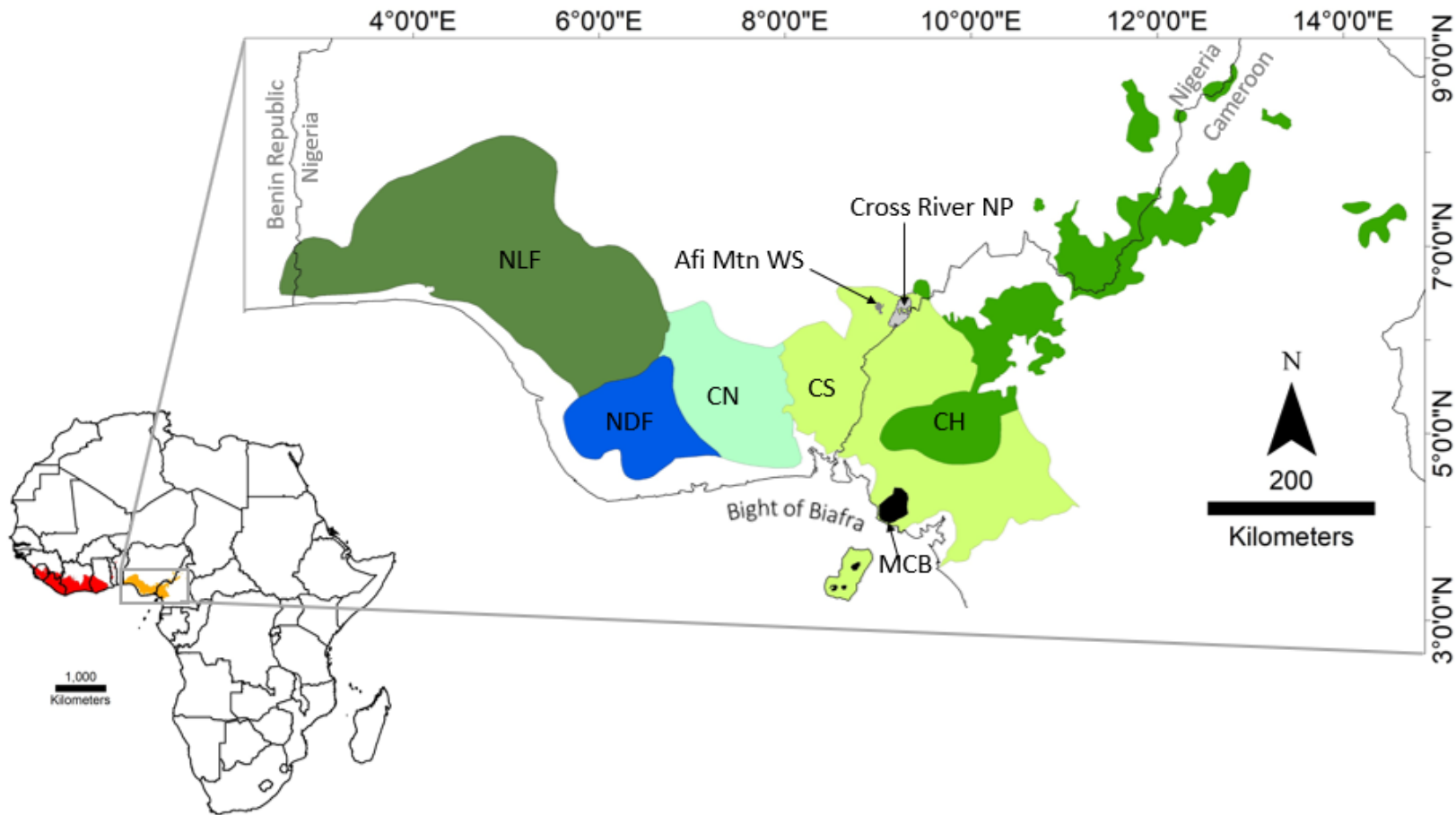


Figure S1. Study Area – Afi Mountain Wildlife Sanctuary (Afi Mtn WS) and Cross River National Park (Cross River NP). Inserts: Africa, showing Upper (red) and Lower (orange) Guinean Forests of West Africa. Ecoregions in the Lower Guinean Forests Nigeria Lowland Forests (NLF), Niger Delta Swamp Forests (NDF), Cross-Niger Transition Forests (CN), Cross-Sanaga-Bioko Forests (CS), Cameroon Highlands Forests (CH), Mount Cameroon-Bioko Montane Forests (MCB). Map sources: protected area boundaries (protectedplanet.net), Africa boundary map (www.maplibrary.org).

Table S1. Checklist of bats for Lower Guinean Forest. Compiled from published literature, reports, online databases and current study. Ecoregion codes: CH = Cameroon Highlands, CN = Cross-Niger Transition Forest, CS = Cross-Sanaga-Bioko Forest, MCB – Mount Cameroon--Bioko Forests, ND = Niger-Delta Swamp Forest, NLF = Nigerian Lowland Forest. Ensemble codes: PV = Plant visiting, ES = Edge/gap space, OS = Open-space, NS = Narrow-space. Species in bold font were captured during the current study.

Species	Ensemble	CH	CN	CS	MCB	NLF	ND	Sources
Pteropodidae								
<i>Casinycteris campomaanensis</i>	PV					*		Tanshi <i>et al.</i> (2019) Sanderson (1940); Rosevear (1953); Rosevear (1965); Halstead (1975); Funmilayo (1976); Okon (1974); Okon (1977); Happold & Happold (1978) (2); Fedden & Macleod (1986); Happold (1987); Tanshi <i>et al.</i> (2019); ACR (2018): ROM; UCONN
<i>Eidolon helvum</i>	PV	*	*	*	*	*	*	Andersen (1912); Rosevear (1953); Happold (1978); Angelici <i>et al.</i> (2000)
<i>Epomophorus gambianus</i>	PV					*	*	Rosevear (1953); Rosevear (1965); Happold & Happold (1978b)
<i>Epomophorus labiatus</i>	PV					*		
<i>Epomops buettikoferi</i>	PV					*		Bergmans (1982); GBIF
<i>Epomops franqueti</i>	PV	*	*	*	*	*	*	Thomas (1880); Andersen (1912); Rosevear (1953); Happold & Happold (1978) (2); Bergmans (1982); Denys <i>et al.</i> (2009); Sanderson (1940); Fedden and Macleod (1986); Tanshi <i>et al.</i> , (2019); GBIF
<i>Hypsignathus monstrosus</i>	PV	*	*	*	*	*	*	Murray (1862); Sanderson (1940); Andersen (1912); Rosevear (1953); Happold & Happold (1978) (2); Tanshi <i>et al.</i> (2019); FMNH; ROM; ZMA
<i>Megaloglossus aff. azagnyi</i>	PV					*		Happold & Happold (1978b); Tanshi <i>et al.</i> (2019); ROM
<i>Megaloglossus cf. woermanni</i>	PV	*		*	*		*	ACR (2018); Sanderson (1940); Dowsett-Lemaire & Dowsett (1998) [in Denys <i>et al.</i> (2009)]; Eisentraut (1957), (1968), (1973); Fedden & Macleod (1986); Angelici <i>et al.</i> (2000); ROM
<i>Micropteropus pusillus</i>	PV	*		*	*	*		Sanderson (1940); Eisentraut (1968), (1973); Fedden & Macleod (1986); Lameed (2008); Happold & Happold (1978a); AMNH; FMNH; GBIF; NHMUK; UCONN; USNM; ROM; ZMA
<i>Myonycteris angolensis</i>	PV	*		*	*	*		Hutterer (1992); AMNH; HZM; MNHG; MNHN; NHMUK; ROM; USNM

<i>Myonycteris leptodon</i>	PV				*		Bergmans (1976); Tanshi <i>et al.</i> (2019); ROM Denys <i>et al.</i> (2009), Dowsett-Lemaire & Dowsett (1998) [in Denys <i>et al.</i> (2009)]; FMNH; MNHN; NHMUK; ROM; USNM
<i>Myonycteris torquata</i>	PV	*	*	*			Andersen (1912); Sanderson (1940); Happold and Happold (1978) (2); Dowsett-Lemaire & Dowsett (1998) [in Denys <i>et al.</i> (2009)]; Fedden & Macleod (1986); FMNH; NHMUK; ROM; USNM
<i>Nanonycteris veldkampii</i>	PV	*	*	*	*		Sanderson (1940); Fedden & Macleod (1986); Rosevear (1965); Bergmans (1994); AMNH; FMNH; NHMUK; ROM; TTU; UCONN,
<i>Rousettus aegyptiacus</i>	PV	*	*	*		*	Tanshi <i>et al.</i> (2019)
<i>Scotonycteris cf. occidentalis</i>	PV					*	Fedden & Macleod (1986); Happold & Happold (1978) (2), AMNH; MNHN; MSB; NHMUK; ROM
<i>Scotonycteris zenkeri</i>	PV	*	*	*		*	
Emballonuridae							
<i>Coleura afra</i>	OS					*	Harrison (1968) [in Happold (1987)]; USNM
<i>Saccolaimus peli</i>	OS			*		*	Sanderson (1940); NHMUK, USNM
<i>Taphozous mauritanus</i>	OS		*	*		*	NHMUK, ROM
<i>Taphozous perforatus</i>	OS			*			RMCA
Nycteridae							
<i>Nycteris arge</i>	NS		*	*		*	Sanderson (1940); Lameed (2008); Cozens & Marchant (1952) [in Happold (1987)]; Bergmans (1977); Tanshi <i>et al.</i> (2014); NHMUK; ROM
<i>Nycteris grandis</i>	NS			*	*	*	Bergmans (1977); Happold (1987); Tanshi <i>et al.</i> (2019); ROM, NHMUK
<i>Nycteris hispida</i>	NS	*	*	*		*	Eisentraut (1973); Fedden & Macleod (1986); Perret & Allen (1956); Sanderson (1940); Bergmans (1977); Happold (1987); NHMUK; ROM
<i>Nycteris macrotis</i>	NS		*	*		*	NHMUK; ROM; USNM
<i>Nycteris major</i>	NS			*			Perret & Allen (1956) Wroughton (1906); Happold (1987); Hutterer (1992); Rosevear (1953) [no localities]; ROM
<i>Nycteris nana</i>	NS			*			
<i>Nycteris thebaica</i>	NS			*		*	Happold (1987); NHMUK; USNM

Megadermatidae

<i>Lavia frons</i>	ES					*	Happold (1987), Tanshi <i>et al.</i> (2019)
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Rhinolophidae

<i>Rhinolophus alcyone</i>	NS	*	*	*	*	*	Sanderson (1940); Dowsett-Lemaire & Dowsett (1998) [in Denys <i>et al.</i> (2009)]; MHNG; NHMUK; ROM
<i>Rhinolophus alticolus</i>	NS	*		*	*		Sanderson (1940); Hutterer <i>et al.</i> (1992);
<i>Rhinolophus hillorum</i>	NS			*			Fedden & Macleod (1986)
<i>Rhinolophus cf. hillorum</i>	NS					*	Cotterill (2002)
<i>Rhinolophus landeri</i>	NS	*	*	*	*		Sanderson (1940); Fedden and Macleod (1986); MHNG; MNHN; NHMUK; ROM

Hipposideridae

<i>Doryrhina camerunensis</i>	NS					*	AMNH; MHNG; NHMUK
<i>Doryrhina cyclops</i>	NS	*		*	*	*	Sanderson (1940); Dowsett-Lemaire & Dowsett (1998) [in Denys <i>et al.</i> (2009)]; Fedden & Macleod (1986); GBIF
<i>Hipposideros abae</i>	NS		*				Cozens & Marchant (1952); Happold (1987)
<i>Hipposideros beatus</i>	NS		*	*		*	Cozens & Marchant (1952); Bergmans (1977); GBIF
<i>Hipposideros cf. caffer</i>	NS			*		*	Perret & Allen (1956); Andersen (1906); Sanderson (1940); Eisentraut (1968), (1973); Happold (1987); GBIF
<i>Hipposideros cf. ruber</i>	NS	*	*	*	*	*	Dowsett-Lemaire & Dowsett (1998) [in Denys <i>et al.</i> (2009)]; Fedden & Macleod (1986); GBIF
<i>Hipposideros curtus</i>	NS			*			This study
<i>Hipposideros fuliginosus</i>	NS			*			Andersen (1906); GBIF
<i>Hipposideros jonesi</i>	NS					*	Happold (1987)
<i>Macronycteris gigas</i>	NS		*	*	*	*	Cozens & Marchant (1952); Happold (1987); GBIF

Vespertilionidae

<i>Glauconycteris alboguttata</i>	ES			*	*		ROM
<i>Glauconycteris argentata</i>	ES	*		*	*		Fedden & Macleod (1986); ROM, NHMUK
<i>Glauconycteris beatrix</i>	ES			*		*	Sanderson (1940); Rosevear (1953); ROM; USNM
<i>Glauconycteris curryae</i>	ES			*			ROM
<i>Glauconycteris egeria</i>	ES			*	*		NHMUK; ROM

<i>Glauconycteris poensis</i>	ES	*		*	*	Rosevear (1953); Happold (1987), NHMUK; ROM
<i>Glauconycteris cf humeralis</i>	ES			*		This study
<i>Kerivoula lanosa</i>	NS			*		This study
<i>Kerivoula smithii</i>	NS	*		*		Thomas (1880); Eisentraut (1968), (1973)
<i>Kerivoula cuprosa</i>	NS			*		This study
<i>Kerivoula phalaena</i>	NS			*		This study
<i>Mimetillus moloneyi</i>	ES			*	*	Thomas (1891) [as <i>Vespertugo moloneyi</i>], Tanshi <i>et al.</i> (2019); ROM
<i>Myopterus whitleyi</i>	ES		*	*		Scharff (1900); Sanderson (1940); MNHG; NHMUK; ROM; USNM,
<i>Myotis bocagii</i>	ES	*		*	*	Fedden & Macleod 1986; ROM, UCONN
<i>Myotis welwitschii</i>	ES	*				Sedlacek <i>et al.</i> (2006)
<i>Hypsugo musciculus</i>	ES				*	ROM
<i>Neoromicia brunnea</i>	ES			*	*	Sanderson (1940); Thomas (1880) [<i>Vesperugo brunneus</i>], ROM, NHMUK
<i>Neoromicia capensis</i>	ES	*		*	*	NHMUK, Hutterer (1992)
<i>Afropipistrellus grandidieri angolensis</i>	ES			*		Thorn <i>et al.</i> (2007) [in Happold & Happold (2013)]
<i>Neoromicia guineensis</i>	ES		*		*	Hill <i>et al.</i> (1988); NHMUK
<i>Neoromicia cf. helios</i>	ES	*		*		ROM
<i>Neoromicia nanus</i>	ES	*	*	*	*	Bergmans (1977); FMNH; MHNG; NHMUK; ROM
<i>Neoromicia rendalli</i>	ES			*	*	Hill <i>et al.</i> , (1988); NHMUK
<i>Neoromicia tenuipinnis</i>	ES		*	*	*	Fedden & Macleod (1986); Rosevear (1953) [no locality listed], AMNH; NHMUK; ROM; USNM
<i>Afropipistrellus eisentrauti</i>	ES	*		*	*	Dowsett-Lemaire & Dowsett (1998) [in Denys <i>et al.</i> (2009)]; Fedden & Macleod (1986); NHMUK
<i>Afropipistrellus crassulus</i>	ES			*		This study
<i>Pipistrellus hesperidus</i>	ES	*		*		Hutterer <i>et al.</i> (1992); ACR (2018)
<i>Pipistrellus nanulus</i>	ES	*			*	Wroughton (1906); Theodor (1956); UCONN
<i>Scotoecus hirundo</i>	ES				*	NHMUK
<i>Scotophilus livingstoni</i>	ES				*	NHMUK; ZMA
<i>Scotophilus leucogaster</i>	ES			*	*	AMNH; NHMUK

<i>Scotophilus nigrita</i>	ES								Wroughton (1906); Rosevear (1953) [no localities], Bergmans (1977); Robbins <i>et al.</i> (1985); Tanshi <i>et al.</i> , (2019); NHMUK; USNM
<i>Scotophilus nux</i>	ES		*						Robbins (1985); AMNH; ROM; TTU
Miniopteridae									
<i>Miniopterus cf. fraterculus</i>	ES		*	*					ROM
<i>Miniopterus inflatus</i>	ES		*	*					MNHG; NHMUK
<i>Miniopterus villiersi</i>	ES	*	*	*					Fedden & Macleod (1986); Happold (1987); Koopman <i>et al.</i> (1995); GBIF
Molossidae									
<i>Chaerephon aloysiisabaudiae</i>	OS		*			*			Tanshi <i>et al.</i> (2019)
<i>Chaerephon ansorgei</i>	OS	*	*						Hutterer <i>et al.</i> (1992)
<i>Chaerephon bemmeleni</i>	OS	*							ROM
<i>Chaerephon brachypterus leonis</i>	OS		*			*			NHMUK, ROM, Dobson (1875) [as leonis]; Happold (1987)
<i>Chaerephon condylurus</i>	OS		*	*		*			Lameed (2007)
<i>Chaerephon major</i>	OS	*	*			*			Hutterer <i>et al.</i> (1992); Mbata (2006); GBIF
<i>Chaerephon nanulus</i>	OS		*	*					Fedden & Macleod (1986); Sanderson (1940) [mops calabarensis]
<i>Chaerephon nigeriae</i>	OS		*			*			Bergmans (1977); Smit (1977)
<i>Chaerephon petersoni</i>	OS			*	*				El Rayah (1981); ROM,
<i>Chaerephon pumilus</i>	OS			*		*			Braestrup (1933); Lameed (2007); MNHN; SMF; ZMA
<i>Chaerephon spurrelli</i>	OS			*	*				ROM
<i>Chaerephon thersites</i>	OS	*	*			*	*		Bergmans (1977) Happold (1987)
<i>Chaerephon trevori</i>	OS					*			Bergmans (1977)
Total richness		31	22	67	34	51	12		

Natural History Museum Names and Acronyms

AMNH - American Museum of Natural History

FMNH - Field Museum of Natural History

GBIF – Global Biodiversity Information Facility

HZM - Harrison Zoological Museum

MNHG - Museum of Natural History, Geneva

MNHN - Muséum National d’Histoire Naturelle

MSB - University of New Mexico, Museum of Southwestern Biology

NHMUK – National History Museum, London (Previously identified in databases as NHMUK)

RMCA - Royal Museum for Central Africa

ROM - Royal Ontario Museum

SMF - Forschungsinstitut und Naturmuseum Senckenberg

TTU - Museum of Texas Tech University

UCONN – Connecticut State Museum of Natural History

USNM - National Museum of Natural History

ZMA - Zoologisch Museum Amsterdam

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