

Table S1. The bat families, species and sample sizes used for the species packing (morphometric) and niche breadth (stable isotope) analyses in rainforest (Nimba) or savanna (RSA).

Family and species	Number of specimens used in each analysis			
	Species packing (Nimba)	Niche breadth (Nimba)	Species packing (RSA)	Niche breadth (RSA)
Emballonuridae				
<i>Taphozous mauritanus</i>	0	0	1	1
Hipposideridae				
<i>Doryrhina cyclops</i>	1	1	0	0
<i>Hipposideros beatus</i>	4	3	0	0
<i>Hipposideros caffer</i>	0	0	2	2
<i>Hipposideros lamottei</i>	5	0	0	0
<i>Hipposideros marisae</i>	1	1	0	0
<i>Hipposideros ruber</i> (lineage C1)	4	2	0	0
<i>Hipposideros ruber</i> (lineage E1)	5	1	0	0
<i>Macronycteris gigas</i>	1	1	0	0
Miniopteridae				
<i>Miniopterus inflatus</i>	3	3	0	0
<i>Miniopterus natalensis</i>	0	0	4	2
<i>Miniopterus villiersi</i>	4	3	0	0
Molossidae				
<i>Chaerephon pumilus</i>	2	2	1	1
<i>Mops condylurus</i>	2	2	1	0

<i>Mops leonis</i>	2	2	0	0
<i>Mops midas</i>	0	0	4	0
<i>Mops spurrelli</i>	2	2	0	0
<i>Mops thersites</i>	2	2	0	0
<i>Tadarida ventralis</i>	0	0	1	0
Nycteridae				
<i>Nycteris arge</i>	2	2	0	0
<i>Nycteris grandis</i>	1	1	0	0
<i>Nycteris hispida</i>	1	1	0	0
<i>Nycteris intermedia</i>	1	0	0	0
<i>Nycteris macrotis</i>	1	1	0	0
<i>Nycteris major</i>	1	0	0	0
<i>Nycteris thebaica</i>	0	0	0	1
Pteropodidae				
<i>Epomophorus wahlbergi</i>	0	0	2	2
<i>Epomops buettikoferi</i>	1	1	0	0
<i>Hypsignathus monstrosus</i>	1	1	0	0
<i>Megaloglossus azagny</i>	1	1	0	0
<i>Micropteropus pusillus</i>	2	2	0	0
<i>Myonycteris angolensis</i>	3	3	0	0
<i>Myonycteris leptodon</i>	2	2	0	0
<i>Nanonycteris veldkampii</i>	1	1	0	0
Rhinolophidae				
<i>Rhinolophus clivosus</i>	0	0	5	3

<i>Rhinolophus darling</i>	0	0	3	2
<i>Rhinolophus guineensis</i>	1	1	0	0
<i>Rhinolophus hillorum</i>	3	3	0	0
<i>Rhinolophus landeri</i>	2	0	0	0
<i>Rhinolophus simulator</i>	1	0	1	1
<i>Rhinolophus smithersi</i>	0	0	2	2
Vespertilionidae				
<i>Eptesicus hottentotus</i>	0	0	3	1
<i>Glauconycteris poensis</i>	5	3	0	0
<i>Glauconycteris sp.</i>	1	1	0	0
<i>Hypsugo bellieri</i>	3	0	0	0
<i>Hypsugo sp.</i>	1	1	0	0
<i>Kerivoula phalaena</i>	2	2	0	0
<i>Laephotis botswanae</i>	0	0	1	1
<i>Mimetillus moloneyi</i>	2	2	0	0
<i>Myotis bocagii</i>	1	1	0	0
<i>Myotis tricolor</i>	0	0	1	2
<i>Myotis welwitschii</i>	0	0	1	1
<i>Neoromicia brunnea</i>	7	3	0	0
<i>Neoromicia capensis</i>	0	0	3	0
<i>Neoromicia guineensis</i>	1	0	0	0
<i>Neoromicia Isabella</i>	1	1	0	0
<i>Neoromicia nana</i>	4	3	1	0
<i>Neoromicia roseveari</i>	4	2	0	0
<i>Neoromicia somalica</i>	1	1	0	0

<i>Neoromicia tenuipinnis</i>	2	2	0	0
<i>Neoromicia zuluensis</i>	0	0	3	3
<i>Nycticeinops schlieffeni</i>	0	0	1	0
<i>Pipistrellus hesperidus</i>	0	0	7	3
<i>Pipistrellus nanulus</i>	6	3	0	0
<i>Pipistrellus rusticus</i>	0	0	3	0
<i>Pipistrellus sp.</i>	1	0	0	0
<i>Scotophilus nux</i>	2	2	0	0

Table S2. Layman metrics and standard ellipses for bat families in Nimba (rainforest) and Soutpansberg (savanna) mountains.

Functional group	Region	$\delta^{15}\text{N}$ range (NR)	$\delta^{13}\text{C}$ range (CR)	Distance to centroid (CD)	Mean nearest neighbour distance (MNND)	SD of nearest neighbour distance (SDNND)	Convex hull (TA)	Area of ellipse (SEA)	Corrected area of ellipse (SEA _c)	Sample size (# species)
Open air	Nimba	3.47	6.47	2.16	1.00	0.78	16.51	7.80	8.66	11 (5)
	Soutpansberg	0.83	2.49	1.31	2.63	-	-	-	-	2 (2)
Edge	Nimba	5.82	12.50	1.97	0.69	0.75	37.99	8.32	8.59	33 (16)
	Soutpansberg	4.82	4.67	2.03	0.75	0.47	12.51	6.37	6.95	13 (7)
Clutter	Nimba	4.38	13.54	1.77	1.05	2.25	27.36	8.05	8.55	18 (11)
	Soutpansberg	4.93	3.58	1.47	0.85	0.46	9.79	4.67	5.13	13 (8)
Fruitbat	Nimba	4.68	3.29	1.42	0.69	0.32	8.07	3.70	4.01	14 (7)
	Soutpansberg	1.12	1.40	0.80	1.59	-	-	-	-	2 (1)