CURRAN, M., M. KOPP, M. RUEDI, and J. BAYLISS. 2022. A new species of horseshoe bat (Chiroptera: Rhinolophidae) from Mount Namuli, Mozambique. Acta Chiropterologica, 24(1): 19–40.

SUPPLEMENTARY INFORMATION

Contents: Supplementary appendices: **Appendix S1**. GenBank references for all samples used in the phylogenetic reconstructions. Table A. References of the 77 cytochrome b gene (CYT-B) sequences mined from the GenBank and used in phylogenetic reconstructions. The last five specimens, noted as sp. nov., pertain to the new species described in this manuscript, and were referred originally as *Rh*. cf. *denti-simulator*. **Appendix S2**. Additional morphological and craniodental features and comparisons. Fig. A1. Close-up of the lower lip of the holotype of *R. namuli* sp. nov. (MHNG 1971.068), showing three well-defined mental grooves (marked with arrows). Fig. A2. Close-up of the lancet (a) and sella (b and c) for *R. maendeleo* (left, holotype, SMF 79.643) and *R. namuli* sp. nov. (right, holotype, MHNG 1971.068). The lancet of *R. namuli* sp. nov. is concave with a narrower, rounded tip (hastate) in comparison to R. maendeleo, which bears a near straight-sided lancet and tapered pointed tip. Fig. A3. Comparison of noseleaf structure, in particular the shape of the lancet (marked with arrows), in living examples of *R. namuli* sp. nov. (left; female, MHNG 1971.067) and *R. simulator* captured on Mount Mulanje in Malawi (right; female above, field number ML 378, male below, museum accession number MHNG 1971.066). *R. simulator* bears a hastate lancet characteristic of the *capensis*-group (concave, narrow rounded tip), which *R. namuli* sp. nov. shares (as opposed to a non-hastate lancet in the *adami*-group). Fig. A4. Close-up of the bony bar (marked with an arrow) forming the interorbital foramena of the holotype of *R namuli* sp. nov. (MHNG 1971.068). Picture also illustrates the bulbous nasal swellings. Fig. A5. Comparison of the bacular morphology of *R. namuli* sp. nov. and *R. maendeleo*. Lateral view shown in the upper row (a, c, e), ventral view in the bottom row (b, d, f). Specimens used for the illustrations are the *R. namuli* sp. nov. holotype MHNG 1971.168 (a and b) and paratype MHNG 1971.069 (c and d), and the holotype of SMF 79643 (e and f). Illustration of *R. maendeleo* is reproduced from Kock *et al*. (2000). Fig. A6. Comparison of the skull shape in dorsoventral view between *R. maendeleo*, *R. capensis*, *R. namuli* sp. nov. and *R. adami* (a) and between *R. simulator* and *R. namuli* sp. nov. (b), and frontal view of the rostral inflation for the two groups (c and d, respectively). **Appendix S3**. Estimates of Average Evolutionary Divergence over Sequence Pairs within Groups. The number of base substitutions per site from averaging over all sequence pairs within each group are shown. Analyses were conducted using the Kimura 2-parameter model [1]. This analysis involved 101 nucleotide sequences. All ambiguous positions were removed for each sequence pair (pairwise deletion option). There were a total of 1,140 positions in the final dataset. Evolutionary analyses were conducted in MEGA X [2]. Appendix S3 in available in a separate file.

APPENDIX S1. GenBank references for all samples used in the phylogenetic reconstructions

TABLE A. References of the 77 cytochrome b gene (CYT-B) sequences mined from the GenBank and used in phylogenetic reconstructions. The last five specimens, noted as sp. nov., pertain to the new species described in this manuscript, and were referred originally as *Rh.* cf. *denti-simulator*

Species name	GenBank number	Voucher	Country/Region	Reference
Rhinolophus alcyone	EU436667	ROM-100491	Ivory Coast	16
Rhinolophus alcyone	FJ457613	IVB_S4	Senegal	3
Rhinolophus arcuatus	JN106284	CMNH-M17	Philippines	10
Rhinolophus blasii 2	EU436669	EBD-23260	Morocco	16
Rhinolophus blasii 2	KU531264	SP.C.44	Iran	7
Rhinolophus blasii 1	MN025571	FMNH-180967	Malawi	6
Rhinolophus capensis	KX548060	RC14	South Africa	12
Rhinolophus capensis	KU531274	Rca22ZPK	South Africa	7
Rhinolophus cf. *landeri*	EU436668	CM-97952	Kenya	16
Rhinolophus clivosus 1	KC579386	MW199	Malawi	3
Rhinolophus clivosus 1	EU436674	FMNH-151424	Tanzania	16
Rhinolophus clivosus 2	MN025626	FMNH-232083	Uganda	6
Rhinolophus clivosus 3	KC579383	cliSA26132	South Africa	3
Rhinolophus clivosus 4	KU531277	DJ-ALG_3	Algeria	7
Rhinolophus clivosus 5	KC579389	cliYem3060	Yemen	3
Rhinolophus clivosus 6	KC579377	pb5503	Ethiopia	3
Rhinolophus cornutus	AB085701	-	Japan	11
Rhinolophus damarensis	MN025634	FMNH-219475	DRC	6
Rhinolophus darlingi	MN025635	FMNH-192231	Malawi	6
Rhinolophus deckenii	EU436678	CM-97951	Kenya	16
Rhinolophus deckenii	MN025644	FMNH-196180	Malawi	6
Rhinolophus denti	KU531300	Rde02GHB	Namibia	7
Rhinolophus denti	KU531304	Rde1PJB	South Africa	6
Rhinolophus cf. *denti*	MN025578	FMNH-167770	Gabon	6
Rhinolophus cf. *denti*	MN025577	FMNH-219476	DRC	6
Rhinolophus euryale	EU436671	EBD-24814	Spain	16
Rhinolophus euryotis	JN106276	421	Sulawesi	10
Rhinolophus ferrumequinum 1	KC579399	ferCre3378	Crete	3
Rhinolophus ferrumequinum 1	KC579397	ferMor2648	Morocco	3
Rhinolophus ferrumequinum 3	KC579376	pb2772	China	3
Rhinolophus ferrumequinum 3	AB085724	-	Japan	11
Rhinolophus fumigatus	KC579373	pb3511	Benin	3
Rhinolophus fumigatus	MN025681	FMNH-151195	Tanzania	6
Rhinolophus fumigatus	EU436677	CM-97948	Kenya	16
Rhinolophus fumigatus	KC579371	MW3048	Malawi	3
Rhinolophus gorongosae	MN025550	DM-14816	Mozambique	6
Rhinolophus hildebrandtii 1	EU436676	FMNH-151422	Tanzania	16
Rhinolophus hildebrandtii 2	MN025728	FMNH-232107	Uganda	6
Rhinolophus hipposideros	KU531352	SJPspC117	Bulgaria	7

Rhinolophus hipposideros	KC978616	Rhip_344	Lebanon	7
Rhinolophus hipposideros	KC978349	Rhip_1018	Tunisia	7
Rhinolophus horaceki	KC579374	PV-2013	Libya	3
Rhinolophus landeri	FJ457612	IVB-S826	Senegal	3
Rhinolophus lepidus	KX467576	YN-016	China	9
Rhinolophus lobatus	MN025731	FMNH-228940	Mozambique	6
Rhinolophus macrotis	EF517312	B00011	China	5
Rhinolophus marshalli	EU434938	-	China	14
Rhinolophus mehelyi	EU436672	EBD-24813	Spain	16
Rhinolophus monoceros	DQ297576	A19 ChenSF	Taiwan	8
Rhinolophus paradoxolophus	KY652897	VN3477	Vietnam	15
Rhinolophus pearsonii	DQ297587	FlW004 ZhangSY	China	8
Rhinolophus philippinensis	GU724957	TK152938	Borneo	1
Rhinolophus pusillus	DQ297574	18 Zhang SY	China	8
Rhinolophus rex	EU075214	yn06x84	China	13
Rhinolophus rhodesiae	MN025733	FMNH-228942	Mozambique	6
Rhinolophus rouxii	HM590030	Rrmk06	India	4
Rhinolophus ruwenzorii	EU436679	FMNH-144309	Uganda	16
Rhinolophus shameli	JN106269	HNMH-2005.81.7	Cambodia	10
Rhinolophus simulator 1	MN025739	FMNH-191588	Malawi	6
Rhinolophus simulator 1	EU436670	FMNH-153928	Tanzania	16
Rhinolophus simulator 1	MN025748	FMNH-197799	Tanzania	6
Rhinolophus simulator 2	MN025756	FMNH-198128	Tanzania	6
Rhinolophus sinicus	EF517303	CA054	China	5
Rhinolophus subrufus	AB444720	-	Philippines	2
Rhinolophus swinnyi	KU531373	Rsw01KWT	Africa	7
Rhinolophus swinnyi	KU531375	Rsw02KWT	Africa	7
Rhinolophus thomasi	EU434943	-	China	14
Rhinolophus virgo	JN106309	CMNH-3302	Philippines	10
Rhinolophus willardi	MN025759	FMNH-195084	DRC	6
Rhinolophus xinanzhongguoensis	EU391626	KIZ-505003	China	16
Rhinolophus xinanzhongguoensis	EU750753	ROM-117760	China	16
Rhinolophus landeri	KU531354	Rsw01MPC	Zimbabwe	7
Rhinolophus sp. nov.	MN025579	FMNH-191585	Malawi	6
Rhinolophus sp. nov.	MN025580	FMNH-177108	Mozambique	6
Rhinolophus sp. nov.	MN025581	FMNH-177109	Mozambique	6
Rhinolophus sp. nov.	MN025582	FMNH-177214	Mozambique	6
Rhinolophus sp. nov.	MN025583	FMNH-177694	Tanzania	6

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APPENDIX S2. Additional morphological and craniodental features and comparisons

FIG. A1. Close-up of the lower lip of the holotype of *R. namuli* sp. nov. (MHNG 1971.068), showing three well-defined mental grooves (marked with arrows)

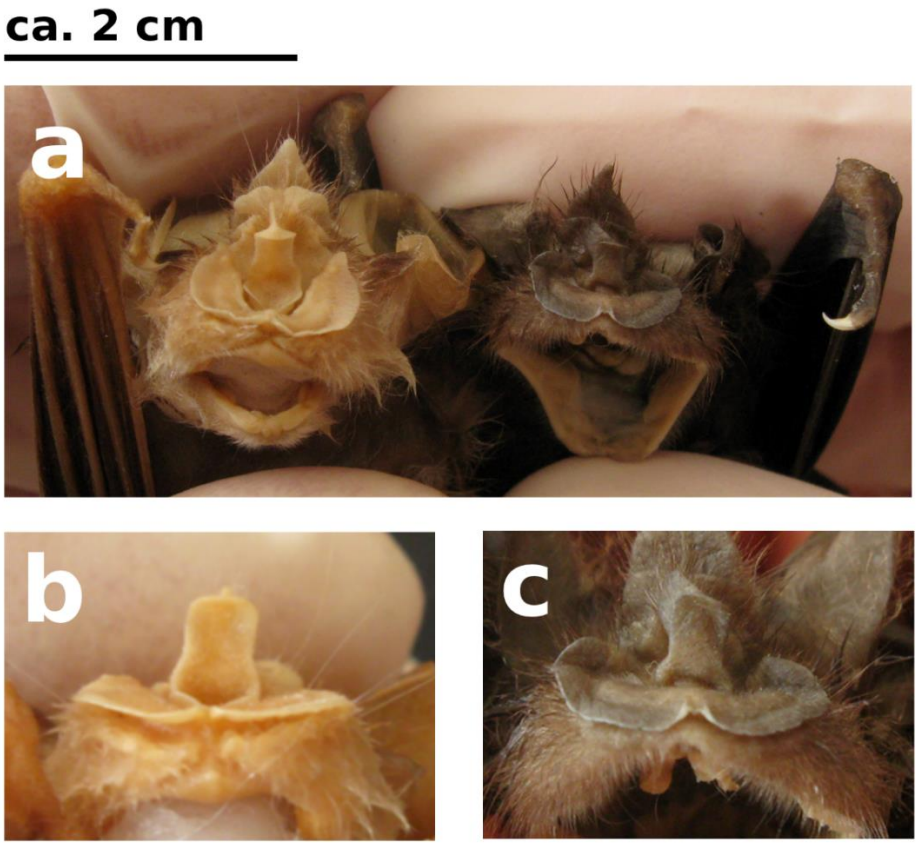

FIG. A2. Close-up of the lancet (a) and sella (b and c) for *R. maendeleo* (left, holotype, SMF 79.643) and *R. namuli* sp. nov. (right, holotype, MHNG 1971.068). The lancet of *R. namuli* sp. nov. is concave with a narrower, rounded tip (hastate) in comparison to *R. maendeleo*, which bears a near straight-sided lancet and tapered pointed tip

FIG. A3. Comparison of noseleaf structure, in particular the shape of the lancet (marked with arrows), in living examples of *R. namuli* sp. nov. (left; female, MHNG 1971.067) and *R. simulator* captured on Mount Mulanje in Malawi (right; female above, field number ML 378, male below, museum accession number MHNG 1971.066). *R. simulator* bears a hastate lancet characteristic of the *capensis*-group (concave, narrow rounded tip), which *R. namuli* sp. nov. shares (as oppose to a non-hastate lancet in the *adami*-group)

FIG. A4. Close-up of the bony bar (marked with an arrow) forming the interorbital foramena of the holotype of *R namuli* sp. nov. (MHNG 1971.068). Picture also illustrates the bulbous nasal swellings

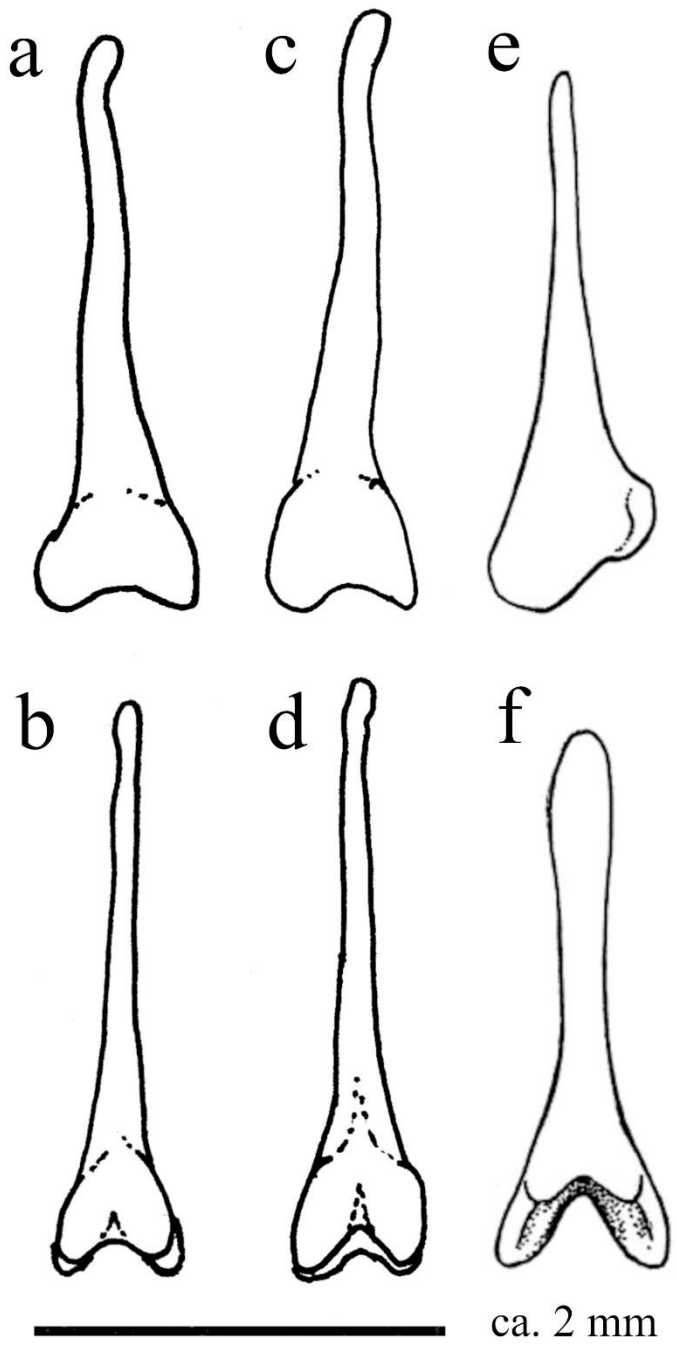

FIG. A5. Comparison of the bacular morphology of *R. namuli* sp. nov and *R. maendeleo*. Lateral view shown in the upper row (a, c, e), ventral view in the bottom row (b, d, f). Specimens used for the illustrations are the *R. namuli* sp. nov. holotype MHNG 1971.168 (a and b) and paratype MHNG 1971.069 (c and d), and the holotype of *R. maendeleo* SMF 79643 (e and f). Illustration of *R. maendeleo* is reproduced from Kock *et al*. (2000: KOCK, D., G. CSORBA, and K. M. HOWELL. 2000. *Rhinolophus maendeleo* n. sp. from Tanzania, a horseshoe bat noteworthy for its systematics and biogeography. Senckenbergiana Biologica, 80: 233–239)

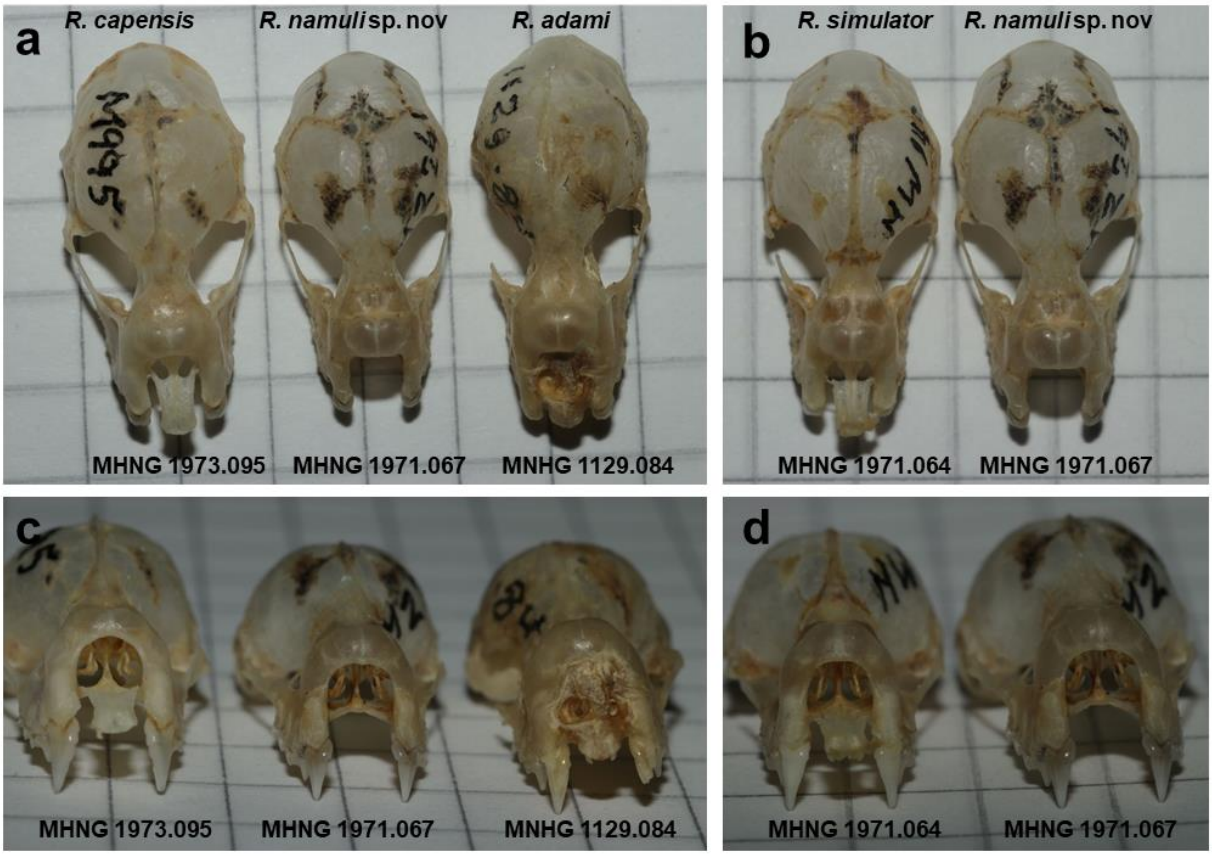

FIG. A6. Comparison of the skull shape in dorsoventral view between *R. maendeleo*, *R. capensis*, *R. namuli* sp. nov. and *R. adami* (a) and between *R. simulator* and *R. namuli* sp. nov. (b), and frontal view of the rostral inflation for the two groups (c and d, respectively)

APPENDIX S3 in available in a separate, Excel file.