

Appendix 7: Summary of Characteristic Information

Appendix 7a: Echolocation call Parameters from Literature

ACR taxon - the taxon names as used in the current African Chiroptera Report.

ind.: the number of individuals used to record echolocation from, if indicated the number recorded in different contexts is shown, and what sex and age (j. = juvenile, a. = adult, f = female, m = male) the individuals where.

calls: the number of calls on which the analysis of the different echolocation parameters was based.

Duration of the call and interpulse interval in milliseconds.

Lowest and highest frequency, frequency with the most energy and bandwidth in kHz. * - fundamental frequency not first harmonic. ** - frequency at the knee values from Anabat recordings.

Band: frequency bandwidth.

Where available the call parameter information given is the mean, in brackets the standard deviation, then the range.

Reference of the publication from which the information was taken.

ACR Taxon	Identification	Locality	Context	# ind.	# calls	Duration (msec)	Int. interval (msec)	Lowest freq. (kHz)	Highest freq. (kHz)	Freq. Most energy (kHz)	Band (kHz)	Reference
CHIROPTERA	<i>Molossidae</i>	Kenya: Taita	4		3	20.7 (0.7) 17.9-22.6		11.6 (0.3) 11.3-11.8	14.9 (1.2) 13.5-15.8	12.5 (0.4) 12.3-12.6		Taylor et al. (2005) Originally identified as "unknown Molossid"
<i>Rousettus aegyptiacus</i>	<i>Rousettus aegyptiacus</i>											von Hebert (1985)
<i>Rousettus aegyptiacus</i>	<i>Rousettus aegyptiacus</i>	UK: Tropical World Zoo	10	5	10							Holland et al. (2004a)
<i>Asellia tridens</i>	<i>Asellia tridens</i>	Egypt: near Cairo	1	11	5				115-121			Pye (1972)
<i>Asellia tridens</i>	<i>Asellia tridens</i>	The Gambia: Georgetown, near	2	15 j/f	10							Jones et al. (1993)
<i>Asellia tridens</i>	<i>Asellia tridens</i>	The Gambia: Georgetown, near	2		14							Jones et al. (1993)
<i>Asellia tridens</i>	<i>Asellia tridens</i>	The Gambia: Georgetown, near	2	9 j/m	10							Jones et al. (1993)
<i>Asellia tridens</i>	<i>Asellia tridens</i>	The Gambia: Georgetown, near	2	20 a/f	10							Jones et al. (1993)
<i>Asellia tridens</i>	<i>Asellia tridens</i>	The Gambia: Georgetown, near	2	4 a/m	10							Jones et al. (1993)
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	Kenya: Shimoni cave	15	12	48				146-160			Pye (1972)

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<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	Uganda: Entebbe	1	8	48				145-153			Pye (1972)
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	Kenya: Shimoni cave	1	4	48				147-155			Pye (1972)
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	Kenya: Masalani						155	155			O'Shea and Vaughan (1980)
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	South Africa: Pafuri	7 + 12	5 & 20	7			105	138			Aldridge and Rautenbach (1987)
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	The Gambia: Georgetown, near	2	4 m	10							Jones et al. (1993)
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	The Gambia: Georgetown, near	2	2 f	10							Jones et al. (1993)
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	South Africa: Jozini	7		14							Taylor (1999b)
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	Guinea: Simandou Range	1	3					106.2-164.1			Fahr and Ebigo (2003) Originally identified as <i>Hipposideros cf. caffer</i>
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	Kenya: TDC	4	1	17	6 (0.2) 6-7	7.9 (1) 10-Julb	136 (1.4) 133-139	157 (0.2) 157	156		Taylor et al. (2005)
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	Swaziland:	1	6 f	85				142.9 (1.39) 140.4-145.5			Monadjem et al. (2007a)

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<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	Swaziland:	1	1 m	3				145.0 (0.76) 144.1–145.5			Monadjem et al. (2007a)
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	Swaziland:	1	7	88				143.0 (1.43) 140.4–145.5			Monadjem et al. (2007a)
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>			10							71	Monadjem et al. (2010d) two harmonics
<i>Hipposideros fuliginosus</i>	<i>Hipposideros fuliginosus</i>	Guinea: Simandou Range	1	6								Fahr and Ebigo (2003)
<i>Hipposideros ruber</i>	<i>Hipposideros caffer</i>	Nigeria: Shagunu	1	3	30				130–133			Pye (1972) Re-identified by Jones et al. (1993) as <i>Hipposideros ruber</i> .
<i>Hipposideros ruber</i>	<i>Hipposideros ruber</i>	Zimbabwe: Sengwa	5	5	7			105	138	138		Fenton and Bell (1981)
<i>Hipposideros ruber</i>	<i>Hipposideros ruber</i>	The Gambia: three diff. loc.	2	20 m	10							Jones et al. (1993)
<i>Hipposideros ruber</i>	<i>Hipposideros ruber</i>	The Gambia: three diff. loc.	2	8 f	10							Jones et al. (1993)
<i>Hipposideros ruber</i>	<i>Hipposideros ruber</i>	Guinea: Simandou Range	1	1					146.7			Fahr and Ebigo (2003) Originally identified as <i>Hipposideros cf. ruber</i> Pye (1972)
<i>Macronycteris commersoni</i>	<i>Hipposideros commersoni</i>	Kenya: Shimoni cave	1	12					56			Bimodal distribution of frequencies correlated with forearm length

[illegible]

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<i>Rhinolophus blasii</i>	<i>Rhinolophus blasii</i>	Swaziland:	1	1	115				86.6 (0.23) 86.0-87.0			Monadjem et al. (2007a)
<i>Rhinolophus blasii</i>	<i>Rhinolophus blasii</i>			2								Monadjem et al. (2010d) two to third harmonic
<i>Rhinolophus capensis</i>	<i>Rhinolophus capensis</i>	South Africa:	3	28								Jacobs et al. (2007a)
<i>Rhinolophus capensis</i>	<i>Rhinolophus capensis</i>			10								Monadjem et al. (2010d)
<i>Rhinolophus clivosus</i>	<i>Rhinolophus clivosus</i>	Swaziland: Mlawula	1		10							Taylor (1999b)
<i>Rhinolophus clivosus</i>	<i>Rhinolophus clivosus</i>	South Africa: Dundee	1		21							Taylor (1999b)
<i>Rhinolophus clivosus</i>	<i>Rhinolophus clivosus</i>	South Africa:	3	30								Jacobs et al. (2007a)
<i>Rhinolophus clivosus</i>	<i>Rhinolophus clivosus</i>	Swaziland:		1 f	285				92.5 (0.04) 92.5-93.0			Monadjem et al. (2007a)
<i>Rhinolophus clivosus</i>	<i>Rhinolophus clivosus</i>	Swaziland:	1 + 5	4 & 1	432				91.9 (0.65) 89.9-93.0			Monadjem et al. (2007a)
<i>Rhinolophus clivosus</i>	<i>Rhinolophus clivosus</i>	Swaziland:		4 m	147				91.6 (0.61) 89.9-93.0			Monadjem et al. (2007a)

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<i>Rhinolophus clivosus</i>	<i>Rhinolophus clivosus</i>			10								Monadjem et al. (2010d)
<i>Rhinolophus darlingi</i>	<i>Rhinolophus Darlingi</i>	South Africa:	3	10								Jacobs et al. (2007a)
<i>Rhinolophus darlingi</i>	<i>Rhinolophus Darlingi</i>	Swaziland:	1 + 4	2 & 1	142				85.8 (0.36) 84.7-86.5			Monadjem et al. (2007a)
<i>Rhinolophus darlingi</i>	<i>Rhinolophus darlingi</i>			10								Monadjem et al. (2010d) two to third harmonic
<i>Rhinolophus deckenii</i>	<i>Rhinolophus deckenii</i>									72		Monadjem et al. (2010d)
<i>Rhinolophus denti</i>	<i>Rhinolophus Denti</i>	Zimbabwe: Sengwa	5	1				70	95			Fenton (1975)
<i>Rhinolophus denti</i>	<i>Rhinolophus Denti</i>	Zimbabwe: Sengwa	5	3	15			82				Fenton and Bell (1981)
<i>Rhinolophus denti</i>	<i>Rhinolophus Denti</i>	South Africa:	3	10								Jacobs et al. (2007a)
<i>Rhinolophus denti</i>	<i>Rhinolophus denti</i>			10								Monadjem et al. (2010d)
<i>Rhinolophus fumigatus</i>	<i>Rhinolophus fumigatus</i>	Zimbabwe: Sengwa	5	2				50	60			Fenton (1975)

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<i>Rhinolophus fumigatus</i>	<i>Rhinolophus fumigatus</i>	South Africa: Pafuri	7	6		15		50	55			Aldridge and Rautenbach (1987)
<i>Rhinolophus fumigatus</i>	<i>Rhinolophus fumigatus</i>	South Africa:	3	2								Jacobs et al. (2007a)
<i>Rhinolophus fumigatus</i>	<i>Rhinolophus fumigatus</i>			2								Monadjem et al. (2010d)
<i>Rhinolophus auieneensis</i>	<i>Rhinolophus auieneensis</i>	Guinea: Simandou Range	1	2					85.3-85.4			Fahr and Ebigo (2003)
<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus Hildebrandtii</i>	Zimbabwe: Sengwa	5	2				45	55			Fenton (1975) Originally identified as <i>Rhinolophus hildebrandtii</i>
<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus Hildebrandtii</i>	Zimbabwe: Sengwa	7	2		15						Fenton and Bell (1981) Originally identified as <i>Rhinolophus hildebrandtii</i>
<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus Hildebrandtii</i>	Kenya: Mara River	4	1	12	45.2 (6.2) 33-53	55 (5) 49-67	40.6 (0.9) 39-42	42.3 (0.2) 42-43	42.1 (0.3) 41-42		Taylor et al. (2005) Originally identified as <i>Rhinolophus cf. hildebrandtii</i>
<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus Hildebrandtii</i>	Kenya: Rukanga	4	1	24	57.7 (6.8) 40-71	64 (15) 37-101	42.4 (0.1) 41.9-42.4	43.2 (0.1) 42.9-42.3b	42.8 (0.1) 42.7-42.9		Taylor et al. (2005) Originally identified as <i>Rhinolophus cf. hildebrandtii</i>
<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus Hildebrandtii</i>	Kenya: Bungule	4	1	19	46.9 (7.2) 24-55	44 (21) 16-88	42 (0.1) 41.9-42.2	42.4 (0) 42.2-42.4	42.2 (0.1) 42.2-42.4		Taylor et al. (2005) Originally identified as <i>Rhinolophus cf. hildebrandtii</i>
<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus Hildebrandtii</i>	South Africa:	3	10								Jacobs et al. (2007a) Originally identified as <i>Rhinolophus hildebrandtii</i>

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<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus hildebrandtii</i>			1							46	Monadjem et al. (2010d) Taylor et al. 2004
<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus hildebrandtii</i>	Zimbabwe: Lutope Gorge									33	Monadjem et al. (2010d)
<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus hildebrandtii</i>										35	Monadjem et al. (2010d) Mozambique Mondajem (unpubl.)
<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus hildebrandtii</i>										40	Monadjem et al. (2010d) Schoeman and Stoffberg (unpubl.)
<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus hildebrandtii</i>			2		41					44	Monadjem et al. (2010d) Pafuri
<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus hildebrandtii</i>			17							37	Monadjem et al. (2010d) Taylor et al. 2003
<i>Rhinolophus hildebrandtii</i>	<i>Rhinolophus hildebrandtii</i>			10								Monadjem et al. (2010d) Sudwala
<i>Rhinolophus landeri</i>	<i>Rhinolophus landeri</i>	Kenya: Masalani	1					55	55			O'Shea and Vaughan (1980)
<i>Rhinolophus landeri</i>	<i>Rhinolophus landeri</i>	South Africa: Pafuri	7	5		15		105	110			Aldridge and Rautenbach (1987)
<i>Rhinolophus landeri</i>	<i>Rhinolophus landeri</i>	Guinea: Simandou Range	1	1					103.3			Fahr and Ebigo (2003)

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<i>Rhinolophus swinnyi</i>	<i>Rhinolophus swinnyi</i>			10								Monadjem et al. (2010d)
<i>Cloeotis percivali</i>	<i>Cloeotis percivali</i>	Zimbabwe: Sengwa	5	1	3			183	212	212		Fenton and Bell (1981)
<i>Cloeotis percivali</i>	<i>Cloeotis percivali</i>	South Africa: Jozini	1		13				104.2 (0.4)*			Taylor (1999b)
<i>Cloeotis percivali</i>	<i>Cloeotis percivali</i>	Swaziland:	1	2	124				103.4 (0.74) 101.6-105.3*			Monadjem et al. (2007a)
<i>Cloeotis percivali</i>	<i>Cloeotis percivali</i>	Swaziland:	1	1 f	34				102.9 (0.52) 102.2-104.2*			Monadjem et al. (2007a)
<i>Cloeotis percivali</i>	<i>Cloeotis percivali</i>	Swaziland:	1	1 m	90				103.7 (0.71) 101.6-105.3*			Monadjem et al. (2007a)
<i>Cloeotis percivali</i>	<i>Cloeotis percivali</i>			6							104	Monadjem et al. (2010d) two harmonics
<i>Coleura afra</i>	<i>Coleura afra</i>	Kenya: Marungu Cave	4	1	11	7.7 (0.5) 7.0-8.0	180 (52) 98-216	30.7 (1.4) 29.6-33.6	32.2 (1.8) 30.7-35.8	31.2 (1.8) 30-34		Taylor et al. (2005)
<i>Coleura afra</i>	<i>Coleura afra</i>	Kenya: Bungule	4	1	25	3.8 (0.6) 2.9-5.4	67.0 (46) 14-221	31.1 (1.2) 29.5-33.6	35.3 (1.7) 33.5-38.4	34.2 (1.7) 31.5-36.4		Taylor et al. (2005)
<i>Coleura afra</i>	<i>Coleura afra</i>	Kenya: TDC	4	1	13	10.7 (1.2) 8.3-13.0	150 (65) 77-250	33.1 (1.9) 30.5-35.4	35.3 (1.7) 33.5-38.4	34.2 (1.7) 31.5-36.4		Taylor et al. (2005)

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<i>Coleura afra</i>	<i>Coleura afra</i>			3								Monadjem et al. (2010d) second harmonic often present
<i>Taphozous mauritanus</i>	<i>Taphozous mauritanus</i>	Zimbabwe: Sengwa	5	2				30	50			Fenton (1975)
<i>Taphozous mauritanus</i>	<i>Taphozous mauritanus</i>	Zimbabwe: Sengwa	7	1	15			12	55	25		Fenton and Bell (1981)
<i>Taphozous mauritanus</i>	<i>Taphozous mauritanus</i>	South Africa: Pafuri	7	2	20			15	59			Aldridge and Rautenbach (1987)
<i>Taphozous mauritanus</i>	<i>Taphozous mauritanus</i>	South Africa: Durban, near	7		18			9.9	15.6	12.8	5.7	Taylor (1999b)
<i>Taphozous mauritanus</i>	<i>Taphozous mauritanus</i>	South Africa: Durban, near	7		5							Taylor (1999b)
<i>Taphozous mauritanus</i>	<i>Taphozous mauritanus</i>	Swaziland: Mlawula	7		12							Taylor (1999b)
<i>Taphozous mauritanus</i>	<i>Taphozous mauritanus</i>	Swaziland: Mlawula	7		5							Taylor (1999b)
<i>Taphozous mauritanus</i>	<i>Taphozous mauritanus</i>	South Africa: Durban	7		8							Taylor (1999b)
<i>Taphozous mauritanus</i>	<i>Taphozous mauritanus</i>			6								Monadjem et al. (2010d) second and third harmonic can be present

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<i>Nycteris grandis</i>	<i>Nycteris grandis</i>			7	32							Monadjem et al. (2010d) peaks 40 62 84
<i>Nycteris hispida</i>	<i>Nycteris hispida</i>	Kenya: Mara River	1		16	31.1 (19) 8.0-56.0	142 (57) 52-310	36.6 (0.5) 30.5-35.4	39.8 (1.2) 38.0-42.0	38.2 (0.4) 38-39		Taylor et al. (2005)
<i>Nycteris hispida</i>	<i>Nycteris hispida</i>			2								Monadjem et al. (2010d) 40 60 kHz
<i>Nycteris macrotis</i>	<i>Nycteris macrotis</i>			2								Monadjem et al. (2010d) additional peaks 29 49 70
<i>Nycteris thebaica</i>	<i>Nycteris thebaica</i>	Zimbabwe: Sengwa	5	6				70	95			Fenton (1975)
<i>Nycteris thebaica</i>	<i>Nycteris thebaica</i>	Zimbabwe: Sengwa	5	3		2		61	97	94		Fenton and Bell (1981)
<i>Nycteris thebaica</i>	<i>Nycteris thebaica</i>	South Africa: Pafuri	7	4		2		61	97			Aldridge and Rautenbach (1987)
<i>Nycteris thebaica</i>	<i>Nycteris thebaica</i>	Swaziland: Mlawula	7		9							Taylor (1999b)
<i>Nycteris thebaica</i>	<i>Nycteris thebaica</i>			10								Monadjem et al. (2010d) add peaks 50 73 113
<i>Nycteris woodi</i>	<i>Nycteris woodi</i>	Zimbabwe: Sengwa	5	5		2		35	55	43		Fenton and Bell (1981)

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<i>Nycteris woodi</i>	<i>Nycteris woodi</i>			5		2				43	20	Monadjem et al. (2010d)
<i>Chaerephon</i>	<i>Chaerephon</i>	South Africa:	6 + 7		60							Fenton et al. (2004)
<i>Chaerephon ansorgei</i>	<i>Chaerephon ansorgei</i>	Zimbabwe: Sengwa	7	5		15		16	28	17.8		Fenton and Bell (1981) Originally identified as <i>Tadarida ansorgei</i>
<i>Chaerephon ansorgei</i>	<i>Chaerephon ansorgei</i>			5		15				17.8		Monadjem et al. (2010d) Tow individuals: Peak freq: 24.2±1.58; Duration: 6.1±0.88, 2nd and third harmonics may be present
<i>Chaerephon bivittatus</i>	<i>Chaerephon bivittatus</i>			1	16							Monadjem et al. (2010d) second and third harmonic can be present
<i>Chaerephon chapini</i>	<i>Chaerephon chapini</i>	Zimbabwe: Sengwa	7	5		10		19	27	20.5		Fenton and Bell (1981) Originally identified as <i>Tadarida chapini</i>
<i>Chaerephon chapini</i>	<i>Chaerephon chapini</i>			5		10				20	8	Monadjem et al. (2010d)
<i>Chaerephon nigeriae nigeriae</i>	<i>Chaerephon nigeriae</i>	Zimbabwe: Sengwa	5	3				25	80			Fenton (1975) Originally identified as <i>Tadarida nigeriae</i>
<i>Chaerephon nigeriae nigeriae</i>	<i>Chaerephon nigeriae</i>	Zimbabwe: Sengwa	7	3		10		16	26	17		Fenton and Bell (1981) Originally identified as <i>Tadarida nigeriae</i>
<i>Chaerephon nigeriae</i>	<i>Chaerephon nigeriae</i>			3		10				17	10	Monadjem et al. (2010d)

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<i>Chaerephon pumilus</i>	<i>Chaerephon pumilus</i>	Kenya: Kivuko	4	1	16	10.7 (2) 6.3-14.8	195 (116) 16-386	24.4 (1.4) 23.1-28.5	28.7 (3) 25.1-36.3	25.6 (1.7) 23.8-31.		Taylor et al. (2005)
<i>Chaerephon pumilus</i>	<i>Chaerephon pumilus</i>			11								Monadjem et al. (2010d) second and third harmonic can be present
<i>Mops (Mops) condylurus</i>	<i>Mops (Mops) condylurus</i>	South Africa: St Lucia	14		6							Taylor (1999b)
<i>Mops (Mops) condylurus</i>	<i>Mops condylurus</i>			10								Monadjem et al. (2010d)
<i>Mops (Mops) midas</i>	<i>Mops midas</i>	South Africa: Pafuri	6			12		?	30			Aldridge and Rautenbach (1987) Originally identified as <i>Tadarida midas</i>
<i>Mops (Mops) midas</i>	<i>Mops midas</i>			3								Monadjem et al. (2010d) Gauteng, 30kHz and 12ms large - <i>Mops midas</i> two call types: Monadjem et al. (2010d) Gauteng, 30kHz and 12ms large - <i>Mops midas</i> two call types: low peak
<i>Mops (Mops) midas</i>	<i>Mops midas</i>			3								15.0+ 0.3 n=3 & 11.5 + 0.1 n=2, narrow bandwidth - Monadjem et al. (2010d)
<i>Mops (Mops) niveiventris</i>	<i>Mops niveiventris</i>			6								Fenton and Bell (1981)
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	Zimbabwe: Sengwa	7	1		5		10	17	13		Taylor (1999b)
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	South Africa: Durban	6		6							

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<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	South Africa: Durban North	7		3							Taylor (1999b)
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	South Africa: Durban	6	1	10							Fenton et al. (2004)
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	South Africa: Durban	6	1	10							Fenton et al. (2004)
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	South Africa: Durban	6	1	10							Fenton et al. (2004)
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	South Africa: Durban	6	1	10							Fenton et al. (2004)
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	South Africa: Durban	6	1	10							Fenton et al. (2004)
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	South Africa: Durban	6	1	10							Fenton et al. (2004)
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	South Africa: Durban	6	1	10							Fenton et al. (2004)
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	South Africa: Durban	6 + 7		60							Fenton et al. (2004)
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	South Africa: Durban	6	1	10							Fenton et al. (2004)
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>	South Africa: Durban	4	1	2	9 (-) 8-10		10.5 (-) 10-11	16.5 (-) 16-17	12 (-) 12		Taylor et al. (2005)

ACR Taxon	Identification	Locality	Context	# ind.	# calls	Duration (msec)	Int. interval (msec)	Lowest freq. (kHz)	Highest freq. (kHz)	Freq. Most energy (kHz)	Band (kHz)	Reference
<i>Otomops martiensseni</i>	<i>Otomops martiensseni</i>			250								Monadjem et al. (2010d)
<i>Sauromys petrophilus</i>	<i>Sauromys petrophilus</i>			10								Monadjem et al. (2010d) second can be present
<i>Tadarida aegyptiaca</i>	<i>Tadarida aegyptiaca</i>	Zimbabwe: Sengwa	7	5		15		15	26	18		Fenton and Bell (1981)
<i>Tadarida aegyptiaca</i>	<i>Tadarida aegyptiaca</i>	South Africa: Biggarsberg	7		3							Taylor (1999b)
<i>Tadarida aegyptiaca</i>	<i>Tadarida aegyptiaca</i>	South Africa: Durban	10		21							Taylor (1999b)
<i>Tadarida aegyptiaca</i>	<i>Tadarida aegyptiaca</i>	South Africa: Durban	13		2							Taylor (1999b)
<i>Tadarida aegyptiaca</i>	<i>Tadarida aegyptiaca</i>	South Africa:	6 + 7		10							Fenton et al. (2004)
<i>Tadarida aegyptiaca</i>	<i>Tadarida aegyptiaca</i>			10								Monadjem et al. (2010d)
<i>Tadarida fulminans</i>	<i>Tadarida fulminans</i>	Zimbabwe: Sengwa	7	1		20		14	27	17		Fenton and Bell (1981)
<i>Tadarida fulminans</i>	<i>Tadarida fulminans</i>	South Africa: Pafuri	7	1		20		14	27			Aldridge and Rautenbach (1987)

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<i>Tadarida fulminans</i>	<i>Tadarida fulminans</i>			1		15				17	13	Monadjem et al. (2010d)
<i>Tadarida ventralis</i>	<i>Tadarida ventralis</i>	Kenya: TDC	4		11	9 (3.2) 4.6-15.4	104 (34) 30-145	18 (2.7) 14.3-22.4	22 (2.1) 18.7-25.8	19.3 (2.3) 16-22.8		Taylor et al. (2005)
<i>Tadarida ventralis</i>	<i>Tadarida ventralis</i>			1	11							Monadjem et al. (2010d) second harmonic often present
<i>Cistugo lesueuri</i>	<i>Cistugo lesueuri</i>			5								Monadjem et al. (2010d)
<i>Cistugo seabrae</i>	<i>Cistugo seabrae</i>			2								Monadjem et al. (2010d)
<i>Miniopterus fraterculus</i>	<i>Miniopterus fraterculus</i>	Kenya: Masalani	5					45	90			O'Shea and Vaughan (1980)
<i>Miniopterus fraterculus</i>	<i>Miniopterus fraterculus</i>			11								Monadjem et al. (2010d) second harmonic may be present
<i>Miniopterus inflatus inflatus</i>	<i>Miniopterus inflatus inflatus</i>									104-45		Monadjem et al. (2010d)
<i>Miniopterus inflatus inflatus</i>	<i>Miniopterus inflatus inflatus</i>									104-45		Monadjem et al. (2010d)
<i>Miniopterus natalensis</i>	<i>Miniopterus schreibersii</i>	Zimbabwe: Sengwa	5	3				50	80			Fenton (1975)

ACR Taxon	Identification	Locality	Context	# ind.	# calls	Duration (msec)	Int. interval (msec)	Lowest freq. (kHz)	Highest freq. (kHz)	Freq. Most energy (kHz)	Band (kHz)	Reference
<i>Miniopterus natalensis</i>	<i>Miniopterus natalensis</i>	Kenya: Masalani	5					45	85			O'Shea and Vaughan (1980)
<i>Miniopterus natalensis</i>	<i>Miniopterus schreibersii</i>	South Africa: Kersefontein	7		6							Taylor (1999b)
<i>Miniopterus natalensis</i>	<i>Miniopterus schreibersii</i>	South Africa: Shongweni	1		6							Taylor (1999b)
<i>Miniopterus natalensis</i>	<i>Miniopterus schreibersii</i>	South Africa: De Hoop	7		195	4.4		37.5	51.6			Taylor (1999b)
<i>Miniopterus natalensis</i>	<i>Miniopterus natalensis</i>			10								Monadjem et al. (2010d) second harmonic may be present
<i>Kerivoula argentata</i>	<i>Kerivoula argentata</i>	Zimbabwe: Senoia	5	1		2		85	120	90-118		Fenton and Bell (1981)
<i>Kerivoula argentata</i>	<i>Kerivoula argentata</i>					2				90-118	35	Monadjem et al. (2010d) room flow PkHz 92, 36kHz bandwidth and 2.3 ms duration, K. <i>argenata</i> calls swept lower down from ~120kHz but is similar to <i>L. lanosa</i>
<i>Kerivoula lanosa</i>	<i>Kerivoula lanosa</i>											Monadjem et al. (2010d)
<i>Myotis bocagii</i>	<i>Myotis bocagei</i>			5								Monadjem et al. (2010d)
<i>Myotis tricolor</i>	<i>Myotis tricolor</i>	South Africa: Shongweni	10		11							Taylor (1999b)

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<i>Myotis tricolor</i>	<i>Myotis tricolor</i>			10								Monadjem et al. (2010d)
<i>Myotis welwitschii</i>	<i>Myotis welwitschii</i>	Zimbabwe: Sengwa	5	1				30	75			Fenton (1975)
<i>Myotis welwitschii</i>	<i>Myotis welwitschii</i>			1		2.4				34	19.4	Monadjem et al. (2010d)
<i>Scotophilus dinganii</i>	<i>Scotophilus dinganii</i>	South Africa: Pafuri	7 + 12	6 & 9		5		35	58			Aldridge and Rautenbach (1987)
<i>Scotophilus dinganii</i>	<i>Scotophilus dinganii</i>	South Africa: Biggarsberg	9		6							Taylor (1999b)
<i>Scotophilus dinganii</i>	<i>Scotophilus dinganii</i>	South Africa: Durban	5		5							Taylor (1999b)
<i>Scotophilus dinganii</i>	<i>Scotophilus dinganii</i>	South Africa: Biggarsberg	8		9							Taylor (1999b)
<i>Scotophilus dinganii</i>	<i>Scotophilus dinganii</i>	South Africa: Durban North	7		7							Taylor (1999b)
<i>Scotophilus dinganii</i>	<i>Scotophilus dinganii</i>	Kenya:	4	1	11	6.1 (1) 4.6-8.3	97.1 (11) 83-115	30.9 (1) 29.9-33.1	34.4 (4.1) 32.9-36.8	32.4 (1.5) 30.7-35.3		Taylor et al. (2005)
<i>Scotophilus dinganii</i>	<i>Scotophilus dinganii</i>	Kenya:	4	1	18	6.6 (1.7) 4.5-10.4	108 (35) 73-203	30.5 (1.2) 28.5-33.1	37.3 (4.1) 32.9-49.0	32.3 (1.5) 29.5-35.3		Taylor et al. (2005)

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<i>Scotophilus dinganii</i>	<i>Scotophilus dinganii</i>			10								Monadjem et al. (2010d)
<i>Scotophilus leucogaster</i>	<i>Scotophilus cf. leucogaster</i>	Zambia: Kafue NP, Lufupa camp	1 + 4	3		6.34(0.91) 5.30-7.00	125.75(26.79) 106.90-144.70	39.99(1.75) 38.77-42.00	50.49(1.59) 48.67-51.6	42.37(1.88) 40.54-44.3		Kearney et al. (2010) call parameters for the individuals are available (see paper)
<i>Scotophilus nigrita</i>	<i>Scotophilus nigrita</i>	Zimbabwe: Sengwa	5	1				30	60			Fenton (1975)
<i>Scotophilus nigrita</i>	<i>Scotophilus nigrita</i>	Kenya: Masalani	5					34	72			O'Shea and Vaughan (1980)
<i>Scotophilus nigrita</i>	<i>Scotophilus nigrita</i>	Zimbabwe: Sengwa	7	2		15		28	55	30		Fenton and Bell (1981)
<i>Scotophilus viridis</i>	<i>Scotophilus viridis</i>	Zimbabwe: Sengwa	7	5		10		34	59	40		Fenton and Bell (1981)
<i>Scotophilus viridis</i>	<i>Scotophilus borbonicus</i>	South Africa: Pafuri	7 + 12	7 & 7		5		40	70			Aldridge and Rautenbach (1987)
<i>Scotophilus viridis</i>	<i>Scotophilus viridis</i>			5		10				40	25	Monadjem et al. (2010d)
<i>Eptesicus hottentotus</i>	<i>Eptesicus hottentotus</i>			10								Monadjem et al. (2010d)
<i>Glauconycteris variegata</i>	<i>Glauconycteris variegata</i>			1		2.3				41.1	21.1	Monadjem et al. (2010d) second harmonic may be present

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<i>Hypsugo anchietae</i>	<i>Hypsugo anchietae</i>			1		2.1				55.7	35.2	Monadjem et al. (2010d)
<i>Laephotis angolensis</i>	<i>Laephotis angolensis</i>	Zimbabwe: Sengwa	5	3				35	65			Fenton (1975)
<i>Laephotis angolensis</i>	<i>Laephotis angolensis</i>	Zimbabwe: Sengwa	7	4		5		32	55	33		Fenton and Bell (1981)
<i>Laephotis botswanae</i>	<i>Laephotis botswanae</i>			1		5				33	22	Monadjem et al. (2010d) second and third harmonics may be present
<i>Laephotis namibensis</i>	<i>Laephotis namibensis</i>			5								Monadjem et al. (2010d) second harmonic may be present
<i>Neoromicia</i>	<i>Neoromicia</i>	Kenya:	4		10	4.8 (0.8) 3.7-6.1	78.5 (3) 74-84	46.4 (0.4) 45.9-47.1	48.3 (0.8) 47.6-49.8	47 (0.3) 46.8-47.8		Taylor et al. (2005)
<i>Neoromicia capensis</i>	<i>Eptesicus capensis</i>	Zimbabwe: Sengwa	5	6				35	70			Fenton (1975)
<i>Neoromicia capensis</i>	<i>Eptesicus capensis</i>	Zimbabwe: Sengwa	7	5		5		35	65	40		Fenton and Bell (1981)
<i>Neoromicia capensis</i>	<i>Eptesicus capensis</i>	South Africa: Pafuri	7 + 12	4 & 20		5		35	65			Aldridge and Rautenbach (1987)
<i>Neoromicia capensis</i>	<i>Eptesicus capensis</i>	South Africa: Durban	5		7							Taylor (1999b)

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<i>Neoromicia capensis</i>	<i>Eptesicus capensis</i>	South Africa: Vrolijkheid	7		11							Taylor (1999b)
<i>Neoromicia capensis</i>	<i>Neoromicia capensis</i>	Kenya: Mara River	4		6	3.8 (0.8) 3-5	111 (51) 76-214	42.2(0.4) 42-43	56 (6.3) 50-66	43.2 (0.4) 43-44		Taylor et al. (2005) Originally identified as <i>Neoromicia</i> cf. <i>capensis</i>
<i>Neoromicia capensis</i>	<i>Neoromicia capensis</i>			10								Monadjem et al. (2010d) second harmonic may be present
<i>Neoromicia nana</i>	<i>Pipistrellus nanus</i>	Zimbabwe: Sengwa	5	4				70	100			Fenton (1975)
<i>Neoromicia nana</i>	<i>Pipistrellus nanus</i>	Kenya: Masalani	5					65	115			O'Shea and Vaughan (1980)
<i>Neoromicia nana</i>	<i>Pipistrellus nanus</i>	Zimbabwe: Sengwa	7	3	4			62	90	70		Fenton and Bell (1981)
<i>Neoromicia nana</i>	<i>Pipistrellus nanus</i>	South Africa: Pafuri	7 + 12	5 & 20	5			62	90			Aldridge and Rautenbach (1987)
<i>Neoromicia nana</i>	<i>Neoromicia nanus</i>	South Africa: Jozini	7		4							Taylor (1999b)
<i>Neoromicia nana</i>	<i>Neoromicia nanus</i>	Kenya: Bungule	4		9	3.1 (0.8) 2-4		69.9 (0.6) 69-71	80.7 (3.4) 78-87	70.4 (0.7) 70-72		Taylor et al. (2005)
<i>Neoromicia nana</i>	<i>Neoromicia nanus</i>	Kenya: Mara	4	1	9	9.2 (0.7) 8.2-10.4	185 (47) 90-250	43.7 (0.3) 43.1-43.9	44.2 (0.2) 43.9-44.6	44.1 (0.2) 43.7-44.4		Taylor et al. (2005)

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<i>Neoromicia nana</i>	<i>Neoromicia nana</i>			10								Monadjem et al. (2010d)
<i>Neoromicia rendalli</i>	<i>Neoromicia rueppellii</i>	Zambia: Kafue NP, Lufupa camp	1 + 4	5		7.72(1.34) 6.00-9.33	131.73(76.26) 77.80-185.66	40.07(3.43) 36.30-45.12	60.04(7.31) 47.7-67.33	42.99(3.61) 39.30-47.48		Kearney et al. (2010) call parameters for the individuals are available (see paper)
<i>Neoromicia somalica</i>	<i>Eptesicus capensis</i>	Kenya: Masalani	5					35	70			O'Shea and Vaughan (1980)
<i>Neoromicia stanleyi</i>	<i>Eptesicus melckorum</i>	South Africa: Kersefontein	7		8							Taylor (1999b) Originally identified as <i>Eptesicus "melckorum"</i>
<i>Neoromicia tenuipinnis</i>	<i>Neoromicia tenuipinnis</i>					1.5				37-62		Monadjem et al. (2010d)
<i>Neoromicia zuluensis</i>	<i>Neoromicia zuluensis</i>			2								Monadjem et al. (2010d)
<i>Nycticeinops schlieffenii</i>	<i>Nycticeius schlieffenii</i>	Zimbabwe: Sengwa	5	6				40	75			Fenton (1975)
<i>Nycticeinops schlieffenii</i>	<i>Nycticeinops schlieffenii</i>	Kenya: Masalani	5					30	70			O'Shea and Vaughan (1980)
<i>Nycticeinops schlieffenii</i>	<i>Nycticeinops schlieffenii</i>	Zimbabwe: Sengwa	7	3		5		33	78	42		Fenton and Bell (1981)
<i>Nycticeinops schlieffenii</i>	<i>Nycticeinops schlieffenii</i>	South Africa: Pafuri	7 + 12	8 & 20		5		33	78			Aldridge and Rautenbach (1987)

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<i>Nycticeinops schlieffenii</i>	<i>Nycticeinops schlieffenii</i>	Swaziland: Mlawula	7		3							Taylor (1999b)
<i>Nycticeinops schlieffenii</i>	<i>Nycticeinops schlieffenii</i>	Kenya: Mara River	4	1	9	4.2 (0.5) 3.6-5.2		35.2 (1.9) 31.9-37.5	42.3 (5.4) 36.4-54.4	38.4 (1.8) 34.6-41.5		Taylor et al. (2005)
<i>Nycticeinops schlieffenii</i>	<i>Nycticeinops schlieffenii</i>	Zambia: Kafue NP, Lufupa camp	1 + 4	12		7.33(1.25) 4.55-9.00	88.51(8.71) 80.00-98.00	37.62(1.33) 34.92-39.50	53.28(5.30) 43.69-60.86	40.00(1.52) 37.58-42.85		Kearney et al. (2010) call parameters for the individuals are available (see paper)
<i>Nycticeinops schlieffenii</i>	<i>Nycticeinops schlieffenii</i>			2								Monadjem et al. (2010d) second and third harmonic can be present
<i>Pipistrellus hesperidus</i>	<i>Pipistrellus kuhlii</i>	Zimbabwe: Sengwa	5	4				45	85			Fenton (1975)
<i>Pipistrellus hesperidus</i>	<i>Pipistrellus hesperidus</i>	South Africa: St Lucia	7		6							Taylor (1999b)
<i>Pipistrellus hesperidus</i>	<i>Pipistrellus hesperidus</i>			10								Monadjem et al. (2010d) second and third harmonic can be present
<i>Pipistrellus rueppellii</i>	<i>Pipistrellus rueppellii</i>	Zimbabwe: Sengwa	7	8		8		40	70	45		Fenton and Bell (1981)
<i>Pipistrellus rueppellii</i>	<i>Pipistrellus rueppellii</i>	South Africa: Pafuri	7 + 12	5 & 0		4		40	70			Aldridge and Rautenbach (1987)
<i>Pipistrellus rueppellii</i>	<i>Pipistrellus rueppellii</i>	Kenya: Mara River	4		22	7 (1) 6-9	82.6 (27) 63-130	33.6 (0.6) 33-35	61 (4.4) 54-69	37.3 (0.8) 36-39		Taylor et al. (2005)

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<i>Pipistrellus rueppellii</i>	<i>Pipistrellus rueppellii</i>			1	22							Monadjem et al. (2010d) second harmonic often present
<i>Pipistrellus rusticus</i>	<i>Pipistrellus rusticus</i>	South Africa: Messina	5		15							Taylor (1999b)
<i>Pipistrellus rusticus</i>	<i>Pipistrellus rusticus</i>			10								Monadjem et al. (2010d) second and third harmonic can be present
<i>Scotoecus albigula</i>	<i>Scotoecus albigula</i>	Kenya: Bungule	4	1	8	4.5 (0.2) 4.1-5.0	78.9 (29) 52-142	37.7 (1.2) 35.6-39.5	45.5 (6.5) 39-57	39.4 (1.7) 36.6-41.9		Taylor et al. (2005) Originally identified as <i>Scotoecus</i> cf. <i>albigula</i>
<i>Scotoecus albigula</i>	<i>Scotoecus hindei/albigula</i>			2								Monadjem et al. (2010d)
<i>Scotoecus albofuscus</i>	<i>Scotoecus albofuscus</i>			1		3.3				39.3	24	Monadjem et al. (2010d) second and third harmonic can be present
<i>Scotoecus hindei</i>	<i>Scotoecus Hindei</i>	Kenya: Masalani	5					32	64			O'Shea and Vaughan (1980)
<i>Scotoecus hindei</i>	<i>Scotoecus Hindei</i>	Kenya:	4	1	10	4 (0.7) 3-5	71.3 (8) 55-85	38.6 (0.5) 38-39	65.2 (7.3) 54-78	39.9 (0.7) 39-41		Taylor et al. (2005) Originally identified as <i>Scotoecus</i> cf.

Context Code	Description
1	hand held
2	hand held 20 cm from microphone
3	hand held 1.5 m from the microphone
4	on release
5	room flown
6	at emergence from roost
7	free flying
8	free flying in a closed habitat
9	free flying in an open habitat
10	tethered
11	in a corridor (25 x 2.59 x 1.45 m)
12	in a flight cage (4.0 x 0.88 x 0.88 m)
13	crawling
14	landing
15	together with other individuals in a holding cage

Appendix 7b: Methods used in Echolocation Literature

Reference	Sound detector type	Analysis hardware / software	Sound transfer method	Analysis parameters	Notes
Aspetsberger et al. (2003)	Anabat II	ANALOOK (version 4.8b)	Sony cassette recorder TCM-17 (frequency response 0.09-8 kHz)	Recorded a calibration tone of 40 kHz with each train of bat calls to standardize for variation in tape speed. Only search phase calls, i.e. calls with 100 ms separating them, that were clearly defined. Call parameters were measured from a sonogram after reduction of noise and elimination of echos using the ANALOOK filters.	ANABAT uses a frequency division combined with zero crossing analysis (ZCAIM), which captures information about the harmonic with the most energy, information on other harmonics is lost, as is all information about signal strength.
Fahr and Ebigo (2003)	Pettersson D 240 (10x & 20x time expansion mode)	Avisoft-SASLab Pro 4.2	Sony Walkman Professional WM-D6C	Measured CF frequency (maximum amplitude, second harmonic) with spectrograms (Hanning window, FFT length 512)	
Fenton (1975)	Holgate ultrasonic sensor (tunable from 10-180 KHz)			Only search phase calls analysed. Oscilloscope settings usually 2 ms or per division, but for 10 ms better for molossids or rhinolophids. Calls slowed down appropriately for analysis. Fast Fourier transform (FFT), real time spectrum analyzer (2048 lines, alias filter in, flat weighting). FFT provides machine averaged spectra with no statistical output.	Analysis of recorded calls of known individuals before identified free flying bats from period meter display of calls. Low end frequency modulated calls more reliable as less subject to atmospheric attenuation than higher frequencies.
Fenton and Bell (1981)	Broadband microphone (Non Linear Systems Miniascope, Model MS-15), zero crossing period meter & portable oscilloscope	Kay Sonograph model 7029A & Princeton Applied Research model 4513	Lockheed (Racal) Store 4D tape recorder operating at 76 cm/s or 152 cm/s	Sampling at 250 kHz, 16 bit, recording 60s intervals separated by 10s to reset the system. Interval between calls was recorded from the frequency change of time plot - threshold 16. Duration was measured from the time-amplitude plot. Frequency information was recorded from the power spectrum. Highest and lowest frequencies were recorded as the kHz at - 55 dB levels, and frequency with the most energy was recorded from FFT 512. Hanning window. Up to 10 calls were analysed from any train of calls recorded.	Orientation of the detector to the bat maximised to account for distance limitations in detecting calls.
Fenton et al. (2004)	Pettersson D980	BatSoundPro	Lines DAQ i508 high speed card to a Dell Latitude PC		

Reference	Sound detector type	Analysis hardware / software	Sound transfer method	Analysis parameters	Notes
Taylor et al. (2005)	Pettersson D980	BatSoundPro	Acer Pentium 2 notebook computer	First 10-20 calls in a release sequence ignored if looked atypical to rest of sequence. Sampling at 22 050 Hz for calls <100kHz, at 44 100 Hz for calls >100kHz. Measured duration and inter-call interval from combined time-amplitude and time-frequency displays. Time-amplitude plots with saturated calls were excluded. Frequency information taken from FFT power spectrum (size 512, Hanning window) with -55 db threshold. Calls of lower intensity were analysed directly from the sonogram, usually at a threshold of -3.	

Appendix 7c: Karyotype information from Literature

ACR Taxon	Identification	Locality	# Ind	Sex	2N	FN	BA	M	ST	A	X	Y	Reference	Notes
<i>Scotophilus dinganii</i>	<i>Scotophilus dinganii</i>	:			36	50		7	1	9	M		Eick et al. (2007)	One homologue of chromosome 24 with a heterochromatic short arm in one specimen but counted here as acrocentric
<i>Scotophilus</i>	<i>Scotophilus</i>	:			36	52		7	2	8	M		Eick et al. (2007)	
<i>Hipposideros jonesi</i>	<i>Hipposideros jonesi</i>	Senegal: Daudi Cave	1	M	32	60		24	6		M	SM	Koubínová et al. (2010b)	
<i>Macronycteris gigas</i>	<i>Hipposideros gigas</i>	Senegal: Dar Salam	2	F	52			10		40	(M/SM)	?	Koubínová et al. (2010b)	
<i>Dorythina cyclops</i>	<i>Hipposideros cyclops</i>	Senegal: Badi	1	F	36			28		6	(M/SM)	?	Koubínová et al. (2010b)	
<i>Rhinolophus fumigatus</i>	<i>Rhinolophus fumigatus</i>	Senegal: Dindéfelo	1	M	58	60		4		52	ST	D	Koubínová et al. (2010b)	
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	Gabon:	1	M	32		16						Porter et al. (2010)	
<i>Glauconycteris poensis</i>	<i>Glauconycteris poensis</i>	Gabon:	1		22			10	1				Porter et al. (2010)	
<i>Hipposideros caffer</i>	<i>Hipposideros caffer</i>	Gabon:	1	M	32								Porter et al. (2010)	
<i>Nycteris grandis</i>	<i>Nycteris grandis</i>	Gabon:	1	M	42		34			6	L	S	Porter et al. (2010)	

ACR Taxon	Identification	Locality	# Ind	Sex	2N	FN	BA	M	ST	A	X	Y	Reference	Notes
<i>Glauconycteris beatrix</i>	<i>Glauconycteris beatrix</i>	Gabon:	1		22								Porter et al. (2010)	
<i>Glauconycteris poensis</i>	<i>Glauconycteris poensis</i>	Gabon:	1		22								Porter et al. (2010)	
<i>Glauconycteris beatrix</i>	<i>Glauconycteris beatrix</i>	Gabon:	1		22			10	1				Porter et al. (2010)	
<i>Scotophilus dinganii</i>	<i>Scotophilus dinganii</i>	:			36	50		8		9	M		Ruedas et al. (1990)	
<i>Scotophilus dinganii</i>	<i>Scotophilus dinganii</i>	:			36	52		9		8	A		Schlitter et al. (1980)	Eick et al. (2007) - would result in 8M, 9A assuming metacentric X
<i>Scotophilus viridis</i>	<i>Scotophilus viridis</i>	:			36	54		9	1	7	A		Schlitter et al. (1980)	Eick et al. (2007) - would result in 8M, 1ST, 8A assuming metacentric X
<i>Scotophilus leucogaster</i>	<i>Scotophilus leucogaster</i>	:			36	50		9		8	M		Volleth et al. (2006)	Eick et al. (2007) did not count the heterochromatic arm on NOR-bearing chromosome for Fna
<i>Scotophilus nux</i>	<i>Scotophilus nux</i>	:			36	50		8		9	M		Volleth et al. (2006)	

