

SUPPLEMENTARY TABLES

Table S1: Summary of calls used for the analyses. Reported is the total call count within the training sessions for Bats 1-4 (split into ‘short’ and ‘long’ calls in the post-criterion phase for Bat 4) and call 126numbers dependent on session length. Furthermore, number of calls per session, which had a length of less than 5 ms, and were thus excluded from further analyses as they might represent echolocation calls, are reported. The applied high-pass criterion frequency (hpcf) is given in the rightmost column.

Bat	date	total call count		calls		
		(short/long)	total calls/min	< 5 ms	hpcf	
1		10.10.2016	126	0.53	0	0 kHz
	pre-criterion	20.10.2016	37	0.08	1	0 kHz
		21.10.2016	76	0.19	0	0 kHz
		15.11.2016	200	0.88	79	26 kHz
	post-criterion	16.11.2016	135	0.61	33	26 kHz
		17.11.2016	169	0.60	39	26 kHz
2		10.10.2016	154	1.14	1	0 kHz
	pre-criterion	19.10.2016	82	0.49	0	0 kHz
		20.10.2016	94	0.40	0	0 kHz
		03.11.2016	1107	11.41	0	27 kHz
	post-criterion	04.11.2016	1120	4.12	0	27 kHz
		18.11.2016	624	2.00	0	27 kHz
3		10.10.2016	120	0.50	2	0 kHz
	pre-criterion	19.10.2016	35	0.20	0	0 kHz
		20.10.2016	72	0.30	1	0 kHz
		04.11.2016	84	0.31	1	27 kHz
	post-criterion	14.11.2016	86	0.28	1	27 kHz
		15.11.2016	230	0.80	10	27 kHz
4		10.10.2016	386 (380/0)	1.62	6	0 kHz
	pre-criterion	19.10.2016	247 (247/0)	1.44	0	0 kHz
		20.10.2016	265 (261/0)	1.10	4	0 kHz
		16.11.2016	368 (188/107)	1.64	73	35 kHz
	post-criterion	17.11.2016	238 (84/74)	0.89	80	38 kHz
		18.11.2016	154 (63/45)	0.47	46	40 kHz

Table S2: Summary of effect sizes and results of the statistical analyses. Bat 4 uses an additional call type ('long') in the 'post-criterion' phase. As the call parameters for these long calls of Bat 4 do not experience a gradual change, but present a new call type, we did not statistically compare these calls to the 'pre-criterion' data set.

Bat		pre-criterion		post-criterion		difference in median	p-value
		median	IQR	median	IQR		
1	call number	238		353			
	duration [ms]	45.0	3.1	47.8	10.8	2.8	***
	level [dB SPL]	101.4	3.1	102.9	5.3	1.5	***
	F0 [kHz]	15.28	0.45	15.05	0.85	-0.23	***
	SCF [kHz]	48.88	0.35	49.08	0.70	0.20	***
2	call number	329		2851			
	duration [ms]	40.3	8.7	53.8	10.5	13.5	***
	level [dB SPL]	115.1	1.4	114.7	1.9	-0.4	***
	F0 [kHz]	15.32	0.99	15.25	1.28	-0.07	0.004
	SCF [kHz]	48.70	0.28	48.67	0.29	-0.03	0.143
3	call number	224		388			
	duration [ms]	44.9	7.6	48.7	8.4	3.8	***
	level [dB SPL]	115.4	1.7	115.8	2.4	0.4	0.023
	F0 [kHz]	15.81	1.22	16.26	1.27	0.45	0.003
	SCF [kHz]	47.96	0.25	48.02	0.29	0.06	0.009
4	call number	888 (short)		335 (short)			
	duration [ms]	6.4	0.5	6.7	1.1	0.3	***
	level [dB SPL]	111.7	0.8	111.4	1.5	-0.3	***
	F0 [kHz]	19.73	0.32	19.70	0.49	-0.03	0.062
	SCF [kHz]	47.32	0.19	47.20	0.42	-0.12	***
	call number			226 (long)			
	duration [ms]			59.8	4.8		
	level [dB SPL]			116	1		
	F0 [kHz]			16.08	0.57		
	SCF [kHz]			47.20	0.42		

IQR = interquartile range; F0 = mean fundamental frequency; SCF = spectral centroid frequency; ***

= $p \leq 0.001$; short: calls between 5 and 25 ms length; long: calls ≥ 25 ms.