

Audiogram of the horseshoe bat (*Rhinolophus ferrumequinum*)

Data from: Long, G.R., and Schnitzler, H.-U. (1975) Behavioral audiograms from the bat, *Rhinolophus ferrumequinum*. *Journal of Comparative Physiology*, 100, 211-219.

Absolute thresholds (in dB re 20 $\mu\text{N}/\text{m}^2$) for three horseshoe bats

Frequency (in kHz)	Average Threshold (in dB)
2	92
5	54
10	27
15	-3
20	-3
25	1
30	2
35	8
40	24
45	20
50	12
55	-2
60	-4
65	7
70	31
75	10
80	-4
82	-1
84	1
86	3
88	8
90	10
92	13
94	19
96	26
98	40
100	53
110	73

Lowest and highest frequencies audible at sound pressure levels (SPL) ranging from 30 to 70 dB SPL

SPL (in dB)	Lowest audible frequency (in kHz)	Highest audible frequency (in kHz)
70	3.35	108
60	4.3	103
50	4.8	100
40	7.1	98
30	9	97

Additional Parameters:

Body weight = 22 g

Functional interaural distance= 55 μ s

(Time required for sound to travel around the head from one auditory meatus to the other.)

Comments: Threshold values taken from graph in Long & Schnitzler, 1975, average of two bats with a third bat tested at high frequencies. Used change in heart rate or muscular activity in response to tones that signaled shock.