

Audiogram of the groundhog (*Marmota monax*)

Data from: Heffner, R.S., Koay, G., and Heffner, H.E. (2001) Audiograms of five species of rodents: Implications for the evolution of hearing and the encoding of pitch. *Hearing Research*, 157, 138-152.

Absolute thresholds (in dB re 20 $\mu\text{N}/\text{m}^2$) for four groundhogs (designated A through D)

Frequency (in kHz)	Individual Thresholds (in dB)				Average
	A	B	C	D	
.032	71	65	61	57	63.5
.063	59	55	48	50	53
.125	43	42	38	29	38
.250	40	40	34	31	36
.500	29	34	26	—	30
1	34	27	25	—	29
2	28	26	29	28	28
4	24	20	22	20	21.5
8	20	19	22	26	21.8
16	37	32	38	37	36
22.4	31	35	32	34	33
28	—	—	63	—	63
32	75	77	89	83	81

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	.021	29.5
60	.040	27.5
50	.072	25.5
40	.113	23.5
30	.500	12

Additional Parameters:

Body weight = 7 kg

Functional interaural distance = 290 μs

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

Comments: Threshold values taken from original data.