

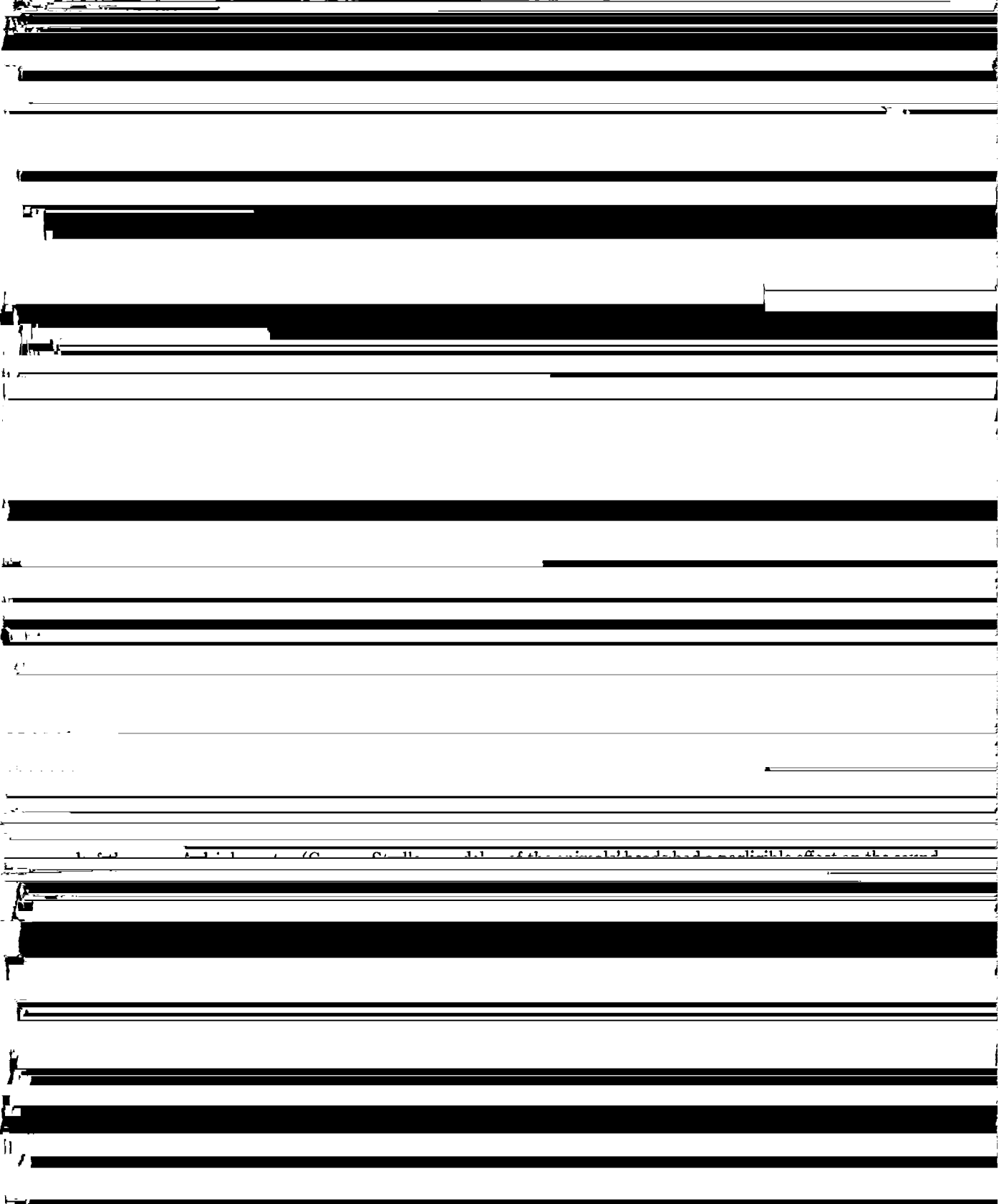
Behavioral Measurements of Absolute and Frequency-Difference Thresholds in Guinea Pig

Florida State University, Tallahassee, Florida 32306

Absolute and frequency-difference thresholds were determined by the conditioned-suppression technique. The results show that the average frequency range of audibility at +50 dB sound-pressure level extends from 86 Hz to 46.5 kHz, with a best frequency near 8 kHz. Individual differences in sensitivity are related to body weight and, probably, age. The average frequency-difference limen is 3.5% from 125 Hz to 42 kHz. Compared to other mammals, the auditory capacities of guinea pig are within one standard deviation of

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floor of the cage were constructed of $\frac{3}{16}$ -in. brass rods. connected to the recorder output of the sound-level meter.
A waterspout, connected by rubber tubing to a water meter.



E. Details of Procedure

resulted in significant suppression, no further mention

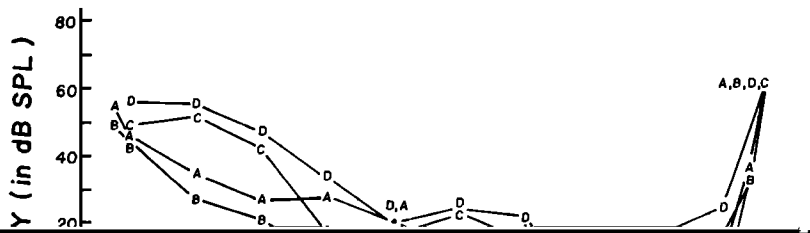
The guinea pigs were deprived of water in their home cages with the exception of small amounts they gained

3. *Frequency-Difference Limens*

After the audiogram had been completed, frequency

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FIG. 3. Individual audiograms of four guinea pigs. Intensity scaled in decibels *re* 0.0002 dyn/cm². Note agreement in best



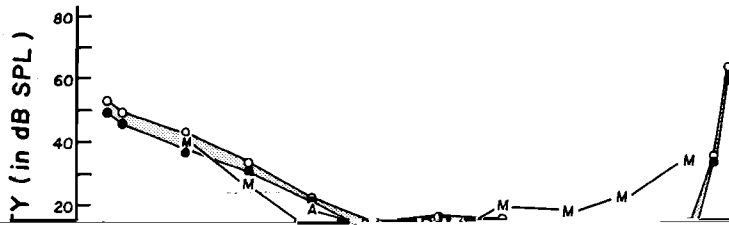


FIG. 5. Average audiogram of guinea pigs. Open circles: thresholds based on usual (0.50) performance levels; closed circles: thresholds based on less conservative (0.20) performance levels; shaded area indicates difference between levels.

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	kHz of standard										
	0.125	0.25	0.5	1	2	4	8	16	32	42	Average
Man ^a			0.007	0.004	0.002	0.003	0.004				0.004
M. Mulatta ^b			0.008	0.009	0.006	0.009	0.008	0.009			0.008
Seal ^c				0.014	0.012	0.015	0.014	0.018	0.010	0.010	0.012
Cotton rat ^d					0.015	0.020			0.019	0.010 ⁱ	0.016
Bush baby ^e	0.040		0.014		0.012	0.012	0.006		0.022		0.018
Cat ^f	0.055	0.032	0.017	0.008	0.007	0.010	0.012	0.015	0.017		0.019
Hedgehog ^g										0.024	0.024
Treeshrew ^e			0.036	0.025	0.021	0.031	0.045			0.030	0.031
Opossum ^g										0.036	0.036
Wild mouse ^h						0.056		0.031		0.023 ⁱ	0.037
White rat ⁱ				0.060		0.070				0.060	0.063

^a Ref. 27.
^b Ref. 28.

^c Ref. 29.
^d Ref. 30.

^e Refs. 12 and 13.
^f Ref. 31.

^g Refs. 10 and 11.
^h Ref. 32.

ⁱ Ref. 33.
^j These values are for 64 kHz.

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