Table 2. The responses of bats to mealworms presented simultaneously with the sounds of a bat or moth. In those instances where the bat's performance was not rated as a contact, dodge, or attempt, the bat continued on its normal path of flight, apparently without paying attention to the mealworm.

Bat No.	No. of tosses	Number of		
		Contacts (%)	Dodges (%)	Attempts (%)
Bat sounds presented				
3	67	88	7	5
4	150	79	8	12
5	92	65	27	5
Total	309	77	14	8
Moth sounds presented				
3	95	14	86	3
4	249	14	83	3
5	121	11	87	2
Total	465	13	85	2
No sounds presented				
3	141	99	0	1
4	373	98	0	1
5	167	97	1	1
Total	681	98	1	1

gun area and the mealworm. (iii) When a bat turned toward a mealworm, apparently in an unsuccessful effort to catch it, the response was scored as an "attempt". (iv) In the remaining instances the bat continued its normal path of flight near the gun without swerving at all; these responses were judged as "no attention."

In the first experiment the sounds made by a hand-held *Halysidota tessellaris* moth were recorded on tape and presented to the bats as already described. This species occurs in the same areas as those in which *Myotis lucifugus* hunt. It is evident from the results of this experiment (Table 1) that the catching performance by the bats was adversely affected by the moth sounds.

Since it is quite possible that the bats would have difficulty in catching when any ultrasonic pulses were emitted from the loudspeaker, their responses were observed when the recorded orientation sounds of another bat of the same species were presented from the same source. For the second experiment a sequence of echolocation pulses made by a *Myotis lucifugus* catching a tossed mealworm was similarly recorded on tape. These sounds were presented together with mealworm targets on alternate days with the moth sounds, again randomly interspersed among tosses with no sounds from the loudspeaker. The intensities of the "bat" and "moth" sounds were matched before each run at the output of a condenser microphone which remained in a constant position relative to the loudspeaker throughout the experiment. The sound intensity measured at the apex of representative mealworm trajectories (that is, within the "catch volume" of the setup) was approximately 100 db (relative to 0.0002 dyne/cm^2) for the least intense pulses in the catching "buzz" (*5*) and 110 db relative to the same reference level for the loudest bat and moth pulses.

The results of this experiment (Table 2) show that the feeding behavior of the bats was somewhat disturbed by the bat pulse sequence, but they veered much more frequently from the target when the moth sounds were presented. The uniformly low contacts in the presence of moth sounds, in spite of ample opportunity for the bats to learn that these sounds did not warn of any noxious target organism, may indicate that the noisy ultrasonic pulses emitted by the moths could protect them against their predators, the bats.

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References and Notes

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6. We thank F. A. Webster for all his help and for the use of his laboratory, without which this work could not have been done. This study was supported by PHS fellowship No. 5-F1-18,991 from the Institute of General Medical Sciences, and partly by grant No. AI-00947 from the Institute of Tropical Medicine and Parasitology.

6 November 1964

Crown Gall and Tomatine

May we, by way of comment on the letters from Philip R. White and from B. A. Kovacs and his colleagues on this subject [*Science* **146**, 670 (1964)], draw attention to our paper on "Histamine protection produced by plant tumour extracts. The active principle of tomato plants infected with crown-gall," published in June of this year [*Brit. J. Pharmacol.* **22**, 486 (1964)]. In this we describe our observations that guinea pigs were protected against the lethal effects of a histamine aerosol by intraperitoneal injection of extracts of both normal tomato plants and tomato plants infected with crown gall tumors. No difference was observed between the activities of extracts of normal and of infected plants. An active principle was isolated from the extracts and identified as the steroid alkaloid glycoside tomatine; this accounted sufficiently for the activity in both cases. We undertook this investigation with the object of clearing up the rather anomalous and illogical situation in the field, and we hope that the present reiteration of our conclusions will achieve this.

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21 November 1964