fruits. To what extent they kill more than they eat, as dogs do, is less clear. Lorenzo (*3*) reports that 53 of 116 lamb deaths examined on a large ranch in New Mexico were due to predators, with coyotes causing three-fourths of the predator deaths. He found no evidence of dog predation, but comparison of photographs in the Four Corners report (*4*) and the *Ohio Farmer* article (*1*) shows that injury from the two sources can be quite similar.

The practice of shooting stray dogs on sight is growing. Often this merely maims the animal and is certainly an injustice to dogs that are not killers. Tighter regulations, strictly enforced, and the spaying of female dogs not used for breeding purposes, are imperative. So is more accurate knowledge than is available at the present time.

Both dog and sheep are virtual symbionts with man. One has been his companion, guardian, servant, and friend; the other, a source of food, wool, and a material essential to the music of Kreisler and Casals. It is ironic that man has not yet been able to reconcile the management of these two animals.

PAUL B. SEARS

Las Milpas,
Taos, New Mexico 87571

References

1. R. F. Getz, *Ohio Farmer* **225**, 6 (1 March 1975).
2. F. H. Wagner, *Coyotes and Sheep* (Utah State Univ. Press, Logan, 1972).
3. D. Lorenzo, *N.M. Wildl.* **20** (No. 1), 19 (1975).
4. J. A. Bennett *et al.*, *Predator Control Study: Final Report to the Four Corners Regional Commission* (Utah State Univ. Press, Logan, 1973).

Ultraviolet Viewer

Our recent reports on ultraviolet patterns on flowers and butterflies (*1*, *2*) have generated frequent inquiries about the techniques that we use for rendering these ordinarily invisible patterns visible to humans. As previously described (*2*), a television camera equipped with an ultraviolet transmitting lens and filter can serve for direct examination of these patterns, which appear as black and white images on the monitor of the camera. Conventional portable video systems, suitable for field use, include both camera and tape recorder. For investigators interested merely in viewing the images, rather than in recording them, the recorder constitutes an unnecessary burden. It is heavy, consumes battery power, and is useful only as it provides a housing for the batteries. We have found that a convenient ultraviolet viewer can be made simply by mounting a battery

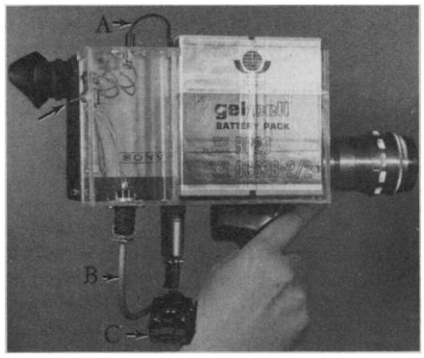

Fig. 1. Television camera (Sony DVC-2400), with attached plastic housing containing battery pack (12 VDC battery from Sony AV-3400 Videocorder). Connection of battery leads (*A*) to camera cable (*B*) is made through plastic housing, where one of the leads is provided with a switch (arrow). A light-emitting diode above switch gives on-off indication. Optional connection to external monitor is possible through plug (*C*).

power source directly on a portable video camera, which can then be used by itself.

For our purposes we use Sony portable video cameras (models AVC-3400 and DVC-2400). The batteries (Sony BP20), together with associated electrical hardware, are enclosed in a fabricated box mounted directly on the housing of the camera. The resulting self-contained ultraviolet viewer is compact and manageably light in weight (Fig. 1). Resolution on the camera's monitor decreases with the uncoupling of the recorder, but image quality is acceptable and full resolution can be restored if desired (*3*). Without the recorder power consumption is markedly reduced (a fully charged battery provides upward of 2 hours of viewing) (*4*).

DANIEL J. ANESHANSLEY
School of Electrical Engineering and *Section of Neurobiology and Behavior, Cornell University, Ithaca, New York 14853*

THOMAS EISNER
Section of Neurobiology and Behavior, Cornell University

References and Notes

1. T. Eisner, M. Eisner, P. Hyypio, D. Aneshansley, R. Silberglied, *Science* **179**, 486 (1973); H. Ghiradella, D. Aneshansley, T. Eisner, R. Silberglied, H. Hinton, *ibid.* **178**, 1214 (1972); W. R. Thompson, J. Meinwald, D. Aneshansley, T. Eisner, *ibid.* **177**, 528 (1972).
2. T. Eisner, R. E. Silberglied, D. Aneshansley, J. E. Carrel, H. C. Howland, *ibid.* **166**, 1172 (1969).
3. The camera's vertical and horizontal deflection circuits use free-running oscillators locked into fixed-phase relationship by synchronization pulses from the recorder that effect a scanning system having 2:1 interlace. Without this synchronization each scan is independent, and the vertical resolution is half that of the interlaced frame. Interlace can be restored with an oscillator and appropriate divider circuits, which can be mounted with the battery pack on the camera housing.
4. Our Sony equipment was bought before the "Save the Whales" boycott went into effect.