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Examining nesting cavities with an optical fiberscope.—Many birds nest in cavities. Tools such as pole-mounted mirrors and lenses mounted on long sticks (Demong and Emlen, Wilson Bull. 87:550–551, 1975) have aided previous observations of nesting cavities, but these methods are suitable only when the cavity entrance has no more than one bend, or when the investigator's arm can reach a point where there is a straight passage to the nest. Using flexible fiber optic devices avoids these restrictions, and allows a clear view of the interior of deep cavities with irregular entrances.

The Olympus GIF Type D optical fiberscope consists of a 1 m flexible cable, 1.3 cm in diameter, with lenses at both ends. An image of the scene before the objective is internally reflected to the ocular by means of coherently arranged flexible glass fibers within the cable. The angle of acceptance at the objective tip is 75°, and the tip can be remotely articulated in two planes. Maximum depth of field is 2 cm to infinity, with resolution better than 1 mm at close range. The minimum bend radius of the image cable is 7.5 cm. The fiberscope's objective can be protected from abrasion by a lens hood made from a plastic bottle. Examination of dark cavities requires illumination; I provided this with a flashlight bulb mounted in the lens hood, but a light source beamed through the fiberscope's internal light guides would serve the same purpose.

I successfully used the fiberscope in searches for Black Guillemot (*Cepphus grylle*) and Atlantic Puffin (*Fratercula arctica*) nests in complex boulder habitat. Census work, involving the location of nest cavities and/or the determination of nest occupancy rates, is an important potential use for optical fiberscopes. The other major potential is in breeding studies, where the investigator can remotely monitor the progress of otherwise unobservable nests. These applications are appropriate for nest cavities in soil and trees as well as those among rocks.

Fiberscopes are expensive. New medical instruments cost upwards of $8000, and industrial ones are about half this. But medical devices depreciate rapidly, and my fiberscope was obtained from a local hospital for 15% of its new value. Thus, the used medical equipment market may provide ornithologists with a source for this useful device.

Acknowledgments.—I thank A. Macfarlane, W. E. Cairns, and I. L. Jones for field assistance, and M. B. Fenton for reviewing the manuscript. The study was supported by the Canadian Dept. Supply and Services and the Canadian Wildlife Service.—D. K. CAIRNS, *Biology Dept., Carleton Univ., Ottawa K1S 5B6, Canada.* *Accepted 21 Feb. 1983.*

Wilson Bull., 95(3), 1983, pp. 492–495

Seasonal trends in body condition of juvenile Red-tailed Hawks during autumn migration.—Prior to and during migration, many long-distance migrants accumulate massive lipid reserves and increase in weight. In contrast, partial migrants which migrate shorter distances usually show little premigratory fattening. Although most raptors, including the American Kestrel (*Falco sparverius*), are partial migrants (Newton, Population Ecology of Raptors, Buteo Books, Vermillion, South Dakota, 1979), Gessaman (Wilson Bull. 91:625–626, 1979) reported the occurrence of autumnal premigratory fattening (albeit with lesser relative amounts) in American Kestrels in Utah. We lack published information for other migrant raptors. Here, we describe seasonal variations in amounts of subcutaneous fat, size, weight, and general body condition of 65 juvenile Red-tailed Hawks (*Buteo jamaicensis*) captured on migration in the autumn of 1981 at Cedar Grove Ornithological Station, located on the shore of Lake Michigan in central Wisconsin.