

can be expected to be resident and which are comparatively remote from areas of chlorinated hydrocarbon application and accumulation.

Successfully breeding Peregrines were found at about three per cent of the sites examined. Because the census was limited to eyrie locations which had definitely held eggs or young at some time, the sample was highly biased in favor of finding nesting pairs. On the basis of this census, then, it is concluded that the breeding population of Peregrine Falcons in California is reduced at least 95 per cent from the numbers that nested in the state as recently as twenty-five years ago.

Several other Peregrine nestings reported to me were found to involve other raptors. A few reports were not checked, and one especially enthusiastic observer refused to allow verification of his findings. It is highly probable, however, that more than two pairs of Peregrines fledged young in California in 1970, but all evidence indicates that the total number of successful pairs in the state did not exceed five.

REFERENCES CITED

- Bond, R. M. 1946. The Peregrine population of western North America. *Condor*, 48(3): 101-116.
- Cade, T. J., and R. Fyfe, 1970. The North American Peregrine Survey, 1970. *The Canadian Field-Naturalist*, 84(3): 231-245.
- Herman, S. G., M. N. Kirven, and R. W. Risebrough, 1970. The Peregrine Falcon decline in California. I. A preliminary review. *Audubon Field Notes*, 24(4): 609-613.
- Hickey, J. J., and D. W. Anderson, 1969. The Peregrine Falcon; life history and population literature. *In*: Peregrine Falcon populations; their biology and decline. J. J. Hickey, editor. pp. 3-42.
- Risebrough, R. W. 1969. Chlorinated hydrocarbons in marine ecosystems. *In*: Chemical Fallout: current research in persistent pesticides. Charles C. Thomas publishers. Springfield, Illinois, pp. 5-23.
- Risebrough, R. W., D. B. Menzel, D. J. Martin, and H. S. Olcott. 1967. DDT residues in pacific sea birds: a persistent pesticide in marine food chains. *Nature*, 216: 589-591.
- Risebrough, R. W., P. Reiche, D. B. Peakall, S. G. Herman, and M. N. Kirven. 1968. Polychlorinated biphenyls in the global ecosystem. *Nature*, 220: 1098-1102.
- Risebrough, R. W., S. G. Herman, M. Davey, V. Davey, and M. N. Kirven. In preparation. The Peregrine Falcon decline in California III: an evaluation of the contributing factors.
- Schmidt, T. T., Risebrough, R. W., and F. Gress. 1971. Input of polychlorinated biphenyls into California coastal waters from urban sewage outfalls. In Press.
- Spencer, D. A. 1970. The Peregrine Falcon: diagnosing the causes for the declining numbers. 22 pp. Published by the National Agricultural Chemicals Association, 1155 15th Street N.W., Washington, D.C. 20005.

The Centers of Learning

4. The University of Wisconsin, Madison

by John T. Emlen

The University of Wisconsin has no special laboratory, museum or institute specializing in or even emphasizing ornithology. This may come as a disappointment to a prospective student caught up in the enthusiasm of bird watching. But, as in many modern universities, the vast complex which constitutes biological science has been sliced transversely rather than longitudinally. Thus courses and research programs are organized in Anatomy, Physiology, Ecology, Geographic Distribution, Behavior, etc. Professors and students concentrating in any one of these or other fields of Biology may draw freely on material from any of the phyla, classes, and orders of animals, and, not surprisingly, birds come in for much attention. This is particularly true in the Ecological and Behavioral areas. Few biology students graduate without an introduction to birds, and a good many ornithologically-minded students have emerged with advanced degrees qualifying them for positions in the specialized world of Professional Ornithology.

To a historically minded naturalist, the University of Wisconsin is perhaps best known for the pioneering work done by Birge, Juday, Hasler and others on Lake Biology. Situated in the heart of a cluster of large natural lakes, students and professors have had a tray of riches spread before and around them which could not but inspire exploration and intensive research. Lake Mendota on the University's doorstep, swarming with ducks and geese each spring and fall, is said to be the most intensively studied body of fresh water in the world.

Another important chapter in the history of the University of Wisconsin was the founding of the first program of wildlife ecology and management in the United States. Aldo Leopold, widely known to nonprofessional birders for his inspiring *Sand County Almanac* was called from the U.S. Forestry Service in 1930 to establish a program which became the prototype of many similar departments across the country, and which continues to serve

(continued on p. 908)