

# DEPARTMENT of the INTERIOR

news release

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## REPRODUCTIVE FAILURE IN PEREGRINE FALCONS INCREASES

The American peregrine falcon, an endangered species, is declining fast in the southern Rocky Mountains, according to a recent cooperative survey conducted by Dr. James H. Enderson of Colorado State University, the World Wildlife Fund, and the Interior Department's Fish and Wildlife Service. From 14 active nests in 1973 only three young were fledged. Normal clutch size per nest is three to four eggs.

This alarming decrease is attributed to pesticides such as DDT and its metabolites, which alter the calcium cycle in birds resulting in eggshell thinning. The chemicals are ingested by peregrines in their food, which consists of birds of many species. The falcon, being at the top of the food web, is subjected to cumulative doses of contaminants in its normal diet.

Eggs from falcon nests in the southern Rockies had shells 20 percent thinner than those from Canada. Eggs with thin shells are easily broken by adult birds.

Four eggs which did not hatch were analyzed at the Denver Wildlife Research Center of the Fish and Wildlife Service and were found to contain high levels of pesticides. Residues of DDE, a metabolite of DDT found in the eggs, compared with the concentrations associated with nesting failure in the threatened brown pelican.

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The American peregrine falcon once nested in eastern Canada and the United States, south to Georgia. Today, their eastern limit is along the eastern slopes of the Rocky Mountains. They range from interior Alaska and Canada south to Baja California, in Mexico.

Since 1947, falcon eggshell thickness index has been reduced 15 to 20 percent. Subsequent loss of thin-shelled eggs is believed to account for the demise of the birds. As of 1970, there were less than 65 known active nesting sites for the peregrine falcon in western Mexico, the United States, and southern Canada. A few hundred pairs still breed in interior Alaska and northwestern Canada. Their breeding status in eastern Canada is unclear.

The major reasons for the decline of these falcons has been DDT and DDE. However, the destruction of falcon nests and the collection of young birds for the sport of falconry have also contributed to the problem. Falcons are now protected by Federal and State laws. Measures to protect the American peregrine falcon have included recommendations to eliminate pesticides in the food chain, further regulations to protect the birds, experimentation with captive propagation, and the protection of nesting sites.

At present, a number of pairs of falcons are in captive propagation programs. At Cornell University, four pairs of peregrines raised a record-breaking 20 young this spring, demonstrating that researchers have overcome many of the major problems of breeding these birds in captivity. Scientists at Cornell expect to increase the number of breeding pairs from four to at least 20 by 1976. The long-term goal of this effort is to restore this rare swift-flying bird to its old haunts across the continent.

