By Robert D. Mallette

the peregrine falcons' battle for existence

Last May, when it became obvious that a pair of endangered American peregrine falcons (*Falco peregrinus anatum*) nesting at Morro Rock, San Luis Obiso County, would not successfully hatch their single egg, the Department of Fish and Game decided to try something never before attempted on the West Coast.

With nothing to lose and everything to gain, the department arranged to replace the unhatched egg with peregrine chicks hatched in captivity.

As it turned out, the only available peregrine falcon young were from eggs hatched at breeding facilities of The Peregrine Fund at Cornell University in Ithaca, N.Y. The adult breeders were originally from New Mexico.

While arrangements were being made to bring two peregrine chicks to California from New York, two young prairie falcons were placed in the nest on May 12 to keep the adult pair's nesting instincts alive. The two young prairie falcons, not surprisingly, were fed at once by the adult peregrines.

When the peregrine chicks arrived nine days later, the prairie falcons were removed and replaced by the two peregrine chicks, and the young prairies were placed in a prairie falcon eyrie. The adults readily assumed care of the two foster peregrine chicks, and for about a week it appeared the project would be an unqualified success.

Historical peregrine falcon nesting area, Morro Rock, Morro Bay, San Luis Obispo County. Photos are by Brian Walton.

Carl Thelander of the Western Foundation of Vertebrate Zoology and DFG's Captain Hugh Thomas place prairie falcon in peregrine falcon nest.

Peregrine falcons hatched in captivity by the Peregrine Fund of Cornell University are placed in the next replacing the prairie falcons. Doing the delicate task are Ron Walker of the Western Foundation of Vertebrate Zoology and Phyllis Dague, representing Cornell University.

Then two blows fell in quick order. First, the adult male disappeared. Next one of the chicks died in the nest. The cause of the death was unknown, but the loss of a chick is not unusual among raptors.

When the body of the missing male was found on the rock two weeks later, it was sent to the department laboratory in Sacramento where fluoroscopic examination revealed two shotgun pellets in a wing. But the remains were so decomposed that technicians were unable to determine that cause of death was illegal shooting.

The death of the adult male created a special problem for the surviving chick and the adult female because the male normally forages for food for the family, leaving the female to protect the young.

Merlyn Felton, the biologist assigned to watch the nest during the season and paid with funds from the DFG's Nongame Wildlife Conservatin Program, devised a scheme for helping feed the survivors. In a blind not far from the nest, he imitated the call of a male and released a pigeon or other prey. The female, alerted by the call, quickly learned to take the prey and return to the nest with it.

The unorthodox feeding method continued, and the surviving foster chick fledged on June 23, about 45 days after it was hatched more than 3,000 miles away. The fledgling is now learning to catch prey on its own.

Then, as if completing the cycle of events, an adult male somehow found the nesting territory and took over the role of provider. Now there is a complete family group again, and next year, in all probability, there will be a new mated pair on Morro Rock.

The Fish and Game Commission designated Morro Rock as an ecological reserve in 1973 for the protection of a peregrine falcon eyrie, which had been under surveillance by volunteers from the Morro Coast Audubon Society. Public access to the rock is prohibited. The Departments of Fish and Game and Parks and Recreation have assumed responsibility for surveillance during the critical breeding period since that time. DFG Capt. Hugh Thomas and wardens under his supervision have been particularly concerned because the rock had long been a favorite of rock climbers and hikers and young falcons have been taken illegally. In 1976 ten persons were cited for illegal trespass on the reserve.

A cooperative program provided similar surveillance programs at six other peregrine falcon eyries during 1976. Cooperating in the effort were the U. S. Forest Service, U. S. Fish and Wildlife Service, Bureau of Land Management, the DFG and volunteers from the National Audubon Society. In 1975 seven pairs fledged 14 young and in 1976 nine pairs fledged 14 young. These reproduction rates are well within the normal range for this species.

Beginning this year, the USFWS has funded surveillance programs at five eyries. The Forest Service monitors another site with some volunteer assistance from Morro Coast Audubon Society, and the DFG provides protection at Morro Rock. According to preliminary reports, nesting pairs at 10 sites fledged a minimum of 18 young this year. Reported nesting activity at some isolated sites requires confirmation.

Meanwhile, the USFWS director last year named a Pacific Coast American Peregrine Falcon Recovery Team to develop a management plan and make recommendations to help ensure survival of the peregrine on the West Coast. Other recovery teams have parallel responsibilities in other parts of the country.

The department's current peregrine plan calls for coordination of an interagency program to monitor and protect active peregrine eyries each

Ron Walker places captive-bred prairie falcons in the nest.

Robert D. (Bob) Mallette is an associate wildlife manager-biologist working out of DFG Headquarters in Sacramento. He is an expert on raptors.

year and to seek out new eyries. Biological data are being collected including identification of habitat essential to the survival of peregrine falcons in California.

In an effort to enhance recovery of the peregrine in California, the Fish and Game Commission has authorized six permits for captive peregrine breeding by private individuals. While none of these individual efforts has been successful in California, there is encouragement in the fact that 76 peregrines were sucessfully raised last year in other parts of the country. As suitable breeding birds become available, this should change because there are a number of people who now have the facilities and the knowledge necessary to successfully breed peregrines.

Because of similar biological characteristics, the more common prairie falcon is being used to develop techniques to increase wild bird populations. Placement of captive-bred birds and eggs under prairie falcons in the wild has met with success. In addition, a technique called double clutching, in which the first clutch of eggs is placed in an incubator and the birds lay another clutch, shows promise. Brian Walton, a biologist affiliated with the Western Foundation of Vertebrate Zoology in Los Angeles and working for the department, is employing these techniques to enhance the production of prairie falcons in California.

The peregrine falcon is among the most famous and admired of all birds of prey. It is also one of the swiftest birds; it has been clocked at more than 175 miles an hour in a dive. Because of its speed, agility and ability to be trained by man, the peregrine is highly prized in the sport of falconry. In Europe during the Middle Ages the peregrine was flown by royalty, and through the centuries the peregrine has retained its popularity.

Found throughout the world, the peregrine falcon nevertheless is diminishing in numbers on many portions of its range. The American peregrine falcon found in California is one of three races in North America and formerly ranged over all of the contiguous 48 states, but it no longer breeds east of the Rocky Mountains. Because of the population decline and the reduction in the number of breeding pairs—authorities estimated as early as 1968 that there were fewer than 10 nesting pairs in the state—the state Fish and Game Commission placed the American peregrine falcon on the endangered species list in 1973.

The rapid population decline since World War II has been attributed to: (1) the cumulative effects of chlorinated hydrocarbons, (2) habitat destruction, (3) human disturbance, and (4) illegal shooting and take of peregrines.

The DFG is optimistic that the American peregrine falcon is on its way to recovery. However, there is much still to be done and it will require time and the cooperation of state and federal agencies—and public support—to save this magnificent bird from extinction.#

1977 wildlife decal is now available

The peregrine falcon adorns the new decal of the Nongame Wildlife Conservation Program. The 1977 decal, now available, was designed by 14-year-old Robin Martinez of Atwater. She was the winner in a statewide contest in public schools to determine the subject for the popular decal.

The peregrine falcon decal is given as recognition for any donation of a dollar or more to the California Nongame Wildlife Conservation Program. Donors who give five dollars or more also receive a certificate and their names placed on a mailing list for the occasional Nongame Wildlife Newsletter.

Checks should be written to: Nongame Wildlife and sent to:

WILDLIFE, BOX DFG, SACRAMENTO, CA 95801.#