



**SAVE THE FALCON**

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EW PEOPLE get as emotionally involved in their research as Jeff Peters. The wildlife researcher can't separate his homelife from his work. His house is full of birds and animals. And he plans to devote his life to the study of birds of prey.

Peters, a graduate assistant in the School of Forestry, Fisheries and Wildlife, watches—and manipulates—bird behavior, because he believes that's the key to their survival.

Peters is trying to get his hawks and falcons to reproduce in captivity—something some of these birds have never done before. And he wants to build a "new genetic race" of falcons for Missouri to replace the one that has been extinct here since the mid 19th century.

His project is supported by the Cooperative Wildlife Research Unit. One of the first such units (established in 1937), it represents cooperation of MU, the Department of Interior's Bureau of Sport Fisheries and Wildlife, the Missouri Conservation Commission, and the Wildlife Management Institute. Dr. Thomas Baskett, who was chief of Wildlife from 1968-1973, directs the unit. His assistant, Dr. Rollin Sparrowe, is Peters' major professor.

"What Peters is doing is very important," Sparrowe says. "He's working to rehabilitate endangered species and to help semi-domestic birds of prey survive. His research can help perpetuate the sport of falconry and further our understanding of all wildlife behavior."

There are 101 endangered species in the United States alone. Birds and animals are becoming extinct faster than new ones are replacing them. The world is heading toward a simple environment—a more unstable one. The more complex the environment, the less chance that one part of it can throw the whole thing out of kilter.

So Jeff Peters wants to protect endangered species . . . or they'll be lost forever from the face of this earth. That would be a shame, Peters believes, because man has a lot to learn from their behavioral patterns and learning habits. He is the first researcher in the nation to concern himself with total behavior and especially captive breeding of accipiters (true hawks).

For one thing, there's "imprinting"—a way of learning very early in life. He's the only scientist doing imprinting to an unnatural (man-made) breeding site. "Many aspects of behavior, both

By JOSEPH J. MARKS

animal and human, are determined by early childhood experiences," explains Peters.

Birds of prey, for example, learn to kill for food at about 30 days of age. "At that stage, parents bring back unkillable prey for them to kill," he says. "They'll do it naturally then, but it's very difficult to train an older bird to do it."

Peters teaches his birds hunting, nesting and breeding habits under unnatural conditions in hopes of helping them survive and thrive in the earth's changing environment.

"If behavior is influenced by the environment, we have a good chance of changing that behavior by working with birds at an early age. One way would be to change a bird's nesting habit because its natural nesting areas are being destroyed.

"If behavior is instinctive, we might have to modify the bird genetically to keep it from becoming extinct. For example, it would be easier to keep some birds alive and well if they didn't have the instinct to migrate. In that case, we could try to select and cross for the non-migratory instinct."

Peters works with three groups of birds: falcons, true hawks (accipiters), and soaring hawks (buteos). The latter includes the redtail hawks, the variety most common in Missouri.

Representatives of all three groups of birds are found in the state. Ironically the most abundant hawk is actually a falcon: the sparrow hawk which weighs a mere 4 ounces when full grown and dines mainly on field mice.

But Peters' favorite bird is the peregrine falcon, an endangered species. The peregrine has been called the most successful and most widespread predator in the world. If it becomes extinct, it will be the most widespread species ever to become extinct.

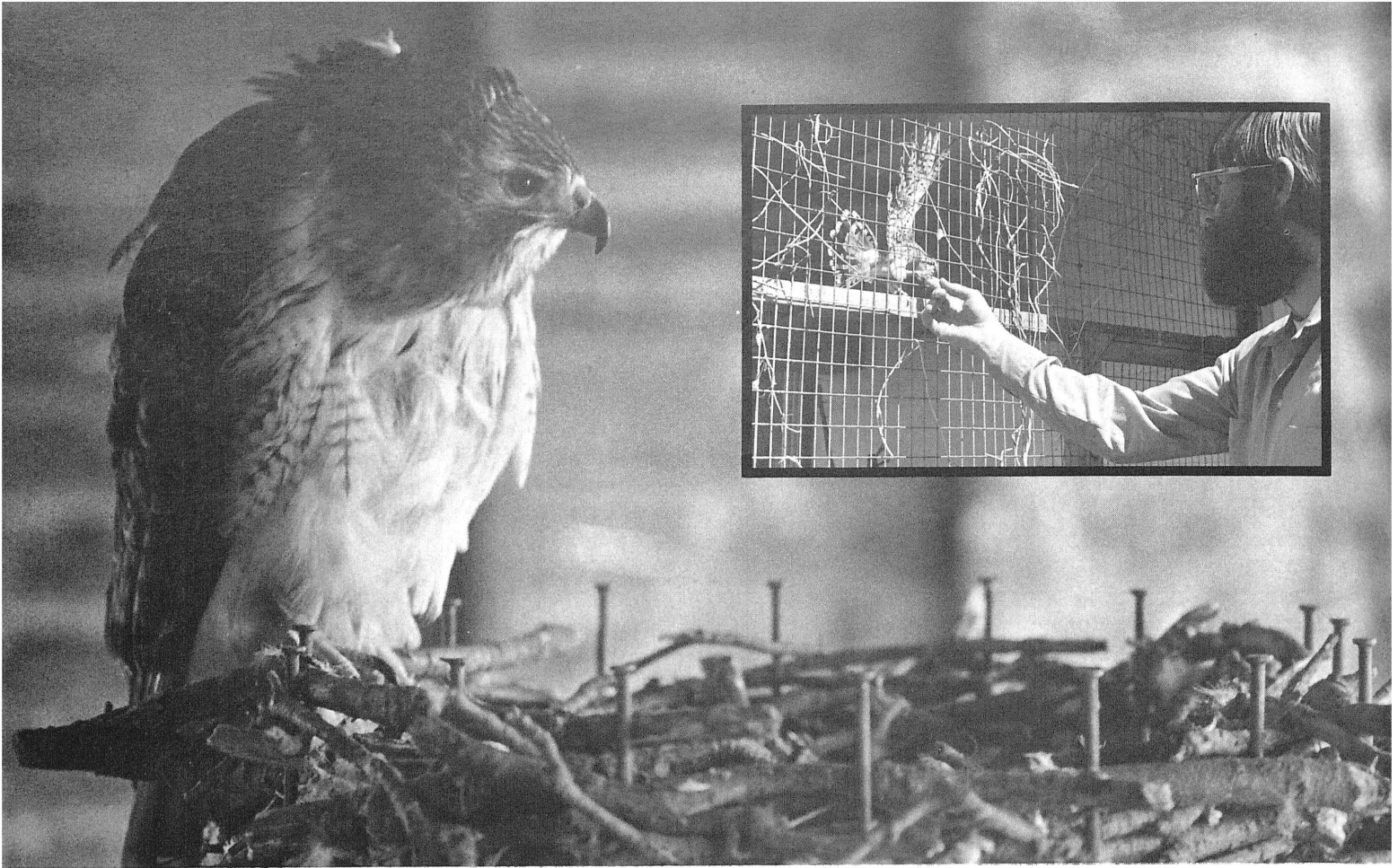
It's so much in demand, that some are sold on the black market for \$4,000 to \$5,000 per bird—just so people can fly and hunt with them. "To me," Peters says, "it's the most important animal, excluding humans."

He doesn't have a peregrine to study. They're too rare. But he hopes his work with other falcons will help the peregrine.

To begin with, Peters is getting his birds to reproduce in captivity. He points out that falcons won't lay eggs unless they have a suitable mate and a suitable nest.

So far, Peters has been able to get his birds to





**A red-tailed hawk perches on a man-made nest. Jeff Peters is the only wildlife researcher doing “imprinting” to an unnatural breeding site. He is getting his birds to reproduce in captivity. Accomplishing the feat with red-tailed hawks was most unusual — only about the third time it had ever been done. Peters feeds a kestrel (falcon), who then takes the food to his mate in the cage.**

mate naturally. But he has also experimented with letting both males and females “imprint” on him and think of him as their mate. In those instances, the male will actually copulate in his hand. Peters has then tried to inseminate a female who thinks of him as her mate. So far, he has been unsuccessful with these attempts at artificial insemination. Other researchers have done it, though, and he sees it as an alternative mating scheme when birds can’t or won’t mate naturally.

Peters is working on designs for bird housing in order to domesticate birds that have never been domesticated. The housing must be economical, he says, and it must make the bird feel free from stress so it can grow and reproduce.

To adapt domestic peregrines to the wild, Peters will probably have to build a new genetic race. “We’ll have to construct a new race with the same characteristics as the old,” he explains. “In the case of peregrines, we’ll try to obtain different races of the bird from throughout the world and breed them to each other.”

But there are some problems. These birds weren’t bred in captivity until recently. Then there’s the problem of introducing a domestic bird into a wild state.

“Life for birds of prey is difficult even under the best conditions,” notes Peters. And it’s even more

difficult for a tame bird to survive.

“In the case of hawks raised in the wild, eight out of ten will die from starvation and another will die from another mishap before it reaches adulthood.”

Some clues about what is involved in training a domesticated bird for adaptation to the wild can be found in the behavior of Peters’ goshawk. Ordinarily a rabbit hunter, the goshawk was inadvertently trained to go after quail and other game birds — just because a chicken was the only animal she saw at the age she learned to kill for food.

When she’s with her eggs or young birds and is hungry, the female goshawk expects the male to get her the food she wants. If he doesn’t, she’ll chase him out of the territory until he does. Peters’ goshawk, because she thinks of him as her mate, treats him the same way. The only way he can keep from getting roughed up by the bird is to feed her what she wants to be fed.

If playing “daddy” to goshawks has its difficult moments, Peters doesn’t mind. It’s his life’s work and one man’s contribution to saving an endangered species of wildlife. □

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