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1995 SPRING COMPENDIUM OF WILDLIFE APPRECIATION



Colorado's Wildlife Company

FALCONS



American kestrel

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falcon

Falcons embody much of what we admire in things wild—speed, agility, power and freedom.

They swoop upon their prey in fierce attack. They often live in remote and rugged terrain, in places we can only look up at and marvel. And they command the air while we remain earth-bound.

So what is a falcon? Falcons are raptors, or birds of prey, and though related to the hawks and eagles, they belong to a separate family—*Falconidae*. Falcons are found throughout the world, except for Antarctica and some islands. The archetypal falcon is a hunter of birds, plummeting down upon its prey in a high-speed dive, called a stoop, and slashing or knocking prey from the air. By contrast, buteo hawks like the red-tailed typically soar in the air or sit on a high perch searching for prey on the ground. They drop down on prey and make the kill on the ground. Accipiters such as the sharp-shinned and Cooper's hawks hunt prey in the forest, darting between trees or flying suddenly out from hiding to grab a bird or squirrel. Falcons kill using both their bill and their feet, seizing prey in their talons, then biting the back of the animal's neck. Falcons have notched bills, an adaptation for this killing bite. Hawks and eagles primarily use their talons to crush and pierce their prey. While eagles, osprey and hawks build bulky nests of sticks, falcons don't build nests at all, often laying their eggs on bare cliff ledges or in tree cavities, occasionally using the old nests of ravens and other birds. Some species, such as kestrels, regularly use nest boxes.

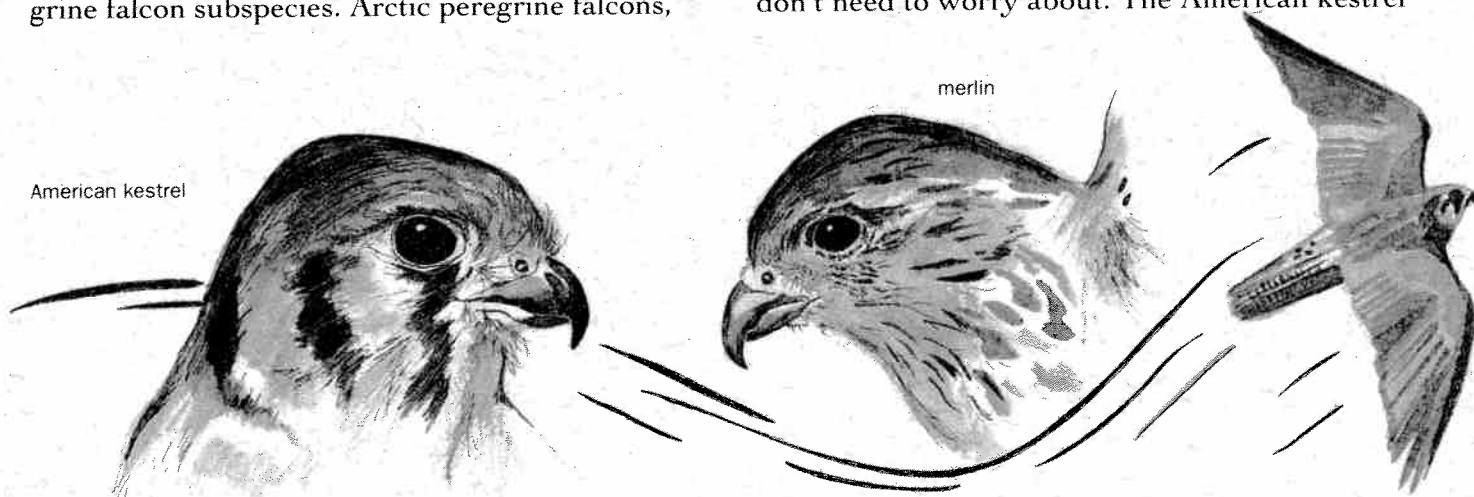
Three falcons nest in Colorado—the American kestrel, the prairie falcon and the American peregrine falcon subspecies. Arctic peregrine falcons,

another subspecies, migrate through Colorado.

If any one bird epitomizes the falcon family, it is the peregrine. Even its name, which means wanderer, implies something untamed and free. This sleek and beautiful falcon inhabits wild country of cliffs and canyons, nesting on remote ledges. Though nicknamed "duck hawk," peregrines have never been a threat to waterfowl. They hunt all types of birds, including flickers, swallows and swifts, songbirds, shorebirds and pigeons. To see a peregrine stooping on prey is to witness one of nature's spectacular feats. Peregrines are the fastest creatures on earth, capable of aerial dives reaching as much as 200 mph. See *DOW Working for Wildlife* in this issue for a discussion of efforts to recover the American peregrine falcon, an endangered species.

While peregrine falcons aren't common in our state, prairie falcons live throughout Colorado, ranging from prairie to alpine tundra. They nest on bluffs and cliffs and hunt over surrounding open country. Prairie falcons are similar in size and appearance to peregrines, though slimmer and more brown, with a thinner "sideburn" on the cheek. Prairie falcons don't always hunt in typical falcon fashion. They course low over open terrain, surprising and flushing prey, both bird and mammal, which they grab near or on the ground. Prairie falcons eat a high percentage of mammals; this diet may have protected prairie falcons from the impact of accumulated pesticides which so greatly harmed peregrines. But prairie falcons face other threats. They are declining in Colorado due to urban development of their habitat, and growing human disturbance. A few decades ago an estimated 300-400 prairie falcon pairs nested in the state. DOW raptor biologist Jerry Craig notes there has been a 5-10% decline in nesting sites due to loss of habitat to urbanization.

There's one falcon, at least, we hopefully don't need to worry about. The American kestrel



is a common bird throughout much of Colorado, though you may have passed one perched on a phone wire or weed stalk a hundred times without realizing that robin-sized bird was a tiny falcon. Kestrels are strikingly marked and handsomely colored. Males are gun-metal blue, rusty-red and buff, with a red cap. Female kestrels are mainly reddish, with lighter underparts. Both have two distinctive streaks, or "sideburns," down each cheek. Many people know kestrels by their old name, sparrow hawk, though considering its food choices, the kestrel might better be called grasshopper hawk. Kestrels eat a great many grasshoppers and insects in spring and summer, relying in winter on mice, voles and shrews. They occasionally kill a small bird. Though they occasionally stoop on prey in classic falcon fashion, kestrels more commonly use their own hunting technique. They hover eight or 10 feet above the ground on rapidly beating wings, the tail fanned and dropped slightly like a rudder to help maintain position. Then they drop down and grab their prey with their talons. The kestrel's high-pitched *killy-killy-killy* call is familiar in open country.

Kestrels are the most common and widespread raptor in North America. Kestrels nest throughout the U.S. and Canada, though not above the Arctic Circle. Unlike other falcons, kestrels have benefited from the effects of human development. Conversion of woodlands to agriculture created habitat for these open country hunters, and, also unlike some of their falcon cousins, kestrels adapt well to life around humans. They perch on fenceposts and telephone wires, learn to hunt behind farm machinery that may scare up prey, visit bird feeders (seeking birds, not seed) and occasionally nest in barns and other structures, including nest boxes.

So next time you venture into a Colorado canyon, onto the prairie or just in a neighboring vacant lot or field, keep your eyes open for falcons!

OTHER NORTH AMERICAN FALCONS

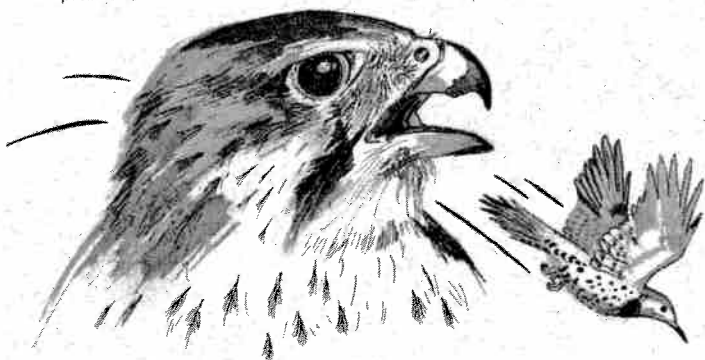
The **merlin**, a small falcon formerly known as the pigeon hawk, migrates through Colorado, occasionally spending the winter in western valleys and on the eastern plains.

The **gyrfalcon**, the world's largest falcon, is an Arctic species which occasionally wanders south. It has shown up a few times in northeastern Colorado in winter.

The **aplomado falcon** is a very rare falcon of Mexico and southern Arizona and Texas. It is being reintroduced along Texas Gulf Coast. This falcon does not inhabit Colorado.

The **crested caracara**, an interesting bird also inhabiting Mexico and southern Arizona and Texas, is more vulture-like than falcon-like in its appearance and habits. There are no records of the caracara in Colorado.

prairie falcon



peregrine falcon



Falcons And Humans

With their aerial grace, elegant design, and swift and lethal attack, falcons have long captured the admiration and reverence of human cultures.

Falcons were important symbols in the ancient Egyptian cult of the dead. The birds' appearance in the sculpture, art and writings of early Egypt and Persia pre-dates mention of their use in hunting. The birds were likely kept for ceremonies and religious uses.

Falconry—the use of trained falcons, hawks and eagles to pursue and catch wild game—is an ancient sport, thought to be at least 4000 years old. Falconry likely first appeared in China, later spreading to the Middle East. Falconry figures in the Islamic religion; rules on what kinds of animals can be hunted with falcons and how they must be killed are spelled out in the Koran.

In the Middle Ages, crusaders returning from the Holy Lands brought trained falcons to Europe and falconry became a tremendously popular diversion for the aristocracy, earning the appellation “the sport of kings.” So elite was the sport that even within the nobility, ownership of falcons was restricted by social class. Only royalty could own gyrfalcons, while peregrine falcons were the property of high nobles, merlins were flown by ladies, and European sparrow hawks (similar to the North American sharp-shinned hawk) by the landed gentry and the clergy.

Falconry originated as a means of hunting, reaching its peak during the Middle Ages; it consequently faded in popularity with the development of firearms. Though requiring a major commitment of time and money to house and feed the birds and keep them healthy and in good condition, falconry continues today as a sport practiced by a small but dedicated group of devotees. Ornithologists who were also falconers pioneered peregrine falcon recovery efforts, founding organizations such as the Peregrine Fund, which was very active in captive breeding and wild releases of peregrines.

To the Pueblo people of the American Southwest, falcons fill a variety of cultural roles. Because they are

swift and tireless, falcons are patrons of ceremonial races run in honor of the sun or to invoke rain. As the smallest of hawks, the kestrel is considered “little brother” and often used to denote initiates and young people. The kestrel's hovering earned it a link to the clowns who, as attendants at ceremonial dances, hover around the edge of gatherings. To the Hopi, the prairie falcon was identified with the god Kisa, a hunting hawk deity said to have invented the curved throwing stick, modeled after a falcon's curved wing.

Falcons remain symbols of speed and power in our modern society. They are the mascots of the Air Force Academy and the icon for Atlanta's professional football team. And for conservationists, the peregrine falcon represents an important success in the battle to save endangered species.

northern flicker



VIEWING SITE

Mesa Verde National Park

DESCRIPTION: The cliff dwellings of the Anasazi culture highlight this dramatic country of flat-topped mesas, steep canyons, and wonderful vistas. Terrain is typical of mesa country—pinon/juniper with scrub oak and fir in the draws, and sagebrush in open areas. Check at the visitors center for current viewing opportunities.

VIEWING INFORMATION: The park's twisting canyons and rugged terrain offer good raptor viewing. **Eagles, hawks and vultures are visible soaring on thermal updrafts along the mesa's escarpment. The Knife Edge Trail has views of peregrine falcons and golden eagles. Look also for red-tailed, Swainson's, Cooper's, and sharp-shinned hawks; bald eagles and rough-legged hawks in winter.** The museum patio is a good place to watch hummingbirds. Mule deer are very common throughout the park. Prater Canyon is a good stop to view deer as well as wild turkeys. Spruce Tree Point features a turkey vulture roost. Look for ravens at Navajo Bend and Soda Canyon, and white-throated swifts at Cliff Palace Dwelling. Watch among the pines for scrub, pinyon, and Steller's jays. Carnivores sometimes seen along the park entrance road include coyotes, gray foxes, and an occasional black bear and mountain lion.

Harpers Corner Road/Echo Park, Dinosaur National Monument

DESCRIPTION: Self-guiding tour from the Harpers Corner Visitor Center to Echo Park. Echo Park is a sandy beach area at the junction of the Yampa and Green Rivers beneath magnificent sandstone cliffs. Drier slopes and benches typified by sagebrush and pinon/juniper woodlands, moister areas of Douglas fir. Box-elder/willow communities along the river.

VIEWING INFORMATION: Mule deer are usually visible from the road; occasional elk and bighorn sheep. Waterfowl, some shorebirds, and an occasional otter or beaver are seen along the Green and Yampa Rivers; songbirds in riparian zones. **Good raptor watching—golden eagles, red-tailed and ferruginous hawks, kestrels, prairie falcons common; goshawks, Cooper's and sharp-shinned hawks may also be seen. Watch for peregrine falcons around cliff areas in Echo Park. Cliffs are closed to climbing in spring and summer due to nesting.** Watch rocky areas also for cliff and violet-green swallows, canyon and rock wrens. You may see bats in the evening around the campground.

(Excerpted from the *Colorado Wildlife Viewing Guide* by Mary Taylor Gray, available for \$6.95 from the Colorado Wildlife Heritage Foundation, 6060 Broadway, Denver CO 80216, 303-291-7212.)

**Colorado
now has 71 sites
occupied by
nesting
peregrines.**

DOW WORKING FOR WILDLIFE

PEREGRINE FALCONS

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The decline of the American peregrine falcon and its designation as an endangered species is a familiar story. The accumulation of pesticides through the food chain resulted in the thinning of peregrine eggshells, causing eggs to be crushed in the nest. This effect, along with habitat loss and other factors greatly reduced peregrine populations. By 1975 there were no peregrine falcons east of the Mississippi and only 47 known pairs in the West. By 1979 Colorado reached a population low of four nesting pairs.

But the peregrine falcon is a success story in the battle to recover endangered species. Intense recovery efforts have brought the American peregrine falcon back from near-extinction. In 1994 the U.S. Fish and Wildlife Service removed the Arctic peregrine falcon subspecies from the list of threatened and endangered species. The American peregrine falcon, the subspecies breeding in Colorado, is expected to be downlisted from endangered to threatened in 1995.

For nearly 20 years, the Colorado Division of Wildlife has taken an active role in American peregrine falcon recovery, in cooperation with the U.S. Forest Service, U.S. Fish and Wildlife Service, Bureau of Land Management and National Park Service. Between 1979 and 1989, more than 500 falcons were released to the wild throughout most of Colorado, in locations such as Dinosaur National Monument and Rocky Mountain National Park. Contributions from the people of Colorado through the Nongame and Endangered Wildlife Checkoff on the state income tax return contributed to these efforts. Colorado downlisted the American peregrine falcon from endangered to threatened status in 1993 due to the success of these cooperative recovery efforts.

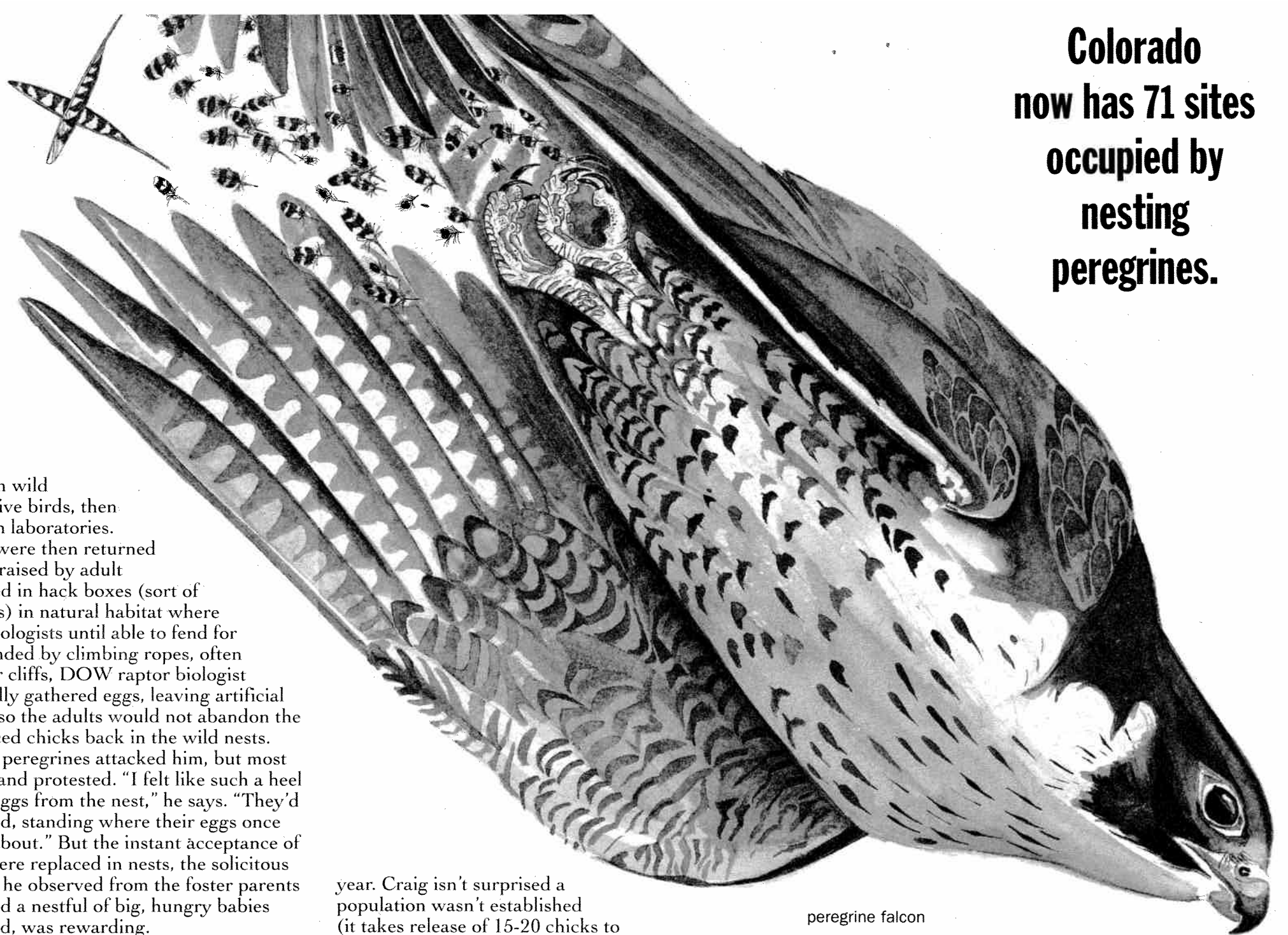
To reintroduce young peregrines to the wild, eggs

were gathered from wild nests, or from captive birds, then carefully hatched in laboratories. The young chicks were then returned to wild nests to be raised by adult peregrines or placed in hack boxes (sort of like halfway houses) in natural habitat where they were fed by biologists until able to fend for themselves. Suspended by climbing ropes, often on the side of sheer cliffs, DOW raptor biologist Jerry Craig carefully gathered eggs, leaving artificial eggs in their place so the adults would not abandon the nests. He later placed chicks back in the wild nests. Occasionally adult peregrines attacked him, but most often they flew by and protested. "I felt like such a heel when I took their eggs from the nest," he says. "They'd look almost dejected, standing where their eggs once were and peering about." But the instant acceptance of chicks once they were replaced in nests, the solicitous care and parenting he observed from the foster parents who suddenly found a nestful of big, hungry babies demanding to be fed, was rewarding.

In 1988 and 1989, ten peregrine chicks were hacked atop a skyscraper in downtown Denver, in hopes of establishing a pair of urban-dwelling peregrines which would feed on pigeons and other birds and nest amid the "urban canyons" of downtown high-rises. The program, sponsored by the Peregrine Partnership, a coalition of public and private groups including the DOW, also hoped to call attention to the plight of the peregrine and gather public support for recovery efforts. Last summer, a pair of unbanded peregrines visited downtown Denver but neither was from the Denver release. Though peregrines are occasionally seen downtown, there has been only one confirmed return sighting of any of the chicks released there—a young female who returned and defended the hack site, rendering it unfeasible to release birds there a third

year. Craig isn't surprised a population wasn't established (it takes release of 15-20 chicks to produce one surviving adult) but he feels the downtown releases were successful in the amount of public support they generated.

Of the 500 chicks released statewide, 80% survived to leave the nest, about the same as the wild success rate. Today, Colorado's peregrine population is doing very well, says Craig. "They're continuing to increase each year, filling in vacant areas that were at the top of our list," he adds. Colorado now has 71 sites occupied by nesting peregrines. Craig estimates there will be 100 to 120 nest sites when the population is fully recovered. "The proof of the pudding (of the population's ability to maintain itself) will be in the next five to six years," he says. "I'm very enthusiastic. The population has rebounded far better than I would have anticipated."



peregrine falcon

How To Tell Falcons From Hawks And Eagles

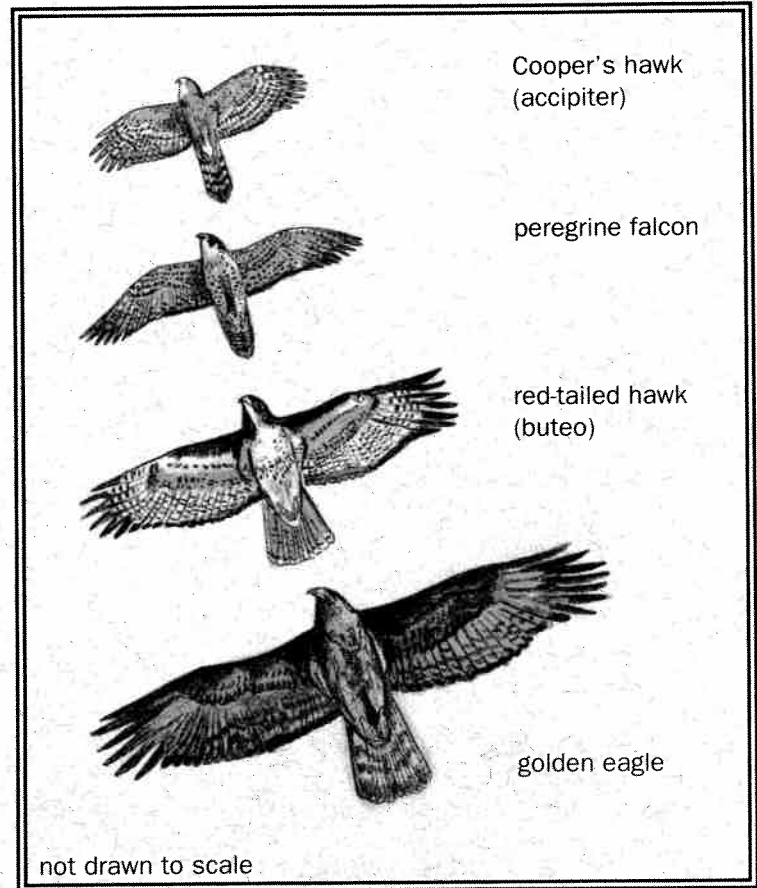
Maybe you can't tell a book by its cover, but you can tell a raptor by its shape:

Falcons have long, slim wings which taper to pointed tips. In flight the wings angle back at the wrists and wing beats are rapid. Falcon bodies are sleek; they have very round heads and long, narrow tails. Most falcons have noticeable patterns on their faces, such as the two cheek "sideburns" of the kestrel.

Buteos, the soaring hawks, have blocky bodies, broad wings and short tails. Their characteristic hunting strategy involves soaring high over open country, then dropping to the ground to seize prey.

Accipiters, the woodland hawks, have short, rounded wings and long tails. These adaptations allow them to maneuver quickly among trees after birds and small mammals. Their tails usually have light and dark bars.

Eagles are very large and can be distinguished from other raptors by their size and proportionately large, broad wings. They soar, often at great height, and have slow, deliberate wing beats.



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