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Colorado's Wildlife Company



2003 SUMMER COMPENDIUM OF WILDLIFE APPRECIATION

The Hawks of Summer



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Hunters of the Summer Sky

As much as the heat and the dry, the wildflowers and the long, lazy days, the hawks of summer are a part of the Colorado landscape.

SUMMER HAWK, WINTER HAWK

Each spring there is a seasonal changing of the guard among Colorado hawks. **Rough-legged** and **ferruginous hawks**, who have spent winter here, depart for northern nesting grounds—roughlegs to the arctic, ferrugs to the northern Great Plains. Some ferruginous hawk pairs do nest in Colorado, mainly on the Eastern Plains.

As they are going out the door, **Swainson's hawks** are coming in. These large hawks make a champion migration—as much as 7,000 miles—from

their wintering grounds on the Argentine pampas to the Great Plains. **Mississippi kites** (a kind of hawk) move up into southeastern Colorado from their winter homes in Mexico and Latin America. Spring also sees the return of **peregrine falcons**, though some birds have stayed through winter in the vicinity of their eyries (nests).

Red-tailed, sharp-shinned and **Cooper's hawks, prairie falcons, goshawks, kestrels, and harriers** inhabit our state year-round, moving within the state to more hospitable habitats depending on the season.

LEARNING TO LOOK, AND LISTEN

The hawks of summer are neither hidden nor shy. The trick to

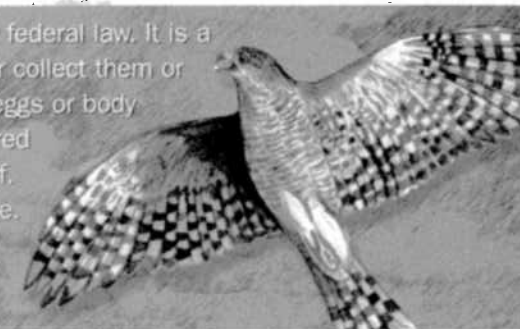
seeing them is to pay attention when you're driving, hiking, walking, or just gazing out your window. Prime your eyes to notice out-of-place shapes in trees or atop poles. Glance skyward and look for dark forms soaring overhead. Watch for birds in motion. A bird hovering over open ground, dropping forcefully toward the earth, or flying up to a perch is likely a raptor on the hunt. Look closely at birds perched on wires and poles, even small ones. The **American kestrel**, a robin-sized falcon, is proof that raptors can come in small packages. You have likely passed a kestrel a dozen times without realizing a pint-sized bird of prey sat watch above you.

As you pay attention to the birds around you, you'll begin to cultivate a sense of who is who. Raptors have a characteristic shape—**round head; short, hooked beak; upright posture.** Noting these ID characteristics can help rule out some of the usual suspects. A large, dark perched bird initially looks like a hawk, but its long beak tells you it is a crow. A wide-winged soaring shape looks like a red-tailed hawk, but its tiny head is a giveaway. It's a turkey vulture,

the two grappling talons in mock combat. Even just earning a living, raptors have a flair for drama. Imagine the sight of a bird with a four-foot wingspan—a Swainson's hawk—hovering like a helicopter before pouncing on prey.

Summer is nesting season, family time, for hawks. If these large birds are in your neighborhood, you can hardly miss them. Many build their nests in parks and open space strips, near roads, even in backyards. Watch

All birds of prey are strictly protected by federal law. It is a violation to possess, injure, kill, harass or collect them or their young, or to possess any feathers, eggs or body parts without a permit. If you find an injured raptor, don't attempt to capture it yourself. Contact your local Division of Wildlife office. Injured birds will be collected and taken to a licensed wildlife rehabilitator.



When you notice something that seems unusual, look closely. Raptors have many fascinating behaviors that are easy to see, particularly during spring courtship. No subtle head flicks or wing twitches here. Hawks rule the air and they use it as their stage. There's a good chance you'll witness a male harrier dancing in the sky in a series of steep, U-shaped dives. Nearby is the female he is trying to impress. Or you might see a pair of red-tailed hawks flying in tandem, spiraling and circling each other, the male suddenly diving at the female,

for the large, dish-shaped stick nests of Swainson's and red-tailed hawks. Raptor families are noisy. The adults often vocalize as they arrive with food, and the young call stridently to their parents when they're hungry and during the time they fledge, or leave the nest. The *kee-er!* cry of a red-tailed hawk—so dramatic that it is regularly used as a background sound in movies and TV shows—or the *killy, killy, killy* of a kestrel can be heard almost anywhere in the state, from backyards to remote mountains.

RISKS TO RAPTORS

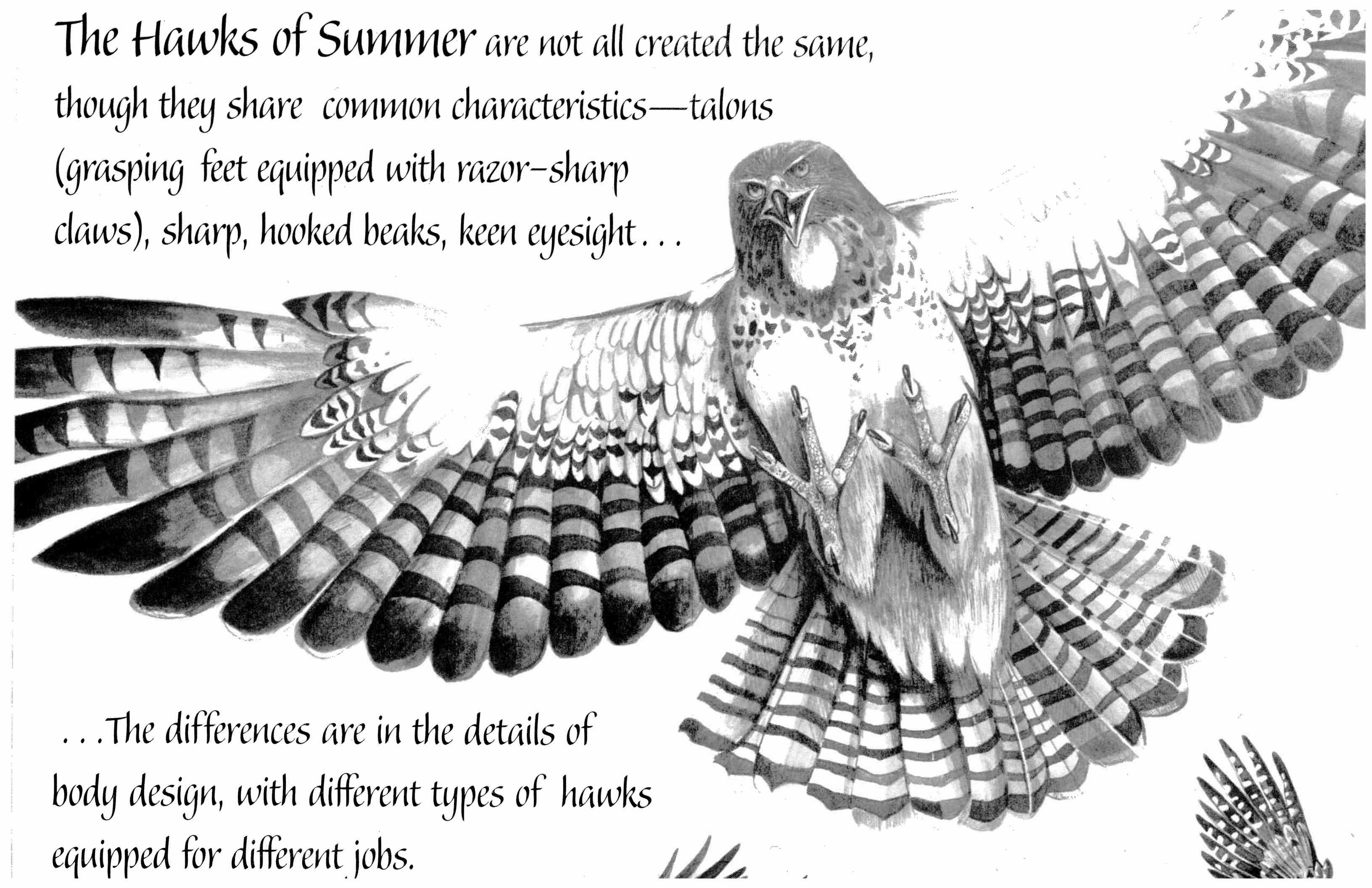
You'd think being at the top of the food chain would make raptor-life relatively free of risks. Not so. Being the animal that eats the animal that eats something else means that any persistent poisons or chemicals are passed along to the top. Both peregrine falcons and bald eagles came close to extinction in the lower 48 states due to poisoning from DDT and other toxins. The banning of DDT, and rigorous efforts to recover these species, have been so successful that both birds have been removed from endangered status. A few years ago, tens of thousands of Swainson's hawks lay dead in farm fields in Argentina, killed by agricultural pesticides. Changes in chemicals and application techniques have curbed that problem.

As with wildlife in general, the loss of habitat is the greatest threat to the hawks of summer as the wild places they need to nest and hunt are increasingly developed for growing towns and cities, agriculture, resource development and other uses. Species like hawks can be unintentionally affected by human action. Along Colorado's Front Range, for example, the eradication of prairie dogs, a primary food for many raptors, means many places where raptors used to soar are haunted by hawks no longer.

Against the infinite blue of the Colorado sky, a feathered chevron soars as if without effort or care . . . A fierce-eyed hunter perches atop a power pole, awaiting opportunity . . .

Swooping on the wing through close-packed trees, a skilled aeronaut plucks a songbird from the air . . . A sharp-taloned killer plummets earthward through the vertical airspace of a canyon. These are the hawks of summer. Have you seen them?

The Hawks of Summer are not all created the same, though they share common characteristics—talons (grasping feet equipped with razor-sharp claws), sharp, hooked beaks, keen eyesight...

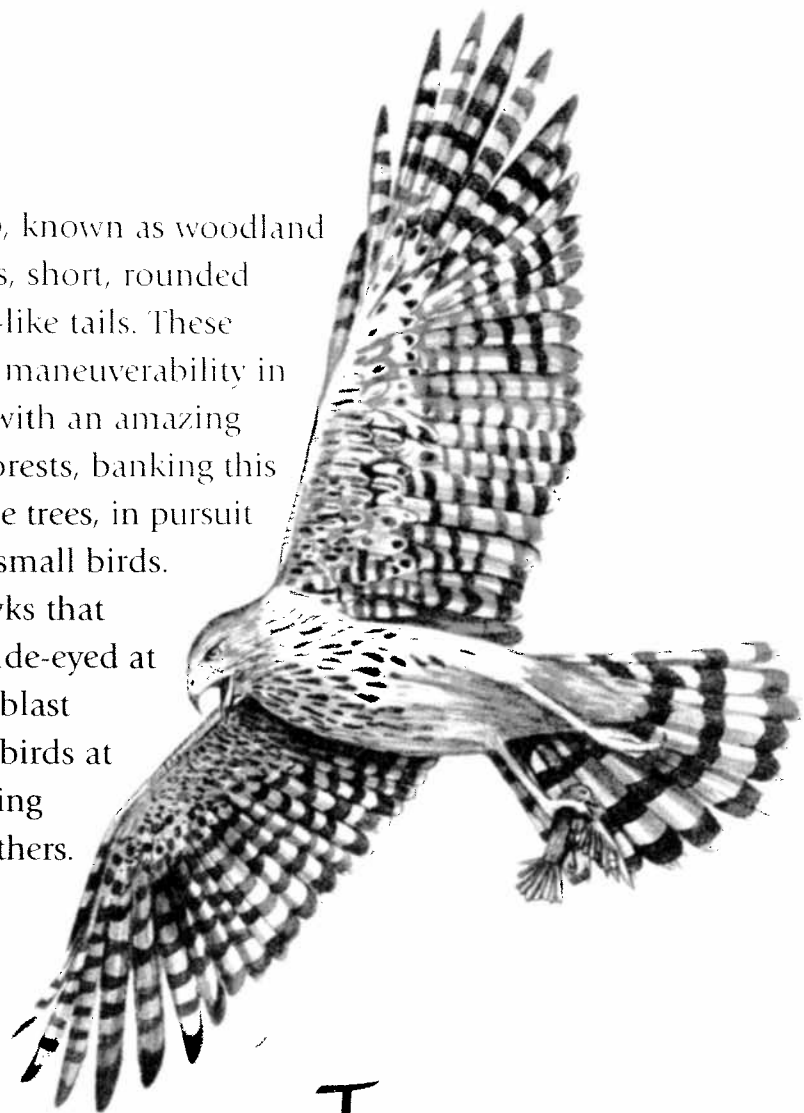


...The differences are in the details of body design, with different types of hawks equipped for different jobs.

equipped for different jobs.

The accipiters, known as woodland hawks, have slim bodies, short, rounded wings and long, rudder-like tails. These adaptations allow great maneuverability in flight, endowing them with an amazing ability to zip through forests, banking this way and that through the trees, in pursuit of their primary prey—small birds. These are the small hawks that leave songbird lovers wide-eyed at the window when they blast through a collection of birds at a backyard feeder, carrying one off in a flurry of feathers.

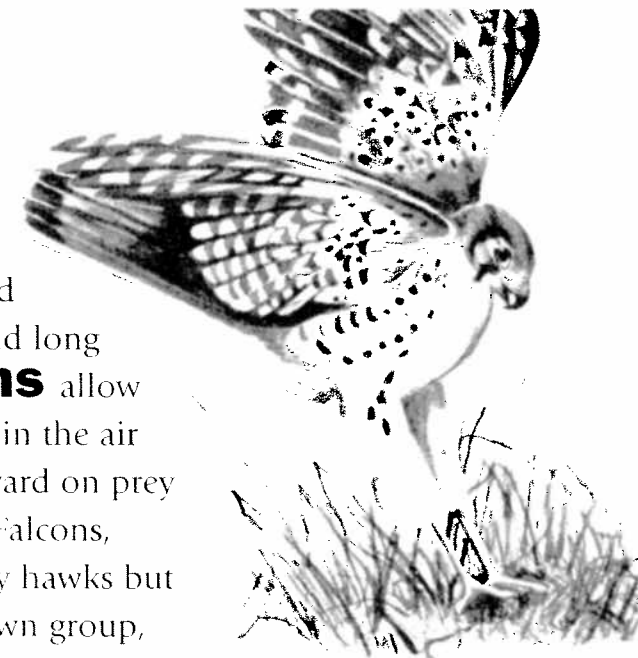
Cooper's hawk, sharp-shinned hawk, northern goshawk



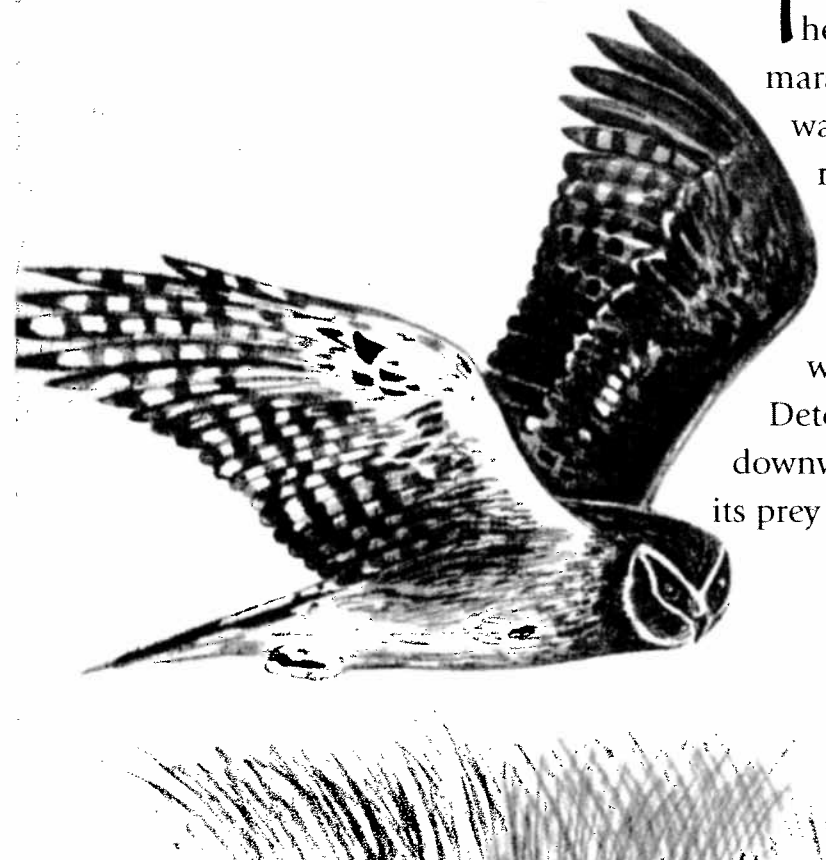
The kites have compact bodies, long slender wings and a broad-spreading tail to aid their graceful, buoyant flight as they glide and swoop after flying insects. The bobbing movement of these birds inspired the name for toy paper kites. Only one kite species, the *Mississippi kite*, lives in Colorado. It nests in the southeastern part of the state, particularly along the Arkansas River.



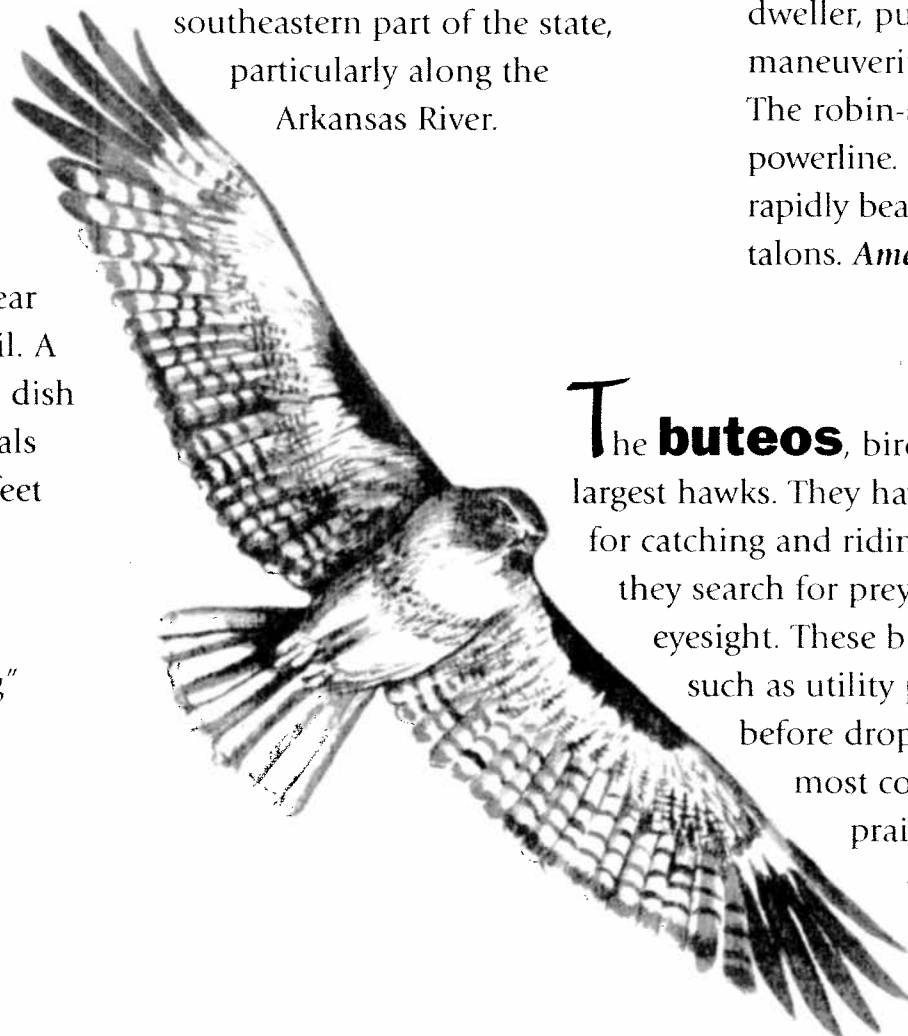
The angular, pointed wings, slim bodies and long tails of the **falcons** allow them to cut and turn in the air and plummet downward on prey at incredible speeds. Falcons, which are not actually hawks but classified into their own group, hunt over canyons and open country, using a variety of hunting techniques. The peregrine falcon stoops on its prey in classic falcon style, reaching speeds of 100 mph or more. Striking a flying bird with a deadly stroke of its clenched talons, the peregrine then descends to pluck the falling animal from the sky, or pick it up off the ground. The prairie falcon, a grassland dweller, pursues its prey close to the ground, rapidly maneuvering after zig-zagging birds and ground squirrels. The robin-sized kestrel sits on a high perch such as a powerline. Spotting its favorite insect meal, it hovers on rapidly beating wings, then drops down to catch prey in its talons. *American kestrel, peregrine falcon, prairie falcon*

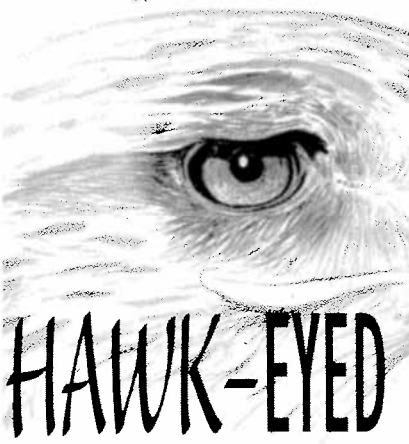


The northern harrier, once called marsh hawk for its preference for open habitats near water, is slender-bodied, with long wings and tail. A ruff of feathers around the face acts as a sound dish to help capture the rustling of any prey animals in the grass. The harrier flies along 10 to 30 feet above the ground, flapping then gliding with wings held up in a characteristic "V" posture. Detecting prey on the ground, it flies suddenly downward and upward sharply, repeatedly "harrying" its prey to startle it from cover.



The buteos, birds of grasslands and open country, are the largest hawks. They have broad, wide wings and wide tails designed for catching and riding air currents. Riding the air like sky surfers, they search for prey on the ground, using their incredibly keen eyesight. These birds also scout the terrain from high perches such as utility poles. Swainson's hawks will hover in one spot before dropping onto prey. Ferruginous hawks, which are most common in Colorado in winter, sometimes hunt prairie dogs by sitting on the ground at a burrow entrance. *Swainson's hawk, red-tailed hawk, ferruginous hawk*





HAWK-EYED

How does a red-tailed hawk soaring 500 feet in the air spot a prairie dog on the ground? How does it drop accurately onto that moving target?

In the hawk's well-stocked toolbox, one of the most powerful and impressive tools is acute vision. The vision of hawks is estimated to be the keenest of all animals. Hawks can see forward, using both eyes together (binocular vision), and to the side, with each eye seeing independently (monocular vision). Binocular vision is used in hunting—to judge depth and distance and for pursuing moving prey.

Monocular vision provides the bird with exceptionally sharp images. Two fovea, or focusing points, on the retina of each eye enable this complex vision. The first fovea, near the center of the retina, governs the monocular vision and is sometimes called the search fovea. The second, the pursuit fovea, governs binocular vision, the vision used for depth and distance perception. Additionally, a flattened lens located far from the retina creates a long focal length. Similar to the optics of a telescope, this produces a large image. Together, these and other adaptations provide birds of prey with extreme visual capability, both in perceiving objects at a distance and in pursuing and capturing prey.

Hawks have about one million visual cells to each square millimeter of the fovea, compared to about 200,000 in the human eye. This gives them a tremendous ability to form crisp, unblurred images of small and distant objects. Hawks probably see two to three times sharper than people. Birds also have "fast vision"—in a single glance, they take in a great deal of detail that a human eye only absorbs by slowly scanning the field of vision. The eyes of birds are generally more sensitive to movement and focus much faster than those of humans.

To achieve such extraordinary vision, raptors have very large eyes. Those of large hawks are nearly the same diameter as a grown man's. Because the eyeballs occupy much of the skull, they can only move slightly in the socket, thus the hawk tilts and rotates its head to direct its vision.

A bony, protective shield above the eye gives hawks their fierce and predatory gaze. Without this they would have the wide-eyed, inquisitive look of an owl. Owl-eyed instead of hawk-eyed? Somehow it just doesn't paint the right picture.

Colorado's Wildlife Company and accompanying educator's guide are available online at WWW.WILDLIFE.STATE.CO.US/COLO_WILD_CO/HOME/PG/CWCINDEX.HTM

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