

FURTHER AIDS TO HAWK IDENTIFICATION

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When studying hawks, the birder is often frustrated by having too brief a glimpse of the bird, or by observing conditions that are so poor that it is difficult is not impossible to make a correct identification. With this problem in mind, the North American Hawk Migration Association organized a panel of leading authorities on hawks to discuss some of the "Sticky Problems of Hawk Identification." Participants included Dean Amadon, co-author with Leslie Brown of the authoritative Eagles, Hawks and Falcons of the World; Richard Fyfe of the Canadian Wildlife Service; Donald S. Heintzelman, author of Autumn Hawk Migrations; and David Evans, Franklin Haas, and Fritz Scheider, a bander and two observers, respectively. The panel did not seek to duplicate information already published in most field guides; rather, they hoped to supplement this information with little-known field characteristics and comparisons.

Readers of this article, therefore, should review the relevant portions of one or more of the following publications: Dean Amadon and Leslie Brown, Eagles, Hawks and Falcons of the World; W. Earl Godfrey, The Birds of Canada; Donald S. Heintzelman, Autumn Hawk Flights; Mary Louise Grossman and John Hamlet, Birds of Prey of the World; Roger Tory Peterson, A Field Guide to the Birds and A Field Guide to Western Birds; Richard H. Pough, Audubon Water Bird Guide; and Chandler S. Robbins, et al., Birds of North America. For identification of eastern raptors, the article by Frances Elkins, "Notes on Hawks" in Bird Observer (July-August, 1974) is invaluable.

The following material surveys the migratory species usually seen in eastern and central North America, above the Deep South. Except where indicated, it is taken from the published report of the panel session as reprinted in Birding (November-December, 1976).

The panelists agreed that there are two basic rules of hawk identification. The most important one is to admit that you cannot identify every hawk. As Heintzelman stated, "It is not always possible to identify positively every bird that is passing, and you're simply deceiving yourself if you think you can." Several members of the panel recalled a comment by Robert Hughes of the Sierra Club to the effect that the more experienced the observer, the greater the number of unidentified hawks reported. The second rule of identification is always to apply the question of probability, that is, "In this place, at this time of year, at this time of day, what is that bird likely to be?"

THE VULTURES: There should be little difficulty in differentiating between the Turkey and Black Vultures. A Turkey Vulture, with its wings in the characteristic dihedral, tends to rock when soaring. Although Zone-tailed and Marsh Hawks also rock in flight, they do so primarily in crosswinds; a Turkey Vulture will rock in up-drafts as well.

The Black Vulture, easily discernible at close range, can also be recognized at some distance by the absence of contrast between the wing linings and flight feathers, a mark that is very obvious in the Turkey Vulture.

Furthermore, when Black Vultures occur in numbers, they tend to fly side-by-side.

THE ACCIPITERS: The accipiters clearly present the most difficult problems, not only because of their secretive habits, but also because of their numerous similarities as well. If the standard criteria are not sufficient to differentiate between a Goshawk and a Cooper's Hawk, the former can be recognized by its heft and by the white fluff feathers of the crissum (under tail-coverts).

A male gos and a female Cooper's can present special problems that are due to overlapping size and the tendency towards a rounded tail in the male gos. To differentiate between the two, in addition to looking for the white crissum, estimate the depth of the wing from the leading edge to the trailing edge (at the body) and compare it to the length of the tail. The Goshawk tends to have a tail slightly less than 1 1/2 times the depth of the wing. The Cooper's tail tends to be 1 1/2 times the wing depth or slightly longer. In flight, the Goshawk tends to fly straight through any rough winds, at times with such a powerful regular stroke that in Canada it is often mistaken for a Gyrfalcon. The Cooper's Hawk tends to employ what Scheider calls a "cuckoo tail," shifting the tail back and forth in extensive ruddering.

A Sharp-shinned Hawk is best told from the larger Cooper's Hawk by the proportionately smaller head, shorter tail, and by the absence of the Cooper's white lower flanks. The head of a Cooper's Hawk sticks out much farther in advance of the wings than does that of the Sharp-shinned. On the wing, the Cooper's flight is much more sustained than that of the sharpie, which tends to kite about. There was some disagreement regarding the value of tail shape as a criterion in field identification of the accipiters. Heintzelman believes that a Cooper's Hawk has an extremely rounded tail, while the sharpie's can be "essentially square, slightly rounded, or slightly notched." Evans does not think that the shape of the tail is a reliable characteristic. He asserts that the male Goshawk often possesses a rounded tail, causing confusion with female Cooper's Hawks, and female Sharp-shinned's tails are never notched, sometimes square, but usually rounded.

THE BUTEOS: The habits of the buteos generally make it easier to observe and identify them. Nevertheless, they can be confusing because there is no single consistently reliable identifying characteristic for any buteo. In the east, we commonly rely on the red belly band to identify the Red-tailed Hawk, but that band is occasionally absent on eastern redtails. In the west, where one finds many dark-phase birds, the band criterion is meaningless. The red tail is not a wholly reliable characteristic either: some melanistic Red-tailed Hawks have no red in the plumage at all. Moreover, Harlan's Hawk (Buteo jamaicensis harlani), now regarded as a subspecies of the redtail (Buteo jamaicensis), usually has no red in the tail. (Some individuals of this subspecies do have red in the tail, presumably because of interbreeding with other races of the Red-tailed Hawk.)

A dark-phase Swainson's Hawk might also be confused with a dark-phase Red-tailed Hawk, but the Swainson's Hawk will show flight feathers darker than the wing lining. The dark-phase redtail will generally have flight

feathers lighter than the wing linings, although the contrast is never as much as in the light-phase bird. When seen from a great distance, the Red-tailed Hawk might be identified by its very light wrists, which create something of a headlight effect. (This should not be confused with the wing windows of the Red-shouldered Hawk.)

One final note on the melanistic Red-tailed Hawk: Evans notes that he has banded three melanistic Red-tailed Hawks that possessed golden hackles on the back of their heads, exactly like those of the Golden Eagle.

The Red-shouldered Hawk, which appears to be making a comeback in the Northeast, is often identified on the basis of its "wing-windows." This characteristic, though common to the species, is not truly distinctive. Heintzelman notes that almost any hawk, especially a Red-tailed Hawk in molt, can appear to have such windows. Paul De Benedictus believes that the Red-shouldered's windows are unique in that they are crescent-shaped whereas other hawks have circular to rectangular windows. However, he cautions that the Red-shouldered's windows can be obscured during heavy primary molt.

To distinguish better the Red-shouldered from the Red-tailed Hawk, carefully compare the wing depth at the body with the length of the tail. The wing of the Red-tailed Hawk appears to be as deep as the tail is long (measured from the trailing edge of the wing). The Red-shouldered Hawk possesses a tail longer than the depth of the wing. Finally, the flight of a Red-shouldered Hawk often resembles that of an accipiter---flapping, sailing, and then flapping again.

The Broad-winged Hawk should present little difficulty. Viewed from above, it has a clean, evenly brown back. Adult redtails and redshoulders have variegated backs. Viewed in flight from below, the Broad-winged Hawk has distinctively light-colored wings contrasting with dark wing tips. When viewed head-on in flight, its light cere tends to create a single headlight effect. The immature, which may be more easily confused with other buteos, can be identified by a terminal tail band that is broader in this species than in the others.

The Swainson's Hawk, rarely seen in eastern Massachusetts, is almost immediately recognizable in the East because it soars with a marked dihedral. Both light and dark phases possess a white or pale area under the chin, and the immature tends to have a light leading edge on the wing.

The Rough-legged Hawk is perhaps the most difficult buteo to identify in Massachusetts. I have witnessed heated debates over whether a bird was a Rough-legged or a Red-tailed Hawk, and observers often report Rough-legged Hawks in the most unlikely seasons. Many birders seem to consider any large hovering buteo to be a roughleg, but redtails, Swainson's and Ferruginous Hawks are all known to hover at times. Only the Rough-legged and Ferruginous do so regularly, however.

There are three main color phases in the Rough-legged Hawk, including what Haas calls a "true light phase" (not depicted in any field guide). In this phase, the wing linings are mottled, lighter than in the dark phase, and darker than in the "normal light phase." The "true light phase" bird also possesses a white belly band and a very narrow, mottled terminal tail

band. Research by Tom Cade indicates that the color phases actually form a continuum. Fyfe, in field research in Arctic Canada, has found that most nesting Rough-legged Hawks are close to the "true light phase." It is the immature bird that is generally considered to be the "normal light phase."

Cade's research also indicates that it is possible to sex North American Rough-legged Hawks, although the system is not applicable to European specimens. Adult males are light on the breast and tend to possess multiple tail bands. The immature bird has a much darker terminal portion of the tail, a half or more of which might be dark, accompanied by a faint second sub-terminal tail band. The adult female has a prominent tail band without any suffusion of brown near it. In the light phase, the female has a less solid belly band or bib, which tends instead to be patchy. The immature light phase bird has a solid brown belly and lower abdomen.

The Ferruginous Hawk, with circular windows on the top of its wings and a very pale tail is easily identified. However, contrary to some sources (such as Pough), this bird has been known to hover. Where it occurs with redtails and Swainson's Hawks, it is advisable to check the angle of the wing in any soaring buteo. Of these three buteos, the Red-tailed Hawk holds its wings the flattest; the Swainson's has a marked dihedral; and the Ferruginous lies between the two extremes.

THE EAGLES: The Bald Eagle is easy to differentiate from the Golden Eagle by its much larger head, which sticks out in front as much as the tail does in back. By contrast, the Golden Eagle's tail is approximately three times as long as its head. The Bald Eagle's wings are also much longer and more slender. When gliding, the Bald Eagle holds its wings flat or curved gently downwards, while the Golden Eagle holds its wings in a dihedral, arching up in moustache-like fashion.

The dihedral also separates the Golden Eagle from the dark phase Rough-legged Hawk. The Golden Eagle's wings are flat from the body to the wrist, the dihedral being between the wrists and the wing-tips. The dihedral of the Rough-legged Hawk is the reverse, between the body and the wrist, with the wings flat from the wrist to the tip.

THE MARSH HAWK (HARRIER): Heintzelman finds that many observers confuse the Marsh Hawk with a falcon, especially with the Peregrine. Personally, this does not seem unlikely. On Monomoy, I have seen Peregrines patrolling the marshes, gliding and tilting exactly like a Marsh Hawk, almost as if in conscious imitation of the latter. Humans are not the only observers to experience difficulty in differentiating between a Marsh Hawk and a Peregrine. In the autumn of 1976, I noticed that the mere appearance of a Marsh Hawk over the Stage Island Pool at Plum Island would raise all the ducks and shorebirds. These birds had been conditioned by a Peregrine that had been frequenting the region for approximately one month, and apparently they did not quickly differentiate between the falcon and the harrier.

When seen in migration, the Marsh Hawk can be identified at a distance by its jerky flight. It snaps its wings.

Maurice Broun, commenting on the Marsh Hawks seen at Hawk Mountain, thought that there were three distinct color-coordinated migratory movements in the fall. The immature birds, tending to be orangish-brown, move in late August and in September. They are followed by the brown females, which predominate during October. The males come later in the season, almost exclusively throughout November. Similar patterns occurred in Minnesota.

THE OSPREY: The panelists thought that the Osprey did not present any significant identification problems.

THE FALCONS: The Gyrfalcon should have special significance for eastern Massachusetts birders, for at least two and perhaps as many as four individual gyrs were sighted in the eastern part of the state this winter. White-phase birds were observed in Newburyport-Rowley and in Boston-Cambridge, while one or possibly two dark-phase gyrs were reported on the Cape. (See Bird Observer, September-October 1976, and Birder's Kit, December Field Notes.) The white-phase Gyrfalcon should provide no problem, except perhaps for an initial confusion with a Snowy Owl, but the dark-phase gyr is often mistaken for a Peregrine. Fyfe reports that in Canada many observers automatically identify any large blue-backed falcon as a Peregrine, but subsequent examination has shown some to be dark-phase gyrs, which can have a blue back and a very black head, quite similar to the Peregrine's. The Gyrfalcon can be distinguished by its size, its heavier wingbeat, and by a more substantial (broader) tail. The gyr can pose another problem, however. As was the case in Boston, when the Gyrfalcon soars it can splay its wingtips, giving the wings a definitely buteonine appearance. Based on personal observations at Plum Island, this holds true for soaring Peregrines as well, although their wings are not as thick as the gyr's.

The Prairie Falcon should present no problems in the field, although some members of the panel thought that the black patches under the wings extend much farther onto the wing than most field guides indicate. Fyfe notes that one can age Prairies by their tails. Adults tend to have rusty-colored tails, while immatures' tails are a barred sandy brown.

The commonly described characteristics of the Peregrine were considered sufficient by the panel, except that some members thought that there could be difficulty in differentiating between immature Peregrines and Prairies. The immature Peregrine, with a much darker, heavier head pattern, lacks the Prairie's underwing patches.

Similarly, the Merlin provides few problems. It is particularly easy to identify in flight by its habit of holding its wings lower than its body while maintaining a steady wingbeat.

The Kestrel provides a greater challenge. It is my experience that at a distance it is possible to confuse a Kestrel with a Peregrine. Their shape is similar, but the base of the Kestrel's wing is narrower than the Merlin's or the Peregrine's. The Kestrel also shows some body between the trailing edge of the wing and the tail; Merlins and Peregrines do not. Furthermore, the Kestrel possesses a series of translucent dots on the trailing edge of the wing. These are especially noticeable in the male. The bird's light buoyant flight is also distinctive. Although it is

commonly considered to be the only falcon that hovers, observers are cautioned that the Prairie Falcon is known to hover on occasion.

UNIDENTIFIEDS: Despite the many contributions of the panelists, you should still encounter a number of these. Don't call a hawk unless you are positive of its identification. Rather, when you recognize that you are dealing with a difficult bird, try to take note of every characteristic that the conditions permit you to observe. When possible, write them down for future reference. If other birders are in the area, ask if they saw the bird, what they thought it to be, and why. If no such reports are available, carefully analyze your data. What family, subfamily or genus was it or could it have been? What factors encouraged you to identify it? What was seen or not seen that caused you to eliminate other possibilities? It is frustrating to see any hawk that you cannot identify, but by keeping thorough notes on the unidentifieds, not only will you learn better what to look for the next time, you will increase your appreciation of these spectacular creatures as well.

If you would like to expand your knowledge of hawks beyond reading the literature cited above, the Massachusetts Audubon Society occasionally offers courses on the state's hawks and owls. You are also invited to participate in the New England Hawk Watch, held on one weekend during spring migration and on four weekends during the fall. Such field work with other observers, some of whom may be more experienced, is often instructive as well as enjoyable. The Fall 1977 Hawk Watch will be preceded by an evening session on hawk identification, the precise date and location to be announced later.

LONG-EARED OWL VOCALIZATIONS

The following is an excerpt from an article entitled "Observations of Nesting Long-eared Owls," in the Colorado Field Ornithologist, No. 28, Fall 1976, regarding vocal responses to human interlopers near the nest:

"When young were in the nest, an adult would deliver a peculiar harsh squeal at a rate of six to ten per minute. When no young bird was evident, the call was a sharp double bark, 'bek-bek,' about eight times per minute. The first kind of call was uttered in flight and from an exposed perch, while the second was given from a perch. Bill-snapping was the most common used threat, and this kind of activity continued until the young were completely fledged. The only vocalization the young ever gave was a loud, plaintive whistle with a rising inflection. This call was made when the young were fledged; it lasted about a full second, was infrequently uttered, and sounded like a Broad-winged Hawk call."

BRIELMAN'S SWAMP

The State Division of Fisheries and Wildlife has purchased 120 acres of Brielman's Swamp in Pittsfield. The swamp is one of the favorite birding stops in western Massachusetts, and is the breeding ground for gallinules, rails, snipes, teals and other species. An outstanding area for migrants, this is a pleasant stop-over when you're out at Mount Greylock.