

# Kenn Kaufman THE PRACTICED EYE

Illustrations by Kenn Kaufman

## A Flicker of Recognition: Three Distinct Forms, and Their Offspring

**The common everyday flicker turns out to offer many surprises for birders. It may be an “unmistakable” bird, but it can also challenge and sharpen the perceptions of observers.**

BIG, BOLD, AND NOISY, FOUND throughout North America except in the highest Arctic, the Northern Flicker (*Colaptes auratus*) is one of our most familiar birds. Drumming on exposed snags, hopping clumsily on the ground, flashing bright colors when it flies, the flicker is so easy to see and to recognize that it could be called unmistakable. And yet, paradoxically, it also offers enough identification challenges to test the abilities of the expert.

The reason for this paradox is that the species comprises three well-marked subspecies groups in North America. For many years, these three were regarded as full species. We have established English names for the three forms: “Yellow-shafted Flicker” for the *auratus* group of the north and east; “Red-shafted Flicker” for the *cafer* group of the west; and “Gilded

Flicker” for the *chrysooides* group of the desert southwest. These names are still perfectly valid, and I use them in this column, hereafter, without the unnecessary quotation marks.

No other North American birds are named for the color of their feather shafts. Even the small body feathers of flickers, if examined carefully, will show some of the characteristic color (tending toward bright yellow or salmon-red). But the color is most striking, and most obvious in the field, on the shafts of the big flight feathers in the wings and tail.

The three flicker forms are so distinctive that they should be easy to



**Figure 2. Intermediate color in the wings and tail (orange, and/or a mixture of red and yellow) from the head patterns of the two forms. The birds illustrated here (two females on the**

recognize in the field. The complication comes from the fact that the forms interbreed. Where the Yellow-shafted meets the Red-shafted (on the western Great Plains, across southern Saskatchewan and Alberta, and through most of British Columbia) and where the Red-shafted

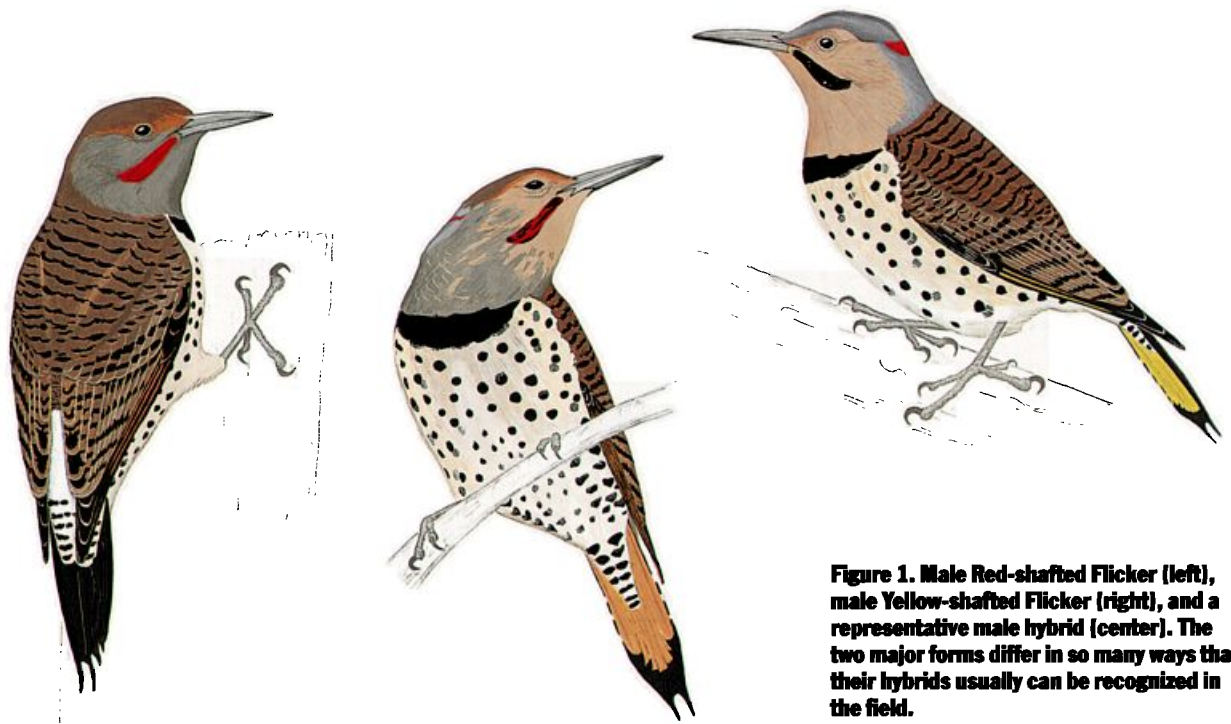
meets the Gilded (locally in Arizona), isolation seems to break down completely and the birds interbreed at random. Separating a hybrid flicker from either of its “pure” parental forms can be quite challenging at times.

A note on terminology: many scientists use the term “hybrid” only for a cross between two species; a cross between two subspecies (as in the flickers) would be called an “intergrade.” In this column, however, for brevity and clarity, I am calling all these flicker crosses “hybrids.”

The most detailed study of flicker hybridization was carried out by Lester L. Short some thirty years ago, and Short’s (1965) publication on this topic is essential reading for anyone interested in flickers. Short found a wide hybrid zone between Yellow-shafted and Red-shafted flickers. On the western Great Plains, flickers were restricted to the isolated riverside trees, so the numbers of birds involved were limited. Farther northwest, across British Columbia, there was a wide hybrid zone through continuous forest, with huge numbers of hybrids. Apparently there are large areas where, in summer, there are no “pure” individuals of either

form, and *all* the birds are hybrids.

Red-shafted × Yellow-shafted hybrids usually can be recognized in the field, because the two parental forms differ in so many ways. Besides the well-known colors under the wings and tail, their head colors are completely different. Yellow-shafted



**Figure 1. Male Red-shafted Flicker (left), male Yellow-shafted Flicker (right), and a representative male hybrid (center). The two major forms differ in so many ways that their hybrids usually can be recognized in the field.**

has a gray crown and nape, tan face and throat, red crescent on the nape, and (in males) a black malar stripe. Red-shafted has a brown crown and nape, gray face and throat, no nape crescent, and (in males) a red malar stripe. Their hybrids almost always show some combination (or intermediate condition) in head pattern, so looking a flicker in the face will usually tell you something about its back-

ground. More subtle differences include back color (slightly warmer brown in Yellow-shafted, grayer brown in Red-shafted), breast color (usually warmer buff in Yellow-shafted, grayer in Red-shafted), and amount of black on the tail-tip and chest patch (slightly more, on average, in Red-shafted).

Hybrids may show up anywhere in the West in winter, moving south

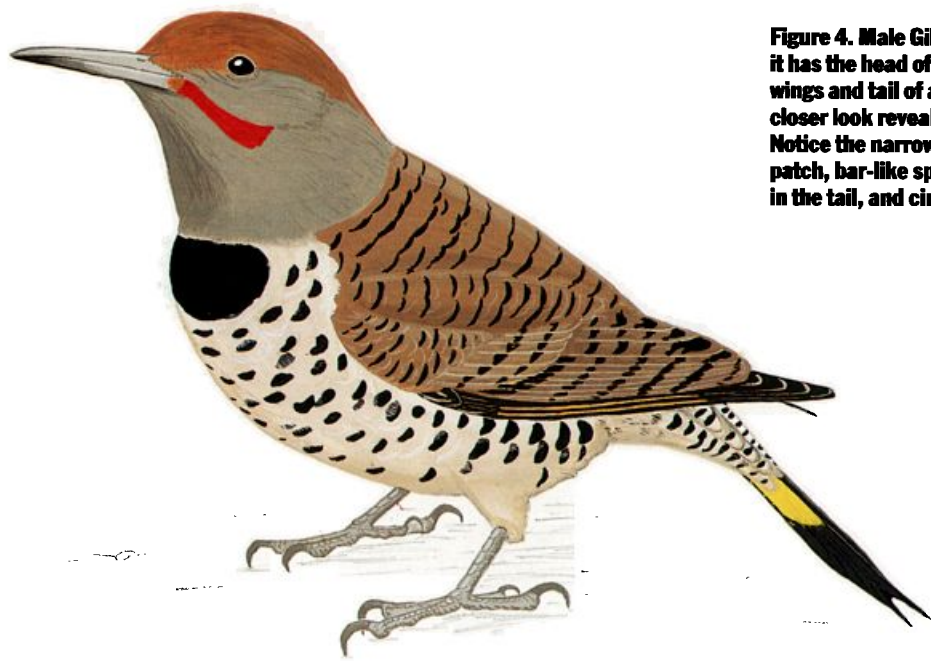
from the massive zone of overlap in British Columbia. Hybrids (and a few “pure” Red-shafteds) also move east to the eastern edge of the Great Plains in winter. However, a birder who looks closely at flickers will see some that show traces of the “wrong” markings, even outside this seasonal pattern—in the West in summer, or far to the east of the plains—at times and places where hybrids would seem



**low) is one potential sign of a hybrid. On a bird at rest, however, head pattern is often easier to see; hybrids usually combine elements right, three males on the left) show just a few of the possible combinations.**

**Figure 3. Are these hybrids? Not necessarily! A flicker that is studied carefully will often show traces of the “wrong” markings. For example, Red-shafted Flickers (especially males) may show traces of red on the nape. Male Yellow-shafted Flickers often have traces of red around the edges of the black malar stripe. These variations may represent *introgression*, or genes that have “tricked in” from the direction of the hybrid zone over many generations, but it would be wrong to call the birds hybrids or intergrades.**





**Figure 4. Male Gilded Flicker. Superficially it has the head of a Red-shafted and the wings and tail of a Yellow-shafted, but a closer look reveals many differences. Notice the narrow back bars, the wide chest patch, bar-like spots below, extensive black in the tail, and cinnamon crown.**

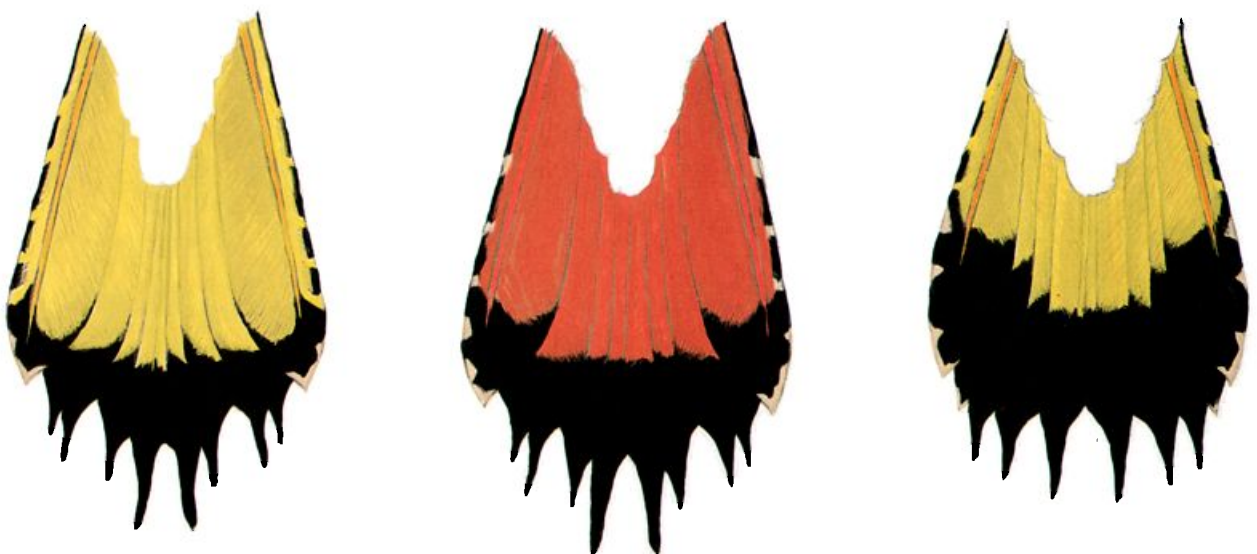
unlikely. Are such birds vagrants from the hybrid zone? Probably not. In most cases, they represent the phenomenon of *introgression*.

Introgression is a complicated subject, but its general effects on the appearance of flickers are not hard to understand. In simplified terms, genes are spread through the population of any bird species as individuals move away from their places of birth, find mates, and raise young. As long as there is no major gap in the range,

even minor movements by individuals will gradually spread genes throughout the population. In flickers, there is no gap between the hybrid zone and the rest of the breeding range; so there is nothing to keep Red-shafted Flicker genes from filtering eastward throughout the range of Yellow-shafted Flicker (and vice versa). As a result, many Yellow-shafteds far east of the plains—birds that have never seen a Red-shafted or even a hybrid—are carrying some

Red-shafted genes. And their effects may be visible in the field at times.

L.L. Short's (1965) detailed analysis suggested that about one-third of all the Yellow-shafted Flickers in eastern North America showed traces of red or orange in the wings or tail. Male Yellow-shafteds often had traces of red in the black malar stripe; even as far east as the Atlantic Coast, nearly ten per cent of the males examined showed such traces. Other Red-shafted characteristics such as traces



**Figure 5. Tail patterns, as seen from below, of Yellow-shafted Flicker (left), Red-shafted Flicker (center), and Gilded Flicker (right). The Red-shafted averages slightly more black in the tail than the Yellow-shafted, but the Gilded shows far more black than the other two. Often the first giveaway for a Red-shafted X Gilded hybrid [especially those cryptic ones with red in the wings and tail, superficially much like the Red-shafted] will be an excessive amount of black in the tail.**





**Figure 6.** Chest patterns of Yellow-shafted Flicker (left), Red-shafted Flicker (center), and Gilded Flicker (right). Adult females are depicted. The black patch is a narrow crescent in Yellow-shafted, a thicker crescent in Red-shafted, and a heavy oblong in Gilded. Notice also the difference in color of the underparts and shape of breast spots. Gilded Flicker is slightly smaller than the other two forms.

of crown or throat color, or restriction of the red nape patch, also turned up in Yellow-shafted populations.

Introggression may be even more apparent in the opposite direction. Traces of the red nape patch often show up in Red-shafted Flickers, especially in males, and yellow often appears in the wings and tail. Traces of gray in the crown and/or tan on the face are often seen.

In a note for banders, Short (1971) suggested some guidelines for separating introgressant birds from true hybrids. Briefly stated, a genuine hybrid is likely to be strongly intermediate, or to show strong "hybrid tendencies" in several different characteristics. A bird that looks mostly like one of the parent forms and has "hybrid tendencies" obvious in only *one* characteristic, or faintly developed in several characteristics, is likely showing the effects of introgression. It will not always be possible to tell the difference, especially in areas just outside the main hybrid zones.

The separation of Yellow-shafted, Red-shafted, and hybrid flickers would be a sufficiently interesting problem by itself, but another dimension is added by the Gilded Flicker of the southwest. The Gilded is often described as having "the head of a Red-shafted Flicker and the body

of a Yellow-shafted Flicker." If this were really true, we might wonder how we could be certain of telling the difference between a Gilded Flicker and a Red-shafted X Yellow-shafted hybrid.

Actually, the Gilded differs from the other two in a number of ways. Its slightly smaller size is not evident in the field, but its greater amount of black in the tail is evident even as the bird flies overhead. The black bars on its upperparts are narrower and farther apart, its black chest patch is deeper—more of a thick oblong than a narrow crescent—and the spots on its underparts are generally wider, looking more like short horizontal bars than round spots. Its crown is a brighter cinnamon-brown, and its back is paler brown than in the others.

Hybrids between Red-shafted and Gilded flickers are often overlooked. Depending on the general color in the wings and tail, they are likely to be passed off as one of the parental forms. Actually, there are places in

Arizona (such as the popular birding area around Patagonia) where *all* the breeding flickers appear to be hybrids. Close study of the pattern of black on the chest, tail, back bars, and breast spots, as well as the color of the crown, will usually reveal the intermediate character of these birds.

Special problems are posed by juvenile flickers, and birders should beware the confusion that these young birds can cause. Fortunately, the birds are in juvenal plumage only for a few weeks at most after leaving the nest. These young birds have wider black bars on the back than adults in each form, and their face and throat colors can be a mixture of tan and gray. Juvenile male Red-shafteds often show a mix of red and black in the malar stripe. Juvenile female Yellow-shafteds have black malar stripes like males, even though adult females do not. Odd-looking flickers seen in summer may well be young birds, not hybrids or introgressants. ■

The information in this column is based heavily on work by Lester L. Short, Jr.: (1965) Hybridization in the flickers (*Colaptes*) of North America. *Bulletin of the American Museum of Natural History* 129: 307-428; (1971) Hybridization and introgression in flickers. *EBBA News* 34: 4-8. I wrote a summary of this I.D. problem several years ago: (1979) Field identification of the flicker forms and their hybrids in North America. *Continental Birdlife* 1: 4-15.

My illustrations for this column were based on field sketches done in several parts of North America, and on specimens at the University of Arizona, Tucson. As always, I am grateful to Stephen M. Russell and Thomas R. Huels for allowing me access to the collection. Additional essential information came from Ella Sorensen and Rick Bowers.