

Buteo Identification in North-central Texas – Typical Species

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Subspecies in North-central Texas Buteos

The issue of subspecies arises here largely because of one species – the Red-tailed Hawk. Because of multiple identifiable Red-tailed Hawks in the field (which are sometimes misidentified as other species), we are forced to discuss Red-tailed Hawk subspecies. You may wish to skip this part of the paper for the first hawk watching field trip, but eventually we must review this information as we move into the winter months.

By definition a subspecies is defined as a taxonomic group that is a subdivision of a species: It usually occurs because of geographical isolation within a species [Free Dictionary]. For Red-tailed Hawks, there are five recognized subspecies that appear to have geographical boundaries and some geographical isolation in regards to breeding. Most of you in this class have seen at least three distinct Red-tailed Hawk types wintering in North-central Texas even if you weren't sure what you were seeing.

David Sibley points out accurately that the rules for a subspecies, outside of some geographical isolation, are almost non-existent. It used to be that most subspecies were nearly always identifiable in the field (like Dark-eyed Juncos and Northern Flickers). Because of DNA work in modern times, some subspecies now can show evidence for geographic isolation but look very similar in the field (certain Acorn Woodpeckers or White-eyed Vireos). Trying to reduce sightings to the subspecies level all the time can be a real pain now, but fortunately the identification of most subspecies isn't all that important for the majority of birds. Only a few will pose a special problem for this class.

It's important to note that many hawks, like Swainson's Ferruginous and Broad-winged Hawks, have both light and dark morphs. We use the word "morph" rather causally in field ornithology,

but for our purposes, we should distinguish the word “morph” from the word “phase”. A Little Blue Heron goes through a color “phase.” It is white for almost two years before changing to its blue coloration. A dark Swainson’s Hawk, is a color “morph.” It stays that way permanently and never changes (molts) into something else. So the difference between a color morph and a color phase is that a phase is a process of changing into a different color plumage at a certain molt stage while a color morph is a permanent condition. Some hawks have particular color morphs, but none have color phases like the Little Blue Heron. When a hawk is a dark morph bird, it’s always a dark morph.

We could possibly see one of these uncommon dark morphs hawks in Texas. It would be a nice challenge. Ferruginous, Broad-winged, and Swainson’s Hawks all have dark color morphs in a small percent of their populations. With Red-tailed Hawk, however, there are not just dark and light morphs of the species. There are dark and light morphs of two of the subspecies. It is no longer a nice challenge. It can be a headache.

David Sibley on **Red-tailed Hawks** refers to the following North American Red-tailed Hawks as identifiable in the field below: This is from his Blog: <http://www.sibleyguides.com/bird-info/field-identifiable-subspecies-of-birds-an-annotated-list/>

Red-tailed Hawk – *Buteo jamaicensis*

Most subspecies differ only slightly and on average in plumage, and are barely distinguishable except by subjective judgment and considering location. Krider’s may be only a morph. Harlan’s Hawk (B. j. harlani) is the exception, and is nearly 100% identifiable.

Red-tailed Hawk (Western) – *Buteo jamaicensis calurus* group

Red-tailed Hawk (Eastern) – *Buteo jamaicensis borealis* group

Red-tailed Hawk (Harlan’s) – *Buteo jamaicensis harlani*

Red-tailed Hawk (Krider’s) – *Buteo jamaicensis kriderii*

Red-tailed Hawk (Southwestern) – *Buteo jamaicensis fuertesi*

Of the ones listed here, I’m not sure there are any photo-documented dark morph “Western” Red-tailed Hawks in North-central Texas (the first subspecies listed), but there are some light morph Western types in all seasons. We do occasionally get *fuertes* Red-tailed Hawks (the last subspecies on this list) but they are found more in the western counties and have qualities resembling both *borealis* and *krider’s* Red-tailed Hawks. I’ll save some comments on this for later at the end of this paper. The other three subspecies are worth much longer commentary in this paper. They are identifiable in the field and usually grab our attention.

Red-tailed Hawk and Its Subspecies

Generally for north-central Texas, we see the eastern Red-Tailed Hawk (*borealis* subspecies). It's the default Red-tailed Hawk in all of eastern North America and much of the eastern half of Texas. Most Red-tailed Hawks in the summer months are the eastern *borealis*, and it's still the default Red-tailed Hawk observed in winter. For most of us in this class, the *borealis* subspecies is the typical Red-tailed Hawk in most seasons.



Byron Stone (Llano Co., January 2, 2014).

This *borealis* Red-tailed Hawk is easily identified in flight by reddish tail, noticeable belly band, patagial bars at the leading edge of the wing, and some small dark wrist comas. From above

they have a brown, but slightly mottled back. Most of us in this class have seen dozens of this particular subspecies.



Eastern *borealis* Red-tailed Hawk

Krider's Red-tailed Hawks - The wintering months of North-central Texas provide us with a little more variety. During winter, we have a population of the *krider's* Red-tailed Hawk – a bird with a frequently unmarked breast and belly and some much lighter coloration in the head, back, tail, and underwings. The tail is variable. At this time, most experts do not see *krider's* Red-tailed Hawk as an actual subspecies although it is still officially considered such. It is generally now considered a distinct color morph of another subspecies – possibly *borealis* which is so common in this area, or one of the northern subspecies (both Clark and Liguori have online papers that refer to this confusion). You may see “*krider's*” referred to as a full subspecies of Red-tailed Hawk or you may it as a color morph. The literature on this has not caught up with current research. See Sibley's comments in italics on this bird in the text box above.

Krider's Red-tailed Hawk is generally uncommon in status in North-central Texas, and I feel lucky to observe one in any winter. In flight, they are nearly all light underneath, but the head and back show a marked difference and lighter feathering when seen perched.

See [images of *krider's* Red-tailed Hawk](#) by Colette Micallef and Norman Welsh here. This one is very white in the head.

Western Calarus Red-tailed Hawk - Fortunately, in a North-central Texas winter we rarely encounter western-type dark morph or rufous morph Red-tailed Hawks of the *calarus* subspecies which can be found west of the Rocky Mountains. It would cause a great degree of confusion in this area if it was recorded regularly. Bill Clark, author of the “Hawks” field guide, has said more than once that all dark-breasted Red-taileds he has ever seen in a North-central

Texas winter are the *harlan's* subspecies of Red-tailed Hawk, not dark morph *calarus* Red-tailed Hawks. The *calarus* Red-tailed Hawk is, however, found regularly in far west Texas. We should spend a little time understanding the difference between the two subspecies.

For comparison, look at images of a *calarus* [dark-morph Western Red-tailed Hawk here](#) by hawk expert Jerry Liguori. As I just said, this is a subspecies not generally found here in Region 2. Birds like this can occasionally be found in the far west or southwest Texas counties, but generally not in north-central Texas. Pay close attention to the tail in this image. We also have two dark morph *calarus* Red-tailed Hawks documented from Uvalde County in the Texas Hill Country (2009). You can view them [here at the very bottom of the page](#) from Region 5 (March 8, 2009 and November 22, 2009 – the two bottom images). These are different birds but both are of the *calarus* subspecies. On close examination, they will be a bit different in color, tail, and wing pattern from the *harlan's* Red-tailed Hawk we see in this region. We will get to the best field mark in a minute.

Harlan's Dark Morph Red-tailed Hawk -The standard *harlan's* Red-tailed Hawk looks dark from below. Roughly 90% of all of the *harlan's* subspecies are dark morph birds (*Liguori and Sullivan, Birding magazine, 2010*). Most of the time, the upper breast can be a bit variable as in image A. But other times they may look entirely dark as in image B. Image C is a more dramatic example of a *harlan's* Red-tailed Hawk.

- A. [Typical *harlan's* Red-tailed Hawk for North-central Texas](#) – This is Mark Lockwood's image from Runnels Co., December 27, 2011 (this image was not taken in North-central Texas but is representative of what we get here).
- B. Here is a [darker breasted *harlan's* Red-tailed Hawks from north-central Texas](#) – Photo by Vernon Patterson, from January 26, 2011. The throat is almost completely dark and the tail slightly barred.
- C. Here is a close-up of a [dark *harlan's* Red-tailed Hawk](#) by Vernon Patterson from Van Zandt County. This bird also shows a lot of variability in the wings and tail. Yet it remains a *harlan's* Red-tailed Hawk.

The main difference: Notice that none of the dark *harlan's* Red-tailed Hawks in these photographs actually have typically patterned red tails like the one in Jerry Liguori's *calarus* image above. It is one of the distinguishing characteristics of *harlan's* versus the dark western *calarus* Red-tailed Hawk. The *harlan's* Red-taileds will show lots of variability in color but the tail will almost never be entirely red like the light eastern or dark western Red-tailed Hawk. Bill Clark has written an entire paper on the tail variation of *harlan's* Red-tailed Hawk which can be downloaded in the "Download" section of this website. It's actually a fascinating read with tons of images.

Actually photo-documenting a dark western-type *calarus* Red-tailed Hawk in North-central Texas would be quite a challenge. The documentation of the tail color and pattern would be an absolute necessity given the variety of tail colors and patterns in the related *harlan's* subspecies.



Fig. 1. Adult Red-tailed Hawk tail; this pattern is shown by most adult Eastern and some adult Western Red-tailed Hawks. *New Jersey, October*; photo by © William S. Clark.



Fig. 2. Adult Red-tailed Hawk tail; this pattern is shown by many adult Western Red-tailed Hawks. *Washington, January*; photo by © William S. Clark.



Fig. 3. Typical adult Harlan's Hawk tail. From Burke Museum, University of Washington; photo by © William S. Clark.

er 2001, Wheeler 2003, Liguori 2005) show more variation, including adult tails with dark banding and more rufous near the tips. Mindell (1985) has in-hand photos of five adult Harlan's showing the upper tail; three show dark banding, and three show noticeable rufous. Wheeler (2003) has nice photographs of 23 adult Harlan's Hawks (although some are not labeled as such), no two of which are exactly alike.

Taverner (1927) first wrote about the variation in adult Red-tailed Hawk tails. He showed in his *Plates 1 & 2* three tails of adult Red-tailed Hawks but 13 tails of adult Harlan's Hawks. (Most of those labeled as Krider's Hawks were actually Harlan's.) Lish and Voelker (1986) showed six adult Harlan's tails and only three of adult Red-tails in their article on Red-tailed Hawk tail patterns from Oklahoma. Wood (1932) noted the variation in adult Harlan's tail patterns and commented, "There is quite a variation in the color of the tail, more than even in the body color."

I have examined photos of more than 150 adult tails and inspected more than 800 adult specimens. My conclusion is that tail variation in this taxon is extreme. Indeed, *no two tails are exactly alike in color and pattern.*

Adult Harlan's Hawks are easy to distinguish from adults of other Red-

Table 1. Amount of Rufous in 467 Adult harlani Tails. Sampled from tails of museum specimens and adults in hand for banding. All had only traits of Harlan's Hawks.

Amount of Rufous	Number	Percent of Total
None	152	33%
<10%	124	26%
10-50%	61	13%
>50%	130	28%

The above image is from an article by Bill Clark. Please note the table on the lower right. While Figure 3, may be typical, the *harlan's* is much more variable in the amount of rufous color than Figures 1 and 2. There are many pinkish and even barred variables to the tails of *harlan's* hawks. The take-away here is that the tails of the *harlan's* subspecies never quite look like figures 1 or 2 regardless of variability.

Field Tip for Texans: All dark morph Red-tailed Hawks should be closely examined at the TAIL. If the tail is barred, whitish, or pinkish, just call it *harlan's* and move on. If a dark Red-tailed Hawk shows a deep red tail color like a typical eastern Red-tailed Hawk, it might be worth photo-documenting.

Although uncommon, dark morph *harlan's* Red-tailed Hawks can show up almost anywhere in north-central Texas. Most all the *harlan's* dark morph Red-tailed Hawks we see in north-central Texas are identifiable in the field. However, the *harlan's* subspecies is still highly variable in its own way (which leads many birders to refer to them inaccurately as western or dark Red-tailed Hawks).

Light Morph Harlan's Red-tailed Hawk - The other 10% or so of the *harlan's* Red-tailed Hawks are of the light morph variety. These are very interesting birds when viewed up close. *Harlan's* light morph Red-tailed Hawks are frequently misidentified as light *kridler's* Red-tailed Hawk. At a distance, it can be impossible to distinguish with certainty.

Let's look at *kridler's* and light morph *harlan's* Red-tailed Hawks in comparison.



This is a light morph *harlan's* Red-tailed Hawk from Dallas Co., on January 24, 2014 by *Amol Khedgikar*.



Here is another light morph *harlan's* Hawk from Tarrant County, March 17, 2003, by *Martin Reid*. Again you can see some pinkish and white colors on the tail, but certainly not the standard red tail of the typical "Eastern" and "Western" Red-tailed Hawks.

On both of the above *harlani* birds, you can also see a lot of white around the eye, with a slight dark line going through the eye toward the back. A significant difference is that the light morph *harlan's* Red-tailed Hawk has some strong remnants of a belly band as shown here. You almost never see a belly band on a *krider's* Red-tailed Hawk. If there is one, it's very faint.

Most *harlan's* Red-taileds that I see in photos also have a dark nape, and are fairly dark on the back as this one is. Also noteworthy is the fact that most light morph *harlan's* Red-tailed Hawks show no peach or rust colors anywhere *except* maybe the tail.

Nearly all the light morph *harlan's* hawks are indeed white, not buffy. Typical red-taileds and even *krider's* Red-tailed Hawks may show a buffy coloration in the breast, belly, thighs, or wings. Where white feathering exists on a light morph *harlan's*, it is usually bright white.



This is a *Krider's* Red-tailed Hawk from Chambers County, near Houston, from February 27, 2010. Photograph by *Greg Page*.

On this bird, you can see a light reddish tail, unpatterned with a whitish termination. This bird also has no belly band and a significantly whiter back, which is usually the case with a *krider's* Red-tailed Hawk when compared to a light morph *harlan's* Red-tailed Hawk.

Be forewarned, however. Some *krider's* Red-tailed Hawks will have barred tails. Here is a Chambers County *krider's* that shows a barred tail, but still shows a lot of white on the back and head which differentiates it from the *harlan's* Hawk. Photo by *David Hanson*.



The tail of a *krider's* Red-tailed Hawk can be white, pinkish, light reddish or barred much like a *harlan's* Red-tailed Hawk. You will have to look for a combination of diagnostic features outside of tail color when differentiating these two subspecies. There is plenty of confusion to be had with these two types.

Statewide:

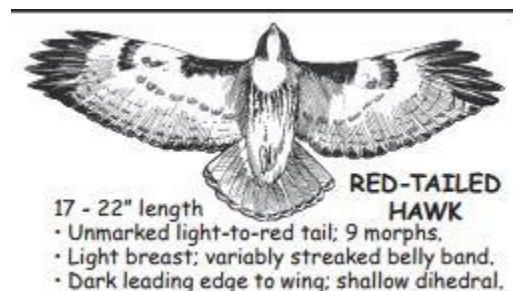
The Eastern Red-tailed Hawk (*borealis*) is found in most of the state, but particularly in the eastern half. It is common in north-central Texas.

The Western Red-tailed Hawk (*calurus* with variations of dark and light, see Sibley Guide) is generally found in the Trans-Pecos of Texas. Some Western Red-tailed Hawks can be truly dark morphs, and I have seen several here in north-central Texas that looked like a Western "dark morph" Red-tailed, but which were really *harlan's* subspecies after being reviewed. Some light morph western-type birds can be seen north-central Texas in winter but may be hard to distinguish from other *borealis* or *fuertes* subspecies.

Krider's Red-tailed Hawk (*kriderii*) is a light colored bird found almost entirely through the north-central and northeastern parts of the state. *Krider's* may not be a subspecies itself, but may actually be a color morph of some other subspecies. It is uncommon in north-central Texas.

Harlan's Red-tailed Hawk (*harlani*) has both light and dark color morphs and is found mostly in the north-central part of the state. It is uncommon in north-central Texas.

Fuertes Red-tailed Hawk (*fuertisi*) is mostly a light bird underneath like *borealis* but with almost no belly band. It is usually strongly marked with a dark back and head. It is found mostly in the southern and western half of the state. It is less common than *borealis* in North-central Texas.



Profile of a typical light Eastern Red-tailed Hawk

Anyone completing this program should be able to:

1. Begin to differentiate Red-tailed Hawks from all other buteos in the field
2. Know the typical subspecies for North-central Texas
3. Generally understand which subspecies are seen at what season

The *Sibley Guide to the Birds* is the better field guide for an overview of Red-tailed Hawks. It dedicates two fully illustrated pages to the issue of Red-tailed Hawk subspecies. There are

several illustrated online articles which are also helpful, particularly by Liguori and Sullivan, and by William S. Clark. These are referenced at the end of this paper.

Other Typical Area Buteos

Red-shouldered Hawk – Generally speaking, Red-shouldered Hawk is a bird of wooded wetlands in north-central Texas. They are frequently seen in riparian habitat and around east Texas lakes and swamps. They are rather easily identified by their rather bright reddish coloration, barred breast, and heavily barred tail. If the bird is perched in profile, the primaries can have a black-and-white checkered look, and even from the back this species has a stronger contrast of reds, blacks, and whites than a Red-tailed Hawk or any other buteo would have.

Adult plumaged Red-shouldered Hawks are not a particularly difficult field ID, and I won't spend much time on them here. There are at least three subspecies, but only the eastern Red-shouldered Hawk (*lineatus*) is relevant here. While it's important to know that Red-shouldered Hawks are largely eastern birds (with the exception of a California subspecies), they will follow streams and rivers into the far corners of west Texas. They are not particularly rare sightings even in Big Bend National Park along the Rio Grande. There was even a documented nesting of Red-shouldered Hawk with a Gray Hawk in that park during the 1990s.

In flight they will show a crescent shaped white primary panel near the wing tips which is really best described in the field. It can even be observed in the small image below. They also appear to be throwing their wings forward in flight in a way no other buteo does.



Photo by *Peter Assman*, Collin County, September 14, 2008

The only serious problem with Red-shouldered Hawk field ID is with juvenile birds. Most juvenile RSHAs lack strong reddish tones from a distance and can show similarities to both juvenile Broad-winged Hawks and juvenile Swainson's Hawks.

In flight, juvenile Red-shouldered Hawks still show evidence of crescents or window panels at the wing tips (see above) although they may be more buffy than white. The tail will have more bars and the barring itself thinner than on the adults.

In my opinion, a birders' attention to a juvenile Red-shouldered Hawk should be focused around the head, face, and throat first if the bird is perched. Let's look at a few images.



This Red-shouldered Hawk photo was taken by *Deloris Sellin* in Chambers Co., January 26, 2014.

Notice immediately the very dark malar smear below the eye reaching towards the neck. It really stands out. The bird also has thick white line above the eye followed by a thinner dark line running from the eye to the back of the head. There is generally whitish smear below the dark line before you again reach the dark malar area. I see this face pattern in almost every juvenile Red-shouldered Hawk. The breast itself has almost no reddish or buffy tones to it. The breast and

belly have arrowhead-shaped marks, but they may also appear as blobs or streaks and lack definition. The wings may show a hint of reddish near the shoulder, but this may depend on the age of the bird.

Below is another image from a distance.



Even at this distance, you can see the dark malar smudge near the neck. The thick white bar above the eye is conspicuous as is the dark line behind the eye. In essence that dark line behind the eye is almost surrounded by white before it meets the darker nape towards the back.

This juvenile bird, taken *Gary Seloff*, has no rust coloring yet on the back or wings. However, it shows that it has the field marks of a young Red-shouldered Hawk on the belly and tail as mentioned above. The wings may show some white spots near the

shoulder like this one. The typical misidentification of this species is with a young Broad-winged Hawk. Although the BWHA (image below) has a similar thick white line above the eye and a

dark malar smudge, there's no significant dark line behind the eye. Most BWHAs in juvenile plumage also have a white patch on the throat and upper breast as this one does below.



Broad-winged Hawk, April 19, 2011, by *Gil Eckrich*.

While this immature BWA was recorded newly arrived in April, it may not complete its molt into adult plumage until later in the breeding season.

However, the Broad-winged Hawk in north-central Texas is gone by November. There are no records of this bird in this area from November to late March. A tiny number of BWHAs over-winter along the Texas coast, but

none are found this far north. Red-shouldered Hawks, on the other hand, are resident here all year long. We have a much longer period of time to study their juvenile plumage.

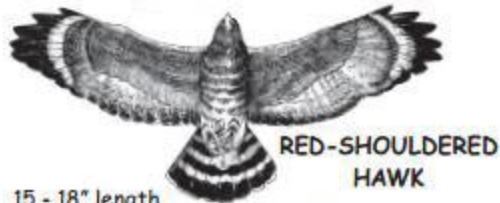
Below is a somewhat confusing bird take by *Ken Nanney* in Tarrant Co. in 2011. Take a minute to examine the field marks.



At the outset, the face pattern doesn't seem all that striking as with juvenile Red-shouldered Hawks. However, this may be an artifact of photography. Several characteristics make this a juvenile Red-shouldered Hawk.

A closer examination reveals a heavily streaked throat and upper breast and a developing red shoulder. There are a few other features like the primary feathers near the tail outlined in white which is indicative of Red-shouldered.

In a nutshell, photography can sometimes mask field marks. The facial pattern would surely look more like the RSHA if the bird was in full profile. The rusty tones on the wing and back help with the identification.



- 15 - 18" length
- Black tail with narrow, white bands.
 - Dark wing linings.
 - Crescent "windows" near tip of wing.

Profile of a typical Red-shouldered Hawk

Broad-winged Hawk – Broad-winged Hawk is spring migrant and summer resident through the eastern half of North-central Texas. Adults are crow-sized buteos, looking rather light throughout when looking at them from below. They appear to be outlined in black from a distance – a condition they share with adult Swainson's Hawks although the two will likely never be confused because of the size difference and heavily barred tail of the Broad-winged Hawk.



Broad-winged Hawk – *Joseph Kennedy*, Chambers Co., October 16, 2009.

Adult birds like this have a dark head and upper breast. They may show a whitish throat (not shown here). The body shows a variable amount of barring on the breast and belly. The wings are light with dark tips to the primaries. The tail is generally heavily barred with two conspicuous dark bands surrounding a thick lighter band. A second light band is sometimes visible near the vent when the tail is fanned. (Adult Red-shouldered Hawks usually show three or more dark bands on the tail

and barred underwings). While these birds may appear crow-sized, they have rather typical buteo behavior – soaring in flight with occasional stiff wing beats.

Although we have several dark morph Broad-winged Hawks photo-documented in Texas, the dark morph is still very rare throughout most states. They are seen occasionally in Texas because of the sheer volume of Broad-winged Hawks migrating through the state in the fall. Last year (2013), the hawk watch in Chambers County had the largest number of dark morph BWA's ever recorded in the state at one time (113 birds recorded on November 10, 2013). I won't spend any time on that type of a BWA since in this area, since it is unrecorded for North-central Texas.... but it's worth considering the possibility during migration.

Juvenile birds are the most difficult birds to identify and the ones most easily misidentified. Usually they are confused with juvenile Red-shouldered Hawks.



Broad-winged Hawk
by *Louie Rivera*,
Hildago County,
February 20, 2014.

This young BWAH may appear like any number of juvie RSHAs. The face shows the deep malar smudge. But a closer look reveals a significant white area around the upper breast and throat, something a RSHA doesn't usually show.

Now take a minute to examine the RSHA images again (see images above by *Gary Seloff* and *Ken Nanney*). Both the perched RSHAs by

Ken Nanney and *Gary Seloff* above show a few white squares sometimes appearing as bars on the folded wing (generally in the secondaries around mid-wing). However, a perched BWAH like the one here shows a mostly solid brown wing. This particular bird doesn't show any white marks on the greater secondary coverts. Also this particular bird shows no buffy or rusty coloration on the undertail (or anywhere else really). You will see a hint of warm, pinkish tones in the tails of both the *Ken Nanney* and *Gary Seloff* RSHA images above even though neither tail is profiled for a good look.

The profile of a Broad-winged Hawk is that of a short-tailed bird with wings almost always ending in a point (unlike the profile of the two buteos above).



- 13 - 17" length
- Smallest buteo; crow size.
 - Short tail with equal black and white bands.
 - Whitish underwings with dark trailing edge.

Profile of a Typical Broad-winged Hawk

Swainson's Hawk – Swainson's Hawk is a migrant and summer resident in the western two-thirds of north-central Texas. Adult plumage is a bird with a smooth gray-brown head, white throat, and brown upper breast. Light morph birds are a dark –gray-brown on the back, creamy white on the belly and upper-wings, and dark gray-brown on the trailing edge of the wing through the wing tips. This look below (photo by *Ken Nanney*) is by far the most common look in north-central Texas.



However, Swainson's Hawks are highly variable in juvenile plumage. First, there are light morph, dark morph, and intermediate morph birds. This is made even more confusing because Swainson's Hawks require two years before they acquire adult plumage. Juvenile plumaged birds will still be arriving in spring and spending the summer months in the area. Eventually juveniles change into a sub-adult plumage, and finally into an adult plumage. When you add the possibility of dark morph, light morph, and intermediate morph bird, there are many mathematical possibilities. I will deal with only the most likely possibilities here.

The typical light morph SWHA in juvenile plumage looks like the bird below. This is one taken in Dallas County, September 19, 2011 by *Darlene Moore*.



like a Turkey Vulture but not quite as pronounced.

While juvenile light morph SWHAs may have a face pattern reminiscent of a RSHA or a BSHA, there should be no confusion. The juvenile SWHA has a significant amount of buffy tones to the breast and a dark collar developing on the upper breast and neck. In flight the long-winged profile is very different than either the RSHA or BSHA. The tail pattern of the immature SWHA is finely barred with dark lines, not the thick black lines of RSHA or BSHA.

The underwing is dark gray and the fine barring is a bit more pronounced on the juvenile SWHA than on the adult – still very different than other buteos found in North-central Texas.

The profile of this bird in flight is also noteworthy. SWHA will be a long winged hawk and can frequently show a dihedral look much

The bird below is also of a light morph juvenile. This one was taken in Jefferson County, Texas, by *Les Stewart* on August 2, 2014.



This SWHA is another typical juvenile but perhaps lacking the developing dark collar of the previous image. There are strong buffy underparts, white throat, and a poor look at a finely barred tail.



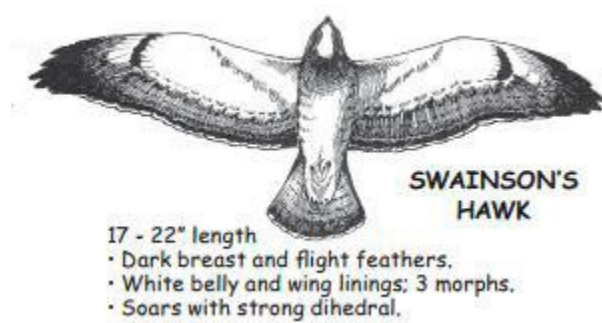
This image was taken in April, in Dallas County, by *Greg Cook*.

This April bird has returned to the area in juvenile plumage – but with a more advanced look. Some spring juveniles have a lighter head and more advanced dark collar (although the throat and upper breast are still very white).

While the images

above remain typical for North-central Texas, other colors and patterns are possible.

Swainson's Hawk is a bird of open grassland. You would be unlikely to see either Red-shouldered or Broad-winged hawks in the same habitat unless it is flying high in migration. You might, however, confuse this bird with a subspecies or color morph of the Red-tailed Hawk – like a light morph *harlan's* Red-tailed Hawk. However, there will usually be warm buffy colors somewhere on young Swainson's Hawk which is a color not found on a light morph *harlan's* Hawk.



Profile of a Typical Swainson's Hawk

Ferruginous Hawk – The Ferruginous Hawk is a hawk of the winter months found throughout much of the central and western part of North-central Texas study area. It is primarily a grassland bird. There are light and dark color morphs, but the light color morph is much more common. One of the most significant field marks of the FEHA is the rufous “leggings”. Feathers on the legs go almost to the talons and are heavily barred with rusty leggings.



This image of a light morph FEHA was taken *Chris Hanson* in Bexar County in 2012.

This adult bird shows the strong reddish leggings, clean white breast, and whitish tail. From below, adult birds also show strong rufous feathering along the leading edge of the wing. The head of an adult bird is a finely streaked gray and can appear light or dark from a distance depending on light.



From above, the light morph Ferruginous Hawk is a long-winged dark bird but with two conspicuous white windows near the tip of the wing, and some white on the upper tail. The adult FEHA below, was taken by *Byron Stone* in Williamson County, January 12, 2014.

In profile, FEHAs are big, long-winged birds and sometimes soar in a dihedral pattern like a Turkey Vulture.

This photograph was taken by *Greg Lasley* in Dallam County, in 2009.



From below, Ferruginous Hawks will show dark wingtips in good lighting conditions.

The bird's profile will be longer-winged than a Red-tailed Hawk. An adult FEHA would be almost impossible to mistake for any other bird in this area outside of a Red-tailed Hawk. The other long-winged hawk, the Swainson's Hawk, is only recorded from this area in summer. No other species resembles a light morph Ferruginous Hawk.



This photograph was taken by *Byron Stone* in Wilcox County on January 26, 2014.

This bird is an immature Ferruginous Hawk. It is remarkably similar in plumage to the adult birds. The only noticeable difference between this bird and the adult is the light streaking on the belly and a lack of rufous coloring to the leading edge of the wing and the lack of reddish leggings. The tail also shows a hint of faded barring.

Although not as common as the Red-tailed Hawk, the light morph Ferruginous Hawk is seen with some regularity in the western counties of north-central Texas.

The dark morph Ferruginous Hawk, while rare, has shown up on several occasions in Texas. The Texasbirdimages archive has one for region 2 in north-central Texas as well as representative images from regions 1 and 8 (see below).



This dark morph Ferruginous Hawk was taken in Dallam County, on January 2, 2009 by *Greg Lasley*.

Noteworthy field marks of the adult dark morph FEHA are white tail and the homogenously dark body and underwings contrasted with white flight feathers. The wing tips are usually dark as in the light morph birds.



- Largest buteo; eagle-like.
- Pale below with dark leggings.
- Mostly white tail; 3 color morphs.

Profile of a Typical Ferruginous Hawk

Species Not Included in This Paper:

There are usually several records of Rough-legged Hawk for north-central Texas during a typical winter. However, this species has become much less common than in prior decades. It is now very irregular and mostly unpredictable. There was little reason to include it here.

The Harris's Hawk is only sporadically seen in north-central Texas. There are very few records (one photo-documented) for the area. This species is so rare and so unmistakable in the field, that it didn't warrant a discussion here.

I also did not go into any depth on the Red-tailed Hawk *fuertes* subspecies or the light morph *calarus* subspecies. Both can be seen in north-central Texas, but both resemble the typical eastern *borealis* subspecies and did not seem particularly critical to misidentification in the field.

References:

1. A Field Guide to the Hawks of North America, Second Edition - Clark and Wheeler, 2001
2. The Crossley Guide to Raptors - Crossley, Liguori, and Sullivan, 2013
3. The Sibley Guide to North American Birds - David Sibley, 2014
4. Hawk Migration Association of North America - <http://www.hmana.org/>
5. Comparison of Harlan's with Eastern and Western Red-tailed Hawks – by Jerry Liguori and Brian Sullivan. <https://www.aba.org/birding/v42n2p30.pdf>
6. A Study of Krider's Red-tailed Hawk – by Jerry Liguori and Brian L. Sullivan. <https://www.aba.org/birding/v42n2p30.pdf>
7. Extreme Variation in the Tails of the Adults Harlan's Hawk's - by William S. Clark. <https://www.aba.org/birding/v41n1p30.pdf>
8. Harlan's Hawks Differ from Red-tailed Hawks - William S. Clark. The Peregrine Fund at [http://www.globalraptors.org/grin/researchers/uploads/155/harlansplumagesdifferrev2-14_\(1\).pdf](http://www.globalraptors.org/grin/researchers/uploads/155/harlansplumagesdifferrev2-14_(1).pdf)
9. Field Identifiable Subspecies of birds – an Annotated List, David Sibley. <http://www.sibleyguides.com/bird-info/field-identifiable-subspecies-of-birds-an-annotated-list/>
10. The Texas Bird Image Project – Jim Peterson. <http://www.texasbirdimages.com>

All images are taken from the [texasbirdimages.com](http://www.texasbirdimages.com) archive unless hyperlinks direct otherwise. Contributing photographers to the archive used here are Byron Stone, Amol Khedgikar, Martin Reid, Greg Page, David Hanson, Peter Assman, Deloris Sellin, Gary Seloff, Gil Eckrich, Ken Nanney, Joseph Kennedy, Louis Rivera, Darlene Moore, Les Stewart, Greg Cook, Chris Hanson, Greg Lasley

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The map on the next page was reprinted from the AOU by Jeff Garrigues for a paper entitled "Biogeography of Red-tailed Hawk".

Please keep in mind that this map is specifically of subspecies *breeding* ranges. Texas would be included as a winter range for both for *krider's* (KR) and *harlan's* (HA) Red-tailed Hawk [JP].

Figure 2.

Approximate breeding distribution of Red-tailed Hawk races: HA = *harlani*, AL = *alascensis*, CA = *calurus*, KR = "*kriderii*," BO = *borealis*, FUE = *fuertesi*, SO = *socorroensis*, HAD = *hadropus*, FU = *fumosus*, UM = *umbrinus*, SOL = *solitudinus*, JA = *jamaicensis*, KE = *kemsiesi*, CO = *costaricensis*. Adapted from Johnsgard (1990).

