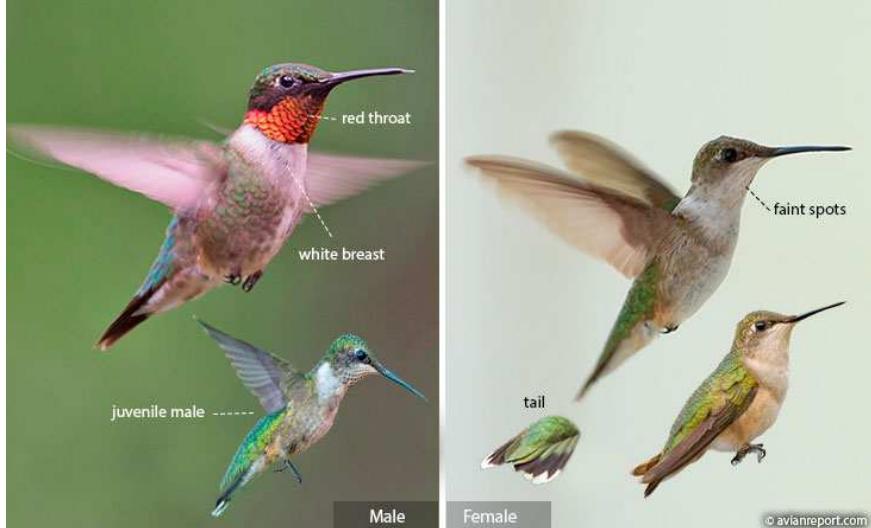
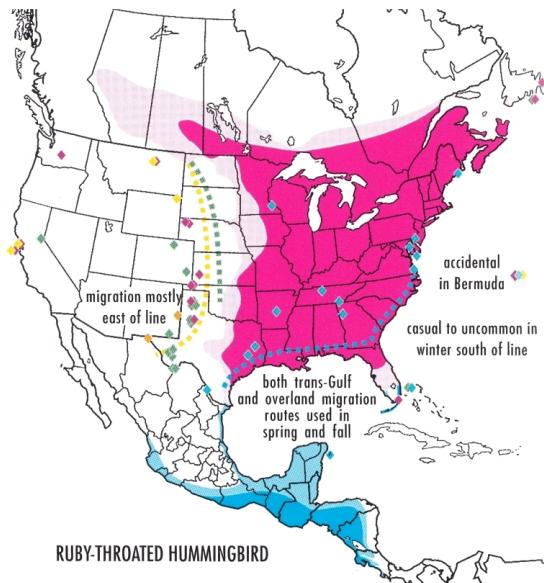


Ruby-throated Hummingbird *Archilochus colubris*

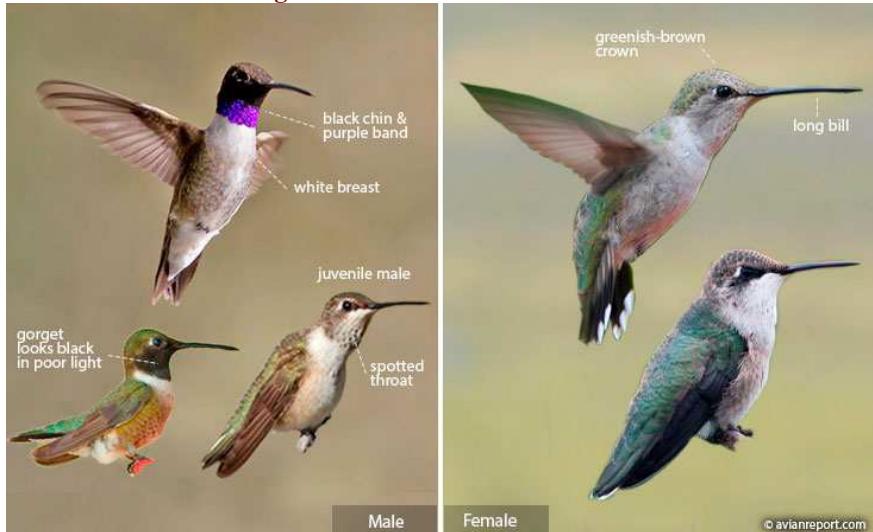


Length: 3.7" | **Weight:** 0.11oz (3.2 gr). The male Ruby-throated Hummingbird has an iridescent-red gorget bordered below by a pale crescent. It has a dark tail and a greenish belly. The female has a speckled throat and dull-greenish underparts. She has a broad black band on the tail, which is tipped with large white spots.

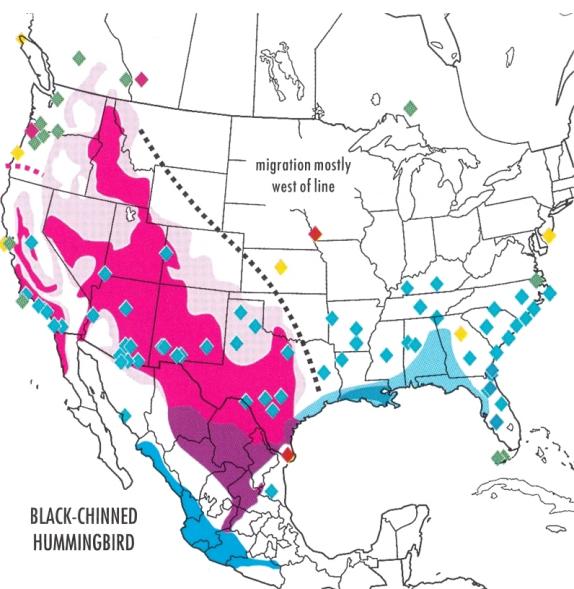


Black-chinned Hummingbird

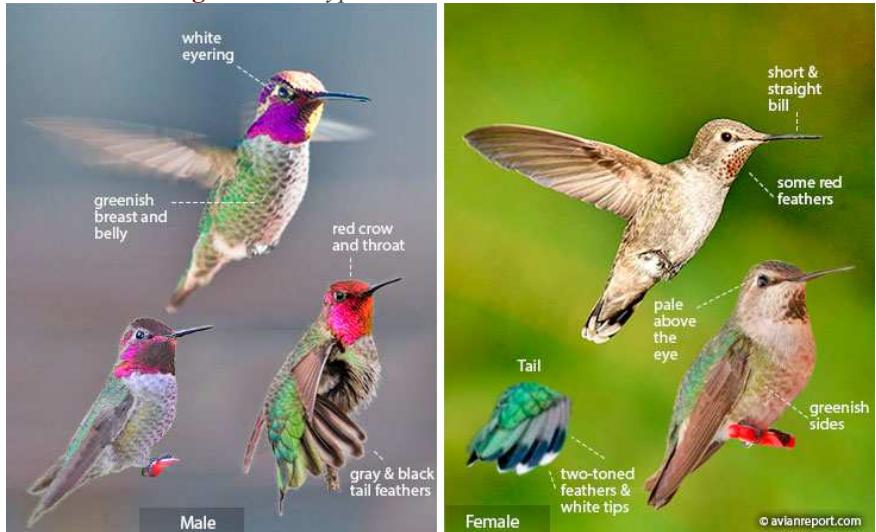
Archilochus alexandri



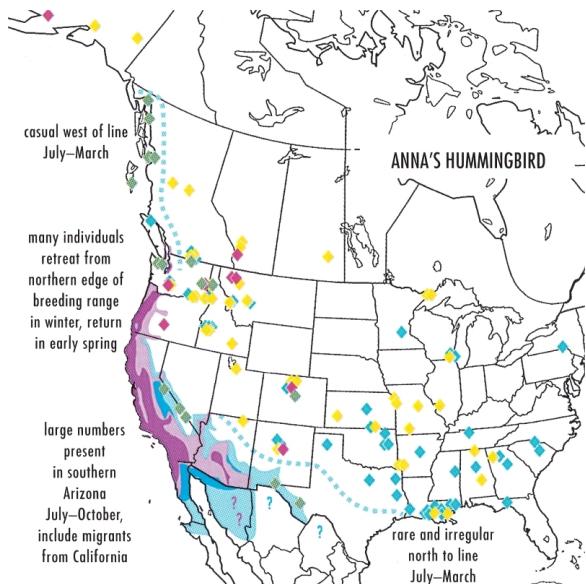
Length: 3.7" | **Weight:** 1.6 oz (2.7 gr). The male has a black chin bordered below by an iridescent purple band. It has a dark tail. The female has a speckled throat. She has a broad black band on the tail tipped with large white spots.



Anna's Hummingbird *Calypte anna*



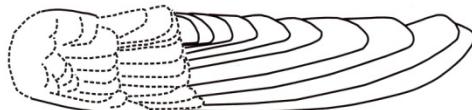
Length: 4" | **Weight:** 0.15 oz (4.3 gr). The male has an iridescent red crown and throat and pale eyering. The underparts are greenish. The female has a white line over the eye and greenish underparts. She has a red central patch on the throat. Her tail has a black band tipped with white.



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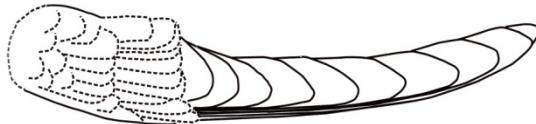
Comparing primary shapes of Black-chinned, Ruby-throated, and Anna's hummingbirds. On the two *Archilochus* species (Black-chinned and Ruby-throated), the inner six primaries are narrower than the outer four, and the difference in width between p6 and p7 is particularly obvious. On Anna's (and on most hummingbirds), the inner primaries are not distinctly narrower, giving more of an appearance that the primaries are similar in shape and neatly stacked. Comparing the two *Archilochus* species, the outer primaries on Black-chinned tend to be more curved, broad, and blunt-tipped. On Ruby-throated, although p7 is distinctly broader than p6, the outer primaries in general are not as broad as on Black-chinned. This makes the outer part of the wingtip look more narrow and tapered on Ruby-throated, and the narrow tip of the outermost primary (p10) is a very good mark if it can be seen.



Black-chinned Hummingbird, young female



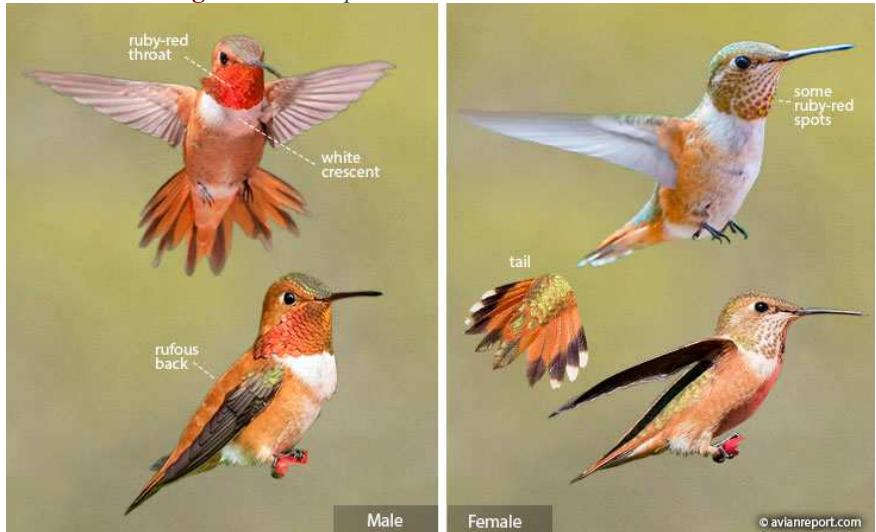
Ruby-throated Hummingbird, young female



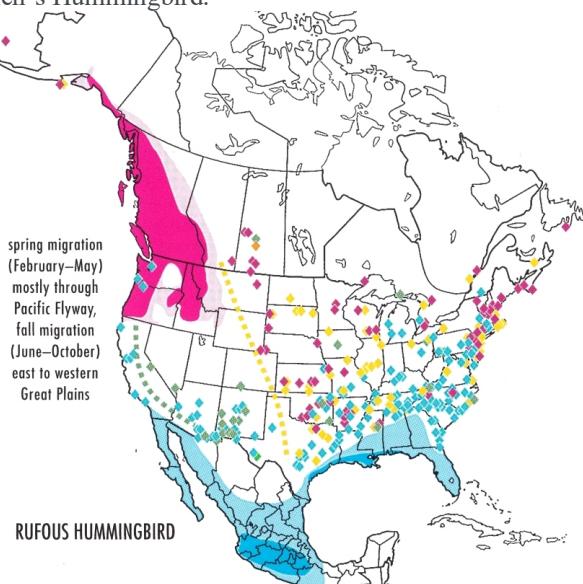
Anna's Hummingbird, young female

Note that in this illustration, the wings of the Black-chinned and Ruby-throated are shown in a more relaxed posture than the wing of Anna's, in order to show the individual feather shapes more clearly. Any of these species may hold the wing in more relaxed or more tightly folded positions, but the shapes of the individual feathers do not change.

Rufous Hummingbird *Selasphorus rufus*



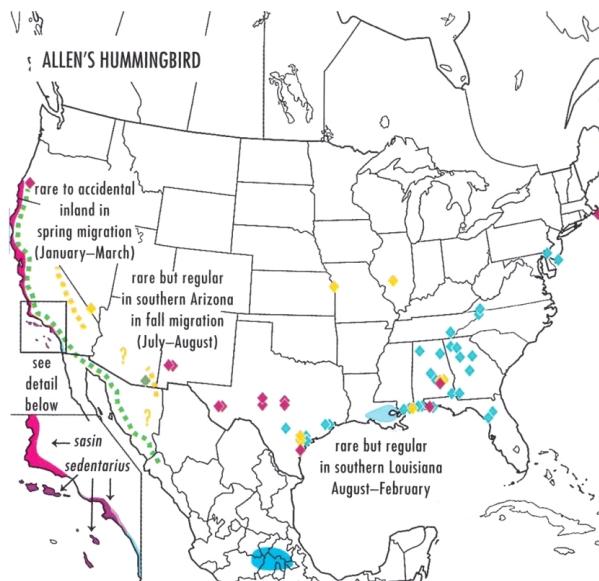
Length: 4" | **Weight:** 0.13 oz (3.6 gr). The male Rufous Hummingbird has an iridescent copper-red gorget and white breast. It is mostly rufous. His tail feathers are rufous, pointy, and have black tips. The female is a greener version of the male with a speckled throat. The base of the outer tail feathers is rufous. She has a broad black band on the tail tipped with white. Both sexes are very similar to Allen's Hummingbird.



Allen's Hummingbird *Selasphorus sasin*



Length: 3.7" | **Weight:** 0.11oz (3.1 gr). The male Allen's Hummingbird has an iridescent copper-red gorget and white breast. It is mostly rufous except for the upper back and cap. His tail feathers are rufous, pointy, and have black tips. The female is a greener version of the male with a speckled throat. She has a broad black band on the tail tipped with white.



Rufous vs. Allen's

Sheri L. Williamson, Posted on September 6, 2010

<https://fieldguidetohummingbirds.wordpress.com/2010/09/06/rufous-vs-allens/>

No, it's not the fight of the decade—it's one of the thorniest bird ID problems in North America. Right now little orange and green hummingbirds are sweeping across the continent on their way south. Most are traveling through the Pacific and Intermountain flyways and will end up in Mexico, but a significant minority (hundreds) will stray east of the Rockies to delight and confuse migration watchers and winter hummingbird aficionados.

An unambiguous adult male Rufous. If the back is less than half green (including entirely rufous), you can safely call it a Rufous without seeing the tail. (Note the green crown, which is normal, and the green gorget, which is an artifact of the angle.)



One of the most commonly repeated myths about hummingbird identification is that an orange hummingbird with a green back is an Allen's. I was told this by a local birder on my first visit to southeastern Arizona in 1978, and on her authority I put Allen's Hummingbird on my life list based on the little orange and green female-plumaged birds swarming around her feeders. There it remained until 1988, when I moved here and began to acquaint myself with the true depths of the problem.

Once I realized that **in both Rufous and Allen's all females and juvenile males have green backs**, I scrubbed Allen's from my life list. Over the next few years I learned through banding experience that **a small percentage of adult male Rufous have enough green on their backs to be easily confused with Allen's**.

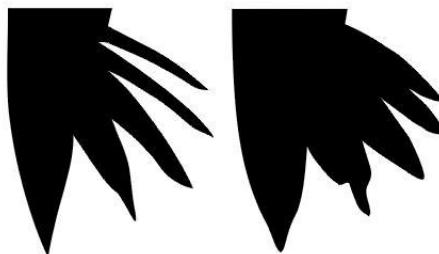
Yes, I know you don't want to hear this, but take your fingers out of your ears and look at the photo at right (you may click the image to embiggen). Notice the notched tip of R2 (the next-to-center tail feather)? Diagnostic for Rufous. Sorry.

The only safe, accurate way to distinguish between Rufous and Allen's in any and every plumage is by the shapes of



© Sheri L. Williamson

the tail feathers. You can see these when the birds fan their tails in combat or preen them. In Allen's, all of the tail feathers are narrower than in Rufous, most noticeably the outer three. In Rufous, R2 has that distinctive notched tip in adult males, expressed as a "pinched" tip in most (but not all) adult females and juvenile males. To clarify, here are silhouettes of the adult male tails:



Allen's adult male Rufous adult male

© 2003 Sheri Williamson

And here are juvenile males (note the green backs):



You can see how extremely subtle the differences are in juvenile males (adult females are similar)—not something you're usually going to see in the field. Juvenile females are the most “generic” and can be impossible to identify even in hand. This is why it's so important to determine the age and sex of the more difficult hummingbirds *before* you try to assign them to species. If it's a female or juvenile male Rufous or Allen's, best to fuggedaboudit unless you can get photos of the fanned tail.

It's very common for orange-and-green hummingbirds observed east of the Rockies to be called Rufous in the absence of any documentation, based simply on expectation. Sometimes "probable Rufous," sometimes "Selasphorus species" or "Rufous/Allen's" (which we'll get to in a moment), but all too often just "Rufous." This can give the impression that an identification has been confirmed when it hasn't, leading to much rarer birds (Allen's, Broad-tailed, Calliope) being overlooked. A look at the range maps in [A Field Guide to Hummingbirds](#) will show you why it pays to know all of the Rufous doppelgangers' field marks and check them out for yourself (documenting with a camera, where possible).

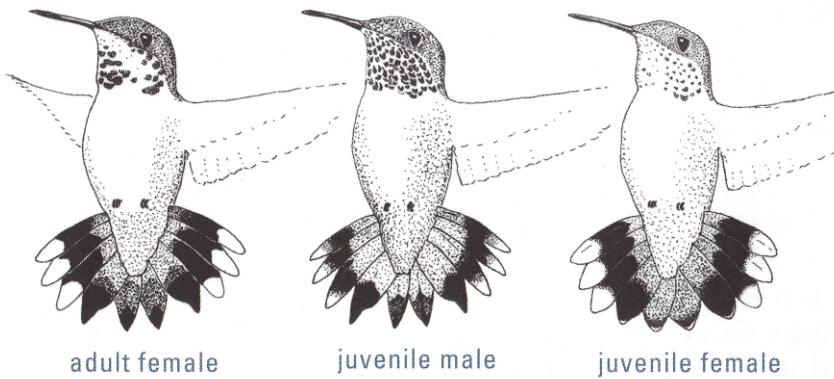
Identification of adult male Rufous and Allen's hummingbirds, with specific comments on dorsal coloration.

Paul M. Mckenzie, Mark B. Robbins

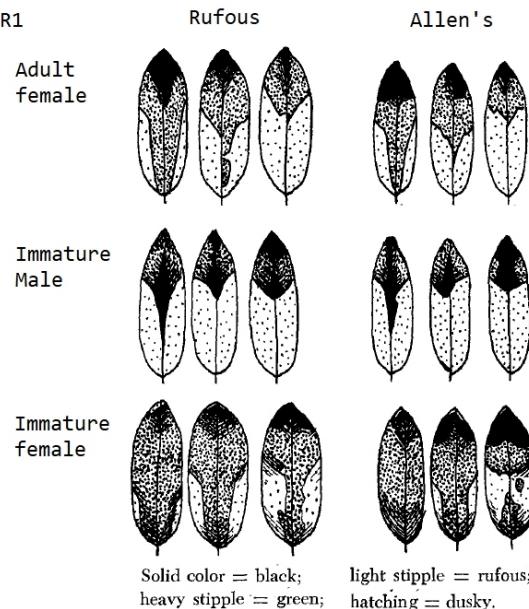
Our results reveal considerable variation in back color, from all rufous to entirely green, in adult male Rufous Hummingbirds (Figure 1). In our sample of 153 presumed pure Rufous Hummingbirds, seven (5%) have the back at least 75% green, and two have the back 95-100% green (Table 2). Thus Miller (in Willett 1933), Phillips et al. (1964), and Kaufman (1990) were correct in stating that entirely green-backed adult males of the Rufous/Allen's complex cannot be reliably identified under field conditions. **If an adult male has some rufous in the back, however, it is a Rufous or perhaps a hybrid, because adult male Allen's invariably have all-green backs.** Some Allen's have a few back feathers that are rufous-fringed, but these are only visible when the bird is in the hand. Nonetheless, Pyle (1997) reported that some adult male Allen's Hummingbirds have up to 40% of the back rufous. Pyle's information was based on accounts by Patterson (1988, 1990; Pyle pers. comm.). Patterson's reports however failed to consider hybridization as a possible explanation for the anomalous characters of both an adult male and female *Selasphorus* that he banded and identified as Allen's from the northern coast of Oregon. In fact, the presence of rufous on the lower back, the intermediate width (2.2 mm) of rectrix 5, and the slight emargination of rectrix 2 of the Oregon adult male closely fit the specimens that we have identified as possible hybrids. Unfortunately, neither Oregon bird was collected nor were diagnostic tail feathers saved. Specimen confirmation will be required to establish that adult male Allen's have anything other than all-green backs.

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The hordes of "female-plumaged" hummingbirds seen in late summer show a lot of variation within species, and much of this is owing to age and sex differences. These three Rufous Hummingbirds show typical throat patterns, tail patterns, and shapes of tail feathers for three classes of birds. Allen's Hummingbirds are extremely similar, although within each age and sex class, the tail feathers average slightly narrower.



Solid color = black;
heavy stipple = green;
light stipple = rufous;
hatching = dusky.

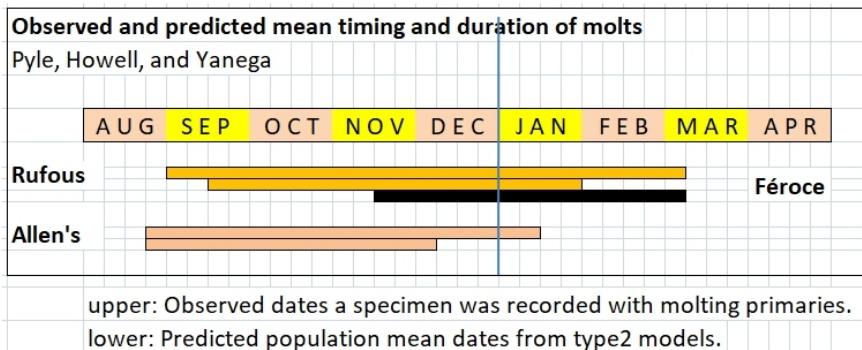
Molt, Retained Flight Feathers and Age in North American hummingbirds.
 Peter Pyle, Steve N.G. Howell, and Gregory Yanega

OBSERVED¹ AND PREDICTED MEAN² TIMING AND DURATION OF MOLTS IN
 MIGRATORY NORTH AMERICAN HUMMINGBIRDS, COLLECTED DURING MOLTING PERIODS

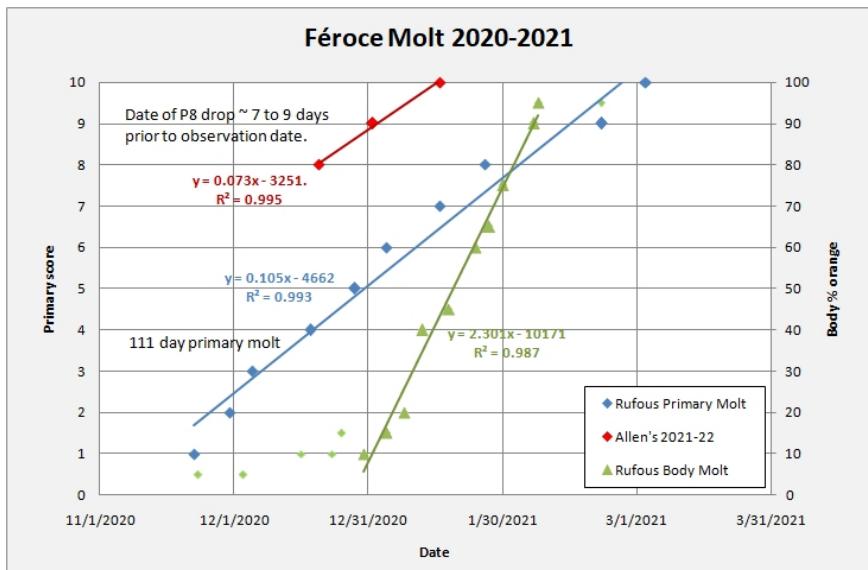
Species	N	Observed			Predicted Mean		
		First Date	Last Date	Days Duration	First Date	Last Date	Days Duration
Ruby-throated	46	31 Oct	7 Apr	158	26 Oct	13 Mar	139
Black-chinned	20	1 Sep	22 Feb	174	11 Sep	20 Feb	162
Costa's	28	2 Jun	1 Nov	152	12 Jun	21 Oct	131
Calliope	16	14 Sep	15 Apr	213	30 Aug	31 Mar	212
Broad-tailed	24	8 Oct	10 Mar	153	11 Oct	1 Mar	141
Rufous	58	1 Sep	6 Mar	186	24 Sep	28 Jan	126
Allen's	13	20 Aug	12 Jan	145	22 Aug	8 Dec	118

¹ Observed dates are the first and last date a specimen was recorded with molting primaries.

² Predicted mean dates for the populations were calculated with Type 2 models presented by Underhill and Zucchini (1988; see text), on all birds within our defined molting periods.



Note that while the Pyle et al model suggests a 126 day molt period. The Rufous overwintering in Houston dropped its primaries over a 111 day period, the total “molt period” to completion of P9-10 regrowth may be somewhat longer. Note that the Houston Rufous started and ended later than predicted by Pyle et al.



The above plot summarizes the story of Monsieur Féroce. In blue I have plotted its primary molt sequence and in green is body molt sequence. To score the primary molt, I indicate the first date when each primary is dropped/missing. This is readily noted from photography on living birds. For the body molt I made visual approximations of the percent orange feathers visible on the back. These are uncertain to perhaps ± 5 percent or more.

The blue curve shows the bird lost ten primaries over 100 days, for about 11.1 days per primary, or 111 days for the entire P1-P10 molt period.

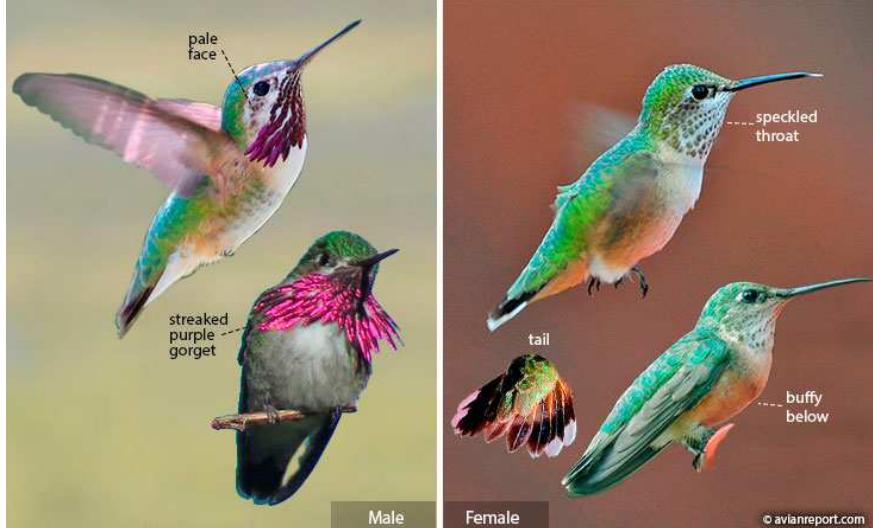
The green curve indicates that the bird back always had some 5-10% orange back feathers (expected in Rufous)* and that the body feather molt did not get started in earnest until P6 or P7 of the primaries.

Added to the plot is the data for the 15 Dec, 2021 Allen's hummingbird which showed up with P1 through P8 growing in, only P9-10 waiting to drop. P8 should have dropped some 7 to 9 days prior to the observation.

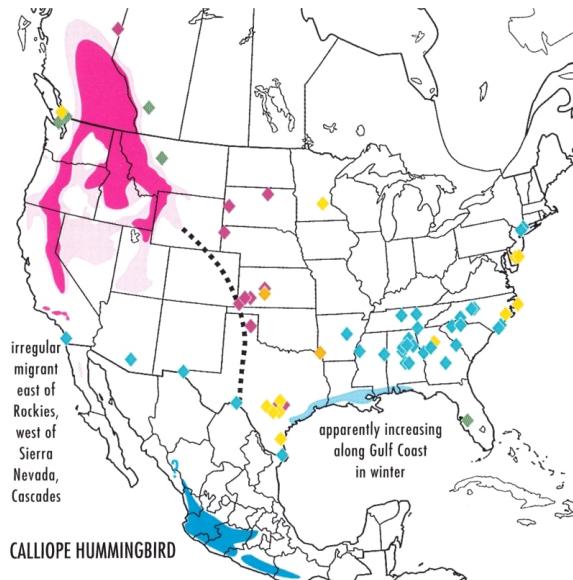
This plot demonstrates clearly how the Allen's primary molt cycle is about six-weeks ahead of the Rufous primary molt cycle.

**If an adult male has some rufous in the back, however, it is a Rufous or perhaps a hybrid, because adult male Allen's invariably have all-green backs.”
McKenzie, and Robbins.

Calliope Hummingbird *Selasphorus calliope*

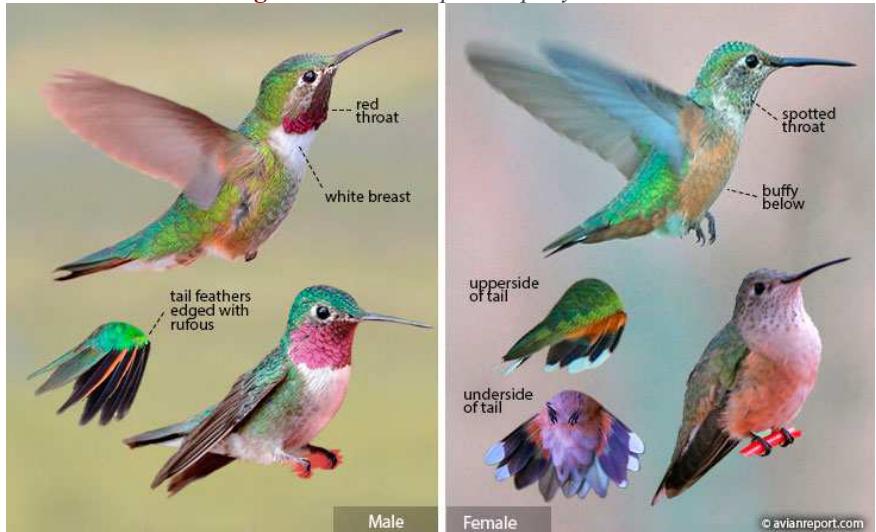


Length: 3.25" | **Weight:** 0.1oz (2.7 gr). The male Calliope Hummingbird has a streaked iridescent rosy gorget. It has a white line from the base of the bill to the neck. It has a dark tail. The female has a speckled throat and pale buffy underparts. She has a broad black band on the tail, which is tipped with large white spots.

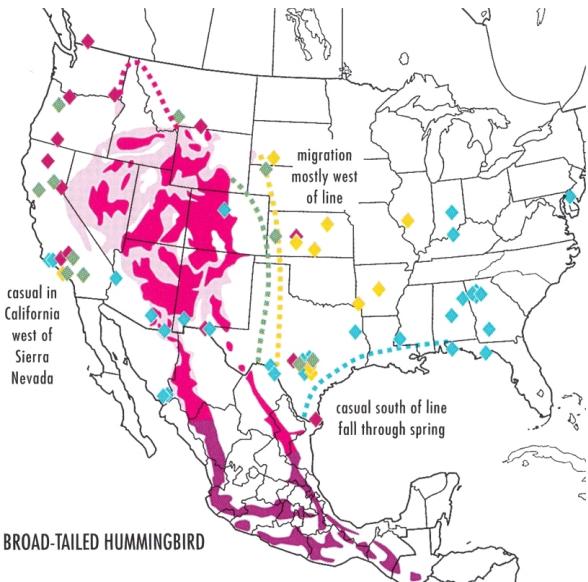


Broad-tailed Hummingbird

Selasphorus platycercus



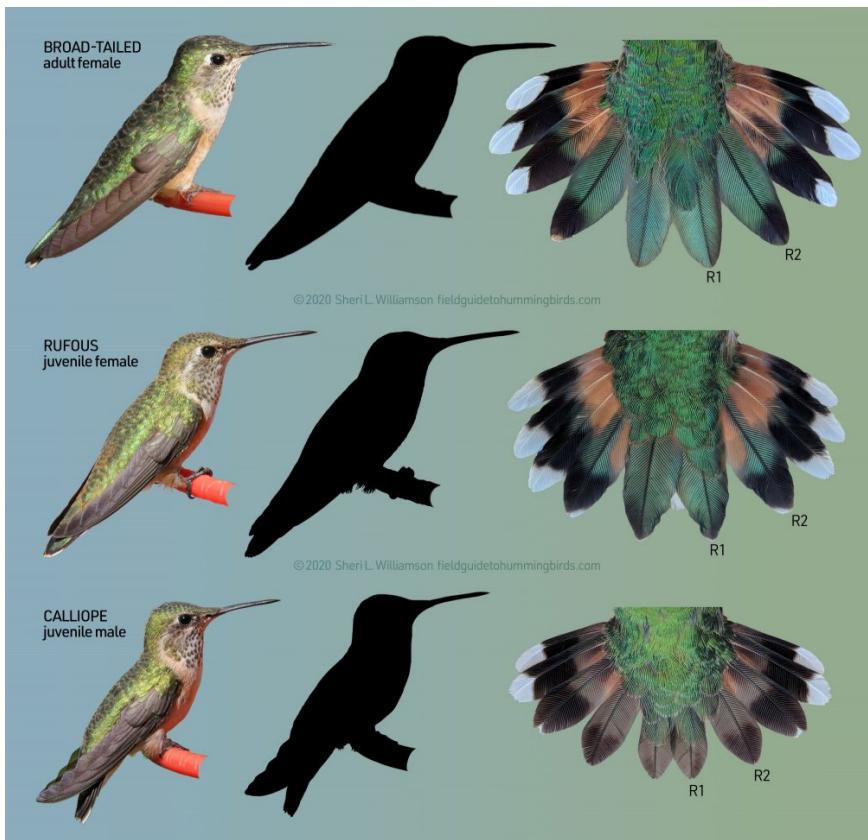
Length: 4" | **Weight:** 0.13 oz (3.6 gr). The male Broad-tailed Hummingbird has an iridescent rosy-red gorget. It has a pale eye-ring and dark tail. The female has a speckled throat and pale buffy flanks. The base of the outer tail feathers is rufous.



Fall Befuddlers: Broad-tailed, Rufous/Allen's, and Calliope

By Sheri L Williamson | August 26, 2020

<https://fieldguidetohummingbirds.com/broad-tailed-rufous-allens-calliope/>



“Female-plumaged” Broad-tailed, Rufous/Allen’s, and Calliope hummingbirds are often confused with one another during fall migration. Image © 2020 by Sheri L. Williamson. All rights reserved.

In fall migration, the similar plumages of juvenile female Rufous and Allen’s hummingbirds, female and juvenile male Broad-tailed Hummingbirds, and female and juvenile male Calliope Hummingbirds cause a lot of confusion, especially when they stray east of their usual migration routes.

Shape is one of the first clues for quickly separating these doppelgangers. Broad-taileds are long and relatively slim, with proportionally smaller heads, longer,

often slightly decurved bills, longer wings and tails, and relatively broad primaries except for the outer two (P9-10). Rufous and Allen's are relatively compact, big-headed, and barrel-chested with tapered outer primaries that give the folded wing a scythe-like shape. Calliope have even bigger heads, plus shorter bills, shorter tails, and broad, curved outer primaries distinctly different from either Broad-tailed or Rufous/Allen's.

On the fanned tail, the amount and distribution of rufous coloration is important but variable within as well as between species. In juvenile female Rufous/Allen's, R2 has rufous across the entire base or on both the inner and outer vanes divided by a stripe of green. In Broad-tailed, R2 is predominantly bright green with a partial border of rufous along the edge of the outer vane and variable black at the tip. The stubby tails of Calliope are predominantly dull green, black, and white, with significantly less rufous in the outer four pairs of tail feathers than either Rufous/Allen's or Broad-tailed (typically most conspicuous on the basal edges of R2-4 in juvenile males and adult females). The number of outer tail feathers with white tips is often helpful in distinguishing juvenile females (typically R2-5) from adult females and juvenile males (typically R3-5), but it's not helpful in separating species.

Broad-tailed Hummingbird

L: 3.1-3.5 in W: 5.1 in

Rufous/Allen's Hummingbird

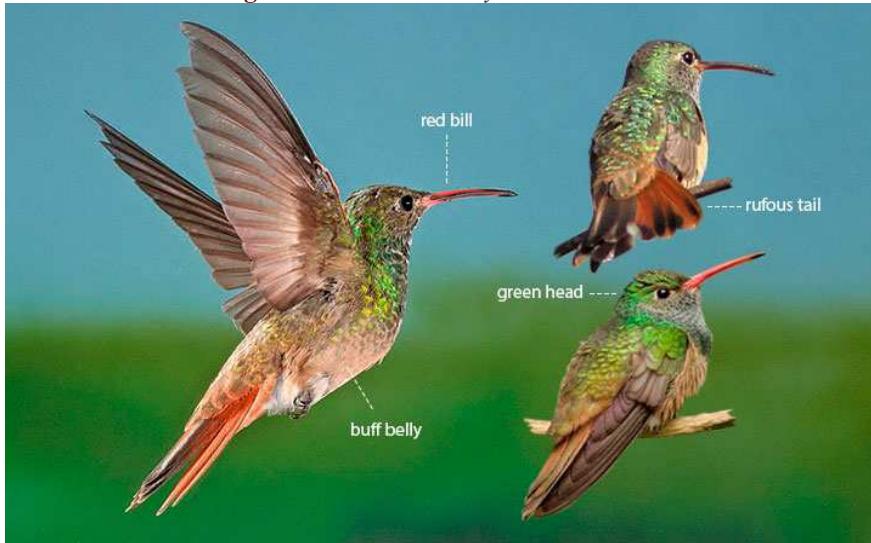
L: 2.8-3.5 in W: 4.3 in

Calliope Hummingbird

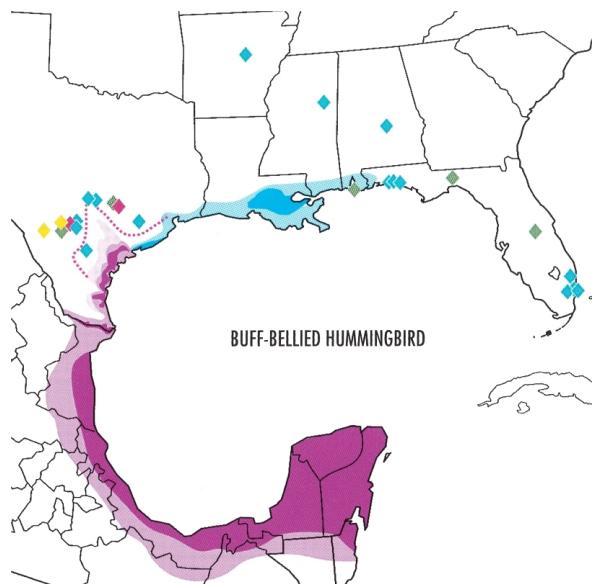
L: 3.1-3.5 in W: 4.1-4.3 in

Buff-bellied Hummingbird

Amazilia yucatanensis



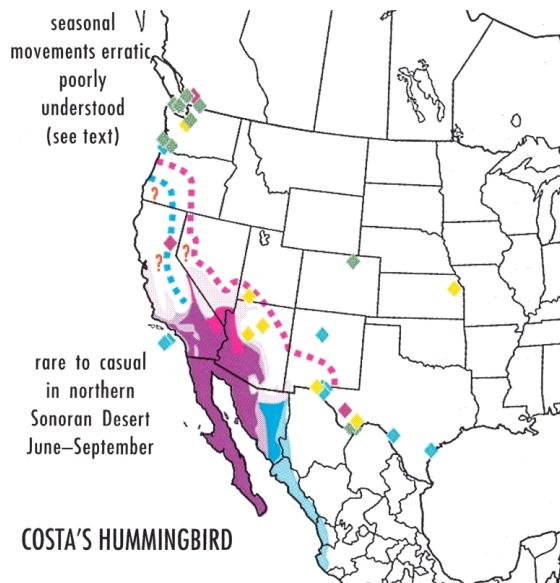
Length: 4.3" (2.6 cm) | **Weight:** 0.13 oz (3.8 gr). Bright green head, breast, and upper back. The belly is buffy. The bill is bright red with a dusky tip. Both sexes look alike, but males have a rufous tail and more saturated colors than females.



Costa's Hummingbird *Calypte costae*

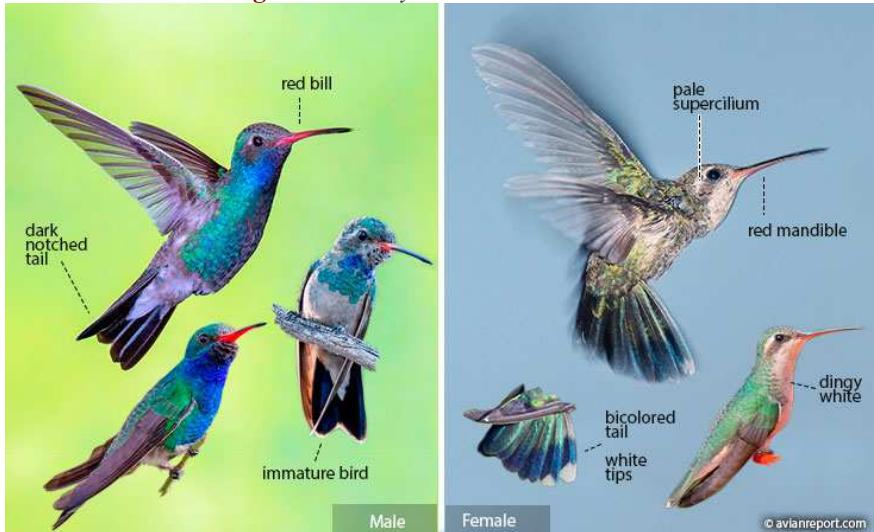


Length: 3.5" | **Weight:** 0.1 oz (3.1 gr). The male Costa's Hummingbird has an iridescent purple crown, a white eyebrow, and a purple elongated gorget. The female has a conspicuous white supercilium and whitish underparts. She has a broad black band on the tail tipped with large white spots.

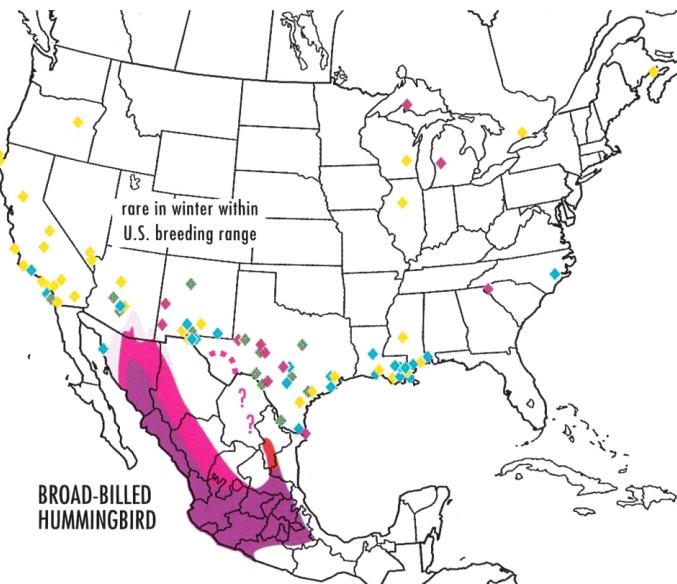


Broad-billed Hummingbird

Cynanthus latirostris

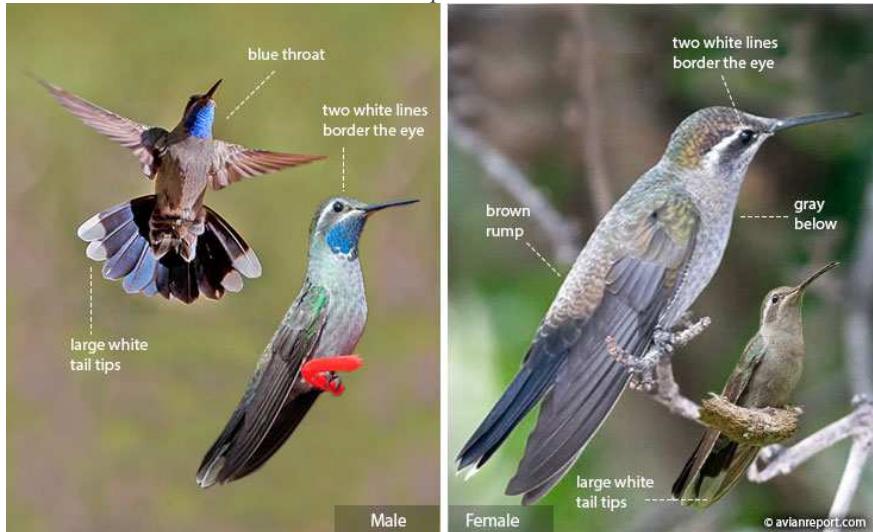


Length: 4" | **Weight:** 0.1 oz (1.9 gr). The male is mostly bright green with blue on the throat and breast. The tail is dark and notched. The bill is coral-red with a dusky tip. The female has dingy gray underparts and a white supercilium.

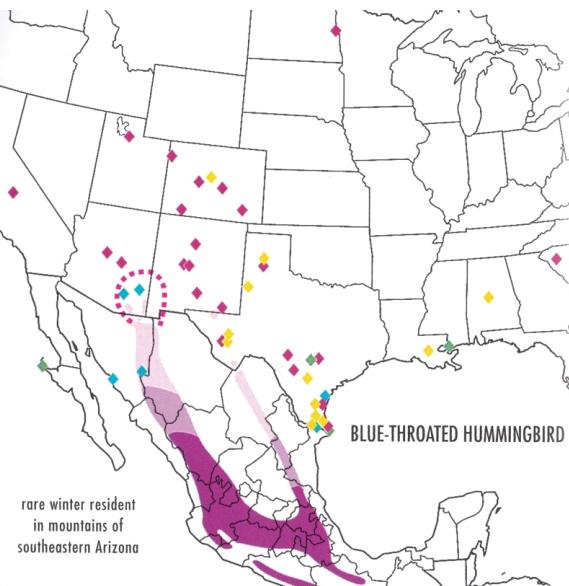


Blue-throated Mountain-Gem

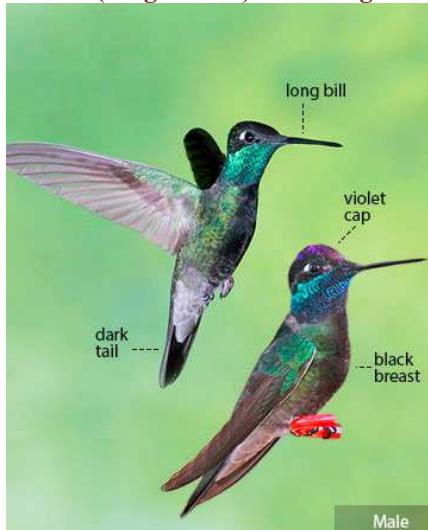
Lampornis clemenciae



Length: 5" | **Weight:** 0.3 oz (7.6 gr). The male has a sapphire-blue gorget. Both sexes have gray underparts, a white-tipped dark tail, and double white line-marking that encloses the eye.

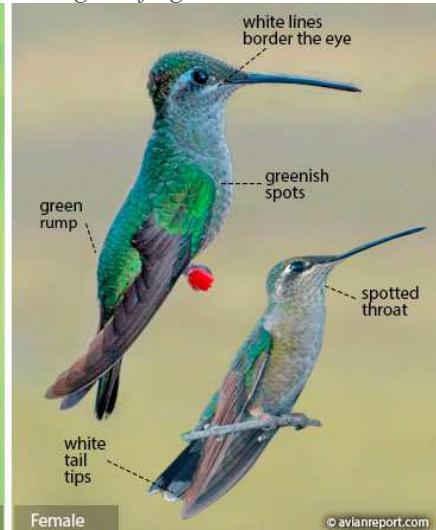


Rivoli's (Magnificent) Hummingbird



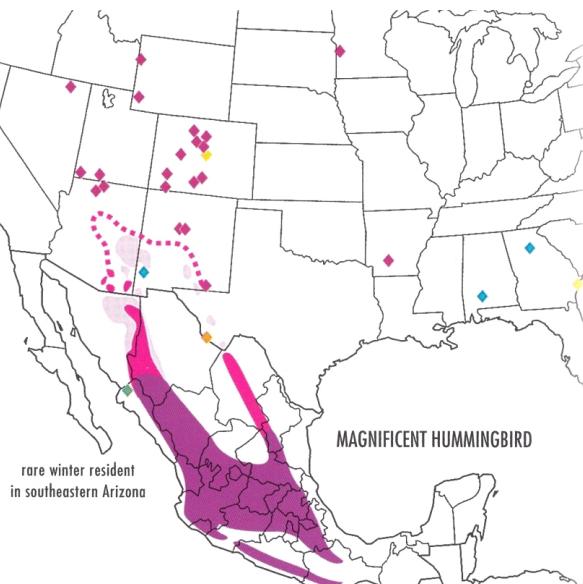
Male

Eugenes fulgens

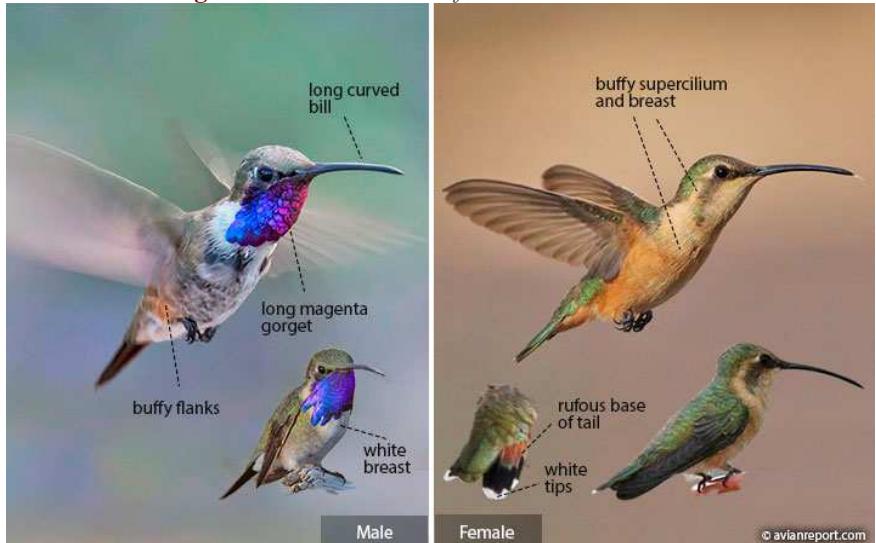


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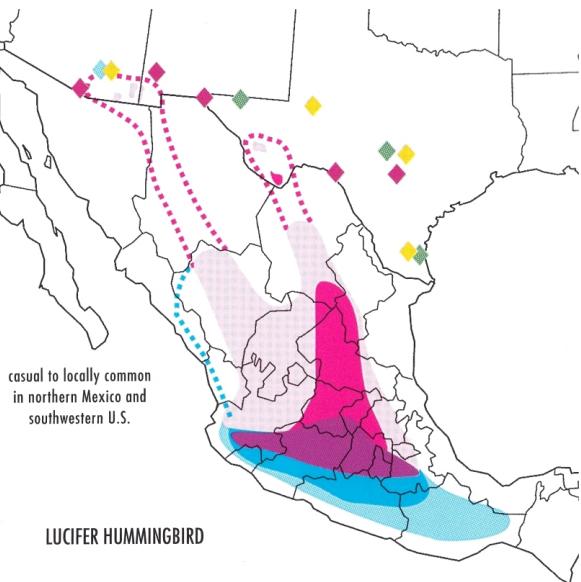
Length: 5.25" | **Weight:** 0.25 oz (7 gr). The male has an iridescent green gorget, sapphire-blue cap, black breast, and tail. The female has the throat, breast and belly spotted or scaled with greenish. Her tail is green and black with large white tips. It is the second-largest North American Hummingbird.



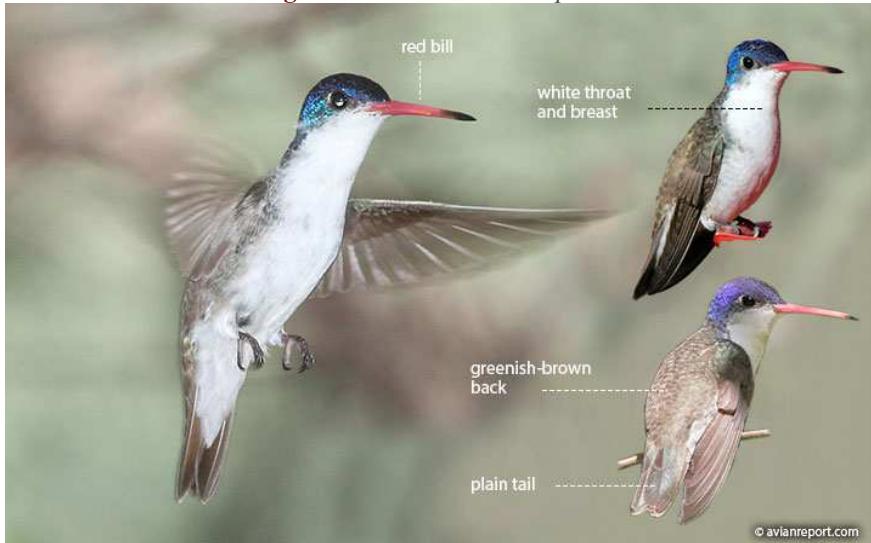
Lucifer Hummingbird *Calothorax lucifer*



Length: 3.7" (2.6 cm) | **Weight:** 0.11oz (3.1 gr). Adult males have a magenta/purple gorget and a dark forked tail. Females have rufous on the base of the outer tail feathers, a buffy supercilium, and a breast band. Both sexes have a long curved bill. Juveniles resemble a female.



Violet-crowned Hummingbird *Amazilia violiceps*



© avianreport.com

Length: 5.5" | **Weight:** 0.619 oz (5.5 gr). Adult birds have greenish-brown upperparts and tail. The crown is violet. The bill is bright red with a dusky tip. The underparts are pure white. Both sexes look alike.

