

ARCHILOCHUS HUMMINGBIRD AT LENOIR PRESERVE (WESTCHESTER CO.) NY DEC 2001

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The Lenoir Preserve hummingbird first seen on 7 Dec 2001 can be identified as an *Archilochus* hummingbird by its size, about the same size as the Rufous Hummingbird (*Selasphorus rufus*) present during the same time period, its medium length bill, its overall greenish upperparts and grayish underparts, with an obvious but not bright buffy wash to the flanks, and its green, black and white tail with no rufous color.

Separation of Black-chinned Hummingbird (*Archilochus alexandri*) and Ruby-throated Hummingbird (*A. colubris*) is notoriously difficult. Even with recent advances in field identification, observers are cautioned that some birds *cannot* be safely identified in the field without close, extended views in ideal conditions or photographs showing all critical marks, ideally in a variety of positions.

The first step in identification is to determine the likely age and sex of the bird. The Lenoir bird did not have a gorget, ruling out adult male. Immatures in the fall should show buff tips to the upperparts and secondaries as well as less dull green upperparts, as compared to adult females, which in late fall/early winter would show faded, browner primaries and often duller green upperparts. Unfortunately, the presence or absence of buff tips to the secondaries was not noted in the field perhaps due to the fact that the perched bird habitually fluffed out its body feathers, covering the upper part of the folded wing, as seen in Guthrie's photographs. Likewise, buff tips were not noted on the upperparts. Stubblefield's Fig. 1, however, appears to show distinct paler edging on the lower back feathers. An open question is what the effects of wear may be on these buff edgings by December. The appearance of the throat is an additional clue as immature males of both species typically show lines of distinct dark flecks, and some gorget color, often attaining one or more gorget feathers by August. The throats of immature and adult females range from unmarked whitish to showing lines of indistinct dusky flecks, allowing for separation from immature males. The combination of the lightly marked throat and apparent buff fringes visible on the upperparts make this bird most likely an immature female. This age determination is supported by the relatively dark, blackish primaries, indicating less wear than to be expected on an adult, and by the fairly extensive buffy wash on the underparts.

I'll address next the identification criteria discussed by Stubblefield in his article, keeping in mind that the presumed age and sex of the bird has an impact on how the criteria are evaluated.

- 1. Primary shape:** Given sufficiently close views or sharp enough photographs, this is the most important diagnostic feature. Especially critical is the shape of the outer primary (P10), with the caveat that it is dependent on a proper determination of the age and

sex of the bird and that there is some overlap between the two species. In both Ruby-throated and Black-chinned, the wing tip shapes range from narrowest in adult males to widest and most blunt-tipped in immature females. The wing tip shape in immature female Ruby-throated Hummingbird can be as similarly wide and relatively blunt-tipped as that of immature male Black-chinned (Pyle 1997). Dittman and Cardiff (Web Site 1999) also state that Ruby-throats, especially immature females, can show wide tips which are more "Black-chinned" with regard to this feature. The key point to look for is a more even curve throughout the length of the folded primary on Ruby-throated, as opposed to the more exaggerated curve shown at the tip of the primaries on Black-chinned (described by some as "scimitar- shaped"). In my opinion, the blown up wingtip visible in Stubblefield Fig. 4 shows a more even curve than should occur on an immature female Black-chinned and is more consistent with immature female Ruby-throated. Dittman and Cardiff caution, "It is possible that some individuals (e.g., immature male Black-chinned without gorget feathers versus immature female Ruby-throated) may not be safely identified in the field based on plumage alone." Howell (Howell 2000)also cautions that the primary tips on birds in mid to late winter can be so worn and frayed that it is not possible to determine shape . The apparently translucent outer primary visible in Stubblefield Fig.4 suggests that this may be a real concern here. Given the somewhat soft focus, apparent interference by out-of-focus vegetation in the foreground, and the low light conditions involved, it is also difficult to be certain that the apparent shape of the wingtip is not due to photographic effect or influenced partly by movement of the bird.

2. **Tail length:** Here again it is important to note that this feature varies by sex. Males have proportionately longer tails than females, so while the wingtips usually fall well short of the tail tip on male Ruby-throats, this will not necessarily hold for females. On the Lenoir bird, the apparent length of the tail visible in the pictures may be influenced by posture and the relative position of the bird to the photographers. Contrary to Stubblefield's speculation, most of my pictures were taken from below the bird. Certain angles suggest that the tail may in fact be slightly longer than the wings (Guthrie Fig. 1). This feature should be best viewed as inconclusive. Howell does not even list this feature as a useful mark for separating females.
3. **Bill length:** Females of both species are longer-billed than males, and there is considerable overlap in both the overall measurements and the measurements for females. Howell discusses this feature with the caveat that "while bill measurements overlap, the longest-

billed Black-chinned and the shortest-billed Ruby-throats may sometimes be distinguishable with experience.” The bill on the Lenoir bird does not appear overly long or decurved compared to, for example, the Ruby-throated in Howell Fig. 16.10 and the Black-chinned in Howell Fig. 17.4. Contrary to Stubblefield’s statement, there is no evidence that “the curvature/shape of the bill is probably more important than length”. In fact, the reverse is probably true – that length, when measurable or obviously extreme on the short or long end of the scale, is the most important feature of the bill. Neither Howell nor Pyle, for example, mention curvature in their discussions of the separation of the two species. This feature should be viewed at best inconclusive in the case of the Lenoir bird, and possibly more supportive of Ruby-throated.

4. **Coloration:** While both Ruby-throated and Black-chinned Hummingbirds are green above, there are average differences between the two. Ruby-throated is described as deeper, more golden-green above, while Black-chinned is duller, more bronzy-green or bluish-green above. These color evaluations on a lone bird can be difficult to determine. However, observers at the time noted the color as “bright, iridescent green”, and on certain images (Guthrie Fig.2, Stubblefield Fig. 2) there appears to be a golden-green sheen to the upperparts. This is more consistent with Ruby-throated. Howell states that “In general, Ruby-throated is deeper green above and whiter below, and typically appears more contrasting overall than Black-chinned, which is duller green above and dingier below” On the Lenoir bird, some of this contrast is obscured by the buffy wash on the underparts, which is present on immatures of both species. I believe that the bird is consistent with Ruby-throated; compare, for example, Stubblefield Fig.2 with Howell Figs. 16.9 and 16.11. Contrary to Stubblefield’s statement, I am not aware that characteristics of plumage coloration are subject to great variation within a species outside of regularly occurring color morphs, molt-related influences, or oddities such as leucism, or that one should expect significant color variation within either Black-chinned or Ruby-throated Hummingbirds. This issue is not raised in Howell, Pyle or Dittman/Cardiff. I agree that color perception is vastly influenced by light conditions and in photographs, by flash lighting, film variation, scanning etc., and visible variation in upperparts color among these hummingbirds, including that shown among species in the photographs in Howell, is most likely a result of these factors.

5. **Head color:** As stated, Ruby-throats tend to have a greener head, crown and nape than Black-chinned. However, on Ruby-throats this feature is variable: Pyle indicates that “some Ruby-throats may have duller foreheads” and Dittman/Cardiff state that “the

forehead of immatures, especially females, is often dull brown and contrasts with a greener top of head", as opposed to Black-chinned which have "*entirely* [emphasis the authors] dull brownish-gray crown (often extending down onto the nape)". The Lenoir birds forehead is apparently stained with pollen, obscuring the true color. The rest of the head does appear brownish in some images, but the nape is clearly the same greenish color as the rest of the upperparts, and a number of photographs also appear to show this green extending up to the crown (Guthrie Fig.3). I disagree with the statement that the Lenoir bird "clearly has a significant amount of gray on the forehead, crown and nape". The forehead is most likely brown but obscured by apparent pollen staining, the crown is possibly green, and the nape is certainly green. This feature is best left as equivocal, and certainly not strongly supportive of Black-chinned.

6. Head pattern: I agree that this feature is not particularly helpful. and should not be used as a factor in identifying the Lenoir bird. It is not listed as a criteria for separating the two species by Howell, Pyle, or Dittman/Cardiff.

7. Tail- bobbing: I believe that the phrase that Black-chinned "tends" to bob the tail while feeding is understating the usefulness of this characteristic tail-wagging behavior as an identification point. Howell states that "Black-chinned often wags and spreads its tail frequently and at times persistently while hovering and feeding." Dittman/Cardiff list "vigorous "tail-pumping" behavior *while in the act of drinking nectar*"(emphasis the authors) as one of the best distinguishing features for Black-chinned. For Ruby-throated, Howell indicates "Ruby-throated usually holds its tail rigid, quivering or flashing it only slightly" and Dittman/Cardiff state "Ruby-throated usually do not "pump" or "wag" their tails *while in the act of drinking nectar while hovering* (emphasis the authors) but be very cautious with this character because they do pump their tails while maneuvering into feeding position". The behavior of the Lenoir bird was entirely consistent with the typical behavior of Ruby-throated Hummingbird and inconsistent with the typical behavior of Black-chinned. My notes taken while observing the bird read: "Approaches and departures from flowers marked by tail flicking and flaring. While feeding tail was consistently held horizontally still with rapid quivering from side to side. Seemed to pump tail once on each departure from a flower on which it had fed." I also disagree with Stubblefield's statement that "The lack of a pronounced form of this behavior cannot be used as a strong argument against the Lenoir *Archilochus* being a Black-chinned Hummingbird." The display of behavior which is typical for one of a species pair and atypical for the other must be considered strong

evidence in the identification process. How typical is this behavior of Black-chinned? On one of the websites cited by Stubblefield, hummingbird bander Bob Sargent states: "I have never observed a Black-chinned for any length of time that it didn't put on a display of 'tail-pumping' as it hovered".

The identification of the female hummingbird photographed by Stubblefield in Texas may also need further review. It appears to be a well-worn adult, and the features exhibited such as the long tail relative to wingtips, the greenish-gray flanks, the relatively short bill, and the relatively pointed shape of both the inner primaries and the outer primaries, are in my mind all more supportive of an identification of Ruby-throated than Black-chinned.

Caution is always advised when attempting to identify an out-of-range bird. Ideally, the identification should be unequivocal, and all relevant field marks should be noted (both in the field and if possible with physical or photographic evidence). Many would argue that a first state record should be held to an even higher standard. In the case of the Lenoir Archilochus, we are dealing with an extremely difficult field identification, one where caution is advised even by the leading authorities, who warn that in many instances field identification may not be safely possible. Without in-hand measurements of the best field marks, such as the relative primary widths, rectrix length and bill length, which could confirm the identification, we are left with attempting to establish the identification by the overwhelming support of a more subjective review of the criteria. In my opinion, as outlined above, the weight of the evidence is more supportive of an identification of Ruby-throated Hummingbird than of Black-chinned, and falls short of the accumulation of evidence desired for establishing a certain identification of Black-chinned. This may be best left as the most difficult of calls to make: a fairly well studied, but in the end, unidentified bird.

Literature Cited

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NOTE: The photographs referred to in this article, which are here reproduced in black-and-white because of budgetary restrictions, may be viewed in full color on the Federation website: www.fnysbc.org



Fig.1 - Note the golden-green on the upperparts with the green color extending up the nape to the crown. In this pose the wing appear to be at or slightly short of the tail.

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Fig. 2 - A rear pose showing the even color on the upperparts. Here again the nape and crown are green.

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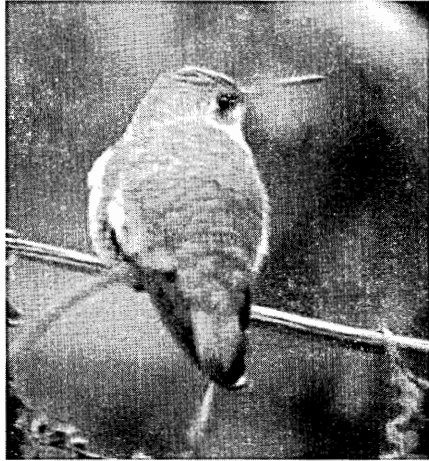


Fig. 3 - another back view – this time the wingtips appear to be slightly beyond the tail tip, which may be due to their positioning relative to the tail.

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