

**UNIDENTIFIABLE SAPSUCKER (*SPHYRAPICUS*) IN
HUNTSVILLE, ALABAMA****Scott D. Rose, Howard E. Horne, and
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The Red-breasted Sapsucker (*Sphyrapicus ruber*), Red-naped Sapsucker (*S. nuchalis*), and Yellow-bellied Sapsucker (*S. varius*) were considered conspecific (*S. varius*) until 1983 and 1985 (American Ornithologists' Union 1983, 1985). Although some hybridization occurs among these three taxa, gene exchange is thought to be limited, and reproductive barriers prevent free interbreeding in contact zones (Howell 1952, Short 1969, Devillers 1970, Johnson and Zink 1983, Johnson and Johnson 1985).

Generally, the Red-breasted Sapsucker breeds in the Sierra Nevada Mountains and along the coast of the Pacific Northwest from Oregon to southeast Alaska and in central British Columbia. The Yellow-bellied Sapsucker breeds in the northern United States, extending west across Canada to eastern Alaska. The Red-naped Sapsucker breeds in the Rocky Mountains north of Mexico, along the east slope of the Cascade Mountains, in a few locations in the Sierra Nevada Mountains, and in the Black Hills of South Dakota (American Ornithologists' Union 1998).

The migration habits of the three species differ (Devillers 1970). The Red-breasted Sapsucker is largely resident or a short distant migrant to southwestern Baja California; the Red-naped Sapsucker winters in the lowlands of the southwestern United States, northeastern Mexico, and Baja California; and the Yellow-bellied Sapsucker winters in the southeastern United States and Central America to Panama (Dunn 1978). The Yellow-bellied Sapsucker is a common winter resident in Alabama (Imhof 1976), but no records exist for the other sapsucker species (G. Jackson, pers. comm.), and few exist for the eastern United States (American Ornithologists' Union 1998, Kaufmann 1990, Harlan 2005, Robbins et al. 2005, Cardiff 2009).

On 16 December 2008, an unusual sapsucker was found in Huntsville, Alabama, by Scott Rose and was subsequently seen by Howard Horne (Fig. 1). Twenty-four photographs were taken of the Huntsville sapsucker on 16 and 25 December, and were posted on the Internet. After reviewing the literature, consulting with others that reviewed the photographs, and studying Internet photographs (e.g., Vireo, Google), it was concluded that the Huntsville sapsucker was either an aberrant Red-naped Sapsucker or a Red-naped x Yellow-bellied Sapsucker hybrid, and therefore, could not be definitively identified. Although information concerning

sapsucker variation and identification has been published, separating a hybrid from extreme variants can be problematic (Ridgway 1914; Devillers 1970; Dunn 1978; Kaufmann 1988, 1990; Pyle 1997; Shunk 2005; Mlodinow 2005, 2006; Robbins et al. 2005). Therefore, caution seems warranted in identifying the Huntsville bird, especially since this individual could represent the first documented record for Alabama, and possibly only the second record of the species east of the Mississippi (Harlan, 2005). The objectives of this paper are to 1) provide documentation of the Huntsville sapsucker sighting, 2) compare the plumage of the Huntsville sapsucker to *varius* and *nuchalis* plumages, and 3) stimulate interest in sapsucker identification so that observers will look more closely at wintering sapsuckers in Alabama and other regions of the Southeast. This sighting and recent reports of other unusual sapsuckers in winter suggest that vagrant western sapsuckers may occur in the East more often than records indicate (Robbins et al. 2005, Cardiff 2009).

The plumage of the Huntsville sapsucker is most similar to those of *nuchalis* and *varius*, so our focus was to compare the Huntsville bird to those two species. The most important traits used to separate *nuchalis* and *varius* are plumage characteristics associated with the nape, throat, back, and face. Hybrids are typically intermediate in these traits and make definitive identifications difficult (Kaufmann 1990). Below we discuss the diagnostic traits in reference to the Huntsville sapsucker and why there is uncertainty concerning its identity.

Age and nape. — Since there is no evidence of any brown, mottled feathering on the head and throat, as seen in the juvenal plumages of *nuchalis* and *varius*, we conclude the Huntsville sapsucker is in adult plumage (Pyle 1997). The first prebasic or first-cycle molt of *nuchalis* typically is completed on the summer grounds, whereas in *varius* it is completed on the winter grounds (Pyle 1997). Therefore, if the Huntsville bird were a hatching year *varius*, we would expect to see some juvenal feathers. The plumage of the Huntsville bird appears fresh, indicating that the prebasic molt has been completed (Fig. 1).

Red-naped Sapsuckers have red on the back of the head, but since yellow-bellieds sometimes, but rarely, have a red nape (Mlodinow 2006, Landing 1991), this trait is suggestive but not definitive for identifying *nuchalis* (Robbins et al. 2005, Mlodinow 2006). In the Huntsville sapsucker, the red nape marking is somewhat restricted with very little red being seen from a side view (Fig. 1A). The nape color is also paler than the crown color, even though the plumage appears to be fresh. This pale nape may suggest a possible *nuchalis* x *varius* hybrid (Reid Barclay pers. comm., Shunk 2005). However, the shape of the patch and the intensity of red in the nape are variable among red-naped (Internet photographs,



FIGURE 1. Photographs of unidentifiable sapsucker (*Sphyrapicus*) in Huntsville, Alabama, 16 and 25 December 2008.

Devillers 1970, Dunn 1978), and therefore using these characters to identify a vagrant as a hybrid is problematic and awaits further study.

Throat and gender.—An adult female *varius* typically has a white throat bordered by black, whereas an adult female *nuchalis* typically has a red throat and a white chin (Walters et al. 2002a, 2000b). No white is seen on the throat or chin of the Huntsville sapsucker, suggesting the individual is a male (Shunk 2005). A male *varius* has a red throat distinctly bordered with black, whereas an adult male *nuchalis* typically has a red throat that has an incomplete border (Kaufman 1990, Pyle 1997, Mlodinow 2006). The Huntsville sapsucker has the throat pattern of a male Red-naped Sapsucker. The throat is completely red and red feathering intrudes into the posterior region of the malar, giving the appearance of an incomplete black border around the throat (Fig. 1B, 1C). In addition, some red feathering can be seen in the relatively broad, white subauricular stripe and even into the auricular region of the transocular stripe. These two characters (i.e., broken black frame around throat and trace of red on side of head) have not been reported for *varius* (Mlodinow 2006) and suggest that the sapsucker is a *nuchalis* (Devillers 1970, Sibley 2000, Shunk 2005). The amount of red intrusion into the malar stripe can vary (Internet photographs, Mlodinow 2006), so identifying a vagrant as a hybrid based on the degree of red intrusion alone is problematic and awaits further study.

Back pattern and coloration.—The usefulness of the back pattern and color in distinguishing yellow-bellieds and red-naped is unsettled. Mlodinow (2006) found considerable overlap between the two species in his analysis of museum skins, whereas Robbins et al. (2005) considered the back coloration and pattern to be a character showing the least variation among the sapsuckers species. Typically, *varius* has more pale markings that form a wide swath down the back (Kaufmann 1988, 2000; Shunk 2005; pers. obs.) and has a “messier” back pattern than seen in *nuchalis* (Sibley 2000). In *nuchalis*, the pale markings tend to form two distinct broken stripes that converge posteriorly (Devillers 1970, Shunk 2005). Both species can have buffy markings (Kaufmann 1990, Mlodinow 2005, Internet photographs), which can wear with time and leave the back pale markings primarily white (Sibley 2000). More buff markings are typically associated with *varius* (Devillers 1970, Dunn 1978, Robbins 2005). The Huntsville sapsucker had a back pattern that may be intermediate between typical *nuchalis* and *varius* (Fig. 1D; Shunk 2005). The buffy markings form two distinct stripes, but they are wider and more barred than those typically seen in red-naped (Internet photographs) and suggested to some photograph viewers that the individual was a hybrid. Yet, if extreme variants of *nuchalis* can have backs with buffy bars, one cannot exclude

the possibility that the Huntsville bird is a *nuchalis*.

Facial pattern.— The difference in facial pattern between *nuchalis* and *varius* is subtle and difficult to measure, especially with varying light conditions, bird posturing, and observation angle (Mlodinow 2006). Typically, *nuchalis* has more black on the side of the head than *varius* because of differences in the thicknesses of the black lateral crown stripe, white supercilium, black transocular stripe, and white subauricular stripe. Some photograph viewers noted that the Huntsville bird had less black in the face than expected for *nuchalis* and this suggested a *varius* or a hybrid. Overlap among variants of the two species does occur (Internet photographs), however, so using this character for definitive identification is not possible.

Conclusion.— The Huntsville sapsucker has two characters, the red intrusion into the malar and the red feathers in the auriculars, which have not been reported in *varius* and suggest a *nuchalis*. The red nape supports this identification, but the Huntsville sapsuckers atypical back pattern and color, and the relatively wide, white supercilium and subauricular stripes suggest *varius* genes may be present. Therefore we cannot exclude the possibility that the bird might be a hybrid (i.e., *varius* x *nuchalis*) and conclude that the Huntsville sapsucker cannot be definitively identified. This conclusion may change as work is published from contact zones between the two species and more is learned about hybrid and adult plumages of sapsucker species.

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LITERATURE CITED

- AMERICAN ORNITHOLOGISTS' UNION 1983. The American Ornithologists' Union Check-list of North American Birds, sixth edition. American Ornithologists's Union, Lawrence, Kansas.
- AMERICAN ORNITHOLOGISTS' UNION 1985. The Thirty-fifth supplement to the American Ornithologists' Union Check-list of North American Birds. *Auk* 102: 680-686.
- AMERICAN ORNITHOLOGISTS' UNION 1998. The American Ornithologists' Check-

- list of North American Birds, 7th ed. American Ornithologists's Union, Washington, D.C.
- CARDIFF, S. W. 2009. Fall migration: Arkansas and Louisiana. *North American Birds* 63: 101-106.
- DEVILLERS, P. 1970. Identification and distribution in California of the *Sphyrapicus varius* group of sapsuckers. *California Birds* 1: 47-76.
- DUNN, J. 1978. The races of the Yellow-bellied Sapsucker. *Birding* 10:142-149.
- HARLAN, R. 2005. Further Afield. *The Ohio Cardinal* 28: 155-163.
- HOWELL, T. R. 1952. Natural history and differentiation in the Yellow-bellied Sapsucker. *Condor* 54: 237-282.
- IMHOF, T. A. 1976. *Alabama Birds*. 2nd ed. University of Alabama Press, University, AL.
- JOHNSON, N. K. AND C. B. JOHNSON. 1985. Speciation in Sapsuckers (*Sphyrapicus*): II. Sympatry, hybridization, and mate preferences in *S. ruber daggetti* and *S. nuchalis*. *Auk* 102: 1-15
- JOHNSON, N. K., AND R. M. ZINK 1983. Speciation in sapsuckers (*Sphyrapicus*): genetic differentiation. *Auk* 100: 871-884.
- LANDING, J. E. 1991. On Yellow-bellied Sapsuckers with red napes. *Birding* 23: 20-22.
- KAUFMANN, K. 1988. The practiced eye: Red-naped Sapsucker and Yellow-bellied Sapsucker. *American Birds* 42: 348-350.
- KAUFMANN, K. 1990. *A Field Guide to Advanced Birding*. Houghton Mifflin, Boston, MA.
- MLODINOW, S. G. AND B. TWEIT. 2005. Baja California Sur's first record of Yellow-bellied Sapsucker (*Sphyrapicus varius*) *North American Birds* 59: 358-359.
- MLODINOW, S. G., J. H. BARRY, AND C. D. COX. 2006. Variation in red-naped and yellow-bellied sapsuckers. *Birding* 38: 42-51.
- PYLE, P. 1997. *Identification Guide to North American Birds*, part 1. Slate Creek Press, Bolinas, CA.
- RIDGWAY, R. 1914. *The birds of North and Middle America*. U. S. Nat. Mus. Bull. 50, pt. IV.
- ROBBINS, M. B., D. E. SEIBEL, AND C. CICERO. 2005. Probable Yellow-bellied Sapsucker (*Sphyrapicus varius*) x Red-breasted Sapsucker (*S. ruber*) hybrid from eastern Kansas, with comments on identification of adult sapsuckers. *North American Birds* 59: 360-363.
- SHORT, L. L. 1969. Taxonomic aspects of avian hybridization. *Auk* 86: 84-105.
- SHUNK, S. A. 2005. *Sphyrapicus* anxiety: identifying hybrid sapsuckers. *Birding* 37: 289-298.

- SIBLEY, D. A. 2000. *The Sibley Guide to Birds*. Knopf, New York, NY.
- WALTERS, E. L., E. H. MILLER, AND P. E. LOWTHER. 2002a. Yellow-bellied Sapsucker (*Sphyrapicus varius*). *In* *The Birds of North America*, No. 662 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.
- WALTERS, E. L., E. H. MILLER, AND P. E. LOWTHER. 2002b. Red-breasted Sapsucker (*Sphyrapicus ruber*) and Red-naped Sapsucker (*Sphyrapicus nuchalis*). *In* *The Birds of North America*, No. 663 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

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