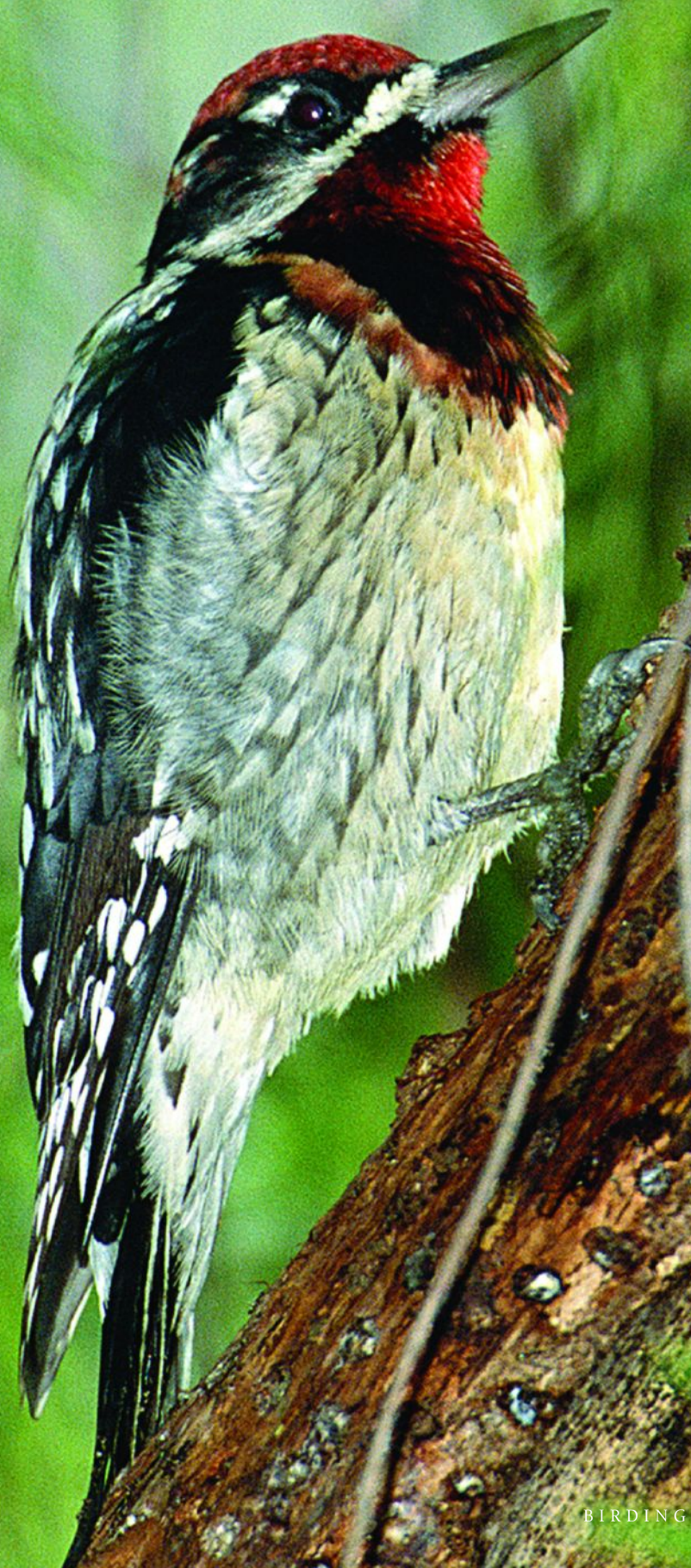


RECOGNIZING HYBRIDS



Hybrids. Every lister's nightmare. But hybrids have been around far longer than listers. Hybridization is one of Nature's most fascinating experiments, often leading to evolutionary dead-ends, sometimes resulting in new populations, occasionally even producing new species or whole groups of species. Along the way, Nature may take its time, hesitate, or even hiccup. Birders moan every time the American Ornithologists' Union splits one species into two, or lumps two back into one. All that we, or the AOU, can really do is try to interpret Nature's experiments.

Sphyrapicus Anxiety

IDENTIFYING HYBRID SAPSUCKERS

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This article examines variation and hybridization in the *varius* complex of Yellow-bellied, Red-naped, and Red-breasted Sapsuckers. Definitive identifications are not always possible, but it is worthwhile all the same to pay careful attention to sapsuckers that "don't look quite right". The attractive bird shown here appears to be an **adult male Red-naped × Red-breasted (subspecies uncertain) Sapsucker**.

Some characters that tend toward Red-breasted include the red breast-feathers exposed below the black breast-shield, along with some breast-feathers showing red tips and black bases. *Santa Clara County, California; November 2001. © Peter LaTourrette.*

An excellent point of departure is the North American sapsucker genus, *Sphyrapicus*. Four species are currently recognized, but species limits are unclear and hybridization is frequent. Fortunately, parental types and their hybrids are often field-identifiable, and sapsuckers tend to occupy habitats that are accessible to the birder. We can learn much from careful observations on the breeding grounds, as well as along the migratory routes and in winter.

Thomas Howell (1952) proposed that *Sphyrapicus* arose from the genera *Picoides* and *Dendrocopos*, with closer links to *Dendrocopos*. He based his conclusion on the rough similarity of plumage among these three genera, including their red head-markings, pied facial-plumage, and spotting on the body, wings, and tail. He also compared the black back of the male Williamson's Sapsucker to that of White-headed Woodpecker and the barred back of female Williamson's to that of Red-cockaded, Nuttall's, and Ladder-backed Woodpeckers. He even cited the Downy Woodpecker's occasional habit of drilling and feeding at sap wells as a link between *Sphyrapicus* and *Dendrocopos*.

Short and Morony (1970) offered an alternative history of the sapsucker lineage, suggesting that sapsuckers represent a specialized relative of *Melanerpes*. Factors supporting their explanation included the following: similarity in juvenal plumage between Red-headed Woodpecker and Williamson's Sapsucker; similarity in back pattern between adult male Williamson's and Acorn Woodpecker; and similarity between the back of adult female Williamson's and those of Gila, Golden-fronted, and Red-bellied Woodpeckers. The recurrence of Williamson's in these observations suggested to Short and Morony that Williamson's is the most ancestral of the sapsuckers. Johnson and Zink (1983) corroborated this view with electrophoretic analyses that established Williamson's as the older of the two sapsucker lineages, having split from the *varius* (Yellow-bellied Sapsucker) superspecies 3.0–3.7 million years ago.



Deschutes County, Oregon; October 2004. © Stephen A. Shunk / Paradise Bird-

It is difficult to predict how hybrid progeny will appear. For example, both of the birds pictured here, although clearly different from one another, are probably **adult daggetti Red-breasted × Red-naped Sapsucker hybrids**. The bird above, which tends toward Red-breasted, shows a hint of a black breast-shield showing through, along with black bases to the nape feathers. The bird below, however, is closer in appearance to its Red-naped parent than to its *daggetti* parent.



Kern County, California; October 1999. © Brian E. Small.

Howell (1952) estimated that sapsuckers diverged about ten million years ago. A key innovation in the evolution of the genus centered around its unique feeding style, along with related physiological changes, such as shorter tongue length, a rougher tongue surface, and a chisel-shaped bill. Following divergence of the genus *Sphyrapicus*, the western part of North America experienced large-scale uplift, leading to increased aridity in the lee of the Sierra Nevada range, an area we now call the Great Basin. This huge new expanse of desert-like habitat and the barrier formed by the Rocky Mountains may have catalyzed further divergence between Williamson's and the *varius* complex, which comprises the closely related Yellow-bellied, Red-naped, and Red-breasted Sapsuckers.

In this article, I focus primarily on the *varius* complex, with special emphasis on western North America. For simplicity (and to make my Latin teacher proud), I refer to them as: *varius* (Yellow-bellied), *nuchalis* (Red-naped), and *ruber* and *daggetti* (two races of Red-breasted). Note that some authorities split *varius* into two races, *atrothorax* and *appalachiensis*. But they are weakly differentiated (Pyle 1997), and the breakpoint is in eastern North America; thus, I do not treat them in further detail here.

What's In A Name? Tale of a Superspecies

As many birders know, the *varius* complex was regarded until fairly recently as a single species, the Yellow-bellied Sapsucker (*S. varius*). But variation in this polymorphic complex has long been appreciated.

Ridgway described *ruber* in 1872 (see Bent 1939), and several decades later Grinnell (1901) proposed splitting *ruber* into two subspecies: nominate *ruber* and southern *daggetti*. In the absence of a taxonomic designation below the level of subspecies, he described this new taxon as a "sub-race" of Red-breasted Sapsucker. Meanwhile, early editions of the AOU *Check-list* ranked *ruber* as a full species, in contradiction to Ridgway and Grinnell (see Bent 1939).

Grinnell (1901) considered *nuchalis* to be an intergrade—or the product of cross-breeding between two subspecies—between *varius* in the east and *ruber* in the far west, and he reported this intergradation to be continuous throughout the range of *varius*. In making this determination, Grinnell examined numerous skins exhibiting all degrees of variation between *nuchalis* and *ruber* and concluded that these intermediates "[do] not appear to be the result of hybridization ... and I see no reason why the Red-breasted Sapsucker is of more than subspecific rank."


According to Bent (1939), Ridgway flip-flopped more than thirty-five years after originally describing *ruber* as a subspecies. In 1914, Ridgway gave the Red-breasted Sapsucker full species status, "apparently having changed his mind", in the words of Bent. In the same year, Ridgway suggested that *nuchalis* should also be specifically distinct from *varius*, as he now believed that the intermediate forms were hybrids.

In 1931, the American Ornithologists' Union listed *ruber*, *daggetti*, *nuchalis*, and *varius* as subspecies of the Yellow-bellied Sapsucker. But during the period 1948–1950, while studying sapsuckers in California and British Columbia, Thomas Howell began to give thought to the possibility that multiple species might be involved here (Howell 1952). Specifically, he proposed a split between Yellow-bellied Sapsucker (*varius* and *nuchalis*) and Red-breasted Sapsucker (*ruber* and *daggetti*). Short (1969) later recog-

Date of Observation _____

FIELD DATA SHEET

(Use a different sheet for each nest)

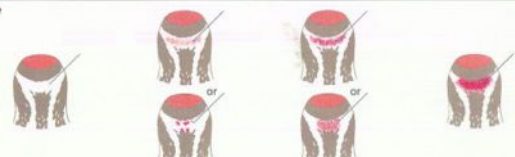


1. Nest Location

General Area (town, park) _____
 Distance and bearing of nest from road or landmark _____
 Closest road _____
 Distance along road to identifiable landmark (intersection, creek, structure, sign) _____
 Name of landmark _____
 or Legal description: S Q T R _____
 or GPS reading: latitude (degree decimals) _____ longitude _____
 Is it on private property? Yes No Is it on your property? Yes No

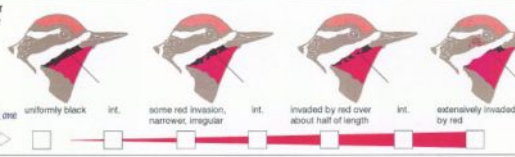
2. Male Plumage Scoring (female on reverse side; male has no white on throat)

Nape




Check one: no red int. bases of red int. red restricted to about half-length or half-width int. red, long, broad

Malar stripe



Check one: uniformly black int. some red invasion, narrower, irregular int. invaded by red over about half of length int. extensively invaded by red

Upperparts



Check one: black and white peppered int. two broad white lines int. two narrow white lines

Project Sapsucker is a citizen-science program geared toward understanding **Yellow-bellied** × **Red-naped Sapsucker** hybridization in a zone of overlap in southwestern Alberta. Shown here is a field card that lays out the range of variability of the sapsuckers found in the region. © Provincial Museum of Alberta / J. Hudon.

nized *varius*, *nuchalis*, and *ruber* as distinct species, and AOU (1983) followed by elevating the three to full species.

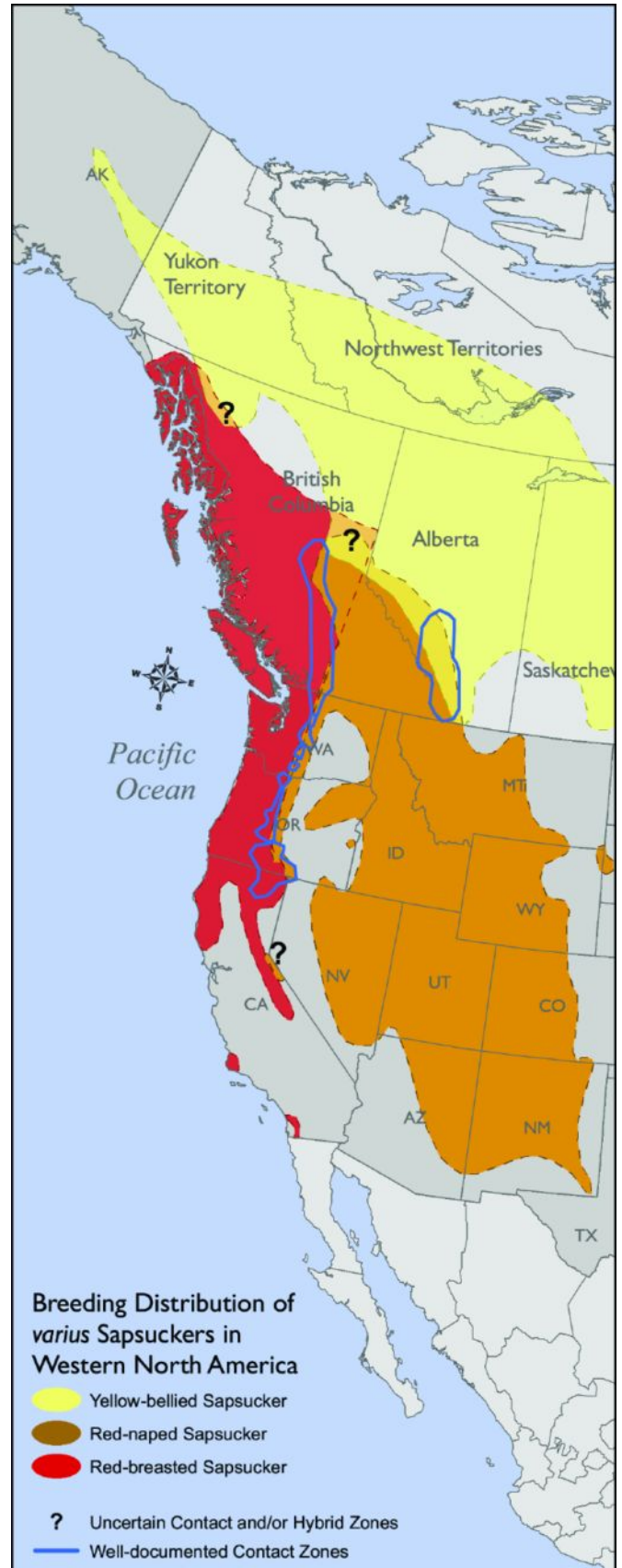
Where Are They Now? Sapsucker Biogeography

While there remains some debate about the number of sapsucker species, there is basic agreement that there are four well-described and field-identifiable populations. East of the Rocky Mountains, sapsucker identification is fairly straightforward: *varius* is widespread, and the other races are accidental or unrecorded. Farther west, the situation is considerably more complex, with *varius* × *nuchalis*, *varius* × *ruber*, *nuchalis* × *ruber*, *ruber* × *daggetti*, and *nuchalis* × *daggetti* hybrid zones. Even hybrids with Williamson's Sapsucker (2 specimens of hybrids with *nuchalis*) have been reported (Short and Morony 1970).

varius × *nuchalis*

Since 1996, the Provincial Museum of Alberta has been studying sapsucker hybridization in and around the

Breeding ranges of the four sapsucker taxa in the *varius* complex (Yellow-bellied, Red-naped, *ruber* Red-breasted, and *daggetti* Red-breasted). Map by © Kei Sochi.



Kananaskis country of southwestern Alberta (Hudon 2001). This effort has been dubbed “Project Sapsucker”. The museum’s research shows extensive hybridization in the region: In 1996, hybrid individuals accounted for 46 percent of paired adult sapsuckers at 35 different nests; only two years later, this percentage had risen to 86 percent. Hybrids continued to be frequently noted in 2001, when the sample size had increased to 90 nests.

Prior to Project Sapsucker, little was known about *varius* × *nuchalis* hybrids. Howell (1952) was unable to document this combination while studying hybrids in British Columbia in 1950, although he did uncover records of pure *varius* and apparent *varius* × *ruber* hybrids from this region. He did report approximately six specimens collected from east of the Rockies that resembled *varius* in all regards except for varying amounts of red pigmentation in the nape (Howell 1952). However, *varius* occasionally shows a red nape (Winkler et al. 1995, Sibley 2000). Howell did report likely *varius* × *nuchalis* intermediates that had been collected during the winter in Wind River, Nebraska, San Antonio, Texas, and Jalisco, Mexico.

In June 1974, C. H. Jarosch collected two birds near Stoner, British Columbia, that evidenced contact between *varius* and *nuchalis* (Scott et al. 1976). One individual was an adult female *varius*; the other was a male *varius* × *nuchalis* hybrid. Both birds were collected from the same general location at which ten *ruber*-like individuals had also been collected. Jarosch and his colleagues speculated that *varius*, *nuchalis*, and *ruber* “shortly should come into contact south of Prince George [British Columbia]” (Scott et al. 1976).

South of the Alberta hybrid zone and through the mountains of New Mexico and Arizona, *nuchalis* maintains exclusive territory among the *varius* complex (although *nuchalis*

does encounter Williamson’s through much of the Rocky Mountains). However, based on the increasing frequency of hybrids found during Project Sapsucker and Howell’s reports of hybrids in Texas and Mexico, birders from the Southern Plains states southward should be prepared for the possibility of finding a *varius* × *nuchalis* sapsucker any time outside the breeding season.

varius × *ruber*

The *varius* × *nuchalis* hybrid zone seems to dissipate westward into the Canadian Rockies (Walters et al. 2002a). What is happening here is that *varius* wraps westward around to the north of the higher mountains and then dips southward into British Columbia, as observed by Jarosch (Scott et al. 1976). A nearly straight line marks the eastern boundary of the range of *ruber*, from Tupper, British Columbia, to the southern end of the Upper Klamath Basin in south-central Oregon. Prior to Jarosch’s fieldwork in 1974, Howell (1952) had noted a few specimens collected from this region which indicated a small zone of contact between *varius* and *ruber*.

Howell (1952) found two specimens in the University of California’s Museum of Vertebrate Zoology that were collected by Swarth 30 years earlier near Telegraph Creek in north-western British Columbia. One of these birds was a pure male *varius*, and the other appeared to be a *varius* × *ruber* hybrid. Swarth had noted that the mate of the former bird, which he was unable to collect, showed so much red on the head that it almost completely covered the black breast-shield. The hybrid examined by Howell (1952) showed red tips to much of the black feathering in the head and chest, and he con-



On this adult Red-naped × *ruber* Red-breasted Sapsucker (sex unknown), note the black on the nape, as well as the black showing through on the breast—characters that tend toward Red-naped. Shady Cove, Oregon; December 2003. © James Livaudais. ▶



◀ Both races of the Red-breasted Sapsucker may hybridize with Red-naped Sapsucker. This individual, photographed in the author’s backyard, is probably an adult *ruber* Red-breasted × Red-naped Sapsucker (sex unknown). Note that the black feather-bases show through extensively on the breast and head, and note the hint of a malar extension. Deschutes County, Oregon; October 2004. © Stephen A. Shunk / Paradise Birding.

cluded that it must have been a cross between *varius* and *ruber*, since the location at which the bird was collected was far outside the range of *nuchalis* (farther east) or *daggetti* (much farther south).

Howell also found a *ruber* record from Tupper Creek in the Peace River Parklands, lying on the eastern border of British Columbia, well north of Jasper National Park—typical *varius* territory. Here a pair of pure *ruber* nested only three meters away from a pair of pure *varius*, and another pair of pure *varius* nested only fifty meters from the other two. He also noted another record of pure *ruber* from Tetana Lake, almost equidistant from Tupper and Telegraph Creeks. Walters et al. (2002b) reported another area of contact just south of Prince George, more than 250 kilometers south-southwest of Tupper. These records indicate a rough contact zone between *varius* and *ruber* across northern British Columbia (Howell 1952, Walters et al. 2002b).

nuchalis × *ruber*

As described above, *nuchalis* leaves *varius* behind in the Canadian Rockies before spilling westward into central British Columbia. Both Howell (1952) and Scott et al. (1976) placed *ruber* as breeding in the temperate rainforests of British Columbia. This brings *ruber* and *nuchalis* into contact at roughly the Cariboo region in the central part of the province, with *ruber* tending to dominate from the Cariboo region north and west and *nuchalis* extending farther south and east (Howell 1952, Howell 1953, Scott et al. 1976).

In the spring of 1950, Howell (1952) studied the *ruber-nuchalis* contact zone near Manning Provincial Park, between Hope and Princeton, near the south-central border of British Columbia. With few exceptions, he reported birds in the western half of this region as typical *ruber* and those in the east as typical *nuchalis*, noting that Allison Pass, in conjunction with a nearby 20,000-acre burn, served as a geographic barrier limiting hybridization.

That same summer, Howell moved well north of Manning Park to the Cariboo area of central British Columbia, near the Fraser River. He found birds from Kersley north to

be generally typical of *ruber*, and those to the south to be typical of *nuchalis*. In contrast to what he found in the Manning area, however, Howell reported no significant geographic barrier to account for the relatively clean separation between the two species, and he concluded that this region adequately suited both.

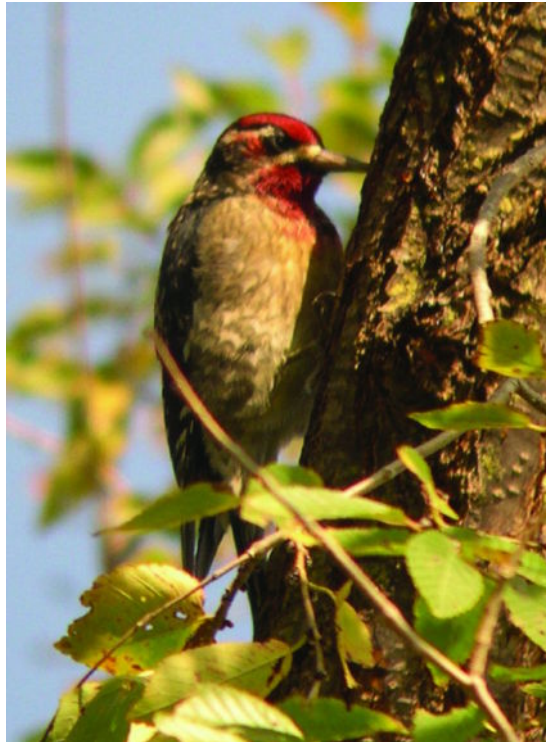
More than 20 years after Howell's observations, Jarosch returned to the same region to document potential range changes between the two species (Scott et al. 1976). In addition to the *varius* types that Jarosch found, discussed above, he was also able to observe what appeared to be a northward movement of the *ruber-nuchalis* contact zone. He found “*nuchalis*-like” birds farther north than Howell did, and he noted that “*ruber*-like” birds had all but retreated from the southern portions of the region.

Howell (1952) described the Cascade Range as limiting hybridization between *ruber* and *nuchalis*. At the time, only four hybrids had been recorded, with two each in Oregon and Washington. The two Washington birds were collected in 1948 in western Yakima County, along with four pure *ruber* individuals. In the same year, sapsuckers were collected on both sides of the central Oregon Cascades. Five typical *ruber* were found west of the Cascades crest, but the east slope proved more dynamic. In the Dry Creek Watershed, approximately nine miles west of Sisters, one *nuchalis* × *ruber* hybrid was collected with two typical *ruber* individuals. Just four miles east, in the Indian Ford

Creek watershed, six typical *nuchalis* were collected along with one hybrid.

Because only two intermediates were found in this region west of Sisters, Howell (1952) concluded that interbreeding was “very limited”. However, hybrids of either *nuchalis* × *ruber* or *nuchalis* × *daggetti* have been reported frequently from this area since 1998 (Viste-Sparkman 2003; personal observation; miscellaneous online reports).

Hybrid *nuchalis* × *ruber* individuals are routinely found in the Cascade Mountains of eastern Washington (H. Opperman, personal communication). Pure *ruber* occurs on both sides of the range and down into the ponderosa pine



It is good to be cautious in the matter of identifying presumed hybrid sapsuckers, and the bird pictured here is best called a **probable juvenile male Red-naped × daggetti Red-breasted Sapsucker**. This individual's plumage characters tend toward Red-naped. It lacks a black breast-shield, which is expected of a fall juvenile *nuchalis*; but it has some red tips to the white eye-stripe and extensive red on the breast. Davis, California; 11 November 2004. © Richard Hall.



This adult male *daggetti* Red-breasted Sapsucker in very worn plumage was mated to a female Red-naped Sapsucker, right. Deschutes County, Oregon; June 2004. © Kris Falco / Horsewings.



This typical adult female Red-naped Sapsucker was mated to a male *daggetti* Red-breasted Sapsucker, left. Deschutes County, Oregon; June 2004. © Kris Falco / Horsewings.

forests of the lower east slope, with *nuchalis* overlapping in this eastern zone. Mixed pairs are found up to the Cascades crest. Some hybrids may be misidentified as *ruber* in this region, although much of the area where hybridization occurs does not get much attention from birders.

As in other regions, hybrids seem to occur here most frequently in habitats with an aspen component (personal observation), although in 1999 an adult *nuchalis* × *ruber* hybrid was documented (Adamus et al. 2001) tending an active nest in mixed-conifer habitat approximately 20 miles north of the birds reported by Howell (1952). In 1996 and 1999, hybrids were also confirmed breeding in the Wallowa Mountains of northeastern Oregon (Adamus et al. 2001), where a small disjunct *ruber* population may breed in a region heavily dominated by *nuchalis*. While *nuchalis* frequently hybridizes with *ruber*, no stable hybrid population has been documented (Winkler et al. 1995).

ruber × *daggetti*

The zone of intergradation between the two races of Red-breasted Sapsucker is clinal and difficult to characterize

(Grinnell 1937). This plumage continuum can make visual separation of subspecies difficult in the field, and it complicates our interpretations of the interactions between *ruber* and *nuchalis*.

Throughout British Columbia and Washington, south along the west slope of the Oregon Cascades and westward to the Oregon Coast, *ruber* generally enjoys exclusive breeding rights between the two races. It breeds fairly commonly in the northern part of Oregon from the coast to the Cascades and into central Oregon. However, from the east slope of the Oregon Cascades south to southern Oregon and westward along the Oregon-California border, the two subspecies occur side-by-side, and somewhere in there, *ruber* and *daggetti* freely intergrade. Case in point: In July 2004, a mixed *ruber* × *daggetti* pair was observed nesting at Scout Lake, Jefferson County, Oregon, approximately 10 miles northwest of Sisters (personal observation).

From the southern Oregon Cascades eastward into the Warner Mountains and south throughout the remainder of the range of the parent species, *daggetti* takes over (Howell 1952, Viste-Sparkman 2003). The intergrade zone lies

along the California border, and it is difficult to say with certainty whether pure *ruber* breeds in California.

The *ruber* race typically overwinters completely within its breeding range, while *daggetti* is a bit more migratory (Howell 1953). Therefore, any overwintering Red-breasted Sapsucker in Oregon is likely of the *ruber* subspecies. Since 1997, *ruber* has been observed nearly annually in winter in central Oregon, whereas *daggetti* is typically not detected again in the region until spring (personal observation).

nuchalis × *daggetti*

Contact between *nuchalis* and *daggetti* may be the most intensively researched relationship of the sapsucker hybridization phenomenon, in part due to the easy accessibility of the contact zones between these two races. The eastern limit of the breeding range of *daggetti* runs from south-central Oregon east to the Warner Mountains near the Oregon-California-Nevada corner, and along the Sierra Nevada to the headwaters of the San Joaquin River. Meanwhile, *nuchalis* reaches its western limit and contacts *daggetti* in three fairly distinctive regions, each of which has received dedicated study from field biologists: Browning (1977) and Trombino (1998 in Simmons 2003) in south-central Oregon; Howell (1952) and Johnson and Johnson (1985) in Modoc County, California; and Johnson and Johnson (1985) in the Sierra Nevada along the California-Nevada border. The soon-to-be published Nevada Breeding Bird Atlas (Floyd et al. in press) should provide further clarification for the state of Nevada.

Trombino (1998 in Simmons 2003) studied sapsuckers in the Paisley and Lakeview Ranger Districts of Fremont National Forest (northwest of the Warner Mountains) and found that hybrids constituted 33% of the local population. At 25 Red-naped Sapsucker nests studied at Hart Mountain National Wildlife Refuge (Dobkin et al. 1995), four nests included one bird believed to be a hybrid. Browning (1977; personal communication) found *nuchalis* × *daggetti* specimens collected from Klamath and Lake Counties, south-central Oregon, and from both sides of the Warner Mountains of Oregon and California, all of which showed plumage characteristics leaning toward *nuchalis*.

In 2004, a mixed pair of *nuchalis* and *daggetti* nested along Indian Ford Creek a few miles north of Sisters (personal observation). This location lies downstream from one of the *nuchalis* × *daggetti* collection spots described by Howell (1952). According to Winkler et al. (1995) and Simmons (2003), *daggetti* and *ruber* intergrade completely in southern Oregon, and both interbreed with *nuchalis*. From the east Cascades of central Oregon southward to the Klamath Basin and probably east to the Warner Mountains, it may be impossible to label the Red-breasted Sapsucker parentage of

any hybrid individual as either *ruber* or *daggetti*.

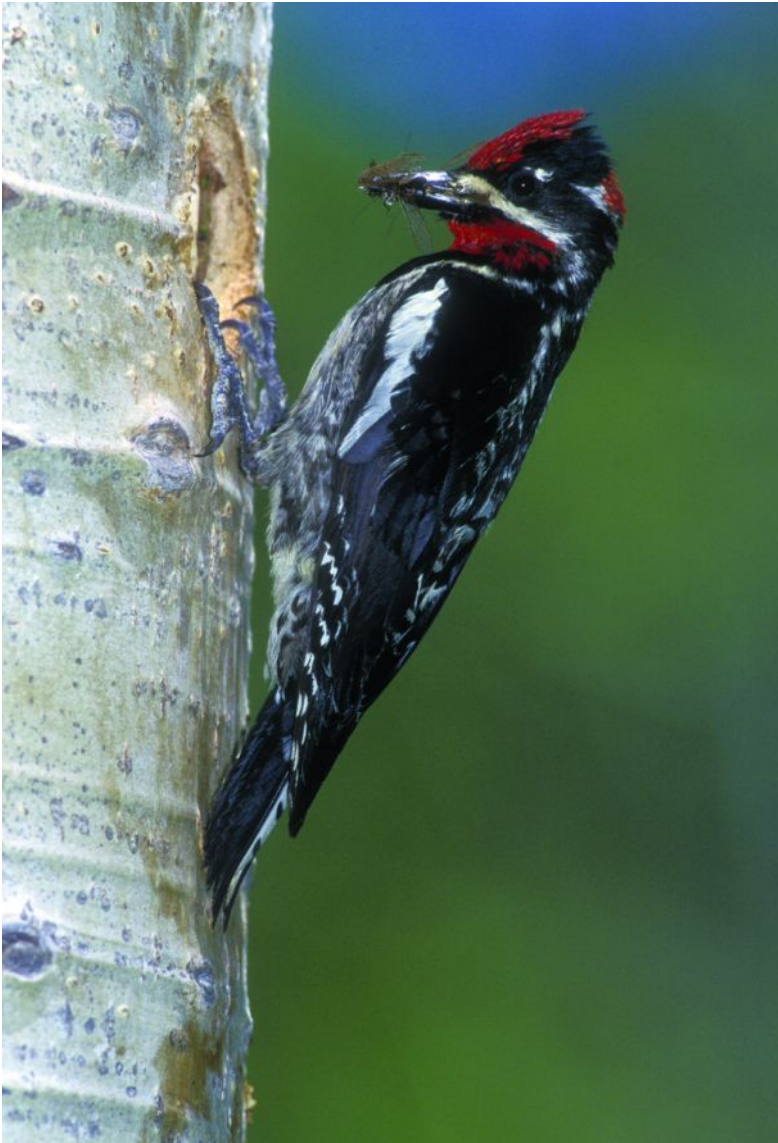
There has been relatively little study of these birds away from the breeding grounds. Typically, birders assume that wintering sapsuckers in the Intermountain West refer to one population or another, but this assumption has been questioned by Floyd (2002). In western Utah and central and eastern Nevada, for example, the majority of birds reported as Red-breasted Sapsuckers may, in fact, be hybrids with *nuchalis* (Floyd 2002).

What's the Difference? Identification Tips and References

Understanding migration patterns and other clinal variations within the *varius* complex can be valuable in understanding hybridization and in identifying individual birds. For starters, it is desirable to have a basic handle on the status and distribution of sapsuckers in your particular region. Any sapsucker found in the West Indies or Costa Rica in winter, for instance, is basically guaranteed to be the highly migratory *varius*. However, from Mexico north, *varius* × *nuchalis* hybrids should be carefully considered. A sapsucker on Vancouver Island is almost certainly a non-migratory *ruber*, while a bird in the Okanagan Valley could be any mix of *ruber* hybrids, some of which migrate down-slope in winter. Howell (1953) found females of *varius* and *nuchalis* to migrate farther south in winter than males.



Adult male Yellow-bellied Sapsucker. Aitkin County, Minnesota; June 2001. © Brian E. Small.



Adult male Red-naped Sapsucker. Rocky Mountain National Park, Colorado; June 2001. © Brian E. Small.

At a deeper level, it is worthwhile to be aware of some of the basic trends and gradients that characterize sapsucker variation across the continent. For example, the degree of sexual dimorphism among the populations decreases from east to west, with *varius* showing the greatest plumage difference between the sexes, and *ruber* males and females being indistinguishable. Conversely, the extent of red pigmentation in the four taxa increases from east to west, with *varius* showing the least amount of red, and nominate *ruber* showing the greatest.

A basic understanding of the plumage differences among the four pure populations will allow us to detect presumptive hybrids. Also, many of the plumage characteristics among the four pure populations vary subtly, and there can

be considerable individual variation. Therefore, we will focus on the less-subtle differences and on those that can be considered general for a typical representative of each pure population, as well as notable aberrations possible in each. The basics of identification, summarized from my own observations and from material in Winkler et al. (1995) and Sibley (2000), are given below.

Yellow-bellied Sapsucker

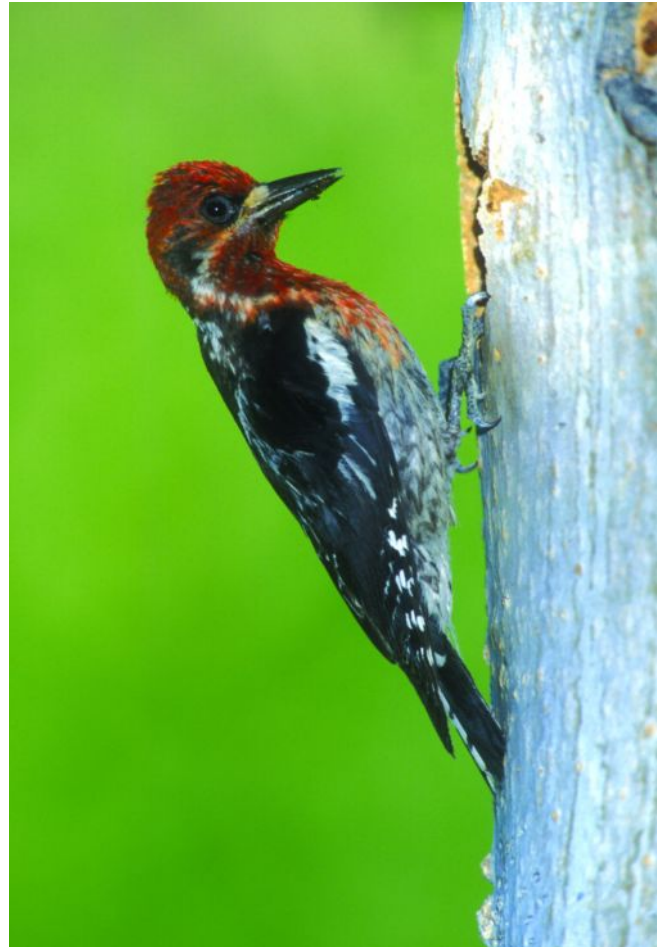
- Adult male shows all-red throat with complete black border.
- Adult female shows all-white throat with complete black border.
- Adult female very rarely shows yellow throat and head.
- Adult female occasionally shows less red on crown than male, rarely no red.
- Adults of both sexes show extensive white markings in a wide swath down the back.
- Adults of both sexes show buffy tinge to white parts and black breast-patch in spring and early summer.
- Adults of both sexes appear mostly black-and-white by winter, after buffy edging wears.
- Recently-fledged juveniles are very buffy with noticeable facial pattern and barred back; sexes similar.
- Young males may gain some red throat-feathers in fall or winter.
- Adult head-pattern develops slowly through first winter; not recognizable until March or April.
- Black breast-patch appears later, being brownish-banded well into spring.
- Molt to full adult plumage is not complete until spring of second year, on wintering grounds.

Red-naped Sapsucker

- Adult male shows all-red throat with black border broken at the neck on both sides.
- Adult female shows red lower-throat with white chin and complete black border.
- Adult female occasionally shows as much red as male, including throat.
- Adults of both sexes show red nape-patch broken from crown by black.
- Adults of both sexes rarely show limited or no red on nape.
- Adults of both sexes may often show red feather-tips to black ear-patch.



Adult male *ruber* Red-breasted Sapsucker. Woodinville, Washington; November 2002.
© Brian Bell.



Adult *daggetti* Red-breasted Sapsucker. Mono County, California; July 2003.
© Brian E. Small.

- Adults of both sexes show two distinct whitish bands down the back.
- Recently-fledged juveniles are less colorful than *varius* and more spotted than barred on back.
- Molt progresses very rapidly, with some red usually visible on the crown and throat by late summer.
- Both sexes resemble respective adults by late summer to early autumn, except for barred buffy breast; they acquire the full black breast-band by January of their second year.

Red-breasted Sapsucker

- Adults of both sexes and both races are alike, showing a red head, neck, and breast; red is brightest in spring.
- Adults of both sexes and both races show a small amount of white present just above the bill and a small black spot in front of eye; the generally paler *daggetti* race shows a white moustache of varying length.
- Race *ruber*: Slightly larger and darker than *daggetti*; red deeper in tone and reaches farther down on breast, where more sharply demarcated from the belly; belly

tends to be yellower; pale upperparts fewer and more spotted than barred; white nasal/oral area lacks moustachial extension.

- Race *daggetti*: White at the base of the bill extends as fairly broad moustachial stripe, occasionally across neck to back; often shows white behind eye, occasionally extending as a short eye-stripe; head and breast paler than *ruber*, sometimes tinged with pale purple; in autumn, red coloration appears duller and darker, but becoming brighter through winter and spring as browner feather-tips wear away. Some black feather-bases often show through on crown and breast, especially when very worn in late summer.
- Juvenile (both races): Pattern similar to that of adult but coloration different, being brownish, often tinged red; nasal tufts are whitish and moustache is short; notably darker than *nuchalis* juvenile. Acquires adult plumage very rapidly, with ages being indistinguishable in the field by late summer or early autumn. Grinnell (1937) described *daggetti* juveniles as “smaller, paler [than *ruber*] and with a maximum extent of white markings”.

As is often the case with aberrantly plumaged birds, standard field guides do not adequately prepare the curious birder for identifying hybrid sapsuckers. Some of the more popular field guides at least show two races of the Red-breasted Sapsucker: southern (*daggetti*) and northern (*ruber*). However, they usually do not accurately depict the variation between the two, tending toward *ruber* and often ignoring the possibility of an eyeline in *daggetti*. When it comes to juveniles, most guides show only one juvenile sapsucker among all four North American species. In a hybrid zone or other region of overlap, such superficial treatment can be particularly problematic. The only field guide that comes close to addressing the variation among races and juveniles—and even suggesting hybridization—is Sibley (2000), which advises that some individual birds are “not safely identified”, due to hybridization and intraspecific plumage variation.

Finally, the dedicated student of sapsucker variation is encouraged to consult identification references other than field guides. A good starting point is Winkler et al. (1995), which provides good descriptions of sapsucker hybrids. Presumably due to space considerations, David Nurney's plates in the Winkler et al. volume do not depict hybrids, although the caption for his *daggetti* drawing alerts the reader to the possibility. Another strength of the Winkler et al. treatment is the extensive discussion of geographic ranges of the sapsuckers. Another good source is back issues of *Birding*, in which articles on sapsucker identification, e.g., Dunn (1978), Lehman (1991), have appeared sporadically during the past 25+ years.

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