

OBSERVATION OF A LIKELY NEW INTERGENERIC HYBRID WOOD WARBLER

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Abstract. Hybridization is comparatively common within the closely related wood warbler family (Parulidae), with 12 intergeneric hybrids described. Hybridization is particularly likely when one species is outside of its principal geographic range. I report a detailed field observation of a singing male warbler that was likely a new intergeneric hybrid. The bird strongly resembled a female Common Yellowthroat (*Geothlypis trichas*) but also had characteristics of a Nashville Warbler (*Oreothlypis ruficapilla*). The former species is an abundant resident of wetland borders such as the one where I observed this bird, whereas the latter is a rarely breeding, range limit species that can occupy the same habitat. Both species are known to hybridize intra- and intergenerically and no other species appears to have characteristics consistent with the observed bird, so this individual likely represents a new intergeneric hybrid.

The occurrence of hybridization among wood warblers (Parulidae) has been known since the 19th century (Graves 1988). It has been reported commonly, with over 73 hybrid combinations known (Burrell et al. 2016) and with 53% of North American species involved (Willis et al. 2014). New combinations continue to be discovered (Delancey et al. 2019). Twelve intergeneric combinations have been described (Bledsoe 1988, Graves 1993, Toews et al. 2018) within this closely related family (Burrell et al. 2016), although the relationships among the genera have been revised, resulting in some of these genera being merged (Lovette et al. 2010).

Hybridization events often appear to follow Hubbs' rule (1955), which states that hybridization is particularly prevalent in instances where at least one of the species is outside of its principal geographic range (Willis 2013). Willis et al. (2014) further point out that song similarity, the extent of breeding sympatry of species pairs and the number of additional breeding heterospecific warbler species that co-occur are all positively related to propensity for hybridization.

On 23 May 1987, I observed an unusual wood warbler at Cooper's Point, Lyme, Connecticut at the upland border of a 215 ha brackish tidal marsh along

the lower Connecticut River. The bird inhabited a thicket vegetated by Common Reed (*Phragmites communis*) and scattered shrubs. It sang persistently during my observations (05:00-10:00 EDT) with a song different from those with which I am familiar. I recorded it in my notes as resembling in cadence and quality that of a weakly singing Prairie Warbler (*Setophaga discolor*). I phrased the buzzy, ascending song as "zee-zo-zee-zo-zee-zee-zee-zee-zee." Upon tracking down the bird, however, I found that its appearance strongly resembled that of a female Common Yellowthroat (*Geothlypis trichas*)- a species that breeds abundantly in this habitat at Cooper's Point. Field notes taken while the bird was under observation recorded that it had a uniform olive back, head, tail and wings, no wing bars, no eye stripe, a yellow throat and breast, an extensive white belly, grayish face, indistinct whitish eye ring, dark bill and a cap that appeared darker than the rest of the head (Fig. 1). I did not observe the color of the legs or undertail coverts.

Based on the strongly similar appearance of the bird to a Common Yellowthroat and its occurrence in typical yellowthroat habitat, I concluded that the bird was most likely related to a Common Yellowthroat. From the lack of a black mask on an obviously advertising male, the aberrant song, grayish face and darker cap, I believe it was a hybrid.

Despite its similar song, I find the Prairie Warbler to be an unlikely parental candidate. None of

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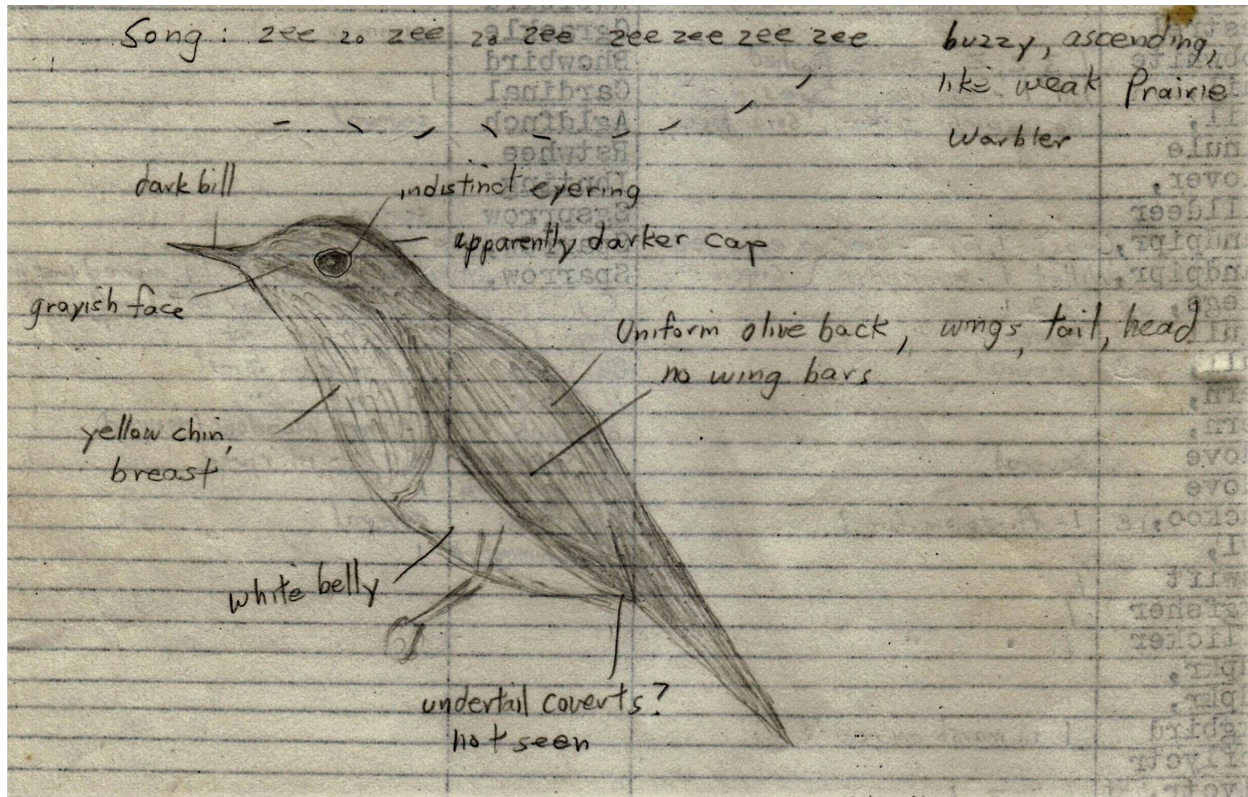


FIG. 1. Field notes detailing features of the likely hybrid wood warbler.

the bird's plumage characteristics appeared distinctively related to those of a Prairie Warbler. The wetland habitat occupied was also entirely unlike the xeric habitats used by Prairie Warblers.

A much more likely parent is the Nashville Warbler (*Oreothlypis ruficapilla*), whose relationship to the bird is exhibited in the grayish face, crown appearance, eye ring and, shared with the Common Yellowthroat, similarities in back, throat and breast color. Furthermore, the song cadence of a Nashville Warbler exhibits some similarity that of the recorded song. However, the olive head and extent of the white belly, more like that of a Common Yellowthroat, and distinct song differences argue against the bird being solely an aberrant Nashville Warbler.

Aside from the Nashville Warbler, all other North American wood warbler species have major range, plumage, habitat or vocal differences with the bird I observed. Other plain, olive-backed warbler species in the genus *Oporornis* are also possible parents, although the Kentucky Warbler (*O. formosus*) has an entirely different song and occupies forested habitat (McDonald 1998), whereas the other species have significant plumage differences and do not breed in Connecticut (Bevier 1994), which reduces

the probability that a hybrid with these species would appear in southern Connecticut.

In Connecticut, breeding populations of the Common Yellowthroat are great, whereas the Nashville Warbler is at its range limit and among the rarest of breeders. However, advertising males often remain into late spring (Craig 2017). Yet, habitats of the two overlap in open, shrubby swamps (Williams 1996). Hence, local conditions may be conducive to hybridization in situations where territorial male Nashville Warblers are unable to locate females of their own species.

Geothlypis has previously been reported to hybridize with *Oporornis* members, although these were once considered to be of the same genus (Bledsoe 1988). Moreover, the Common Yellowthroat is thought to hybridize with at least one other member of its genus (Sibley 2000). *Oreothlypis* has also previously been reported to hybridize intragenetically (Ralston et al. 2015) and intergenerically with *Leiostyris*, although in this case the two species were formerly considered to be in the same genus *Vermivora* (Bledsoe 1988). Hence, both species are known to hybridize and this observation appears to represent a new intergeneric hybrid.

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