

Female American Redstart, *Setophaga ruticilla*, Reuses Red-Eyed Vireo, *Vireo olivaceus*, Nest

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Interspecific nest reuse is uncommon in open-cup nesting birds, but has been reported several times in the American Redstart (*Setophaga ruticilla*). Individuals might reuse nests if appropriate nesting sites are limited or in order to conserve time and energy. Here I describe an instance of nest reuse by a female American Redstart of a Red-Eyed Vireo (*Vireo olivaceus*) nest after two previous failed nesting attempts. I argue that Redstarts might be more likely to reuse other species' nests during late-season nesting attempts.

Key Words: American Redstart, *Setophaga ruticilla*, Red-Eyed Vireo, *Vireo olivaceus*, nest reuse, nest-building.

Nest reuse is thought to be an uncommon behaviour in open-cup nesting passerines, possibly due to the deterioration of nest material over time, the presence of ectoparasites in previously used nests (Barclay 1988), and/or the memory of nest sites by predators (Sonerud and Fjeld 1987). Nonetheless, intraspecific nest reuse occurs occasionally both within and between breeding seasons (Marshall et al. 2001; Redmond et al. 2007; Richmond et al. 2007), and interspecific nest reuse has also been reported in some species (Yezerinac 1993; Bergin 1997; Richmond et al. 2007). Such behaviour might occur when nest sites are limited (Redmond et al. 2007) or in circumstances where birds have limited time and energy for nest-building (Gauthier and Thomas 1994; Cavitt et al. 1999). Here I report on an instance of interspecific nest reuse by a female American Redstart (*Setophaga ruticilla*) of a Red-Eyed Vireo (*Vireo olivaceus*) nest.

On 30 June 2010, I observed a female American Redstart beginning nest construction in a small Sugar Maple (*Acer saccharum*) on a property near the Queen's University Biological Station, Chaffey's Lock, Ontario (44°34'N, 76°19'W). I returned on 1 July to find that the previous day's construction had been abandoned. I observed the female carrying nesting material to a nearby location, but I was unable to find the new nest at that time. Then, on 6 July, I found her incubating three eggs in a Red-Eyed Vireo (*Vireo olivaceus*) nest in an American Basswood (*Tilia americana*). Though both species tend to construct nests in sites of similar habitat and height, Vireo nests are often larger than those of Redstarts, and Red-Eyed Vireos construct their nests suspended from a fork or from two lateral twigs on a tree branch (Lawrence 1953), whereas American Redstarts construct their nests at the junction of three or more small branches, often on the main trunk (Ficken 1964). On 10 July, the nest had been depredated. Upon collection, it was clear that the intact Vireo nest had been originally constructed during the same breeding season and that the female Red-

start had added her own smaller inner cup and lining material.

Several instances of interspecific nest reuse in American Redstarts have been reported previously. Burtch (1898) observed a female American Redstart using an old Red-Eyed Vireo nest that she had freshly lined, and Birtwell (1899) observed a female Redstart using what was likely a Yellow-Throated Vireo (*V. flavifrons*) nest. Bent (1953) noted three more cases in which Red-Eyed Vireo nests were used, one more in which a Yellow-Throated Vireo nest was used, and one in which a nest started and abandoned by a Yellow Warbler (*Dendroica petechia*) was used. More recently, Yezerinac (1993) observed a female American Redstart reusing a Yellow Warbler nest. Although interspecific nest reuse in American Redstarts is infrequent (e.g., the present case is the only one seen in a 10-year breeding study comprising over 750 nests; A. McKellar and L. Ratcliffe, unpublished data), this appears to be a consistent behaviour.

Why might American Redstarts reuse other species' nests? Nest-site limitation is important in cavity-nesting species (Newton 1994), but it is an unlikely explanation for nest reuse in many open-cup nesters (Yezerinac 1993; Marshall et al. 2001; Richmond et al. 2007; but see Redmond et al. 2007), where nesting sites are often abundant. Alternatively, nest reuse might help to conserve time and energy. American Redstarts are single-brooded and rates of nest loss are high (Sherry and Holmes 1992). With respect to energy conservation, nest construction in American Redstarts takes several days and is estimated to require around 650–700 trips (Sturm 1945), likely making it quite energetically expensive. Redstarts that reuse nests could allocate that energy elsewhere (e.g., Gauthier and Thomas 1994). With respect to timing, American Redstarts that reuse nests might benefit by initiating their clutches earlier (e.g., Cavitt et al. 1999), particularly during the late stages of the breeding season when pairs might otherwise give up. Indeed, the approxi-

mate clutch initiation dates observed by both Yezerinac (1993) and myself occurred quite late in the season (19 June and 2 July at the earliest, respectively, both corresponding to the latest observed first egg date of the season; Yezerinac 1993; A. McKellar, unpublished data). Furthermore, the pair that I observed had already failed at their two previous nesting attempts, which were both depredated during incubation. Though the female was not banded, the male was, and all of their nesting attempts were in close proximity to each other. It is therefore probable that the female began construction of a third nest, quickly abandoned it, and found the used Vireo nest to re-line and lay her clutch in instead. Although detailed information regarding the timing of clutch initiation and number of attempts by the other American Redstarts that reused interspecific nests is not available, it is plausible that Redstarts might be more likely to reuse nests after several failed attempts when the breeding season is nearing an end (Yezerinac 1993). It is perhaps curious that intraspecific nest reuse in Redstarts has never been reported, especially since nests of other species, particularly Vireos, can be much larger and presumably more conspicuous to predators. It may be that territorial species such as Redstarts are simply less likely to encounter intraspecific nests from the same season.

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