

INTERSPECIFIC NEST REUSE BY TYRANT FLYCATCHERS IN SOUTH-EASTERN BRITISH COLUMBIA

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Abstract -- Interspecific nest reuse is uncommon among passerines that build open cup nests. Herein I report my observations of Pacific-slope Flycatchers using the nest of an American Robin and of Eastern Kingbirds using the nest of a Bullock's Oriole. Both nesting attempts were successful. I discuss possible factors that may have caused these birds to use another species' nest.

Keywords: American Robin, Bullock's Oriole, Eastern Kingbird, *Empidonax difficilis*, *Icterus bullockii*, interspecific nest reuse, Pacific-slope Flycatcher, *Turdus migratorius*, *Tyrannus tyrannus*.

The majority of North American open-cup nesting passerines build a new nest for each breeding attempt. However, material from a previous nest may be incorporated into a new nest or, occasionally, an individual will use the same nest within a season or even between seasons. Less commonly, an individual or pair uses a nest constructed by a different species. This note documents two instances in which a flycatcher pair successfully raised a brood in a nest that was built in a preceding year by another species. Both observations were made near Nelson (49° 29' North, 117° 17' West), in the West Kootenay region of British Columbia.

OBSERVATIONS

On 14 April 1998 I observed a female American Robin (*Turdus migratorius*) taking nest material to the light fixture at the back door of my home on Kootenay Lake's north shore near Nelson. The nest was completed within a week and three eggs were laid. The clutch hatched successfully and the last of the brood fledged on the morning of 20 May 1998. In mid-June of the same year, the female robin, easily recognized by her unusually bold eye ring, relined the nest and laid a clutch of four eggs. This nesting attempt was also successful and the young fledged on 15 July 1998. The nest was constructed of dried grasses and mud on a base of coarse stems and leaves.

The following year, on 19 June 1999, I again detected activity at the light fixture, but this time the birds involved were a pair of Pacific-slope Flycatchers (*Empidonax difficilis*)¹ (Figure 1). The female built an apparently complete cup nest within the original cup of the robin nest. The robin nest was protected from the elements by the roof overhang and therefore was still in good condition. The flycatcher nest was constructed of fresh and dried grasses,

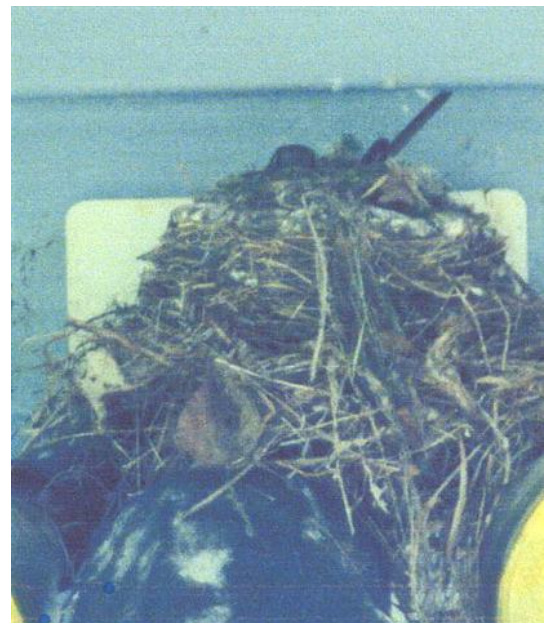


Figure 1: Adult Pacific-slope Flycatcher incubating in a modified robin's nest. 2 July 1999. Janice E. Arndt



Figure 2: Eastern Kingbird nestlings in an oriole nest. 12 July 2002. Janice E. Arndt

¹ The status of Kootenay populations of the Western Flycatcher complex, which includes both Pacific-slope Flycatcher and Cordilleran Flycatcher (*E. occidentalis*), is under review (see discussion in Campbell *et al.* 1997 and Lowther 2000). However, Pacific-slope Flycatcher is currently accepted as the species occurring here.

moss and seed-hairs ("cotton") from nearby Trembling Aspens (*Populus tremuloides*). Four eggs were laid in the refurbished nest. Four chicks hatched about 11 July and all four left the nest on 26 July 1999.

The second case of interspecific nest reuse occurred beside the Kootenay River at Taghum, downstream of Nelson. I discovered the nest of a pair of Bullock's Orioles (*Icterus bullockii*) approximately 6 m. high in a Water Birch (*Betula occidentalis*) on 28 June 2001. The female was at the nest, presumably feeding young. On 6 July 2001 I observed recently fledged young nearby. The nest was partially suspended from several upright twigs but was also supported by slender branches passing through the main structure. External materials included grasses, weed stems and animal hair, as well as a few strands of fishing line and fibres from a blue tarp. I could not examine the lining due to the height of the nest.

During the summer of 2002 I frequently observed a pair of Eastern Kingbirds (*Tyrannus tyrannus*) in the Taghum area apparently defending a nesting territory. I was unable to locate the nest until 12 July 2002, when I observed the pair capturing food and taking it to the oriole nest from the previous year. By this time the three kingbird young were large and well-feathered (Figure 2), and appeared ready to leave the nest. The family of five was observed in the vicinity of the nest on two subsequent visits, 20 and 25 July.

Although the nest was too high to examine safely while intact, heavy rains during the fall of 2002 caused the nest to fall apart and I was able to retrieve pieces of it. I attempted to determine whether the female had altered the original nest in any way. It appeared that the kingbird may have added a small amount of material to the lining but the nest was in very poor condition. Certainly, it had not made substantial additions to the oriole nest, in contrast to the Pacific-slope Flycatcher refurbishment of the robin nest.

DISCUSSION

Intraspecific nest reuse is defined as the secondary use of a nest that was built for an earlier breeding attempt by the same species, and often by the same individual. This behaviour has been reported for Pacific-slope Flycatcher (Williams 1942) and Eastern Kingbird (Murphy 1996) and has been described as occurring occasionally, regularly, or even frequently among many other North American tyrant flycatchers (e.g., see Weeks 1979; Briskie and Sealy 1988; Curson *et al.* 1996).

The use of a nest built by another species, termed interspecific nest reuse, appears to be less common. To my knowledge, there are only two previously published cases of interspecific nest reuse by Pacific-slope Flycatchers, both from California. One involved the nest of a Black Phoebe (*Sayornis nigricans*, Davis *et al.* 1963) and the other a Cassin's Vireo (*Vireo cassinii*, Hammerson and Lapin 1980). In addition, the closely related Cordilleran Flycatcher

was once found using an American Robin nest (E. N. Harrison in Lowther 2000)

Eastern Kingbirds have been reported as having used the nests of Scissor-tailed Flycatcher (*Tyrannus forficatus*, Murphy 1996), Western Kingbird (*T. verticalis*, Bergin 1997), American Robin (Murphy 1996; Campbell *et al.* 1997) and both Baltimore (*Icterus galbula*) and Bullock's orioles (Tyler 1942; Bancroft 1984; Murphy 1996).

Two principal explanations for interspecific nest reuse among passerine birds are a scarcity of suitable nesting sites within a territory and time constraints (Goossen 1977; Yezerinac 1993). Limitation of specific types of sites, such as cavities or nest boxes, may lead an individual to select a location that had been used previously by another bird (Brawn and Balda 1988). Platforms and ledges may also be limited resources, and this is a likely explanation for the Pacific-slope Flycatchers using the robin nest. Although the species as a whole uses a wide range of nesting sites, including trees, bushes, river banks and buildings (Lowther 2000), Pacific-slope Flycatchers in southern interior B. C. most frequently use ledges on buildings and other man-made structures (Campbell *et al.* 1997; personal observation). I suggest that the light fixture was selected as an appropriate nesting site for the flycatchers and that they would have built their nest on it regardless of the presence of the robin nest.

The second explanation for nest reuse suggests that constraints on a bird's time can cause it to use an existing nest rather than build its own. Time limitations may be the result of a bird's attempt to breed near the end of the normal nesting season (Yezerinac 1993) or the loss of the bird's own nest during laying (Goossen 1977). The nesting cycles of the Pacific-slope Flycatchers and Eastern Kingbirds I observed were well within the normal range of dates for these species in this area (Campbell *et al.* 1997; personal observation); thus, it is unlikely that either was constrained by the approach of the end of the breeding season. In addition, the Pacific-slope Flycatcher built an essentially complete cup within the nest of the robin, suggesting that it was not under any kind of time limitation. However, it is plausible that the nest of the Eastern Kingbird was destroyed at the time that the female was ready to lay, in which case she would be under a physiological time limit to find a nest in which to lay her eggs. The kingbirds therefore may have used the oriole nest as a time-saving resource. Observations supporting this view include the scarcity or complete lack of nest material added to the oriole nest by the kingbirds and the availability of potential nest-building sites within the kingbirds' territory (personal observation).

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