

## INTERSPECIES FEEDING AND DEFENSE OF LEWIS'S WOODPECKER BY FEMALE WESTERN TANAGER

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**ABSTRACT:** Interspecific help caring for young is an uncommon behavior in birds. Observations of an individual of one species caring for young in the nest of another typically entail species with the same nest type. Our observation of a female Western Tanager (*Piranga ludoviciana*) guarding and feeding a Lewis's Woodpecker (*Melanerpes lewis*) nestling adds to the meager body of observations of interspecies parental care for species with differing nest types.

The feeding and care of offspring by birds other than the biological parents are not uncommon for individuals of the same species (Cockburn 2006, Griesser et al 2017). Apart from situations of social breeding or brood parasitism, however, occurrences of this behavior between different species are uncommon (Shy 1982, Krištin 2009). Interspecific feeding has been attributed to misdirected parental care in response to the stimulus of begging nestlings, close nest proximity, or the helper's nest having failed (Shy 1982). Helpers generally tend to be male and have nest types that match the host's, and there have been few documented records of species that build open-cup nests helping a cavity-nesting host (Harmáčková 2021).

On 30 June 2024 we were checking nests of Lewis's Woodpeckers (*Melanerpes lewis*) to study that species' breeding and movement ecology at White River Wildlife Area in Wasco County, Oregon. At about 08:57, we observed a female Western Tanager (*Piranga ludoviciana*) attempting to feed an older Lewis's Woodpecker nestling (25+ days old) that was regularly poking its head out of the nesting cavity. The tanager foraged in small Oregon white oak (*Quercus garryana*) saplings, grabbing small grubs below the nest tree and then flying up to the cavity and trying to land near the cavity's opening (Figure 1). She tried to land on a branch above the cavity and reach down to the cavity or fly to either hover near the cavity or land on the trunk to feed the nestling. Most of the attempted feedings appeared unsuccessful because of the tanager's inability to find a stable landing close enough to reach the nestling or to the nestling's retreating back inside the cavity. The awkwardness of these attempts may have been related to the tanager's not being a cavity nester, or to her still learning in a novel situation. The tanager foraged and attempted to feed the woodpecker nestling multiple times, but it was unclear if she ate, cached, or dropped the food when the attempt was unsuccessful.

When an adult Lewis's Woodpecker approached the cavity to feed the nestling, the tanager got aggressive, flying at the woodpecker, alarm-calling, and chasing it away (Figure 2). On multiple occasions, this behavior prevented a successful feeding by either adult woodpecker. We did not observe a successful feeding by an adult woodpecker during our observation period. At one point, the tanager's alarm calls attracted a male tanager that flew into the adjacent tree, but he exhibited no aggressive behavior toward the woodpeckers before flying off after about two minutes and never reappearing during our observation. When an adult woodpecker returned to foraging 50 meters or more from the cavity, the tanager stopped making alarm calls and returned to foraging and attempting to feed the nestling. We returned later in the day around 16:30 and watched the female tanager continuing to defend and attempt to feed the woodpecker nestling for another 20 minutes.

In other reported cases of cup-nesting birds feeding young of cavity nesters, the helper did not behave aggressively to the nestling's parents (e.g., McNair and Duyck 1991) or it was feeding young already fledged (e.g., Hayward 1937). We find

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FIGURE 1. The female Western Tanager trying multiple methods to land near the Lewis's Woodpecker nest cavity to feed the nestling: (A) landing with feet on the lip of the cavity, (B) hovering near the opening, (C) grasping the tree, and (D) landing on the branch above and reaching down to the cavity.

*Photos by Cameron Piper*

no previous records of either the Western Tanager or Lewis's Woodpecker as helper or host in interspecies feeding.

The next day, on 1 July, we approached the cavity to capture one nestling to attach a Motus radio tag. The female tanager was still there, this time flying around and scolding us with alarm calls while we set up our ladder and capture equipment. We did not see the tanager further after returning the nestling to the cavity. We returned the following morning to find the nestling had fledged and then resighted it on 3 July over 600 meters to the northeast of the nest. The female tanager was not seen again either at the cavity or feeding or defending the tagged woodpecker.

The reason for this interspecies feeding is unclear. Woodpecker nestlings are loud, and their begging could have stimulated the female tanager to feed them even if her nest had already fledged young or failed. However, interspecific feeding is more likely among species that fail to recognize their offspring, including those that are more susceptible to brood parasites (Jiang et al. 2016). The Western Tanager's nest success is dramatically reduced by parasitism by the Brown-headed Cowbird

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FIGURE 2. The female Western Tanager defending the Lewis's Woodpecker nestling when the adult woodpeckers approached the cavity with food. The tanager would make alarm calls, fly at the woodpeckers, and chase them away from the cavity tree.

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(*Molothrus ater*) (Fischer et al. 2002), so heterospecific feeding by the Western Tanagers might be more likely than among species not targeted by brood parasites.

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