

NOTES

A POSSIBLE HOSTILE TAKEOVER OF A MATED FEMALE BY A MALE AMERICAN DIPPER

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We report a possible hostile takeover of a female (and a territory) by a male American Dipper (*Cinclus mexicanus*) near Juneau in southeastern Alaska in 2006. The evidence is circumstantial but strongly suggestive, in light of previous studies.

Infanticide by unrelated conspecific individuals, both male and female, is widespread among mammals (Hrdy 1979) and birds (Chek and Robertson 1991, Møller 2004, Veiga 2004). Usurping males kill existing offspring, quickly making the bereft female ready to mate again (e.g., Hrdy 1979, Freed 1986, 1987). In passerine birds, infanticide by adult males occurs in a variety of species (e.g., swallows, wrens, sunbirds, starlings; Møller 1988, Freed 1986, 1987, Kermott et al. 1990, Goldstein et al. 1986, Robertson and Stutchbury 1988, Smith et al. 1996), often giving the usurper a mate or sometimes both a mate and a nest (Hansell 2000). Infanticide by a usurping male at a given nest may be spread over more than one day (Goldstein et al. 1986, Kermott et al. 1990, Yoerg 1990).

J. P. Loegering (in Kingery 1996) reported a possible case of infanticide and usurpation of a female and her nest by a male American Dipper in Oregon. An intruding male drove away a parental male, whose nestlings were found dead in the stream the next day. The intruder mated with the female of the original pair; they replaced the old nest lining and nested together. Infanticide by the White-throated Dipper (*C. cinclus*) of Eurasia has been reported also, but in that case it was not followed by usurpation of the mate (Yoerg 1990).

We studied American Dippers near Juneau from 2003 through 2008 (Willson and Hocker 2008 and 2009, Willson et al. 2009). The information from that project provides the background for interpreting this observation of usurpation of a mated female (and a territory) by a male dipper on a tributary of Fish Creek on Douglas Island, in Juneau.

On 13 June 2006, we observed a pair tending a nest (A), feeding chicks, and brooding, but we also saw a dead hatchling (with broken egg shells) in the creek. On 14 June, the pair was still feeding chicks. We banded the attentive male; the female was already banded with a distinctive combination of colored plastic bands. On 20 June, the banded female was lining a new nest (B) just a few meters downstream, with an unbanded male in attendance. An unbanded male was carrying mayflies to nest B on 27 June, presumably to the incubating female. Nest A had failed by then, but nest B fledged several chicks by 8 August, and an unbanded male was carrying fish and insects to them. The nearest neighboring pairs nested hundreds of meters away, both upstream and downstream, and the new male had acquired the territory of the original male, which we never saw again.

If the chicks in nest A died independently of mate replacement, we would have expected the banded pair to renest together, as observed for several other banded pairs whose first attempt failed (our observations). If the original male died, we would have expected the widowed female to raise the chicks by herself, because we have observed several such females to do so successfully (Willson and Hocker 2008). Neither of these expectations was met in this case. The original male appeared to be in good condition and within the normal weight range when he was banded.

Nest B was being lined just 6 days after young chicks were being fed and brooded in nest A, indicating that the construction of nest B must have begun several days

NOTES

earlier. Because the large amount of moss used to build the exterior of dipper nests normally requires several days at least, the replacement of the original male by the new male must have occurred soon after the former was banded. It is unlikely that the banding itself had any negative effects; we have banded over 100 dippers with no observable ill effects. It is likely that usurpation was already beginning on 13 June, when the dead chick was found.

The breeding season of 2006 followed a year of good apparent annual survival of adults and high nest success (Willson and Hocker 2008, Willson et al. 2009) suggesting that the local population was relatively high and few potential territories were vacant (Willson et al. 2009). These conditions would increase the likelihood of intense competition for mates and territories, as documented for the Barn Swallow (*Hirundo rustica*; Møller 2004).

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