California Quail lays egg in Wild Turkey nest

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Interspecific nest parasitism, has evolved several times in the order Galliformes and has been documented for at least 52 species (Callier and Yom-Tov 2001, Yom-Tov 2002). Reports of interspecific nest parasitism in this order are much less common than for egg dumping among congeners (Jouin and Paoli 1991). Below, we describe an instance of egg laying by California Quail (Callipepla californica) in the nest of a Wild Turkey (Meleagris gallopavo). This record represents the first report of nest parasitism between these two species.

We observed the following interaction at the Hastings Nature Reserve, in Carmel Valley, Monterey County, California, during a study of the mating system of Wild Turkeys. On 22 April 2002, we located a Wild Turkey nest by tracking a radio-tagged female to a nest in a wooded ravine of coast live oak (Quercus agrifolia), California laurel (Adina racemosa), and California bay (Umbellularia californica) (Kalcounis-Rippl and Yom-Tov 2002). We visited the nest on 2 May, 10:30 on 23 April to count the eggs when the turkey hens were off the nest. A male and female California Quail flushed from the nest as we approached. The nest appeared typical of an early season turkey nest. The population was a shallow depression in the earth later at the base of a tree, covered by shrubby ground cover. In the nest we found one quail egg situated on top of seven turkey eggs. On 25 April, the nest contained 10 turkey eggs; we found no sign of the quail egg, although we did not shift the turkey eggs to check the location of the new incubator. At least eight turkey eggs hatched on 2 May, two unincubated turkey eggs failed to hatch, and a thorough search of the nest site revealed no trace of the quail egg. The parasitic quail egg was too compressed and indistinguishable from turkey eggs to be tolerated. Two female and male California Quail flushed from the nest as we approached. We did not entirely rule out the possibility that the quail egg may have hatched. However, it seems unlikely that it could have been properly incubated. Turkey eggs are almost twice the width of quail eggs (Biel 1932), suggesting that once the eggs were turned, the much smaller quail egg might have fallen below the turkey eggs and would not have properly contacted the broad, curved end of the turkey hen. We do not know the cause of the disappearance of the quail egg, but we hypothesize that it was destroyed by the incubating turkey hen, or was a victim of a nest predator that could not consume the much larger turkey eggs.

Although egg dumping by California Quail in Wild Turkey nests has not been reported previously, this behavior is not entirely unexpected. California Quail are reported to practice intraspecific nest parasitism (i.e., "drop nesting"). Glodding (1938) and many other authors (this study) suggest that once the eggs are turned, the much smaller quail eggs may have fallen below the turkey eggs and would not have properly contacted the broad, curved end of the turkey hen. We do not know the cause of the disappearance of the quail egg, but we hypothesize that it was destroyed by the incubating turkey hen, or was a victim of a nest predator that could not consume the much larger turkey eggs.

NOTES

establishing the Wild Turkey throughout the state (Ward 1992). Historically, however, this observation may not represent a novel interaction, since fossil evidence suggests that California Quail may have been sympatric with a species of turkey in the late Pleistocene (Miller and DeMay 1942). Future studies, especially those involving radio-tracking and nest-monitoring, may uncover additional instances of this interspecific nest parasitism.

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LITERATURE CITED


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