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Poult Adoption and Nest Abandonment by a Female Rio Grande Wild Turkey in Texas

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ABSTRACT.—While evaluating reproductive parameters in Rio Grande Wild Turkeys (*Meleagris gallopavo intermedia*) in the Edwards Plateau region of Texas, we observed a case of poult adoption and abandonment of an active nest. In wild turkeys, adoption of poults has been described previously, but during our observation the hen also abandoned her nest at a late stage of incubation. Most research discussing adoption in gallinaceous birds has focused on brood abandonment after hatch. Although poult adoption in conjunction with nest abandonment is probably rare, our observations indicate that it can occur, at least in Rio

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Species such as gulls (*Larus* spp.), terns (*Sterna* spp.), and geese (*Branta* spp.) readily adopt offspring (Pierottie and Murphy 1987, Saino et al. 1994, Larsson et al. 1995). Northern Bobwhites (*Colinus virginianus*) utilize brood abandonment and adoption as a strategy for increasing nesting opportunities (Burger et al. 1995, DeMaso et al. 1997), but documented cases of gallinaceous birds adopting offspring are rare (Martin 1989, Mills and Rumble 1991). Adoption of poults by Merriam's Wild Turkeys (*Meleagris gallopavo merriami*) has been described (Mills and Rumble 1991), and Healy (1992) reported nest abandonment

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by a captive hen that was attracted to the calls of another brood. In May 2005, we observed a Rio Grande Wild Turkey (*M. g. intermedia*) hen adopt a poult and then abandon her own nest in Kerr County, Texas. To our knowledge, adoption in conjunction with nest abandonment has not been documented before in the wild.

As part of a study to evaluate the reproductive ecology of Rio Grande Wild Turkeys in Texas, we tracked a radio-tagged juvenile hen through two nesting attempts on the Kerr Wildlife Management Area in Kerr County (30° 04' N, 99° 20' W), Texas. On 11 April 2005, we found her first nest, which contained 13 eggs, and we estimated nest age at 3 days. On 15 April, the nest was depredated, and the hen subsequently re-nested on 28 April. After 28 April, we checked the hen's nesting status ≥ 5 times per week. On 7 May, the second nest contained 12 eggs and nearby we set up an infrared trail camera (Moultrie Game Spy™) to monitor the nest. From 8 to 21 May, we never observed the hen off the nest, and, based on our intensive tracking of the hen, there was no possibility that she hatched this poult several days early.

At 16:00 CST on 21 May, we found the hen incubating her second nest. On the following day at 11:00, we located the hen about 600 m from the nest. We approached to ~15 m of the hen and observed her bedded down in a grassy area dominated by little bluestem (*Schizachyrium scoparium*). Upon further approach, she flushed. Within about 1 min, a poult, estimated to be 4 days old, ran from the grassy area where the hen had been bedded. We then examined the hen's nest and found all 12 eggs present and intact. We also floated the eggs and estimated that they were at day 23 of incubation (Healy 1992).

On 23 May, we relocated the radio-tagged hen in an effort to catch and radio-tag the poult; however, the hen was moving and we were unable to locate the poult. On the following day, the hen was relocated again, this time with the poult. On 26 May, we captured the poult, estimated its age as 9 days, radio-tagged it with a 1.2-g poult transmitter (Bowman et al. 2002; Advanced Telemetry Systems, Isanti, Minnesota), and released it.

Other than anecdotal evidence and the article by Mills and Rumble (1991), there is lit-

tle available information on the frequency of adoption in wild turkeys. Whereas Mills and Rumble (1991) reported poult adoption by turkey hens both with and without existing broods, the hen we observed had abandoned her clutch of 12 eggs after considerable investment (≥ 20 days of incubation) to care for a single poult. While such cases of abandonment and adoption are probably rare, our observations indicate that it can occur in Rio Grande Wild Turkeys. Possible causes might include hen physiological condition or changes in photoperiod (Scanes et al. 1979, Youngren et al. 1993, Bedecarrats et al. 1997, Sharp et al. 1998). The hen that we observed was in the latter stages of incubation on a second nest when the adoption event occurred; thus, her levels of luteinizing hormone and prolactin may have changed sufficiently to promote behavioral changes (i.e., poult-rearing behavior in preference to continued incubation). Additional research is needed to clarify what might trigger simultaneous poult adoption and nest abandonment in turkeys.

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Predation by a Blue-crowned Motmot (*Momotus momota*) on a Hummingbird

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ABSTRACT.—We describe predation of a Green-crowned Brilliant (*Heliodoxa jacula*) by a Blue-crowned Motmot (*Momotus momota*) in southern Costa Rica. We did not witness the capture of the hummingbird, but did observe the motmot swallow the prey whole. Although the diet of the Blue-crowned Motmot is highly variable and can include birds, this is the first report of predation on an adult hummingbird. Received 27 January 2005, accepted 4 December 2005.

Members of the family Momotidae have been observed eating a wide range of fruits, arthropods, and small vertebrates (Meyer de Schauensee 1964, Ridgely and Gwynne 1989, Stiles and Skutch 1989, Karr et al. 1990, Remsen et al. 1993). Although Remsen et al. (1993) indicate that arthropods, supplemented by fruits, are the more important component of motmot diets, vertebrates have also been

found in the stomachs of some Momotidae species (Wetmore 1968, Stiles and Skutch 1989). Specifically, motmots have been observed eating poison dart frogs (Master 1999), snakes (Stiles and Skutch 1989), mice (Delgado-V. and Brooks 2003), and bats (Chacón-Madrugal and Barrantes 2004).

The Blue-crowned Motmot (*Momotus momota*), found throughout the lowlands and middle elevations (to ~1,500 m) of Costa Rica (Stiles and Skutch 1989), forages on large spiders, earthworms, insects, nestling birds, and small snakes and lizards (Stiles and Skutch 1989, Henderson 2002). There are, however, no known accounts of motmots eating adult birds. Here, we describe predation on an adult hummingbird by a Blue-crowned Motmot.

The incident occurred on the morning of 27 February 2004 at the Las Cruces Biological Field Station (8° 47' N, 82° 57' W) of the Organization for Tropical Studies in San Vito, Coto Brus, Puntarenas, Costa Rica (elevation

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