

## Notas Breves

## UNUSUAL VERTEBRATE PREY TAKEN BY NEOTROPICAL BIRDS Pequeños Vertebrados como presas poco frecuentes de algunas Aves Neotropicales

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While typically insectivorous species may consume small vertebrates at times (e.g., Hayes & Argana 1990), the case for frugivores consuming vertebrates is even more unusual (e.g., Fleig 1998). Herein we report what is apparently the first incident of a motmot (Momotidae: *Momotus aequatorialis*) taking a mouse, and the first record of a Hepatic Tanager (*Piranga flava*) taking an anole. We supplement these observations in nature with those of captive birds where applicable.

### Study Site. -

These observations took place in the Department of Antioquia, 4 km south of the Municipality of El Retiro at Finca Cañaveral (6°01' N, 75°30' W) in Vereda Puente Peláez (2100 m asl), in an agricultural landscape with some narrow relict forests adjacent to streams that are left intact by local farmers to protect the water. The vegetation in these riparian forests includes Piperaceae, Rubiaceae, ferns, herbaceous dicots, some Orchidaceae and Bromeliaceae. Arboreal species include *Cecropia* sp. (Cecropiaceae), *Quercus humboldtii* (Fagaceae), *Inga* sp. (Mimosaceae), *Schefflera* sp. (Araliaceae), *Guatteria goudotiana* (Annonaceae), *Vismia* sp. (Clusiaceae), and the exotic species *Pinus patula* (Pinaceae). Fallen tree trunks and branches are abundant.

### Motmot capture of a mouse. -

The diet of the Blue-crowned Motmot *Momotus momota* (*sensu lato*) includes invertebrates, fruit, and small vertebrates such as lizards, snakes, frogs, small birds, and small fish (Hilty &

Brown 1986, Master 1999, Orejuela 1980, Remsen et al. 1993, Snow 2001), but heretofore there appears to be no report of its taking a mammal.

On 11 April 2001, an *Akodon affinis* was caught in a Sherman live trap. This mouse, captured during daylight, escaped at approximately 15:00 while it was being photographed, and ran 3 m to a bush. While it searched for refuge in the roots of the bush, a motmot perched 4 m off the ground in a branch of *Cecropia* sp. flew towards the mouse. The motmot landed on the ground close to the mouse and strongly pecked its neck before flying with the prey in the bill to a dense pine plantation out of sight from the observers.

Blue-crowned Motmots of the subspecies *aequatorialis* (now often considered a separate specie, Highland Motmot, because of its large size and upland distribution) are frequently observed and heard at Finca Cañaveral. During regular visits to this site, CADV has observed motmots consuming insects (especially Dynastinae beetles), a lizard (*Anolis mariarum*), and fruits of *Cecropia* spp., *Solanum* sp. (Solanaceae) and *Myrica pubescens* (Myricaceae), but this is the first time a motmot was observed hunting a mammal. Although this observation is the result of an opportunistic hunt and the motmot was not observed to actually consume the mouse, the accuracy of the hunt suggests that motmots could take mice in this region. It is even possible that *A. affinis* represents a seasonal component in the motmot's diet (e.g., during the reproductive season when this mouse could be more conspicuous), as *A. affinis* is one of the few small rodents in the region that is partly diurnal (see Voss & Emmons 1996).

This apparently represents the first report of a motmot preying on mammals. Other Neotropical birds not recorded to consume mammals, let alone vertebrates in nature, have been observed attacking and consuming wild House Mice (*Mus musculus*) in captivity. For example, two female Green Oropendolas (*Psarocolius viridis*) killed and consumed a mouse, so that only the skin, feet and tail remained (Houston Zoological Gardens Bird Section [HZG hereafter] records, 16 June 1998). Additionally, on two separate occasions a female Andean Cock-of-the-Rock (*Rupicola peruviana*) was observed killing and consuming subadult mice (HZG records, 12 October 1995 and 28 September 1996). Although partly insectivorous, Oropendolas have not been reported to consume vertebrate prey (Jaramillo & Burke 1999), and Cock-of-the-Rocks are primarily frugivores (Hilty & Brown 1986).

#### **Tanager consumption of a lizard. -**

The Hepatic Tanager (*Piranga flava*) is considered a frugivore that varies its diet with some insects (e.g., beetles, caterpillars, bees, butterflies, and orthopterans) (Isler & Isler 1999). Although other closely related species have been reported consuming (e.g., Aborn & Froehlich 1995), or attempting to consume (Pérez-Rivera 1997) anoles, herein we provide what we believe to be the first documented case of a Hepatic Tanager consuming an anole. The observation took place at approximately 11:00 on 25 July 2000. Four individuals (2 males and 2 females) of Hepatic Tanagers were observed in a mixed flock that included Red-headed Barbet (*Eubucco bourcierii*), Brow-capped Vireo (*Vireo leucophrys*), Slate-throated Redstart (*Myioborus miniatus*), White-sided (*Diglossa albilatera*) and Masked (*D. cyanea*) Flower-piercers, and several species of Tanagers, including Metallic-green (*Tangara labradorides*), Black-capped (*T. heinei*), Golden (*T. arthus*), Blue-and-black (*T. vassorii*), Blue-capped (*Thraupis cyanocephala*), Common Bush-tanager (*Chlorospingus ophthalmicus*) and Black-winged Saltator (*Saltator atripennis*). While foraging at 2 m off the ground in a bush of *Cavendishia* sp. (Ericaceae), one of the male Hepatic Tanagers captured a male anole lizard (*Anolis* cf. *mariarum*). The lizard had its gular pouch extended when the Tanager stunned it with a strong peck on the back of the neck, immediately flying with the lizard in its bill to an exposed branch of *Pinus patula*. The tanager killed the lizard, hitting it against the trunk of the pine tree. After five or six blows the Tanager began to eat the lizard, holding it with its foot and tearing the skin and flesh with its bill. Then another Hepatic Tanager landed on the same branch and stole the prey from the first bird, flying away with the lizard. Somewhat uncommon at Finca Cañaverl (Hilty & Brown 1986), Hepatic Tanagers are observed accompanying some mixed flocks with other tanagers in relict forest borders along stream margins. At El Retiro hepatic Tanagers have been observed consuming fruits of *Cavendishia* sp., *Myrica pubescens*, an unidentified species of Melastomataceae, and in a few cases insects (beetles and butterflies).

Other species that are primarily frugivorous in nature have been observed consuming Anoles (*A. carolinensis*) in captivity. For example, a female Pompadour Cotinga (*Xipholena punicea*) masticated an anole before consuming it (HZG records, 30 January 1993), and on a separate occasion hit an anole against a perch before consuming it (HZG records, 5 March 1993). Additionally, a female Andean Cock-of-the-Rock was observed killing and consuming an anole (HZG records, 7 January 1992). Most published reports suggest that members of the family Cotingidae, including these two species, do not include vertebrates in the diet (e.g., Brooks et al. 1999; but see Stiles & Skutch 1989 for *Cephalopterus glabricollis*).

The observations of these birds consuming unusual vertebrate prey may be related to seasonal reproduction, as consumption of insects and animals is often increased to feed to young chicks for a strong protein base (e.g., Santamaría & Franco 2000). This is sometimes the case with other species that are primarily frugivorous. For example, captive Golden-headed Quetzals (*Pharomachrus auriceps*) readily fed their offspring chopped baby domestic laboratory mice and anoles (*A. carolinensis*) when offered (HZG records, December 1992).

Although predator-prey interactions are rarely observed in the field, it is possible that vertebrates consumed by typically frugivorous Neotropical birds are apparently more frequent than suggested by the literature, at least in an opportunist fashion (e.g., F. G. Stiles [in litt.] recently observed an individual of Rufous-browed Peppershrike *Cyclarhis gujanensis* killing and consuming a lizard at Pandi, Cundinamarca, Colombia on 8 April 2000). We alert other observers of these incidents in hopes they will share further field observations.

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