

## Observations on prey captured by the sharp-shinned hawk (*Accipiter striatus*) in a coffee landscape from Colombia

## Observaciones de presas capturadas por el azor cordillerano (*Accipiter striatus*) en un paisaje cafetero colombiano

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### Abstract

Here we described observations of two predatory events by the Sharp-shinned Hawk (*Accipiter striatus*) in a typical agricultural landscape of Colombian coffee region. The first report is from an adult hawk preying on Antshrike (*Thamnophilus multistriatus*) and the second report is from a young hawk preying on Ground Dove (*Colombina talpacoti*). These observations are consistent with the known pattern of the feeding behavior of *A. striatus* temperate habitats populations, where medium-sized birds compose most of their diet. As other authors have reported, young sharp-shinned hawks tend to prefer easy preys and high energetic calories (e.g. doves) while adults hawk tend to be more selective and attack more difficult preys (e.g. antbirds). These observations are important because they contribute to the knowledge of the natural history of the sharp-shinned hawk in ecosystems transformed in the Neotropics.

**Keywords:** Diet, Ecology, Interaction, Raptor.

### Resumen

Se describen dos eventos predatorios por parte del azor cordillerano (*Acciper striatus*) en un agroecosistema típico del Eje Cafetero colombiano. Primero, se observó un azor adulto atacando un batará carcajada (*Thamnophilus multistriatus*); en el segundo caso, un juvenil cazando una tortolita colorada (*Columbina talpacoti*). Estas observaciones coinciden con los patrones de alimentación conocidos para esta especie en zonas templadas, donde aves pequeñas y medianas componen la mayor parte de su dieta. Así como han documentado otros autores, los individuos juveniles del azor tienden a capturar presas fáciles y de alta recompensa energética (e.g. tórtolas) mientras los individuos adultos tienden a ser más selectivos y atacar presas de mayor dificultad (e.g. batarás). Estas observaciones son importantes porque contribuyen al conocimiento de la historia natural de la especie en ecosistemas transformados del Neotrópico.

**Palabras clave:** Dieta, Ecología, Interacción, Rapaz.

Birds of *Accipiter* genus show characteristic features, which include short and wide wings, paws and long tail, which ones allow them to maneuver in forest spaces (Hilty and Brown 1986). They are so effective to hunt vertebrates, include other birds (Miller 2017, Hernández 2018). In Colombia, many *Accipiter* species are few commons and associated with mature forest, and only *A. striatus* is commonly observed in opened and fragmented areas.

Most knowledge of natural history of Sharp-shinned Hawk (*A. striatus*) came from temperate zones, where some studies have reported observations about hawk's diet, patterns of prey selection, and others feeding ecology features (Joy *et al.* 1994, Delong *et al.* 2013). However, in Colombia and the rest of Neotropical region the feeding ecology of Sharp-shinned Hawk and others raptor birds are poorly known (Márquez *et al.* 2005).

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Here, we described two events of predation by the Sharp-shinned Hawk occurred in an agricultural landscape in the Colombian coffee region. The study area (04°55'N, 75°37'W) is located at 1.635 m of elevation and belong to Subandean life zone (Cuatrecasas 1958). Landscape consisted in an agricultural matrix of coffee crops (sun-grown and shaded) and pastures, small areas of diverse crops, gardens of native and exotic plants, buildings and riparian vegetation.

The first predatory event, 23 May 2015 (Figure 1) occurred at 11:45 hours in a shaded coffee plantation. We observed an adult Sharp-shinned Hawk perched

in the canopy of a *Fraxinus* sp. tree (Olaceae), at 12 m height. After some minutes, the hawk flew into the understory of coffee plantation and hunt a female Bar-crested Antshrike (*Thamnophilus multistriatus*). The prey was taken to a perch 6 m height on an *Inga* sp. tree. The hawk noticed the observer, flew to its initial perch and began to remove feathers from prey. Again, the presence of the observer disturbed the hawk, who went to a leafier tree where the visibility was lost.

The second event, 29 May 2015 (Figure 2) occurred at 12:45 hours in a pasture. We observed a



**Figure 1.** Adult Sharp-shinned Hawk (*Accipiter striatus*) feeding on a female Bar- crested Antshrike (*Thamnophilus multistriatus*) in an agricultural landscape of Colombia.



**Figure 2.** Juvenile Sharp-shinned Hawk (*Accipiter striatus*) feeding on a Ruddy Ground Dove (*Columbina talpacoti*) in an agricultural landscape of Colombia.

young Sharp-shinned Hawk perching on a branch of *Tabebuia rosea* (Bignoniaceae). At 7 m height hawk switched its hanger twice and rapidly stroke an adult ruddy ground dove (*C. talpacoti*) in the same tree. Like the first predatory event, the hawk began to remove the plumage of the dove and flew away from our sight.

The observations described above agree with previous observations for several *Accipiter* species in temperate zones from North America (Mueller and Berger 1970, Joy *et al.* 1994; Roth and Lima 2003). According with authors, prey selection patterns in the young individual is a surprise attack at close range on a high reward prey (*e.g.* easy capture and medium size). In our case, young hawk rapidly caught a small-to-medium size dove of slow flying, common and relatively abundant in open habitats of study area (Henaó-Isaza *et al.* 2013).

Likewise, authors indicate that adult Sharp-shinned Hawk prey selection is driven by individual preferences and prey availability more than easy to capture. This availability is more related to habitat characteristics than to prey abundance. For example, abundant preys can be less available by dense understory, which allows secretive habits, while preys of intermediate abundance may become highly available in open habitats. In our observation, an antbird was the prey (family Thamnophilidae), these birds typically remain hidden within understory. However, in shaded coffee plantations the understory is cleared and probably facilitates the capture of prey such as antbirds.

The bird assemblage in study area include large species of common families in diet of *Accipiter* species from temperate zones, such as woodpeckers (Picidae), finches (Fringilidae), warblers (Parulidae), thrushes (Turdidae), wrens (Troglodytidae), and tyrant flycatchers (Tyrannidae) (Reynolds and Meslow 1984, Joy *et al.* 1994, Delong *et al.* 2013). Furthermore, some species from these families have high relative abundance in study area, such as *Sicalis flaveola*, *Columbina talpacoti* and *Turdus ignobilis* (Henaó-Isaza *et al.* 2013). Considering the similarity in composition patterns of bird assemblages in transformed neotropical landscapes (Sekercioglu 2012), we hypothesized a potential positive effect of frag-

mented landscapes on hunting success for *Accipiter striatus*. Hence, we want to promote an increase in the investigation of *Accipiter striatus* trophic ecology and other common raptors in fragmented landscapes from Eje Cafetero region.

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