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SCIENTIFIC NOTE

First report of *Thyroptera tricolor* (Chiroptera: Thyropteridae) caught in a web of *Eriophora* sp. (Araneae: Araneidae) in the Ecuadorian Amazon

Primer reporte de *Thyroptera tricolor* (Chiroptera: Thyropteridae) capturado en una telaraña de *Eriophora* sp. (Araneae: Araneidae) en la Amazonía de Ecuador

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ABSTRACT

Predation of bats by large arthropods has rarely been documented. Here we describe the first record of a Spix's disk-winged bat (*Thyroptera tricolor*) caught in a web of *Eriophora* sp. in Yasuní National Park, Ecuador. This observation contributes to the knowledge of bat biology and predator-prey interactions in the Amazon region.

Keywords: arthropod, ecology, predator-prey interaction, spider, Spix's Disk-winged Bat, tropical rainforest.

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RESUMEN

La depredación de murciélagos por grandes artrópodos se ha documentado con poca frecuencia. Aquí describimos el primer registro de captura de un murciélago de alas de disco de Spix (*Thyroptera tricolor*) en una red de *Eriophora* sp. en el Parque Nacional Yasuní, Ecuador. Esta observación contribuye al conocimiento de la biología de los murciélagos y de las interacciones depredador-presa en la región Amazónica.

Palabras clave: araña, artrópodo, bosque húmedo tropical, ecología, interacción depredador-presa, murciélago de ventosas de Spix.

The range of Spix's disk-winged bat (*Thyroptera tricolor*) extends from Mexico to southeast Brazil (Reyes-Amaya et al., 2016). In Ecuador, this species inhabits tropical and subtropical rainforest on the northern part of the coast, in the foothills of the Andes, and in the Amazon region (Tirira, 2017). It feeds on a wide variety of arthropods, which it mostly obtains by capturing them from the substrate (Dechmann et al., 2006). It has short and wide wings allowing for slow and maneuverable flight, necessary to capture leafhoppers and jumping spiders (Chaverri & Kunz, 2011). There is little information about its ecology. Its morphological adaptation to its unusual resting behavior is its most distinctive characteristic (Vonhof et al., 2004).

The most common natural predators of bats are owls, hawks, and snakes (Nyffeler & Knörnschild, 2013). However, predation by big arthropods has also been reported, although less frequently (de Noronha et al., 2015; Nyffeler & Knörnschild, 2013). There are reports of five families of bats as prey for spiders: Emballonuridae, Hipposideridae, Phyllostomidae, Rhinolophidae, and Vespertilionidae (Nyffeler & Knörnschild, 2013), among which two families (Vespertilionidae and Emballonuridae) have been reported as prey for spiders belonging to the genus *Eriophora* (Nyffeler & Knörnschild, 2013). There are four reported cases of bats captured and preyed by *Eriophora fuliginea* (Nyffeler & Knörnschild, 2013). In Ecuador, there is only one report of predation of *Myotis nigricans* by a tarantula of the genus *Avicularia* (Theraphosidae) in a tropical rainforest in the eastern part of the country (Nyffeler & Knörnschild, 2013).

In this paper, we report the first record of *Thyroptera tricolor* caught in the web of *Erio-*

phora sp. (Araneidae) in a tropical rainforest in the Ecuadorian Amazon. The observation was made on September 4th, 2021, at 20:53 h on the Botanical trail (00°40'28.70" S, 76°23'56.95" W, 210 m altitude), a terra firme forest near the Yasuní Scientific Station, located in Yasuní National Park in the Orellana Province of Ecuador. This forest is classified as Bosque siempreverde de tierras bajas del Napo-Curaray (MAE, 2013).

The sound of the bat flapping its wings in an attempt to escape was what alerted the authors to this event. Initially, we observed a single adult of *Thyroptera tricolor* trapped in the center of the web, with its wings outstretched (Figure 1A), about 60 cm above the ground. Subsequently, we observed an individual of *Eriophora* sp. in the immediate vicinity of the web approaching the bat (Figure 1B). During our observation the spider never came close to the bat; we surmise that it was attempting to hide from our presence. Unfortunately, we were not able to continue the observation due to time restrictions. The web was built among plants of the Rubiaceae and Melastomataceae families at the edge of the trail, in an area with little mature vegetation (Figure 1C).

Only one record of bat predation by spiders exists for Ecuador (Nyffeler & Knörnschild, 2013). The report of observations such as this one contributes to the knowledge of bat biology and predator-prey relationships. Few direct bat predation events are observed and reported, although they comprise an essential part of bat biology and merit further study.

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FIGURE 1. A. Individual of *Thyroptera tricolor* trapped in a spider web. B. Individual of *Eriophora* sp. observed in the vicinity of the spider web. C. Environment where the observation took place. Photos by Iván de la Cruz and Álvaro Dueñas.

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