



Huitzil. Revista Mexicana de Ornitología

ISSN: 1870-7459

editor1@huitzil.net.

Sociedad para el Estudio y Conservación de
las Aves en México A.C.
México

Valenzuela-Galván, David; Mariano, Nestor A.; Osorio-Berinstain, Marcela; Urbina, Fernando
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Huitzil. Revista Mexicana de Ornitología, vol. 7, núm. 1, junio, 2006, pp. 15-17

Sociedad para el Estudio y Conservación de las Aves en México A.C.

Xalapa, Veracruz, México

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First record of the Sparkling-tailed Hummingbird (*Tilmatura dupontii*, Trochilidae) for Sierra de Huautla Biosphere Reserve, Morelos, Mexico

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Abstract

In August, 2005 we observed and photographed one male of Sparkling-Tailed hummingbird (*Tilmatura dupontii*) foraging on Firebush shrub flowers (*Hamelia patens*, Rubiaceae). The present observation is the first record of this species for the Sierra de Huautla Biosphere Reserve, in the south of Morelos, Mexico, ca. 50 km southeast of previous reported observations of the species in Morelos.

Keywords: Mesoamerican endemic species, tropical dry forest, threaten hummingbird.

Resumen

Primer registro de colibrí cola pinta (*Tilmatura dupontii*, Trochilidae) para la Reserva de la Biosfera Sierra de Huautla, Morelos, México

En agosto de 2005 observamos y fotografiamos un macho de colibrí cola pinta (*Tilmatura dupontii*) que forrajeara sobre flores del arbusto *Hamelia patens* (Rubiaceae). Esta observación representa el primer registro de esta especie en la Reserva de la Biosfera Sierra de Huautla, en el sur de Morelos, México, ca. 50 km al sureste de registros anteriores en Morelos.

Palabras clave: bosque seco, colibríes amenazados, especie endémica mesoamericana.

Résumé

Première observation du Colibri zémès (*Tilmatura dupontii*) pour la sierra de Huautla, réserve de la Biosphère, état de Morelos, Mexique

En Août 2005, on a observé et photographié un mâle de Colibri zémès (*Tilmatura dupontii*) se nourrissant de fleurs de l'arbuste *Hamelia patens* (Rubiaceae). Cette observation est la première de cette espèce pour la Sierra de Huautla, réserve de la Biosphère, dans le sud de l'état de Morelos, Mexique, et a environ 50 km au sud Est d'observation récente de cette espèce dans le même état.

Mots clés: colibri en danger, espèce endémique de méso-amérique, Forêt tropical sèche.

HUITZIL (2006) 7: 15-17

The Sparkling-tailed Hummingbird (*Tilmatura dupontii* Lesson 1832) or colibrí cola pinta (Escalante et al. 1996) is a Mesoamerican endemic considered threatened by the Mexican government (SEMARNAT 2002). *Tilmatura dupontii* feeds on nectar and insects (Wagner 1946, Howell and Web 1995). It inhabits different types of highland habitats, like open woods and shrub zones, humid and semiarid forests edges and brushy second growth and scrubby woodlands often with oaks (Peterson and Chalif 1989, Howell and Webb 1995, Schuchmann 1999). Although it has been considered a local resident fairly common to uncommon, between 500 and 2500 m asl, along its geographical distribution range, its abundance can vary greatly among years and seasonally (Howell and Webb 1995; Schuchmann 1999) and particularly in México, based on the evidence presented by several authors, seems that the species is rare and hard to detect (Edwards and Lea 1955, Arizmendi 2001, Ortiz-Pulido and Díaz 2001, Peterson et al. 2004).

Ornelas (1987) reported *T. dupontii* for an evergreen subtropical forest at Guerrero (1350 m asl) for the months of January, April and May. During one year of monthly sampling at Sierra de Manantlán Biosphere Reserve, Arizmendi (2001) registered only five individuals of this species, all in disturbed areas of humid pine forest and pine forest – cloud forest transition (above 1900 m asl) during February and June.

Ortiz-Pulido and Díaz (2001) reconfirm its presence in the lower central portion of Veracruz, after 50 years of any record for the species on this area. The observation was done in a site covered by agricultural lands and acahuales. Recently Forcey (2002a, 2002b) registered the species for the first time for central Oaxaca. He considered this species as a short distance vagrant or rare transient migrant from lowland areas.

One of the few studies in México, where *T. dupontii* was noticed to be quite abundant is that of Davis



Figure 1. Photograph of a male individual of Sparkling-tailed Woodstar (*Tilmatura dupontii*; Trochilidae) registered for the first time for the Sierra de Huautla Biosphere Reserve, Morelos, México (the photograph was taken with an Olympus® Digital Camera C-765 Ultra Zoom, with flash and in auto mode).

(1953) for the Tzitzio region, Michoacán, where he recorded 21 individuals in July and August on areas of oak-thorn scrub and heavy riparian vegetation.

Its occurrence has been associated with blooming events and high abundance of flowers (Gómez de Silva et al. 1999, Forcey 2002b). Its have been reported to feed from flowers of the plants *Sechium compositum* (Cucurbitaceae), *Hamelia patens* (Rubiaceae), *Fuchsia microphylla* (Onagraceae), *Salvia mexicana* and *S. iodantha* (Lamiaceae; Gómez de Silva et al. 1999, Arizmendi 2001, Lasso and Naranjo 2003).

Its presence in the Mexican state of Morelos it is considered rare (Urbina 2005) and it was reported for the first time in the 1950's (Friedmann et al. 1950, Blake 1953) with one individual collected in July in Cuernavaca city (no further information of the site is provided; Davis and Russell 1953), then in May of 1988 in the municipality of Tlayacapan (Urbina 2005), in an area dominated by agricultural land and patches of oak forest and tropical dry forest. Both sites are over 1600 m asl. Its presence in Morelos is reported in the American Ornithologists' Union checklist of North American birds (AOU 1998).

One male individual of Sparkling-tailed Hummingbird was detected on August 16, 2005, while conducting observations on the rate of pollinator visitors to

plants of the Firebush shrub (*H. patens*) a known hummingbird pollinated plant (Lasso and Naranjo 2003) and one of the most conspicuous shrub in the study site. At 7:09 hrs a characteristic low, insect – like humming sound was heard and one individual of this species was noticed visiting flowers to feed and then flew away of sight, one minute later it came back into sight, feed on 13 other flowers and then it perched on a branch inside the shrub. It could be observed using binoculars and its long and bifurcated tale with clear patches was noticed before it flew away to a different patch of Firebush plants, some 20 m away in front of our sight field, downhill. Then at 7:22 hrs we noticed again that a *T. dupontii* individual (most probable the same individual) came to the focal plant, and after foraging on 18 flowers it perched in a thin branch in front of the observed Firebush. The bird was observed better, photographed (Figure 1) and later confirmed its identity with the help of the Howell and Webb guide (1995).

The site of observation is located 3 km north of El Limón de Cuachichinola town, in the Municipality of Tepalcingo, Morelos State, Mexico, inside the Sierra de Huautla Biosphere Reserve (SHBR; 18° 32.317' N y 98° 55.956' W; 1298 m asl). It is covered by a mixture of altered tropical dry forest (TDF) and secondary vegetation (sites of TDF that were used for agriculture and pasture and were abandoned 7-10 years ago and are in the process of recovering). Conspicuous tree species observed in the site are, *Pseudosmodium perniciosum* (Anacardiaceae), *Ceiba spp.* (Bombacaceae), *Bursera spp.* (Burseraceae), *Jacaratia mexicana* (Caricaceae), *Conzattia multiflora*, *Acacia cochliacantha*, *A. farnesiana*, *Lysiloma spp.* (all Fabaceae), and *Guazuma ulmifolia* (Sterculiaceae). The site of observation is classified in the management plan of the reserve (Dorado et al. in press a) as a recovering zone, and it is surrounded by a matrix of preserved TDF. The SHBR, is an area of approximately 60,000 has. It is located in the northern portion of the Balsas river Basin. The reserve it is the biggest Mexican protected area created to preserve mainly TDF and could become the most important reservoir of this vegetation type in south-central Mexico (Dorado et al. in press b). The Sierra de Huautla region is considered a priority area for the conservation of Mexican birds (AICA; Benítez et al. 1999) where more than 170 species had been detected, nine of them hummingbirds (Ramírez-Albores and Ramírez-Cedillo 2002, Urbina 2002). At least 20% of these species are endemic to Mesoamerica and ca. 13% are considered under some form of conservation threat by the Mexican government (Benítez et al. 1999, SEMARNAT 2002).

Present observation site of Sparkling-tailed Hummingbird in El Limón area is the first record for the SHBR, nearly 50 km to the south east of previous records for the species in Morelos state. More observations are needed to assess if a local population of the species is established at the site.



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Recibido: 31 de enero del 2006; Revisión aceptada: 20 de febrero del 2006.

Editor asociado: Carlos Lara y Raúl Ortiz-Pulido