# Autumn and winter records of Spot-tailed Nightjar Hydropsalis maculicaudus in Veracruz, Mexico

Alan Monroy Ojeda, Manuel Olivier Grosselet and Georgita Ruiz Michael

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Reportamos los primeros registros otoño-invernales documentados para el Tapacamino Cola Pinta *Hydropsalis maculicaudus* en México. Esta especie se tiene reportada como visitante reproductiva de verano en el sureste de México. Proporcionamos información detallada y documentada basada en observaciones, fotografías, grabación y capturas de la especie durante el invierno.

Spot-tailed Nightjar Hydropsalis maculicaudus is widely but patchily distributed from south-east Mexico to the Guianas, and even more sparsely in north-west and northern Brazil to south-east Peru, north and east Bolivia, eastern Paraguay and south-east Brazil<sup>5,7,8</sup>. In Mexico, it occurs on the Atlantic slope from southern Veracruz to Tabasco, at sea level to 500 m, with additional records in eastern Oaxaca and northern Chiapas 1,3,7,8. Although considered sedentary over much of its South American range, the species is a breeding summer visitor to parts of Middle America. including Mexico, where it is present in March-August and its characteristic song is frequently heard<sup>3,7,11</sup>. The wintering grounds of Mexican birds are unknown<sup>7</sup>, although occasional winter reports require verification, e.g., February records in Oaxaca<sup>3</sup> are based on Avilés specimens<sup>2</sup> and thus not credible<sup>7</sup>, while the species was recorded during a Christmas Bird Count in Los Tuxtlas, Veracruz, but could not be confirmed<sup>11</sup>. In general, the basic biology of this caprimulgid is poorly known, with almost no data on Mexican populations. The species was first recorded in the country 60 years ago3, but few, if any, data have been collected since<sup>5,7,12</sup>. Here, we present records in southern Veracruz during autumn and winter.

# Study area

Santa Alejandrina marsh, in the municipality of Minatitlán, Veracruz, is in the coastal lowlands south-east of the Gulf of Mexico (17°59'13.18"N 94°30'27.98"W; 7 m). Abutting the area to the south-west is the Lázaro Cárdenas oil refinery, to the south-east lies the río Coatzacoalcos and to the north-east the town of Minatitlán. Santa Alejandrina is owned by the Mexican oil company Pemex and forms a buffer zone around the refinery. The site comprises a series of wetlands, including streams and a lagoon of minor importance, all within the Coatzacoalcos basin. Savannas and open grassy areas are dominated by Acisanthera quadrata, Ageratum sp., Andropogon bicornis, as well as Typha dominguensis. Scattered fragments of evergreen tropical forest occur in the environs,

composed of *Terminalia amazona*, *Tapirira macrophylla* and *Podocarpus guatemalensis*, among others<sup>6</sup>. All sightings were in the savannas and *Typha* vegetation.

#### Records

Observations were made during a bird monitoring project at Santa Alejandrina marsh in two phases—in July 2008—June 2009 and October 2010—July 2011. Nocturnal transects and mist-netting formed part of our field work<sup>10</sup>. Most observations were made soon after sunset while slowly driving dirt roads in the marsh using a spotlight to search for birds. When caprimulgids were detected, we turned off the engine and observed the bird using binoculars. Birds were captured using mist-nets. The first capture was in the early morning, as the nets were opened just before sunrise, and the second occurred at night using playback of Spot-tailed Nightjar vocalisations as an audio lure.

## Identification

For identification, we relied on the following diagnostic characters: for males—brown face with pale buff supercilium, wedge-shaped blackish malar bordered buff, prominent buff scapular 'V', wing-coverts and secondary tips buff, outer rectrices blackish with cinnamon bars on outer webs, tipped white, and 2–3 pairs of white ovals at the tail tip. Females have the outer rectrices barred grey-brown and cinnamon, with narrow pale tips and no white spots below<sup>7</sup>. For ageing, moult criteria and colour contrast were used, wear to the wing feathers and evidence of the presence of different feather generations, as well as the description of typical Caprimulgidae moult strategy<sup>9</sup>.

Identification of vocalisations was based on comparison with a recording<sup>4</sup> and the description of a high-pitched, passerine-like *pit-suit* or *spit-suit*<sup>11</sup>. A sonogram of the recording made by MG is at: www. xeno-canto.org/america/recording.php?XC=31885.

Compared to Spot-tailed Nightjar, Pauraque *Nyctidromus albicollis*, which is the commonest nocturnal bird at the site, has an obvious white patch at the base of the primaries, a longer

Table I. Observations of Spot-tailed Nightjar *Hydropsalis maculicaudus* at Santa Alejandrina marsh, Minatitlán, Veracruz, Mexico.

No. observation	Date*	No. individuals*
I	20/02/2009°	3
2	01/04/2009	20
3	02/04/2009	15
4	03/04/2009	x
5	04/04/2009	20
6	05/04/2009	20
7	06/04/2009	x
8	07/04/2009	1
9	09/04/2009	x
10	21/04/2009	6
H	22/04/2009	15
12	24/04/2009	x
13	25/04/2009	x
14	05/05/2009	x
15	06/05/2009	X
16	07/05/2009	x
17	16/05/2009	3
18	17/05/2009	4
19	18/05/2009	5
20	19/05/2009	10
21	09/11/2010°	1
22	15/11/2010°	1
23	17/11/2010°	1
24	19/11/2010°	1
26	20/11/2010°	2
27	22/11/2010°	1
28	25/11/2010°	1
29	29/11/2010°	1
30	15/12/2010°	1
31	16/12/2010°	3
32	21/12/2010°	3
33	08/01/2011°	1
34	14/01/2011°	1
35	18/01/2011°	1
36	18/01/2011°	1

<sup>\* (°) =</sup> winter records

tail and noticeable white on the outer rectrices, even in females. Its flight appears unhurried with slow flaps, whereas Spot-tailed Nightjar has short, fast wingbeats. When perched, Pauraque is distinguished by the absence of a 'V' on the scapulars and pale supercilium, the obvious white throat, larger size and marked preference for perching on paths or roads. Vocalisations are distinctive and unmistakable. Chuck-will's-widow

Antrostomus carolinensis also occurs. Although a winter visitor to the general region<sup>7</sup>, at the study site it has been observed only in spring and autumn, on migration. It is noticeably larger, is overall dark brown, lacks pale lines on the scapulars and face, has slow wing flaps but fast direct flight, and a longer, square-shaped tail.

All observations are presented in Table 1. Excluding sightings in spring and summer, there were 16 records, of which five were in late autumn and 11 in winter.

#### **Autumn records**

The first record was on 9 November 2010 at 22h00. The bird perched in reeds c.20 m from the road (www. flickr.com/photos/34082147@N07/6006880468/in/photostream). The first autumnal capture occurred on 17 November 2010 when a bird flew into a mist-net opened before dawn in a patch of savanna and scrub. It was measured and ringed with a 1A size band (3.25 mm internal diameter, Porzana Ltd., no. MG.H01101). It was a first-year female with no brood patch. Wing chord 130 cm. After taking measurements, it was released. The first positive vocal identification was on 20 November 2010 when two were heard; playback was used to lure the birds to within 15 m of the observers for a couple of minutes.

#### Winter records

The first record was on 20 February 2009, when three were vocalising, prompting initial doubts concerning the species' true status at the site. Subsequently, on 21 December 2010, at 21h00, a recording was played, and a few minutes later three appeared over the reeds, c.3 m above ground. They flew in circles but none responded vocally. On 18 December 2010, while opening the mist-nets at 06h27 four calls were heard from bird 50 m distant in a savanna. The same day, at 21h00, one was mist-netted in the same area and ringed with an aluminum band size 1A, no. 0891-19958. It was a first-year<sup>9</sup> female with no brood patch. Wing chord 126 cm. It was released after being measured (www. flickr.com/photos/34082147@N07/6006336527/in/ photostream; www.flickr.com/photos/34082147@ N07/6006880888/in/photostream). Other winter records were of birds flying near the road during nocturnal transects.

## Other remarks

Spot-tailed Nightjar does not usually perch on roads, but chooses reeds or branches near the ground, unlike Pauraques, which usually perch on roads. In spring, the species vocalises from the ground. Size is noticeably smaller compared to other species of nightjars, even in flight.

<sup>\* \* (</sup>x) = more than one individual recorded.

## **Discussion**

It is possible that the lack of reliable records in winter merely reflects the species' discreet habits, and could have led previous authors to suggest that Mexican populations are migratory. However, it can also be explained by the marked decrease in vocalisations in the non-breeding season, as well as their preference for dense vegetation, making them more difficult to detect. It would be interesting to investigate whether Spot-tailed Nightjar has similar strategies to other caprimulgids with both resident and migratory populations in the same region (e.g., Buff-collared Nightjar Antrostomus ridgwayi, Whip-poor-will A. vociferus, Eared Poorwill Nyctiphrynus mcleodii, etc.)<sup>5</sup>.

Our data demonstrate that the species is present year-round, despite the lack of records in the second and fourth week of September and first three weeks of October, which we believe has two possible causes: (a) moult: one trapped in late August was replacing its flight feathers, so it is possible that during September and October this factor obliges the bird to be more discreet, and b) the area is commonly flooded between mid September and mid October (including in 2008 and 2010), reducing the availability of suitable habitat, as well as the ability of observers to access the site. Our observations suggest that at least part of the species' population is resident, in contrast to the summer visitor status suggested for the species in Mexico by previous authors<sup>5,7</sup>. Ours are the first documented records in the non-breeding season. The two birds caught outside spring were not nesting, indicating that the species does not breed year-round. If future investigations prove that Mexican populations are resident, taking into account the existence of isolated populations, we stress the possibility that these could represent more than one species<sup>5</sup>.

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## Alan Monroy Ojeda

Av. Pajaritos, Col. Tres Pasos, Emiliano Zapata, Veracruz, Mexico. E-mail: alanmonroy\_ojeda@yahoo. com.mx.

## Manuel Grosselet and Georgita Ruiz Michael

Tierra de Aves A.C., Colina 145, Lomas de Bezares, CP 11910, México D.F., Mexico. birdinnet@yahoo.com.mx.