

THE SILKY-TAILED NIGHTJAR AND OTHER NEOTROPICAL CAPRIMULGIDS: UNRAVELING SOME MYSTERIES¹

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Abstract. The Silky-tailed Nightjar, *Caprimulgus sericocaudatus*, is identified by song from Yarinacocha, Ucayali, Peru, and from Misiones Province, Argentina. Two caprimulgids of Yucatan, Mexico and adjacent areas, *C. badius* and *Nyctiphrynus yucatanicus*, are shown to have almost certainly had their songs confused with each other by field ornithologists. By transposing their songs, the songs of each species then more closely resemble the songs of their presumed close relatives. Thus, the *ree-o-ree* song of *C. badius* closely resembles the song of *C. sericocaudatus* and the *will* song of *N. yucatanicus* resembles the songs of *N. mcleodii* and *N. ocellatus*. The *chip-willow* song of *C. salvini* is shown in a sonogram to be a temporally condensed version (with similar frequency modulation) of the song of *C. badius* and *C. sericocaudatus*, its presumed close relatives. It is hypothesized that the *ree-o-ree* song is primitive and the *chip-willow* song derived.

Key words: *Nightjars; Caprimulgidae; vocalizations; systematics.*

INTRODUCTION

Nightjars (Caprimulgidae) are confusingly similar to one another in color pattern, usually resembling the terrestrial substrate upon which they rest hidden by day. Because they are largely nocturnal, their habits are poorly known compared to those of many birds. Ornithologists have, in the past three decades, concentrated on recording and study of nightbird voices in the hope of finding clues to relationships among forms (see, for example, Marshall 1978). On 7 October 1983, at Yarinacocha, Ucayali, Peru, Ben B. Coffey, Jr. tape-recorded the voice of an unidentified caprimulgid. Hardy (1980, 1986) subsequently concluded that the voice might be that of a new species, and suggested that it could be an *Otophanes* (= *Nyctiphrynus*, see AOU 1983), because its *ree-o-ree* song resembled the song attributed at that time to the Yucatan Poorwill, *Nyctiphrynus yucatanicus*. That resemblance can be heard in Hardy (1980, 1986) and Hardy et al. (1988), as well as seen in Hardy (1985) and in Figure 1 in this paper.

Hardy and Coffey returned to the place of the latter's recording of the mystery bird in 1981,

under ideal conditions for finding the bird, but could not find it. John Fitzpatrick (in litt. to Hardy) pointed out that two specimens of the Silky-tailed Nightjar, *Caprimulgus sericocaudatus*, had been collected at Yarinacocha (see Traylor 1958, concerning the first of these) and wisely suggested that the mystery voice might be the song of this species. This possibility is discussed in Hardy (1985). The Silky-tailed Nightjar is one of the lesser known Neotropical caprimulgids, ranging from eastern Peru to northern Argentina. Most of the few museum specimens are from Misiones Province, in extreme northern Argentina. Until 1986, its voice had never been described. Among ornithologists, the voice was known perhaps only to the late William Partridge, who located the birds by their song and collected them in Misiones Province (K. C. Parkes, in litt.).

SILKY-TAILED NIGHTJAR VOICE CONFIRMED

Straneck heard Hardy's published nightbird record and tape (1980, 1986) and recognized the mystery voice as similar to a night song he had heard in Parque Nacional Iguazú, Misiones on 26 August 1982. In November 1986, at Urugua-í Misiones, 30 km SW of Bernardo de Irigoyan, he tape-recorded the mystery bird and also col-

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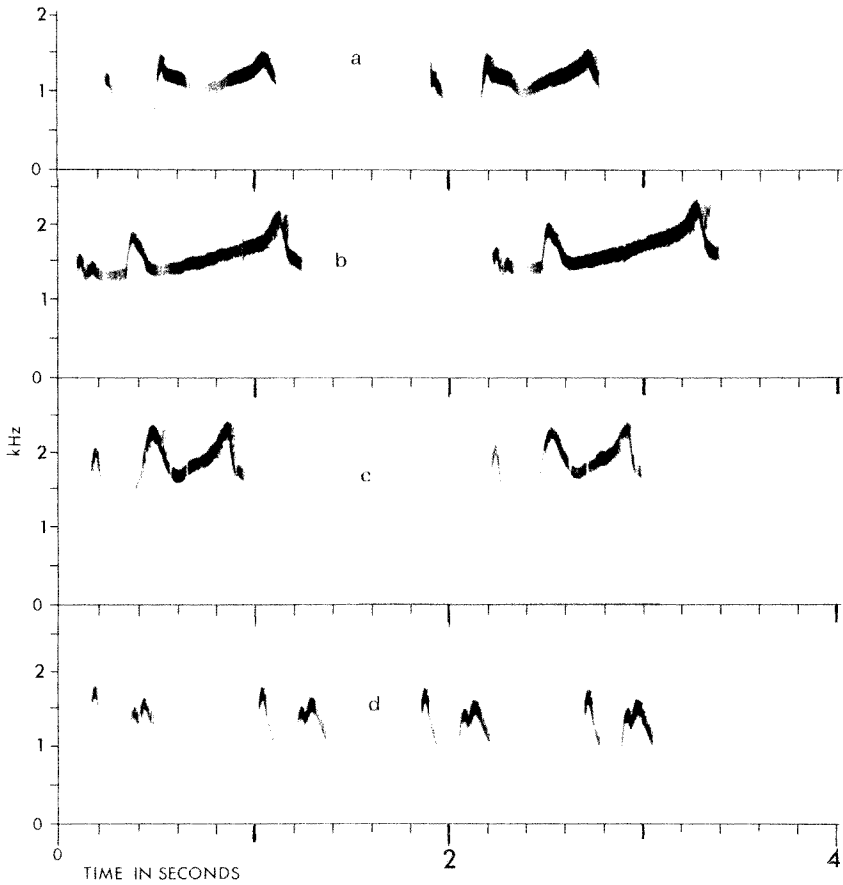


FIGURE 1. Sonograms of advertising songs of certain nightjars, genus *Caprimulgus*. a. *Caprimulgus s. sericocaudatus*. Arroyo Uruguayí, 30 km SW of Bernardo de Irigoyen, Misiones, Argentina. 16 November 1986. R. Straneck collection (copy in Florida Museum dub file). b. *Caprimulgus sericocaudatus mengeli*. Yarinacochoa, Ucayali, Peru. 7 October 1973. B. B. Coffey, Jr. BBC collection (copy in FM dub file). c. *Caprimulgus badius*. 6.2 km N Hopelchen, Campeche, Mexico. 28 April 1966. B. B. Coffey, Jr. (copy in FM dub file). d. *Caprimulgus salvini*. Tanunul near Valles, San Luis Potosi, Mexico. 24 April 1964. B. B. Coffey, Jr. collection (copy in FM dub file). Sonograms produced on a Kay Elemetrics Sona-Graph model 7029A, employing the 40–4,000 Hz frequency spectrum and 300 Hz band filter.

lected the singer. It was a Silky-tailed Nightjar. The songs of the Argentine and Peruvian birds (Fig. 1a, b) differ slightly, probably due to geographic variation. Dickerman (1975) described and named the northern population of this species as a new, smaller, darker race, *C. s. mengeli*. This race, based on voice comparison here (Fig. 1), has a noticeably higher-pitched sound and a longer tonal gliss connecting the two major pitch peaks of its utterance (hear this difference in Hardy et al. 1988). The Argentine bird had been singing in the thicket edge of forest, similar to the habitat where Coffey had made his recording in Peru, judging from photographs taken by Stra-

neck compared to Hardy's recollection of the Peruvian habitat.

YUCATAN CAPRIMULGID VOICES TRANSPosed?

Yet a puzzle remained: why should this *Caprimulgus* species sound like a *Nyctiphrynus* of Yucatan, Mexico? Recent observations by Jan Pierson, Rose Ann Rowlett, and Bret Whitney (Pierson 1986) seem to offer a solution. Because Pierson's paper is not easily available, we summarize it here in greater detail than we would otherwise.

First, there are two nightjars in the Yucatan

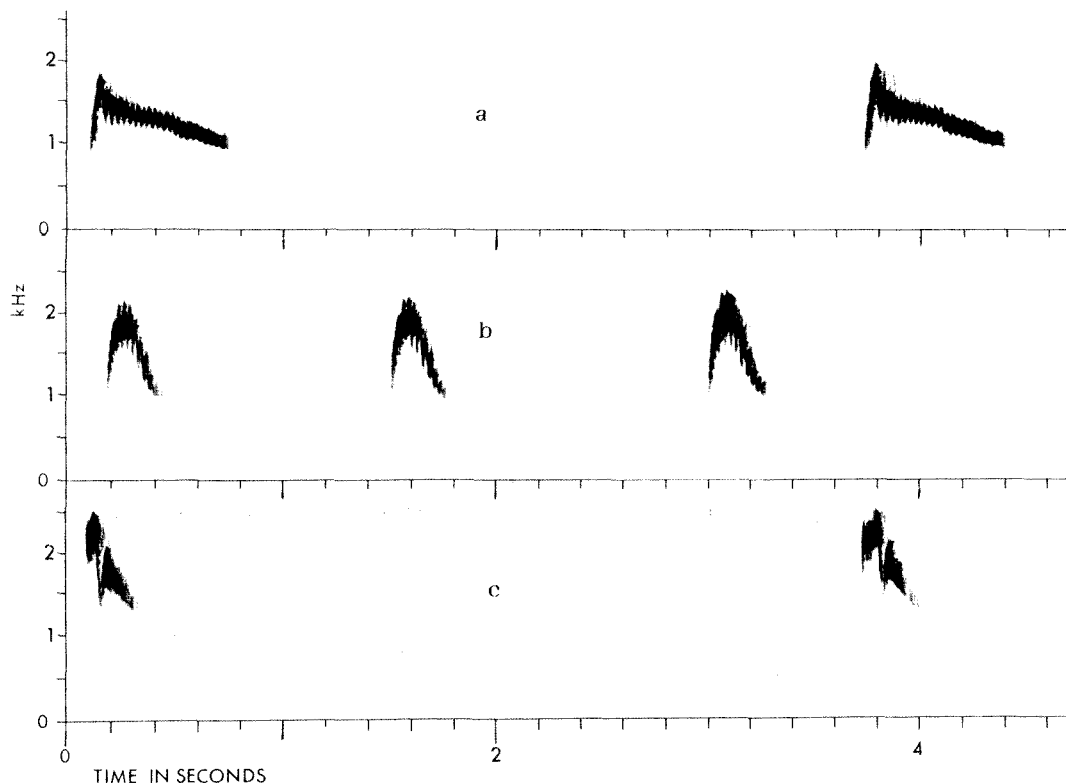


FIGURE 2. Sonograms of advertising songs of certain nightjars, genus *Nyctiphrynus*. a. *Nyctiphrynus ocellatus*. Explorer's Inn on Rio Tambopata, Madre de Dios, Peru. 16 June 1978. B. B. Coffey, Jr. collection (copy in FM dub file). b. *Nyctiphrynus yucatanicus*. 2.5 km N Uxmal, Yucatan, Mexico. 25 March 1976. B. B. Coffey, Jr. collection (copy in FM dub file). c. Puerto Los Marzos, W of Autlán, Jalisco, Mexico. 1 March 1965. B. B. Coffey, Jr. collection (copy in FM dub file). See Figure 1 for sonogram analysis parameters. (B. B. Coffey recordings, now in the FM dub file, will eventually be catalogued in the master tape file.)

Peninsula (excluding two species of *Chordeiles*—nighthawks), the Yucatan Poorwill, *N. yucatanicus*, already mentioned (it is also in Guatemala) and the Yucatan Nightjar, *C. badius*, considered by the AOU (1983) to be a race of *C. salvini*, the Tawny-collared Nightjar. The grounds for considering it a distinct species are its reported song, which has been onomatopoeically rendered as *will, will, will, etc.*, compared to the *chip-willow, chip-willow, chip-willow, etc.* of nominate *C. salvini* of adjacent eastern tropical Mexico. In any case, published works (e.g., Peterson and Chalif 1973) that discuss songs of the two Yucatan-inhabiting nightjars state that *N. yucatanicus* sings *ree-o-ree* and *C. badius* sings *will, will, will*.

On the night of 26 March 1986, near Uxmal, Yucatan, Pierson heard the *will* song coming from low dry scrub vegetation. He played a tape re-

ording of the *will* song. A bird flew in and he illuminated it with a 200,000 candle-power spotlight. It was a *N. yucatanicus*. It did not call or sing and the *will* song, initially heard, ceased, indicating that he had attracted the singing bird. Driving farther down the road, he stopped again where a *ree-o-ree* song could be heard. Here he played the *ree-o-ree* song and some *chucking* call-notes that *ree-o-ree* singers often give. When a bird approached and was spotlighted, it proved to be a *C. badius*! Meanwhile, no *ree-o-ree* singing was audible in the distance, leaving no doubt in Pierson's mind that the *ree-o-ree* songs were those of the *C. badius*.

Pierson also reports that Rowlett has heard that *ree-o-ree* song on Cozumel Island (off mainland Yucatan) where only *C. badius* (and not *N. yucatanicus*) has been collected. Furthermore, he

writes, Whitney has heard only the *will* song at the Tikal Ruins, Peten, Guatemala, where, of these two nightjars, only *N. yucatanicus* is known to occur. Quoting Pierson: "Both of these audio identifications would have been first records for both species in these areas according to traditional vocal identifications. However, if the vocalizations are switched, these records fall nicely into accord with the species' ranges."

While final proof of what these observations indicate will perhaps rest on recordings of each species' song followed by collecting of the singers, it seems likely that ornithologists have simply been confusing the songs of the two. The confusion seems to date from the earliest mention that we can find of voice in both these forms. Davis (1962) discusses the song of *N. ocellatus* and for it shows a sonogram of the *ree-o-ree* song. Davis (1972) treats also the *will* song assigning it to *C. badius*. Edwards (1972) mentions the song of *C. salvini* (*chip-willow*) in which species he includes *C. badius*, but does not mention the latter's different song. If, as seems almost certain, the *ree-o-ree* is the song of *C. badius*, then it is similar to the song of *C. sericocaudatus* in Peru and Argentina. Furthermore, as Pierson (1986) points out, the simple *will* song of what we now believe is *N. yucatanicus* is more like the songs of its close relatives, the Eared Poorwill, *N. mcleodii*, of western Mexico and the Ocellated Poorwill, *N. o. ocellatus*, of Peru, Brazil, Bolivia, Paraguay, and Argentina. Both of these species have simple one-figure *will* songs as well. Figure 2 illustrates these songs.

RELATIONSHIP OF *CAPRIMULGUS SALVINI* AND *BADIUS*

Now, we must consider *C. salvini*, an undoubtedly close relative of *C. badius*, briefly described by Hartert (1892), who noted its resemblance to *C. sericocaudatus*, with its broadly white-tipped rectrices. *Caprimulgus salvini* was later reduced to subspecies status under *C. sericocaudatus* and retained in that rank by both Cory (1918) and Peters (1940). Friedmann et al. (1950) resurrected *C. salvini* as a species, but considered *C. badius* to be a race of *C. salvini*.

Caprimulgus salvini and *C. badius* are essentially the same size and have very similar plumages. They can be distinguished from each other mainly by differences in their dorsal collars, as Ridgway (1914) points out. *Caprimulgus salvini* has an indistinct, narrow, and interrupted sug-

gestion of a tawny collar and *C. badius* has a well-defined, continuous tawny collar. *Caprimulgus sericocaudatus* is a larger bird, very similar in plumage to its northern relatives, but lacking a collar.

Having here presented evidence that vocalizations may correlate well with other perceived evidence of relationships, we were puzzled that while the *ree-o-ree* songs of *C. badius* and *C. sericocaudatus* suggest close relationship, the *chip-willow* song of *C. salvini* seemed, to our ears, to do no such thing. Sonograms (Fig. 1b, c), however, show that the *chip-willow* song of *C. salvini* is a rapidly uttered, temporally condensed version of the same sort of frequency modulations that comprise that configuration of the *ree-o-ree* song of *C. badius* and *C. sericocaudatus*—the inverted "V" followed by the "M."

We suggest that the *ree-o-ree* songs shared by one Middle American and one South American form of this trio of related nightjars are the primitive songs, and that the *chip-willow* condensed version of the third species' song is a secondarily derived song permutation.

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