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Sexual Dimorphism in the Song of Sumichrast's Wren

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ABSTRACT.—We report on a song-like vocalization of female Sumichrast's Wren (*Hylorchilus sumichrasti*). The female song is a series of similar syllables, all at the same low pitch, that varies in length. Thus, it differs strongly from the rich and complex songs of male Sumichrast's Wrens and of most other wrens. *Received 27 Feb. 1998, accepted 25 Aug. 1998.*

There is increasing evidence that female song is not as rare in birds as previously thought (Langmore 1998). Among most wrens, females have songs that are similar to and sometimes combine with those of their mates in antiphonal duets (Skutch 1940, 1960). Until recently, the only reported case of strong sexual difference in wren songs was in the southern House Wren (*Troglodytes aedon*) among which the females give a simple twittering and/or a short trill, at least in Costa Rica and Panama, generally countersinging

with the males (Chapman 1929; Skutch 1940, 1953). Distinct female songs have more recently been recorded in other *Troglodytes* wrens—one population of northern House Wren (Johnson and Kermott 1990) and Socorro Wren (*T. sissonii*; Howell and Webb 1995). During fieldwork on the life-history of Sumichrast's Wren (*Hylorchilus sumichrasti*) in Cerro de Oro, Oaxaca (18° 02' N, 96° 15' W; Pérez-Villafañá 1997), we recorded the previously unknown song of a female *H. sumichrasti*.

Sumichrast's Wren is sexually monomorphic in plumage. The birds we observed were not color-banded; however, during direct observation of the members of a single pair from March to July 1994, we realized that the previously unrecorded song was always made by the bird that did not emit the more complex song described by Howell and Webb (1995) and Gómez de Silva (1997). By analogy with other wrens that have strong sexual differences in song (in which the female's song is the simpler one), and from the birds' behaviors, we concluded that this previously unrecorded song was the song of the female. We subsequently have heard this "female song" at different points along a 738 m transect at Cerro de Oro, and throughout the range of Sumichrast's Wren: 2 km south of Amatlán (18° 50'

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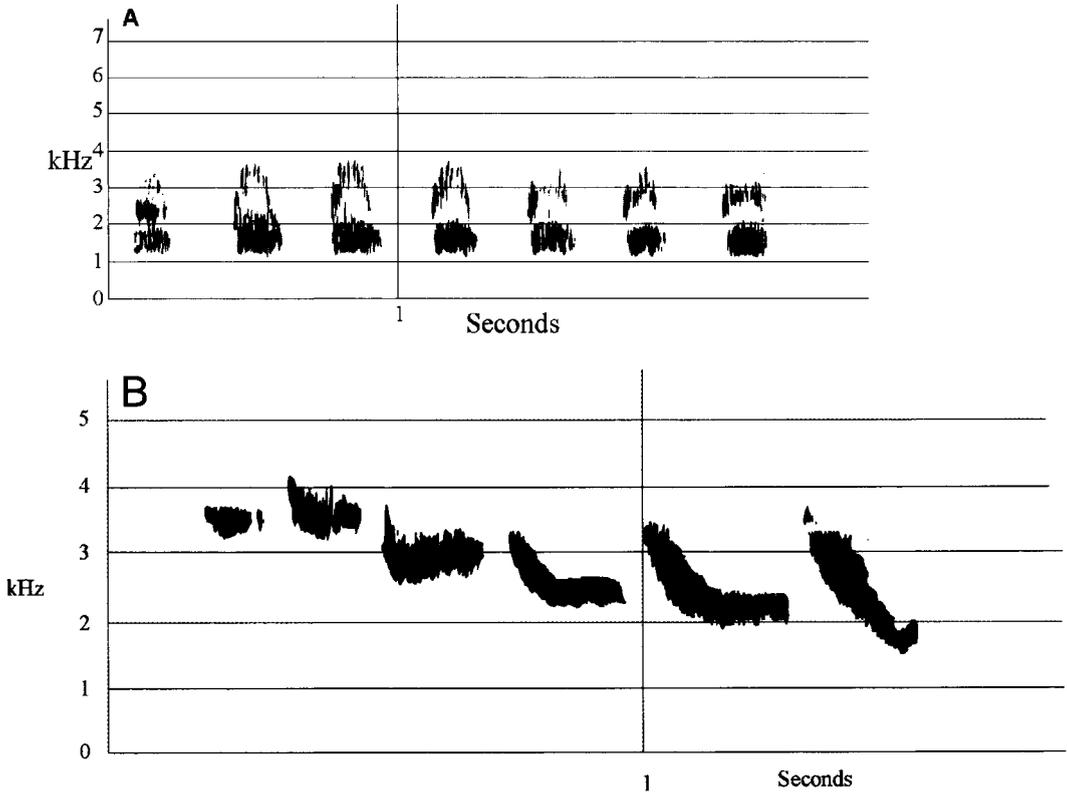


FIG. 1. Songs of female (A) and male (B) Sumichrast's Wren (*Hylorchilus sumichrasti*). Recorded by S. N. G. Howell 2 km south of Amatlán, Veracruz.

N, 96° 55' W), Agua Escondida (18° 32' N, 96° 47' W), Oaxaca/Veracruz border on the road to San Juan del Río (17° 32' N, 95° 44' W), and 2 km south of Bethania (17° 56' N, 96° 01' W).

The distinction between songs and calls is sometimes unclear. In general, calls comprise one or two syllables whereas songs are longer vocalizations comprising multiple syllables (Langmore 1998). The "female song" of Sumichrast's Wren is a simple phrase consisting of a single repeated syllable (fundamental < 2 kHz). In this respect, it resembles the main song of the Cactus Wren (*Campylorhynchus brunneicapillus*) rather than the rich and complex songs of male Sumichrast's and of most other wrens. The female song had 4–22 such syllables per song. The pause between the first and second syllables, and to a lesser extent the pause before the last syllable, are the longest. This simple song of uniform frequency contrasts with the males' complex

songs which spans a range of frequencies and contains syllables of variable form (Fig. 1, see also other sonograms of male songs in Gómez de Silva 1997 and Atkinson et al. 1993).

Females sing less frequently than males. Along the transect at Cerro de Oro, censused twice a month between April 1994 and March 1995, only 28.5–75% as many females were recorded singing per morning as males. Females sometimes countersang or sang at the same time as males. In the one focal pair, the female countersang with the male 46.2% of the time. Females usually sang with their bodies held upright and their tails pointing downward, the same position as singing males in Cerro de Oro.

Nonantiphonal female songs may be more widespread in wrens than previously thought. The few records may be due to a scarcity of detailed observation. Carmona (1989) observed that female Canyon Wrens (*Catherpes mexicanus*) produce a vocalization that is dif-

ferent from the male's but gave no details about the vocalization. A systematic survey of female songs (or their general absence) in wrens appears to be an interesting possibility for research.

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An Incident of Female-Female Aggression in the House Wren

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ABSTRACT.—In this paper we describe one example of female-female aggression in the House Wren (*Troglodytes aedon*). An intruding female usurped the resident female and paired with the resident male. House Wrens are known for committing infanticide as well as puncturing and removing eggs of conspecifics and other species. These behaviors have been mainly attributed to resident and floating males, but we suggest that females may also be responsible. *Received 22 July 1998, accepted 3 Nov. 1998.*

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In many passerine bird species, males establish breeding territories in the spring, which they defend against intruders. This form of sexual competition among males has been recognized as one of the driving forces behind mating patterns and parental care (Davies 1991, Andersson 1994). Aggression among females has received much less attention, although it has recently been shown to be more common among birds than initially assumed (Lenington 1980, Leffelaar and Robertson 1985, Searcy 1986, Martin et al. 1990, Slagsvold 1993, Hansson et al. 1997, Liker