

FEATURE ARTICLES

SEXUAL DIMORPHISM AND PARENTAL ROLES IN THE THORN-TAILED RAYADITO (FURNARIIDAE)

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Abstract. Sexual dimorphism, mating system, and parental care are known for only a few species of the large passerine family Furnariidae. We conducted a study of sexual dimorphism in morphology, coloration, and parental roles during incubation and chick-rearing in the Thorn-tailed Rayadito (*Aphrastura spinicauda*), a characteristic resident ovenbird of the southern temperate rainforests of Chile and Argentina. Through molecular sexing, morphological measurements, and spectrophotometric analysis of body plumage and rectrices of reproductive adults captured on Chiloé Island (southern Chile), we determined that males were between 2% and 10% larger than females in mass, tarsus length, and wing length, while no difference was found for the length of the bill or the two longest central rectrices and their characteristic spines, or in plumage coloration. Heavy males were paired with heavy females and light males with light females. Males and females participated equally in all reproductive activities during the incubation and nestling phases, except removal of nestling feces, in which females were twice as active as males. In a study of habitat use on Navarino Island (extreme southern Chile) we found that the extended graduated tail, with rectrices that end in spines, which gives the species its name, was not used as a support while foraging and could be related to another function such as sexual or social signaling. The absence of sexual dimorphism in plumage and parental roles in rayaditos may be related to the use of the long, graduated tail as a signal of quality by both sexes, although this hypothesis requires confirmation through future mate choice studies.

Key words: monogamy, parental care, parental roles, plumage coloration, sexual dimorphism, sexual selection, tail length.