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Abstracts

FEATURE ARTICLES

OBJECTIVE ASSESSMENT OF SEXUAL PLUMAGE DICHROMATISM IN THE PICUI DOVE

BETTINA MAHLER[1, 3] AND BART KEMPENAERS[2]
[1]*División Ornitología, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia," Av. Angel Gallardo 470, C1405DJR Buenos Aires, Argentina*
[2]*Reproductive Biology and Behaviour Group, Research Center for Ornithology of the Max Planck Society, Postfach 1564, 82305 Starnberg (Seewiesen), Germany*
Manuscript received 28 June 2001; accepted 8 January 2002.
[3]E-mail: bemahler@bg.fcen.uba.ar

Abstract. The Picui Dove (*Columbina picui*) has been considered sexually monochromatic, with females slightly duller than males. This assessment has been based on colors perceived by the human eye. However, birds possess an additional, near-ultraviolet photoreceptor and thus are sensitive to wavelengths humans are not. Measurements of reflectance using spectroradiometry permit an objective determination of the coloration of the birds' plumage and of color differences between the sexes. We here show that the plumage coloration of the Picui Dove is clearly sexually dimorphic. Males were overall brighter than females, and several body regions showed a significant sex difference in spectral shape. These results imply that studies of sexual selection in this and related species should measure sexual dichromatism objectively, and should not rely on human color perception.

Key words: *Columbidae, Picui Dove, sexual dichromatism, spectral reflectance, ultraviolet vision.*