The Condor
Volume 109, Number 3
August 2007 C.E.
Abstracts

FEATURE ARTICLES

COLOR DIFFERENCES AMONG CLOSELY RELATED SPECIES OF RED-BREASTED MEADOWLARKS (*STURNELLA*)

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Abstract. Interspecific differences in sexually selected traits may be important for maintaining reproductive isolation among closely related species living in sympatry. We present the first study of plumage color differences among males of partially sympatric species of South American red-breasted meadowlarks—the White-browed Blackbird (*Sturnella superciliaris*), the Pampas Meadowlark (*S. defilippii*), and the Long-tailed Meadowlark (*S. loyca*)—using reflectance spectrophotometry and the avian visual model of Vorobyev and Osorio (1998). Reflectance values of sexually dichromatic red plumage patches were measured on study skins. Total reflectance, reflectance in the short wavelength part of the spectrum, and several measures of spectral shape were extracted directly from the spectra. Our analyses revealed that *S. loyca* and *S. defilippii* were brighter and had higher reflectance in the short wavelength part of the spectrum than *S. superciliaris*. Minimum reflectance was located at higher wavelengths in breeding than in nonbreeding plumage. Interspecific distances in avian visual space obtained from the Vorobyev and Osorio (1998) model were considerably higher than the threshold value for color discrimination, indicating that the differences found are also detectable by birds. Taken together, these results show that the red plumage patches of these three species present significant color differences throughout the year, not only in the visible but also in the UV part of the spectrum.

Key words: *male plumage, meadowlarks, reflectance, spectrophotometry,* Sturnella*, sympatry.*