The Condor
Volume 104, Number 3
August 2002 C.E.
Abstracts

FEATURE ARTICLES

AVIAN RESPONSE TO NUTRIENT ENRICHMENT IN AN OLIGOTROPHIC WETLAND, THE FLORIDA EVERGLADES

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Abstract. We studied the effects of nutrient enrichment on the bird community in an oligotrophic wetland, the Florida Everglades. Among the non-wading birds surveyed in 1996 and 1997, Boat-tailed Grackles (*Quiscalus major*) and Common Moorhens (*Gallinula chloropus*) were consistently more abundant in enriched sites, whereas Common Yellowthroats (*Geothlypis trichas*) were consistently more abundant in unenriched sites. The abundance of Red-winged Blackbird (*Agelaius phoeniceus*) was not significantly different between enriched and unenriched sites. Among wading birds, Wood Storks (*Mycteria americana*) and Great Egrets (*Ardea alba*) were significantly more abundant in enriched than unenriched areas in a dry year, 1991. Great Egrets and all wading species combined were significantly more abundant in enriched than unenriched areas in the wet year, 1995. Great Blue Herons (*Ardea herodias*) and White Ibises (*Eudocimus albus*) did not differ in abundance between enriched and unenriched areas in the dry or wet year. A significant interaction between water depth and nutrient status in the wet year indicated that wading bird abundance increased with water depth only in nutrient-enriched areas presumably because the enriched areas had greater food availability than unenriched areas at the same water depth. Bird abundance appeared to increase in nutrient-enriched areas; however, this increase was accompanied by a shift in species composition typically found in the unenriched Everglades and was a fundamental change in the Everglades' distinctive structure.

Key words: *birds, eutrophication, Everglades, nutrients, phosphorus, wading birds, wetlands.*