

Group structure, habitat structure, and reproductive success of Grey-crowned Babblers: a multivariate analysis. TIMOTHY G. O'BRIEN, Dep. Wildl. & Range Sci., Univ. Florida, Gainesville, SCOTT R. WINTERSTEIN, Dep. Exp. Stats., Louisiana State Univ., Baton Rouge, and JERAM L. BROWN, Dep. Biol., SUNY at Albany, Albany.

Inheritance of muscle shape in Eastern Kingbirds (*Tyrannus tyrannus*). MARY C. MCKITRICK, Mus. Zool., Univ. Michigan, Ann Arbor, and GEORGE F. BARROWCLOUGH, Dep. Ornithol., Am. Mus. Nat. Hist., New York, NY.

WEDNESDAY AFTERNOON, 20 AUGUST

IVA. BEHAVIORAL ECOLOGY

Joseph M. Wunderle, Chr.

Dominance, food supply, and territory abandonment in the cooperatively breeding Acorn Woodpecker. SUSAN HANNON, RON MUMME, and WALTER KOENIG, Hastings Nat. Hist. Reservation, Univ. California, Berkeley.

Habitat selection in a tropical folivorous bird: the Hoatzin. BEATRIZ TORRES, Zool. Dep., Ohio State Univ., Columbus.

Comparative foraging behavior of male and female American Kestrels (*Falco sparverius*) in central Kentucky. CHRIS KELLNER, Dep. Zool., Univ. Arkansas, Fayetteville.

Food habits and season- and sex-related mortality of Barred Owls. JEROME A. JACKSON, Dep. Biol. Sci., Mississippi State Univ., Mississippi State.

*Red-cockaded Woodpecker helpers at the nest: increasing clan fitness by stabilizing reproductive success. J. MICHAEL REED, Dep. Zool., North Carolina State Univ., Raleigh.

*The ontogeny of foraging in Ospreys. THOMAS C. EDWARDS, JR., Dep. Wildl. & Range Sci., Univ. Florida, Gainesville.

Philopatry in the Eastern Phoebe. CALVIN L. CINK, Biol. Dep., Baker Univ., Baldwin City, KS. The role of food abundance in egret siblicide. TIMOTHY C. LAMEY, DOUGLAS W. MOCK, and BONNIE J. PLOGER, Dep. Zool., Univ. Oklahoma, Norman.

Hatching asynchrony in the Pied-billed Grebe: evidence for the brood-reduction hypothesis. MARK R.L. FORBES, Dep. Zool., Univ. Western Ontario, London, ON, Canada.

Brood reduction for fun and profit. DOUGLAS W. MOCK, Dep. Zool., Univ. Oklahoma, Norman, and GEOFFREY A. PARKER, Dep. Zool., Univ. Liverpool, Brownlow Hill, England.

Bill color and foraging behavior of North American songbirds: an adaptation to reduce reflectance. EDWARD H. BURTT, JR., Dep. Biol. Sci., Ohio Wesleyan Univ., Delaware, OH.

IVB. PHYSIOLOGY/MIGRATION

Frank R. Moore, Chr.

Molt chronology of Northern Pintails wintering on the Southern High Plains of Texas. DOUGLAS G. SHEELEY and LOREN M. SMITH, Dep. Range & Wildlife Manage., Texas Tech Univ., Lubbock.

Aggressive females and domestic males: hormonal correlates of "sex-role reversal." LEWIS W. ORING and ALBERT J. FIVIZZANI, Dep. Biol., Univ. North Dakota, Grand Forks.

Annual molt cycles of central Amazonian forest understory birds. RICHARD O. BIERREGAARD, JR. and RANDALL H. LeB. DOWNER, World Wildl. Fund-U.S., Washington, DC.

The sulphur amino-acid requirements and metabolism in the Dark-eyed Junco (*Junco hyemalis*). JEFFREY MERRITT and ELDEN W. MARTIN, Dep. Biol. Sci., Bowling Green State Univ., Bowling Green, OH.

Nutrient reserves and reproduction in White-winged Scoters. G. R. DOBUSH, Dep. Zool., Univ. Guelph, Guelph, ON, Canada.

Atmospheric influences on olfactory navigation in birds. JERRY A. WALDVOGEL, Dep. Biol. Sci., Univ. Pittsburgh, Pittsburgh, PA.

Nutrient preferences of migratory (*Junco hyemalis*) vs. non-migratory (*Passer domesticus*) bird species exposed to long vs. short photoperiods. JANE A. FITZGERALD, Dep. Zool., Univ. Arkansas, Fayetteville.

Expansion of the wintering range of the Eared Grebe into southeastern United States. RICHARD C. BANKS and ROGER B. CLAPP, Biol. Surv. Section, U.S. Fish & Wildl. Serv., Natl. Mus. Nat. Hist., Washington, DC.

Effect of radio package on bird flight performance. COLIN J. PENNYCUICK, Dep. Biol., Univ. Miami, Coral Gables, FL.

Effects of circadian phase on oxygen consumption, body temperature, and thermal conductance in Glaucous-winged Gulls (*Larus glaucescens*). MARK R. OPP and NIGEL J. BALL, Dep. Zool., Washington State Univ., Pullman, and Univ. Arkansas, Fayetteville.

Delayed maturation and neoteny in two manakins of the genus *Chiroxiphia*. MERCEDES S. FOSTER, Fish & Wildl. Serv., Natl. Mus. Nat. Hist., Washington, DC.

THURSDAY MORNING, 21 AUGUST

VA. EVOLUTION & SYSTEMATICS II

Mercedes S. Foster, Chr.

Average genomic rates of evolution in birds. CHARLES G. SIBLEY and JON E. AHLQUIST, Peabody Mus. Nat. Hist., Yale Univ., New Haven, CT.

Rates of single-copy DNA evolution in herons. FREDERICK H. SHELDON, Dep. Biol., Yale Univ., New Haven, CT.

Patterns of genetic differentiation in the Laridae. SHANNON J. HACKETT and ROBERT M. ZINK, Mus. Zool., and Dep. Zool. & Physiol., Louisiana State Univ., Baton Rouge.

Chromosome-banding homologies of North American doves and pigeons. HOLLY H. HOBART, Dep. Ecol. & Evol. Biol., Univ. Arizona, Tucson, and A. D. STOCK, City of Hope Natl. Med. Center, Duarte, CA.

Genetic variability in large vs. small populations of the Red-cockaded Woodpecker. PETER W. STANGEL, Savannah River Ecol. Lab., Aiken, SC.

*Phylogenetic relationships of avian orders as ascertained by amino acid sequence data. MICHELE R. TENNANT, Dep. Biol. Sci., Wayne State Univ., Detroit, MI.

Population structure of Neotropical forest birds: inferences from electrophoretic data. A. P. CAPARELLA, Mus. Zool., and Dep. Zool. & Physiol., Louisiana State Univ., Baton Rouge.

Results of avian surveys in the forest zone of Maranhao, Brazil. DAVID C. OREN, Departamento Zoologia, Museu Paraense Emilio Goeldi, Belem, Para, Brazil.

Genic population structure and gene flow in the Northern Flicker (*Colaptes auratus*) hybrid zone. THADDEUS A. GRUDZIEN and WILLIAM S. MOORE, Dep. Biol. Sci., Wayne State Univ., Detroit, MI.

The Northern Flicker hybrid zone. WILLIAM S. MOORE, Dep. Biol. Sci., Wayne State Univ., Detroit, MI.

Geographic variation in *Oporornis* warblers. JAY PITOCHELLI, Dep. Ornithol., Am. Mus. Nat. Hist., New York, NY.

VB. POPULATION ECOLOGY

Paul B. Hamel, Chr.

Geographic variation in clutch size of the Red-winged Blackbird (*Agelaius phoeniceus*): a continental view. R. TODD ENGSTROM, Dep. Biol. Sci., Florida State Univ., Tallahassee.

A statistical model of the cost of flight. GONZALO CASTRO and J. P. MYERS, Acad. Nat. Sci., Philadelphia, PA, and Biol. Dep., Univ. Pennsylvania, Philadelphia.

The impact of winter bird-feeding on survival rates of Black-capped Chickadees (*Parus atricapillus*). MARGARET BRITTINGHAM and STANLEY TEMPLE, Dep. Wildl. Ecol., Univ. Wisconsin, Madison.

Population numbers, distribution, and movement patterns of the endangered Brown Pelican in the Puerto Rican Bank region, 1980-83. JAIME A. COLLAZO and ERWIN E. KLAAS, Dep. Animal Ecol., Iowa State Univ., Ames.

Seasonal changes in bird populations along an elevational gradient, La Selva-Braulio Carillo extension, Costa Rica. BETTE A. LOISELLE, Dep. Zool., Univ. Wisconsin, Madison, and JOHN G. BLAKE, Nat. Resources Res. Inst., Univ. Minnesota, Duluth.

Nonhunting mortality of postbreeding Wood Ducks in north Alabama. JOHN D. THOMPSON and GUY A. BALDASSARRE, Dep. Zool.-Entomol. & Alabama Agric. Exp. Stat., Auburn Univ., Auburn, AL.

An analysis of observer differences in the Breeding Bird Survey. JOHN R. SAUER, SAM DROEGE, and DANNY BYSTRAK, Office Migratory Bird Manage., U.S. Fish & Wildl. Serv., Laurel, MD.