

Non-breeding behaviors as they relate to the affinities of the thrush genus *Hylocichla*. KEVIN WINKER, Univ. Minnesota, Bell Mus. Nat. Hist., Minneapolis, and JOHN H. RAPPOLE, Texas A&I Univ., Caesar Kleberg Wildl. Res. Inst., Kingsville.

Distribution and relative abundance of migrants in southeastern Peru. JOHN W. FITZPATRICK, Bird Div., Field Mus. Nat. Hist., Chicago, IL, and SCOTT K. ROBINSON, Illinois Nat. Hist. Surv., Urbana.

Closing remarks. JOHN H. RAPPOLE

## IB. SYMPOSIUM

### EVOLUTIONARY SIGNIFICANCE OF GEOGRAPHIC VARIATION

Robert M. Zink and George F. Barrowclough, Convenors

Opening remarks. ROBERT M. ZINK

The relevance of geographic variation to avian speciation: the secrets of allopatry. NED K. JOHNSON, Mus. Vert. Zool. & Dep. Zool., Univ. California, Berkeley.

Geographic variation in birds: selection, environmental induction or epigenetics? ALLAN J. BAKER, Dep. Ornithol., Royal Ontario Mus., Toronto, ON, Canada.

Geographic variation in birds: issues and directions. ROBERT M. ZINK, Mus. Zool., Louisiana State Univ., Baton Rouge.

Population structure and intraspecific phylogenies. JOHN C. AVISE, Dep. Genet., Univ. Georgia, Athens.

Geographic variation in the Spotted Owl, *Strix occidentalis*. GEORGE F. BARROWCLOUGH, Dep. Ornithol., Am. Mus. Nat. Hist., New York, NY.

Closing remarks. FRANCES C. JAMES

## TUESDAY AFTERNOON, 19 AUGUST

### IIA. MATING & PARENTAL INVESTMENT

Martin L. Stephens, Chr.

\*Sexual selection in the Pinyon Jay (*Gymnorhinus cyanocephalus*). KRISTINE JOHNSON, Dep. Biol., Univ. New Mexico, Albuquerque.

\*Sex differences in defense of eggs and nestlings by Northern Mockingbirds (*Mimus polyglottos*). RANDALL BREITWISCH, Dep. Biol., Univ. Miami, Coral Gables, FL.

Seasonal changes in bill length in White-crowned Sparrows. MARTIN L. MORTON, Dep. Biol., Occidental Col., Los Angeles, CA.

Distribution of offspring defense among families by polyandrous female Northern Jacanas (*Jacana spinosa*). MARTIN L. STEPHENS, Humane Soc. of U.S., Washington, DC.

Vocal responses of Tree Swallows (*Iridoprocne bicolor*) to models of nest predators. BRADLEY M. GOTTFRIED, Dep. Biol., Armstrong State Col., Savannah, GA.

Secondary sex ratios of nestling Golden Eagles (*Aquila chrysaetos*). MICHAEL W. COLLOPY and THOMAS C. EDWARDS, JR., Dep. Wildl. & Range Sci., Univ. Florida, Gainesville, and MICHAEL N. KOCHERT and KAREN STEENHOF, Boise District, Bur. Land Manage., Boise, ID.

The adaptive significance of creching behavior in the White-winged Scoter. F. P. KEHOE, Dep. Zool., Univ. Guelph, Guelph, ON, Canada.

Nesting phenology and competition among Red-headed and Red-bellied woodpeckers and European Starlings for nest sites in east-central Mississippi. DANNY J. INGOLD, Dep. Biol. Sci., Mississippi State Univ., Mississippi State.

The role of male aggression and female location in determining spatial organization and mating success of male Sharp-tailed Grouse (*Tympanuchus phasianellus*) in southeastern Montana. HANS LANDEL, Dep. Biol. Sci., Purdue Univ., W. Lafayette, IN.

Nest site selection in Acorn Woodpeckers. MARK T. STANBACK, PHILIP N. HOOGE, and WALTER D. KOENIG, Hastings Nat. Resource Reservation, Carmel Valley, CA.

Extra-pair copulations in the Indigo Bunting: who gets them and how? DAVID F. WESTNEAT, Dep. Biol., Univ. North Carolina, Chapel Hill.

\* Student eligible for a Student Presentation Award.