
**COOPER ORNITHOLOGICAL SOCIETY
75TH ANNUAL MEETING**

**du Bois Conference Center
Northern Arizona University**

30 APRIL – 3 MAY 2003

Program and Abstracts of Presented Papers and Posters



Sponsored by:

U.S. GEOLOGICAL SURVEY, SOUTHWEST BIOLOGICAL SCIENCE CENTER,
COLORADO PLATEAU FIELD STATION
NORTHERN ARIZONA UNIVERSITY
U.S. FOREST SERVICE ROCKY MOUNTAIN RESEARCH STATION
NORTHERN ARIZONA AUDUBON SOCIETY

SESSION IVA: HABITAT RELATIONS & SELECTION

3:30 p.m. - 5:00 p.m.

Ballroom

Chair: **Dustin Becker**, Department of Forestry and Recreation Resources, Kansas State University

- 3:30 p.m. (63) USING DISCRIMINANT ANALYSIS OF SIGNATURE CALLS TO SYNONOMIZE INDIVIDUALS IN "OBSERVE-REOBSERVE" STUDIES. ARCHIBALD McCALLUM, and Melanie Steinkamp.
- 3:45 p.m. 64* NEST-SITE SELECTION AND NESTING SUCCESS OF THE WINTER WREN IN DOUGLAS-FIR (*Pseudotsuga menziesii*) - WESTERN HEMLOCK (*Tsuga heterophylla*) FORESTS OF THE SOUTHWEST CASCADE MOUNTAINS, WASHINGTON. JENNIFER SOULES.
- 4:00 p.m. (65*) POST-BREEDING HABITAT CONSIDERATIONS FOR MATURE FOREST BIRDS. ANDREW VITZ and Amanda Rodewald.
- 4:15 p.m. (66*) MULTI-SCALE HABITAT SELECTION AND ITS REPRODUCTIVE CONSEQUENCES FOR THE PLUMBEOUS VIREO IN A CHANGING LANDSCAPE. JAMES BATTIN and Thomas D. Sisk.
- 4:30 p.m. (67*) SOUTHWESTERN WILLOW FLYCATCHER HABITAT SELECTION ON THE SOUTH FORK KERN RIVER, CALIFORNIA. SYLVIA L. COPELAND, James D. Fraser, and Mary J. Whitfield.
- 4:45 p.m. (68*) PATCH-LEVEL EFFECTS ON NEST-SITE SELECTION AND NESTING OUTCOME FOR THE SOUTHWESTERN WILLOW FLYCATCHER IN THE UPPER GILA RIVER VALLEY, NEW MEXICO. KATHERINE M. BRODHEAD.

poster
monocular
vision

SESSION IVB: POPULATION BIOLOGY

3:30 p.m. - 5:00 p.m.

Fremont

Chair: **Barbara Kus**, USGS Western Ecological Research Center

- 3:30 p.m. 69 EXPERIMENTAL APPROACHES TO MODELLING DEUTERIUM FRACTIONATION IN BIRDS: EFFECTS OF HEAT STRESS AND WATER FLUX. ANDREW E. McKECHNIE, Blair O. Wolf, and Carlos Martínez del Rio.
- 3:45 p.m. (70) DEMOGRAPHICS FOR WILLOW FLYCATCHERS IN THE CENTRAL SIERRA NEVADA, CALIFORNIA: 1997-2002. HELEN L. LOFFLAND, Michael L. Morrison, James W. Cain, Denise E. Soroka. nest loss almost all predation. < 10% parasitism
- 4:00 p.m. (71) BROWN-HEADED COWBIRD PARASITISM IN THE MIDDLE RIO GRANDE BASIN OF NEW MEXICO: ANNUAL VARIATION AND EFFECTS OF TRAPPING. S. DAVID MOORE and Darrell D. Ahlers.
- 4:15 p.m. 72 LINKING FREQUENCIES OF ACORN MASTING IN TEMPERATE FORESTS TO LONG-TERM GROWTH RATES IN THE VEERY (*CATHARUS FUSCESCENS*). KENNETH A. SCHMIDT.
- 4:30 p.m. 73* GROWTH AND SYMMETRY IN MOUNTAIN BLUEBIRD NESTLINGS. HARRY W. POWER.
- 4:45 p.m. (74) ARIZONA BALD EAGLE DEMOGRAPHIC MODEL PREDICTS A DECLINE WHEREAS BREEDING ADULT COUNTS ARE INCREASING. LINDA J. ALLISON, James Driscoll, and Kenneth Jacobson.

no double brood declines since 1947.

trapped sites were not different in parasitism

3 1/2 cm slot

73* GROWTH AND SYMMETRY IN MOUNTAIN BLUEBIRD NESTLINGS.

HARRY W. POWER, Department of Ecology, Evolution and Natural Resources, Rutgers University, New Brunswick, NJ.

Bluebird nestlings were sexed and measured for body mass, left and right tarsus length, and left and right wing length during 6 breeding seasons (1997-2002) in central Montana. There was no sexual dimorphism in any mensural character nor in tarsus or wing symmetry. These results suggest that male and female nestlings have equivalent rates of growth, symmetry, and condition at fledging, but are inconsistent with the hypothesis that parents of either sex favor one gender of nestling over the other in the distribution of parental care. First brood nestlings were heavier, and had longer wings and greater wing symmetry than nestlings in later broods. However, tarsus length and symmetry were unaffected by brood types or temporal location in the breeding season. These results are consistent with the hypothesis that rearing conditions deteriorate as the breeding season progresses, but that skeletal development is highly canalized while wing development and symmetry are not. Degree of wing development and symmetry at fledging may be the best predictors of fledging survival.

4:30 PM Friday, 2 May 2003

74 ARIZONA BALD EAGLE DEMOGRAPHIC MODEL PREDICTS A DECLINE WHEREAS BREEDING ADULT COUNTS ARE INCREASING.

LINDA J. ALLISON, Arizona Game and Fish Department, Phoenix, AZ 85023. James Driscoll, AGFD, Phoenix, AZ 85023. Kenneth Jacobson, AGFD, Phoenix, AZ 85023.

In Arizona, Bald Eagles have been FWS banded since 1977, and color-banded since 1987, a program that has been run by AGFD since 1991. Banding of nestlings each year since 1987 has been preceded by aerial surveys to estimate productivity, detect new breeding areas, and count breeding adults. Although counts of breeding adults increased 4% per year over this period, productivity and survivorship estimates led to a model of population dynamics that predicted the population was declining. The mark-resight analysis also generated age-specific resighting rates at breeding areas, which we translated into age-specific breeding probabilities, and used these to estimate the number of non-breeders (floaters) in the population. We speculate that the breeding segment has recently been recruiting from the floating segment at a more rapid rate than in the past, which would explain the discrepancy in behavior of the breeding segment compared to projections over all age classes. This interpretation implies that factors limiting population growth may have changed over the period of this study.

4:45 PM Friday, 2 May 2003

75 WINTER WREN BREEDING ECOLOGY IN MANAGED FORESTS OF WESTERN WASHINGTON.

NICHOLAS A. PALAZZOTTO, College of Forest Resources, University of Washington, Seattle, WA.

In the Pacific Northwest, concern over declines in old-growth forest cover and the loss of biodiversity have led to the development of a variety of alternative timber management strategies designed to foster late-seral habitat features, and maintain or enhance biodiversity. Such alternative timber management strategies need evaluation of their efficacy in promoting late-seral attributes (e.g. coarse woody debris) in managed forests. The winter wren (*Troglodytes troglodytes*), an understory insectivore, and permanent resident in Pacific Northwest Douglas-fir forests, reaches its highest densities in mature and old-growth forests, and is thought to be associated with coarse woody debris. Winter wren ecology in North America has not been well-studied. Existing research indicates considerable variation in breeding ecology both within and among regions. In the summer of 2002, I compared winter wren abundance and reproductive success under three timber management strategies in forest stands on Fort Lewis Military Reservation, Washington, to evaluate the relative habitat quality of each management strategy, and identify species-specific habitat variables that may affect breeding ecology. All stands were between 65 and 75 years old. In Legacy Unthinned stands, numerous large live trees, snags, and downed logs were retained at harvest with no subsequent management. Conventionally-Thinned stands were clearcut and conventionally-thinned twice to promote tree growth. Thinned Mosaic stands were clearcut, conventionally-thinned twice, and variable-density thinned with subsequent underplanting to accelerate development of late-seral attributes. Winter wrens were significantly more abundant on Legacy Unthinned stands than on Thinned Mosaic stands. Reproductive success was significantly higher on Legacy Unthinned stands than on either Thinned stand types. Rates of polygyny, and use of coarse woody debris as a nest substrate were also substantially higher on Legacy Unthinned stands. Wrens on Conventionally-Thinned and Thinned Mosaic stands nested in ferns more than any other substrate type. These preliminary data suggest strong differences in the relative habitat quality provided under these management strategies which may be related to differences in relative cover of species-specific habitat attributes, particularly coarse woody debris.

8:30 AM Saturday, 3 May 2003