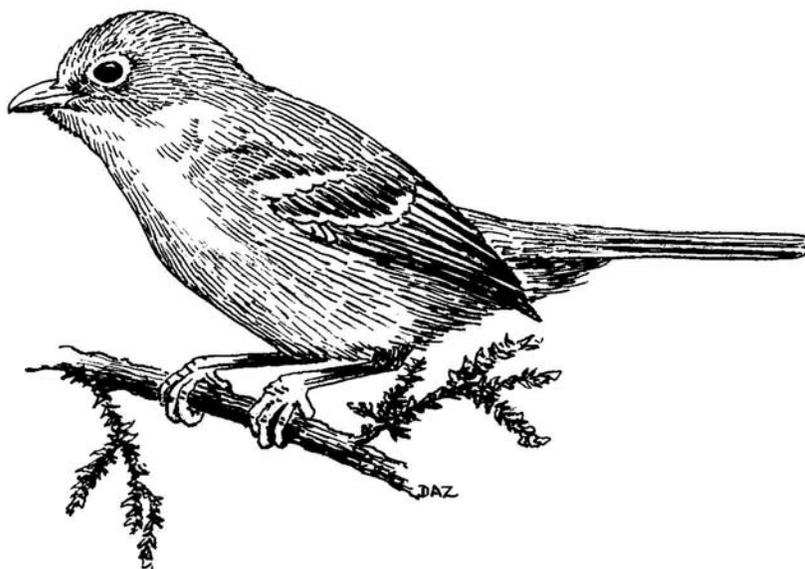


New Mexico Ornithological Society
45th Annual Meeting

5 May 2007

Camp Washington Ranch and Retreat
Eddy County, NM

Program and Abstracts



**New Mexico Ornithological Society - 45th Annual Meeting
Camp Washington Ranch and Retreat**

Schedule of Events

Thursday 3 May 2007

4:45 pm Cave Swallow Banding Demonstration with Steve West. Meet at Carlsbad Caverns Cave entrance no later than 4:45 PM

Friday 4 May 2007

2:00 – 5:00 pm Annual Board of Directors Meeting (open to all members) at Camp Washington Ranch & Retreat

4:00 pm onward Social at Camp Washington Ranch & Retreat (pre-paid)

4:45 pm Cave Swallow Banding Demonstration with Steve West at Carlsbad Caverns

7:30 pm Dinner at Camp Washington Ranch & Retreat (pre-paid)

Saturday 5 May 2007

Morning birding on your own (sunrise is at 6:07 AM in Carlsbad)

7:00 – 8:00 am Breakfast at Camp Washington Ranch & Retreat (pre-paid)

8:30 am – noon Registration

9:00 – 10:00 am Annual Business / Membership Meeting at Camp Washington Ranch & Retreat (open to all members)

10:00 – 10:30 am Break and prep for paper session

10:30 – 11:00 am Welcome, Introductions and Announcements – President Roland Shook

11:00 – 11:45 am Paper Session 1 – Co-chairs Rob Doster and Dave Krueper

12:00 – 1:30 pm Lunch (either on your own or at the dining facilities at Camp Washington Ranch & Retreat) (pre-paid)

1:30 – 2:30 pm Paper Session 2 – Co-chairs Rob Doster and Dave Krueper

- 2:30 – 3:00 PM Break
- 3:00 – 4:30 PM Paper Session 3 and wrap-up – Co-chairs Rob Doster and Dave Krueper
- 6:30 PM NMOS Banquet at Camp Washington Ranch & Retreat (pre-paid)
- 8:00 PM Featured speaker Steve West will be presenting “28 Years of Underground Bird Study”

Sunday 6 May 2007

Morning birding on your own. Sunrise will be at 6:06 AM in Carlsbad, N.M.

- 7:00 – 8:00 am Breakfast at Camp Washington (pre-paid)
- 4:45 PM Cave Swallow Banding Demonstration with Steve West

Abstracts (in order of presentation)

BIRDS OF THE MELROSE MIGRANT TRAP, ROOSEVELT COUNTY, NEW MEXICO. John E. Parmeter, jp972@earthlink.net.

Since its discovery by birders in the spring of 1991, the Melrose Migrant Trap has been one of the state's most heavily birded locations. This talk will present an overview of the avifauna of this oasis, which is located on State Trust Land approximately ten miles west of the town of Melrose and just north of US Highway 60. Through 2006, a total of 246 species – nearly 48% of all species recorded in New Mexico - have been found at this location. This total includes 43 species that have been found at the trap only once, 17 that have been found twice, 36 that have been found three to five times, and 150 that have been found six or more times. The list of 43 species recorded only once includes nine water birds, ten montane and foothill species, nine eastern vagrants, two western vagrants, two Mexican vagrants, and eleven others that are not easily categorized. A total of 37 species that are on the review list of the New Mexico Bird Records Committee have been recorded at the trap. There have been approximately 152 records of review list species that have been documented either by hard evidence (photos, videotape) or by substantive written details. These records are nearly equally divided between spring and fall. The number of records of rarities has increased in recent years as coverage has increased. In the five years from 2002-2006 the trap averaged 19 documented records of review list species per year ($\sigma = 7.6$), with a high of 31 such records in 2005 and a low of 12 in 2003. Length-of-stay analysis indicates that ca. 73% of these rarities are seen only on a single day, with fall birds being only slightly more likely than spring birds to stay longer.

A PRELIMINARY DISTRIBUTIONAL ANALYSIS OF PUBLISHED BIRD RECORDS FROM THE GILA RIVER VALLEY OF NEW MEXICO. Roland S. Shook (*presenting*) and Dale A. Zimmerman, Dept. of Natural Sciences, Western New Mexico University, Silver City, NM 88061, tyranidae@hotmail.com.

The New Mexico bird records published in *Birds of New Mexico* by Florence M. Bailey, Revised Check-list of the Birds of New Mexico by John P. Hubbard, the New Mexico Ornithological Society's Field Notes, and National Audubon Society's Audubon Field Notes and successive publications will be analyzed as to their distribution from the Arizona border to the upper reaches of the West, Middle, and East Forks of the Gila River. Analysis will show which portions of the Gila River Valley have been historically studied, and to what degree, as well as, which portions are lacking in documentation of the avifauna.

LANDBIRD SURVEYS DURING FALL MIGRATION IN THE BIG BURRO MOUNTAINS, GRANT COUNTY, NEW MEXICO, 2006. David J. Griffin. Griffin Biological Services, 2311 Webb Road, Las Cruces, New Mexico 88012, griffinbio@msn.com.

Avian surveys were conducted between 11 August and 13 October, 2006 using distance sampling and the point transect method to determine densities of fall migrant landbirds in the Big Burro Mountains, New Mexico. Forty-nine species were detected during surveys and an additional 25 species were observed incidental to surveys. Eight species (16.3%) were considered to be long-distance Neotropical (“passage”) migrants, 5 species (10.2%) were considered short-distance (“temperate”) migrants, and 37 species (75.5%) were considered breeding residents (note: the total adds up to 50 due to the presence of both breeding and wintering migrant forms of Dark-eyed Junco). Additionally, 2 temperate migrants were considered to be winter residents in the Big Burro Mountains. The timing of migration for both passage and temperate migrants was spread relatively evenly throughout the survey period, however the number of passage migrant species peaked during the first 4 survey periods (12 August to 1 September), while temperate migrant species peaked during the last four survey periods (22 September to 13 October). Migrant abundances during surveys accounted for 7% to 38% of all birds observed throughout the survey period (mean = 17.6% of all birds/survey). Due to small sample sizes for all migrant landbirds, reliable density estimates could not be generated. Sample sizes were small for most resident bird species as well and density estimates were generated for only the 5 most abundant resident species (i.e., Hairy Woodpecker, Northern Flicker, Steller’s Jay, White-breasted Nuthatch, and Mountain Chickadee). Summaries of abundance were reported for the most abundant migrants.

RE-EVALUATING THE EVALUATION OF AERIAL SURVEY METHODS FOR LESSER PRAIRIE-CHICKENS IN TEXAS AND NEW MEXICO. Hope D. Woodward, Dept. of Biology, New Mexico State University, Las Cruces, NM 88003, towi@nmsu.edu.

Since the 1800s, the range-wide population of Lesser Prairie-Chicken (*Tympanuchus pallidicinctus* - LPCH) has declined by 92%. The species became a candidate for protection under the Federal Endangered Species Act in 1998. Efforts to document total number of active breeding display sites (leks’ indices of population) in the Texas south plains have been hindered by inaccessibility. Under the assumption that detection probability results from conducting aerial surveys over known active leks in one habitat type (shinnery oak- or sandsage- dominant) can be extrapolated to unsurveyed areas of similar habitat, in 2005 researchers began evaluating aerial survey methods as an alternative to conducting ground surveys on inaccessible private land. Detection probability results from individual helicopter surveys conducted during the 2006 pilot year ranged from 14% to 67%. The majority of lek detections were made over anthropogenic sites. I argue that this method is overly simplistic and based on a flawed set of assumptions. Given that the main goal of such research is to estimate numbers of

leks on unsurveyed and inaccessible land where leks are presumed to exist, I propose a GIS-based approach that considers known lek numbers and locations, remote sensing, landscape, land use, habitat, and ecological and biological variables (including known lek occurrence) to create a predictive model for lek occurrence. Such a sophisticated habitat suitability model can then be tested on land units managed for LPCH. Detection probability analyses should incorporate lek density, area, and type and observer efficiency and visibility indices.

LANDSCAPE EFFECTS ON ABUNDANCE AND MOVEMENT PATTERNS OF WINTERING RED-TAILED (*Buteo jamaicensis*) AND FERRUGINOUS (*Buteo regalis*) HAWKS IN EASTERN NEW MEXICO. Holly A. Marchman (*presenting*), and Greg S. Keller, Dept. of Biology, Eastern New Mexico University, Portales, NM 88130, holly.marchman@enmu.edu.

Populations of red-tailed (*Buteo jamaicensis*) and ferruginous (*Buteo regalis*) hawks currently are declining in short-grass prairie of eastern New Mexico. These raptor species are important due to their response to human disturbance and fragmentation of their habitats and their role as predators on small mammals. Research has mainly focused on breeding success and territory acquisition, yet there is a substantial need for winter data of hawks as a source of basic scientific knowledge. Some raptors adjust to various levels of disturbance in different ways. We will examine on a landscape level, if fragmentation of natural grasslands affects habitat use, movement, and condition of hawks during winter 2006-08. Raptors will be surveyed at points located along 4-km transects in active cropland, pasture, and natural grasslands to estimate abundance. We will capture red-tailed and ferruginous hawks and attach transmitters to radio track individuals. Physiological data will be taken to assess several factors including fat stores and parasite load. Given the ecological role of these two raptor species, understanding winter population status and individual condition is critical to conservation of these species in New Mexico.

MOUNTAIN PLOVERS IN TAOS COUNTY, NEW MEXICO. Mike M. Stake, Hawks Aloft, Inc., P.O. Box 10028, Albuquerque, New Mexico, 87184, mstake@hawksaloft.org

A sizeable Mountain Plover (*Charadrius montanus*) population breeds on the Bureau of Land Management's North Unit in northern Taos County, New Mexico. Initial monitoring determined general distribution patterns for Mountain Plovers on the North Unit, but a standardized method of estimating density and population size was needed. Beginning in 2004, we employed distance sampling with a model-selection approach to calculate density, estimate population size, and determine temporal changes. We surveyed off-road transects in July of 2004, but failed to record a sufficient number of

plovers to calculate density. We modified our methods in 2005 and 2006 by conducting roadside point count surveys earlier in the season. Using point counts with the same model-selection approach, we calculated a density of 1.9 plovers/km². Projecting plover density on the entire 50,000-ha site yields an estimated population of 950 plovers, whereas projecting the density only on documented habitat from 2001-2006 yields an estimate of 146 plovers. We suggest that the true population size currently resides between those figures. Continued point count monitoring will help identify any changes in Mountain Plover density. Although Mountain Plover density on the North Unit is considerably less than densities reported for populations in other regions, the large size of the North Unit, along with BLM management practices that generally support the continued existence of plovers, makes this a valuable site for Mountain Plover conservation in New Mexico.

BIOLOGICAL REVIEW OF THE GRAY VIREO IN NEW MEXICO. John P. DeLong (*presenting*), Eagle Environmental, Inc., 2314 Hollywood Ave NW, Albuquerque, NM 87104, and Sartor O. Williams, III, New Mexico Department of Game and Fish, P.O. Box 25112, Santa Fe, NM 87504, jpdelong@comcast.net

We compiled published and unpublished records of Gray Vireos in the state of New Mexico and produced an overview of the distribution, status, and biology of the species in the state. We identified 49 population sites in 20 of New Mexico's 33 counties and estimated a maximum number of documented territories at 418. The largest known concentrations in the state are located in the Guadalupe Mountains (92 territories), Manzanita Mountains (60), Navajo Dam area (44), Caja del Rio area (25), and the Quebradas area (25); smaller but significant concentrations (10 to 17 territories) are in the Organ Mountains, San Andres NWR, the La Plata area, the Ladron Mountains, the Counselor area, near Glenwood, and in the vicinity of Zuni. Gray Vireos breed in pinyon pine-Utah juniper woodlands, one-seed juniper savannas, mixed juniper-oak woodlands, and desert riparian communities. Gray Vireos typically nest in juniper trees, although other tree and shrub species are used. The breeding phenology of Gray Vireos in New Mexico is: nest construction from late April through late June, incubation from early May through mid-July, hatching from mid-May through late July, and fledging from late May through early August. Breeding success is low in the state (usually 33%), in large part due to abandonment following brood-parasitism by the Brown-headed Cowbird. Parasitism rates are usually more than 50%, ranging 0-71%. Threats to the species include habitat loss, disturbance from construction and development, habitat alteration from livestock grazing, and Brown-headed Cowbird brood parasitism.

ABUNDANCE AND DISTRIBUTION OF ARIZONA GRASSHOPPER SPARROW (*Ammodramus savannarum ammoregus*): CURRENT AND HISTORICAL SURVEYS. Janet M. Ruth, U. S. Geological Survey, UNM Biology Department, Albuquerque, NM 87131, janet_ruth@usgs.gov

The Arizona Grasshopper Sparrow is a subspecies that breeds in desert grasslands of southeastern Arizona and southwestern New Mexico in the United States, and in adjacent parts of northern Sonora and Chihuahua, Mexico. Roads surveyed in 1982 and 1987 in Arizona and New Mexico were relocated and roadside survey protocols were repeated in 2004 and 2005 to identify changes in distribution or abundance of the subspecies in the subsequent 17 years, particularly in light of potential habitat degradation or losses during that time. Both numbers of singing males, and mean singing male density (number of singing males per survey point) show a pattern of increase from 1982 to 1987 and a subsequent decline to the present. Present bird numbers/density are intermediate in value between 1982 and 1987 values. The Sonoita and San Rafael valleys in Arizona, and the Animas Valley in New Mexico remain the areas supporting both the greatest numbers and densities of Arizona Grasshopper Sparrows in the United States. Small populations remain in the Altar, Sulphur Springs, San Bernardino and San Pedro valleys in Arizona.