

NMOS BULLETIN

**NEW MEXICO
ORNITHOLOGICAL
SOCIETY**



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NEW MEXICO ORNITHOLOGICAL SOCIETY
42nd Annual Meeting
Albuquerque, New Mexico
Saturday, 3 April 2004

8:30 - noon. Registration

8:30 - 9:00. Poster Set-up

9:00 - 9:50. Membership Meeting and Election of Officers

10:00 - noon. Paper Session I

Chair: Dr. Kris Johnson, Natural Heritage New Mexico

See list of speakers on reverse.

Noon - 1:20. Lunch On Your Own

The hotel has a restaurant. Information on local restaurants is available at the Registration Desk.

1:20 - 5:35. Paper Session II

Chair: Dr. Kris Johnson, Natural Heritage New Mexico

See list of speakers on reverse.

5:35 - 6:00. Poster Session

Posters will also be available for viewing during breaks.

See abstracts in the program section.

6:30 - 8:00. Banquet. Airport University Inn Ballroom.

8:00. Featured Speaker, Airport University Inn Ballroom.

Dr. Terry Root, "The Globe Is Warming, But Many Birds Aren't"

It is not necessary to attend the banquet in order to attend the speaker's presentation.



List of Speakers

10:00 - noon. Paper Session I

Chair: Dr. Kris Johnson, Natural Heritage New Mexico

10:00 - 10:25 **Relative Abundance Estimates from Breeding Bird Atlas Observations at Bandelier National Monument.** Fetting, S.M., Bandelier National Monument, Los Alamos, NM.

10:25 - 10:50 **Breeding Bird Population Changes in the Gila River Bird Area.** Shook, R.S., Western New Mexico University, Silver City, NM.

10:50 - 11:10. Break

11:10 - 11:35 **Raptor Population Trends in the Rio Grande Corridor and the Estancia Valley, New Mexico.** Stake, M, Kellermueller, R, And Garber, GL, Hawks Aloft, Inc., Albuquerque, NM.

11:35 - 12:00 **Section-Based Monitoring of Breeding Birds within the Shortgrass Prairie Bird Conservation Region (BCR 18).** Hanni, D.J., And M.M. McLachlan, Rocky Mountain Bird Observatory, Brighton, CO.

1:20 - 5:35. Paper Session II

Chair: Dr. Kris Johnson, Natural Heritage New Mexico

1:20 - 1:45 **Evaluation of New Mexico Waterfalls for Suitability for Black Swift Nesting.** Levad, R., Rocky Mountain Bird Observatory, Grand Junction, CO.

1:45 - 2:10 **Response of Spotted Towhees and Bewick's Wren to Increased Understory Vegetation in the Disturbed Cottonwood Woodland at the Rio Grande Nature Center State Park.** Cox, S., Rio Grande Bird Research, Inc., Albuquerque, NM.

2:10 - 2:35 **"If You Build It, They Will Come": Burrowing Owl Use of Translocated Black-tailed Prairie Dog Colonies.** Ostheimer, T., and D. Long, Eagle Environmental, Inc., Albuquerque, NM.

2:35 - 2:50 Break

2:50 - 3:15 **Distribution Patterns, Survival, and Time-Activity Budgets of Northern Pintail (*Anas acuta*) Wintering in New Mexico and Chihuahua, Mexico.** Lee, C. K. and J. P. Taylor, Bosque del Apache National Wildlife Refuge, Socorro, NM

3:15 - 3:40 **Comparison of High and Low Elevation Migratory Bird Stopover During Fall Migration in Central New Mexico.** DeLong, J.P., S.W. Cox, And N.S. Cox, Rio Grande Bird Research, Inc., Albuquerque, NM.

3:40 - 4:05 **Autumn Stopover near the Gulf of Honduras by Nearctic-Neotropic Migrants.** Johnson, A*. And K. Winker, University Of Alaska Museum, Fairbanks, AK.

4:05 - 4:20 Break

4:20 - 4:45 **Timing of Yellow-Billed Cuckoo Calls: Facilitating Feeding or Random Noise?** Woodward, H.D., New Mexico State University, Las Cruces, NM.

4:45 - 5:10 **The Rocky Mountain Bird Observatory-Past, Present, and Future.** Palmer, W., Rocky Mountain Bird Observatory, Brighton, CO.

5:10 - 5:35 **Drought Reduces Avian Cell-Mediated Immune Response.** Fair, J.M., Los Alamos National Laboratory, Los Alamos, NM.

ABSTRACTS OF PRESENTATIONS (in order of presentation)

RELATIVE ABUNDANCES ESTIMATES FROM BREEDING BIRD ATLAS OBSERVATIONS AT BANDELIER NATIONAL MONUMENT. Fettig, S.M., Bandelier National Monument, HCR 1, Box 1, Suite 15, 947 Quartz Street, Los Alamos, NM 87544. The New Mexico Breeding Bird Atlas project is a sampling survey to record the current relative abundance and distribution of breeding bird species across the state. Observations are documented within 5-km x 5-km blocks. Data collection for an atlas block is complete when 50% of the potential breeding species observed in the block have been confirmed as breeding. Relative abundance estimates are based on two-hour species counts recorded for a minimum of 8 of the 25 1-km x 1-km subunits within each block. During 2000-2003, breeding bird atlas field observers visited 10 blocks at Bandelier National Monument. Of these, 7 blocks have been completed. Relative abundance counts have been completed for 74 subunits. Observers have recorded 108 potential breeding species, of which 68 have been confirmed; observations suggest that 9 additional species are probable breeding, and 15 additional species are possible breeding. Western Tanager, Western Bluebird, and Pygmy Nuthatch are the most confirmed species with confirmed breeding in 7 or more of the 10 blocks, while Ladder-backed Woodpecker, Rufous-crowned Sparrow, and Indigo Bunting were only confirmed breeding in one block. Spotted Towhee, Chipping Sparrow, Western Tanager, and Violet-green Swallow showed some of the highest relative abundances (above 0.5500), while Zone-tailed Hawk, Yellow-breasted Chat, and Northern Pygmy-Owl are amongst the species with the lowest relative abundance estimates (0.0135). Observations documented intermediate relative abundance estimates for Partners in Flight Priority Species such as Virginia's Warbler (0.1892), Hammond's Flycatcher (0.1892), Dusky Flycatcher (0.2432), Gray Flycatcher (0.0946), Black-throated Gray Warbler (0.2297), and Grace's Warbler (0.2432). Special thanks go to Melanie Asaki, Brendan Gallagher, Linda Mowbray, Jo Osterhouse, Mary Ristow and Tom and Kathy Stephens, for providing over 650 hours of fieldwork yielding nearly 500 breeding observations, and more than 145 hours and 3800 miles in transportation to the project so far.

BREEDING BIRD POPULATION CHANGES IN THE GILA RIVER BIRD AREA. Shook, R.S., Department of Natural Science, Western New Mexico University, Silver City, NM 88061. The Gila River Bird Area, approximately 48 km west of Silver City, Grant Co., New Mexico, was established in 1970 by the Forest Service in order to preserve and restore prime riparian habitat. From 1995 through 1999, eight wetlands were constructed for stream bank stabilization and to create habitat for the endangered (Southwestern) Willow Flycatcher (*Empidonax trailii extimus*). Fencing was also constructed to manage cattle access. Beginning in 1996, periodic avian strip censuses have been conducted to measure changes in avian population numbers. Using linear regression analysis, I compared the average number of detections per km per breeding season for the years 1997 through 2003, for 21 breeding species

chosen to represent diversity in both taxonomic and habitat preference. The species chosen were: Mallard (*Anas platyrhynchos*) Common Black-Hawk (*Buteogallus anthracinus*), Wild Turkey (*Meleagris gallopavo*), Killdeer (*Charadrius vociferus*), Yellow-billed Cuckoo (*Coccyzus americanus*), Northern Flicker (*Colaptes auratus*), Western Wood-Pewee (*Contopus sordidulus*), (Southwestern) Willow Flycatcher, Black Phoebe (*Sayornis nigricans*), Brown-crested Flycatcher (*Myiarchus tyrannulus*), Bell's Vireo (*Vireo bellii*), Lucy's Warbler, Yellow Warbler (*Dendroica petechia*), Common Yellowthroat (*Geothlypis trichas*), Yellow-breasted Chat (*Icteria virens*), Summer Tanager (*Piranga rubra*), Northern Cardinal (*Cardinalis cardinalis*), Red-winged Blackbird (*Agelaius phoeniceus*), Hooded Oriole (*Icterus cucullatus*), Bullock's Oriole (*Icterus bullockii*), and Lesser Goldfinch (*Carduelis psaltria*). Results indicate significant increases in populations of Western Wood Pewees, Brown-crested Flycatchers, Bell's Vireos, Yellow-breasted Chats, and Northern Cardinals. The first two species are forest birds while the remainder prefers dense underbrush. Significant declines occurred in populations of Killdeer and Red-winged Blackbirds owing to decreases in their preferred habitat.

RAPTOR POPULATION TRENDS IN THE RIO GRANDE CORRIDOR AND THE ESTANCIA VALLEY, NEW MEXICO. Stake, M, Kellermueller, R, and Garber, GL, Hawks Aloft, Inc., P.O. Box 10028, Albuquerque, NM 87184. The Rio Grande corridor and the Estancia Valley in central New Mexico host a variety of breeding and wintering raptors. We conducted point counts from 1996 to 2003 to determine seasonal population trends in these regions. Wintering raptors, especially Red-tailed Hawk (*Buteo jamaicensis*), American Kestrel (*Falco sparverius*), and accipiters, were more numerous along the Rio Grande corridor. Breeding raptors, especially Swainson's Hawk (*Buteo swainsoni*) and Ferruginous Hawk (*Buteo regalis*), were more numerous in the Estancia Valley. Overall eight-year summer and seven-year winter trends were stable during these years; however, there were regional changes. The winter raptor population increased along the Rio Grande corridor, whereas the summer raptor population increased in the Estancia Valley. We also detected more raptors at points associated with fields and small farms (1.56 per point \pm 0.08) than at points associated with open desert (1.09 per point \pm 0.08) or urban areas (0.61 per point \pm 0.10). Our results suggest the importance of field habitat for raptors in central New Mexico, especially in the winter in the Rio Grande corridor and in the summer in Estancia Valley.

SECTION-BASED MONITORING OF BREEDING BIRDS WITHIN THE SHORTGRASS PRAIRIE BIRD CONSERVATION REGION (BCR 18). Hanni, D.J., and M.M. McLachlan, Rocky Mountain Bird Observatory, Brighton, CO 80603. In 2003, Rocky Mountain Bird Observatory (RMBO) implemented a grassland bird monitoring program within the shortgrass prairie regions of five western states (Nebraska, Colorado, Kansas, New Mexico, and Oklahoma) and on three National Grasslands (Comanche, Kiowa, and Rita Blanca). The objective of this program is to monitor population trends and distributions of grassland birds within the Shortgrass

Prairie Bird Conservation Region (BCR 18) using section-based surveys. A section (1mi²) is the basic land management unit of the prairie. The section-based survey was determined to be the most efficient and effective method for surveying and monitoring grassland birds. We surveyed 2,992 sections across the study area between 10 May and 3 July 2003. Sections were stratified by habitat then randomly selected for survey in proportion to habitat acreage in each state – 2,309 sections of native prairie habitat, 614 of dryland agriculture habitat, and 69 of land in CRP. We observed 133 bird species across the study area, including 40 species of concern, as recognized by Partners In Flight and/or the participating state and federal agencies. We calculated density estimates for 46 species, stratified by management unit, habitat type, and percent shrub cover. Included among these species are 23 species of concern, as recognized by Partners In Flight and/or the participating state and federal agencies. Of the 46 species, 37 had highest densities in native prairie habitat, 10 in dryland agriculture habitat, and one in land in CRP. We created distribution and index of abundance maps for 71 species. Within the BCR 18 portion of New Mexico, we surveyed 660 sections – 632 sections of native prairie habitat, 23 of dryland agriculture habitat, and 5 of land in CRP. We observed 75 species, including four species of concern, as recognized by New Mexico Department of Game and Fish. We calculated density estimates for 30 species, stratified by habitat type. Nineteen species occurred in highest density in the BCR 18 portion of New Mexico relative to the other states and management units; eighteen in native prairie habitat and one in dryland agriculture habitat.

EVALUATION OF NEW MEXICO WATERFALLS FOR SUITABILITY FOR BLACK SWIFT NESTING. Levad, R., Rocky Mountain Bird Observatory, Grand Junction, CO 81503. Black Swift is listed as a species of conservation concern in nearly all states where it occurs; however, over much of its range little is known of its exact nesting locations or the actual size of its population. For the past five years, Rocky Mountain Bird Observatory has conducted studies in Colorado designed to more precisely define its range and population size. In 2003, these studies were extended into New Mexico under a grant from the Share With Wildlife program of the New Mexico Department of Game and Fish. We identified potential Black Swift nesting sites, surveyed a selection of those (ten sites), and evaluated them for suitability for Black Swift nesting. In the course of the surveys, we confirmed Black Swift nesting at one waterfall in the Pecos Wilderness, observed Black Swifts in the Chama area, and collected historical observations that suggest possible nesting at several other sites in Northern New Mexico as well as in the Gila Wilderness.

RESPONSE OF SPOTTED TOWHEES AND BEWICK'S WREN TO INCREASED UNDERSTORY VEGETATION IN THE DISTURBED COTTONWOOD WOODLAND AT THE RIO GRANDE NATURE CENTER STATE PARK. Cox, S., Rio Grande Bird Research, Inc., Albuquerque, New Mexico, 87107. The Rio Grande Nature Center State Park was constructed in 1982. The habitat at the time consisted of mature, disturbed cottonwood (*Populus fremontii*) with an understory of young to mature Russian olive (*Elaeagnus angustifolia*), and

agricultural fields. In order to build the RGNC, most of the understory was removed leaving only the larger cottonwoods. Over the next twenty years, the understory reestablished itself. The area now consists of a disturbed riparian woodland, of slightly older Rio Grande cottonwood, with a major under and mid-level story of Russian olive, and an understory of New Mexico privet (*Forestiera neomexicana*) and willow (*Salix* spp.). The agricultural fields adjacent to the woodland areas stayed relatively the same. Rio Grande Bird Research, Inc., started a long-term project in 1979 to document the species composition, timing, and age/sex structure of fall bird migration. For this analysis we compared the timing of Spotted Towhees (*Pipilo maculatus*) and Bewick's Wrens (*Thryomanes bewickii*) during our banding effort from 1983 to 2003. We found that during the first 10 to 12 years the earliest we would encounter them was early September. Then starting around the 12th year we would start encountering these two species as soon as we started our fall project, around the 1st of August. Most of the birds we banded during this twenty-year time frame were hatch year birds. However over the last five to eight years some of these birds were still in juvenal plumage. As both of species tend to prefer dense understory, it is our contention that with the increase in the understory in and around the RGNC, these species have established breeding populations at the RGNC.

“IF YOU BUILD IT, THEY WILL COME”: BURROWING OWL USE OF TRANSLOCATED BLACK-TAILED PRAIRIE DOG COLONIES. **Ostheimer, T., and D. Long, Eagle Environmental, Inc., Albuquerque, NM 87108.** Burrowing Owls typically occupy dry, open, short grass plains and are often associated with burrowing mammals, particularly black-tailed prairie dogs. Turner Enterprises, Inc. (TEI) and the Turner Endangered Species Fund are actively restoring native species such as black-tailed prairie dogs to historic sites on lands owned by TEI. Using translocation techniques at Vermejo Park Ranch, Colfax County, the total colony acreage of prairie dogs was increased from 203 ha in 1997 to 972 ha in 2003. The fact that Vermejo Park Ranch has both pre-existing (established prior to 1997) and translocated (1998-2002) black-tailed prairie dog colonies provides a unique opportunity to compare Burrowing Owl use of two types of colonies. This study examined whether Burrowing Owls have a preference for younger translocated colonies or older pre-existing colonies. In 2003, we surveyed for Burrowing Owl nests on 972 ha occupied by black-tailed prairie dog and found 71 nests, 39 on pre-existing colonies (603 ha) and 32 nests on translocated colonies (369 ha). The average size and age of translocated colonies was 12.7 ha (14.3 SD) and 3.5 years compared to 75.4 ha (SD 91.7) and >7 years for pre-existing colonies. Pre-existing colonies were older, significantly larger ($Z=3.43$; $P=0.00$), and had significantly more Burrowing Owl nests ($Z=3.54$; $P=0.00$). However, the density of nests on pre-existing (0.06 owl nests/ha) versus translocated (0.09 owl nests/ha) colonies was not significantly different. This data indicates that Burrowing Owls will breed in transplanted prairie dogs (as small as 1.7 ha). Land managers and conservationists can use this information to create and manage habitat for Burrowing Owls at a time when habitat loss, habitat degradation, and reduction of burrowing mammal populations are primary threats to Burrowing Owls across their North American range.

DISTRIBUTION PATTERNS, SURVIVAL, AND TIME-ACTIVITY BUDGETS OF NORTHERN PINTAIL (*Anas acuta*) WINTERING IN NEW MEXICO AND CHIHUAHUA, MEXICO. Lee, C. K. and J. P. Taylor, Bosque del Apache National Wildlife Refuge, U.S. Fish and Wildlife Service, Socorro, NM 87801; Daniel, D. L., University Statistics Center, New Mexico State Univ., Las Cruces, NM 88003; Andersen, M. C., Dept. Fishery and Wildlife Science, New Mexico State Univ., Las Cruces, NM 88003. Continental northern pintail (*Anas acuta*) population numbers have been >19% below the long term average for the last two decades. Since wintering ecology in specific geographic regions may be at least partially responsible for their continued low numbers, we investigated winter survival rates, time-activity budgets, and the dispersal and connectivity patterns of the pintail populations in the Middle Rio Grande Valley (MRGV) of New Mexico and the northern Mexican Interior Highland (MIH) of Chihuahua, Mexico. Dispersal of radio- and satellite-marked pintails showed that about 11% (max=33%) of the pintails in the MRGV during early winter emigrated to the MIH. In addition, approximately 50% of the marked pintails used Elephant Butte Reservoir during the winter and 15% used state waterfowl management areas in the upper MRGV. Overall survival estimates in each study year were 0.645 ± 0.090 SE (SY1) and 0.676 ± 0.087 SE (SY2). Our female survival estimates were 6.3-26.6% lower than published estimates for adult female pintails in four other geographic regions. Furthermore, mortality due to predation and/or disease was higher in our study areas than reported in other studies, while hunting mortality was fairly similar or lower. Activity patterns differed among most times of day for pintail flocks within regions, years, and months. While feeding and resting were the most common activities at BDA, resting and swimming were most common in the Cuauhtémoc Valley. The differences in activities in the Cuauhtémoc Valley reflect a pattern of strictly nocturnal foraging and the location of food resources away from their diurnal roosts. Courtship activities were higher in the Cuauhtémoc Valley than at BDA, but both areas showed less courtship than for pintail flocks in California, Texas, and Sinaloa, Mexico. We discuss management recommendations for pintails in the MRGV and MIH.

COMPARISON OF HIGH AND LOW ELEVATION MIGRATORY BIRD STOPOVER DURING FALL MIGRATION IN CENTRAL NEW MEXICO. DeLong, J.P., S.W. Cox, and N.S. Cox, Rio Grande Bird Research, Inc., 4426 San Isidro NW, Albuquerque, New Mexico 87107. The stopover ecology of migrating birds in southwestern riparian corridors has received considerable attention during the past decade. Here we investigate migratory bird use of high elevation habitats in central New Mexico (Capilla Peak in the Manzano Mountains), and we compare the fall migration bird community there with that of a riparian corridor site nearby (Rio Grande Nature Center State Park in Albuquerque). During 2001-3, we used mist-nets to capture birds, and we documented species richness, composition, and age structure of the migrants. We found greater species richness at the Rio Grande Nature Center State Park than Capilla Peak, both overall and for most migratory and local status subgroups. However, at Capilla Peak we captured more species of birds that may have had local origins at the montane site. Over the course of the study, capture rates were similar

between sites, but there was greater annual variation in capture rates at Capilla Peak than at the Rio Grande Nature Center State Park. For abundant species, the proportion of adults captured differed between sites, but these differences were not consistent across species. Several species were captured at higher rates at both sites, and some were captured strictly at one or the other site. Our data showed that both sites harbored many species in large numbers, and both riparian and montane habitats should be recognized for their importance as potential stopover sites for migrating birds.

AUTUMN STOPOVER NEAR THE GULF OF HONDURAS BY NEARCTIC-NEOTROPIC MIGRANTS. Johnson, A* and K. Winker, University of Alaska Museum, 907 Yukon Drive, Fairbanks, Alaska 99775. The southeastern Yucatan Peninsula hosts high numbers of transient Nearctic-Neotropical migrants during autumn migration, but the importance of this region during migratory stopover has not been addressed despite its proximity to the Gulf of Honduras, a potential ecological barrier to migration. We studied autumn fattening in tropical lowland forest 20 km inland from this gulf. Of 15 taxa with sufficient sample sizes, 10 showed significant positive diel (24 h) gains in a body condition index. Estimates of net mass gains in these 10 taxa suggest that they all were depositing fat, and four of those taxa were depositing enough fat to fuel an entire night of migration after only one day of fattening [*Empidonax* spp., Red-eyed Vireo (*Vireo olivaceus*), Gray Catbird (*Dumetella carolinensis*), and Northern Waterthrush (*Seiurus noveboracensis*)]. Two of the four species apparently not gaining mass at the study site migrate late in the season and occurred only after Hurricane Iris severely altered the habitat [Wood Thrush (*Hylocichla mustelina*) and Common Yellowthroat (*Geothlypis trichas*)]. However, four other species showed significant gains in mass after the hurricane [Gray Catbird (*Dumetella carolinensis*), Magnolia Warbler (*Dendroica magnolia*), American Redstart (*Setophaga ruticilla*), Indigo Bunting (*Passerina cyanea*)]. Comparison of these data with other studies of fattening during autumn migration revealed regional interspecific differences in fattening strategies.

TIMING OF YELLOW-BILLED CUCKOO CALLS: FACILITATING FEEDING OR RANDOM NOISE? Woodward, H.D., Department of Biology, New Mexico State University, Las Cruces, NM 88003. In July and August 2003 on the Gila River in the Cliff-Gila valley in southwestern New Mexico, I observed pairs of cuckoos feeding nestlings to determine if there was a consistent temporal association between the call given by an absent parent, the departure from the nest of the cuckoo attending the nest, and the absent parent's arrival at the nest with prey. I tested the hypothesis that the mean time between a cuckoo call and arrival at the nest with prey (call interval) was the same within pairs for each pair of cuckoos feeding nestlings. I predicted that cuckoos use vocal signals to coordinate prey delivery by signaling that they are returning with prey to the nest. I also attempted to characterize the type of call associated with feeding nestlings. This presentation summarizes my results. Reliably predicting cuckoo behavior (the call type and timing interval associated with feeding nestlings) has important management implications. Tape-playback surveys are effective

in determining cuckoo presence/absence, but the conservation status of the Yellow-billed Cuckoo is better determined by nest monitoring data that measures reproductive health. Locating active nests that have successfully progressed to the nestling stage is the preferred goal in monitoring programs where time, money, and crew are limited. Furthermore, the key concern in cuckoo research and monitoring programs is to minimize disturbance. Cuckoos are prone to nest desertion before they have nestlings and inadvertent disturbance by premature monitoring may decrease success. Therefore, the outcome of knowing the call type and call interval associated with feeding nestlings will result in (1) efficiently and accurately detecting cuckoo nests with nestlings, (2) minimizing disturbance to cuckoos, and (3) providing information on cuckoo reproductive health.

THE ROCKY MOUNTAIN BIRD OBSERVATORY-PAST, PRESENT, AND FUTURE. Palmer, W., Executive Director, Rocky Mountain Bird Observatory, 14500 Lark Bunting Lane, Brighton, CO, 80603. The Rocky Mountain Bird Observatory (RMBO) has worked for sixteen years to conserve birds and their habitats in the Rocky Mountains and Great Plains region through Monitoring, Research, Outreach, and Education. Mr. Palmer will discuss some of the Observatory's current projects throughout the region as well as current and future projects in New Mexico.

DROUGHT REDUCES AVIAN CELL-MEDIATED IMMUNE RESPONSE. Fair, J.M., Los Alamos National Laboratory, Risk Reduction and Environmental Stewardship, Ecology Group, MS M887, Los Alamos, NM 87506. Regional droughts have far-reaching, substantial, and easily recognizable impacts on populations and the environment. One component of such impacts that is not widely recognized is the impairment of immune function by drought-related physiological stress. As global warming increases the frequency and severity of drought in many regions, one consequence may be an increased vulnerability of populations to disease accompanied by more frequent disease epidemics. Rising temperatures could expand the distribution of vector-borne pathogens, exposing host populations to a longer transmission season and immunological naïve individuals to newly introduced pathogens. In the course of a six-year study of cell-mediated immune function of cavity-nesting western bluebirds (*Sialia mexicana*), ash-throated flycatchers (*Myiarchus cinerascens*), and violet-green swallows (*Tachycineta thalassina*) at Los Alamos, New Mexico, we discovered a dramatic decrease in the cell-mediated immune responsiveness of developing nestlings associated with unusually dry conditions. Adult western bluebird captured in 2002 also weighed 7% less than all previous. A drought-induced reduction in immune function and condition would further magnify the risk of bird populations to newly introduced diseases such as West Nile virus that has been found to increase with drought.

POSTER ABSTRACTS

SITE FIDELITY IN SANDIA ROSY FINCHES? Beaulieu, R., S. Cox, N. Cox, and R. VanBuskirk, Rio Grande Bird Research, Albuquerque, New Mexico. The Black Rosy-finch (*Leucosticte atrata*), Gray-crowned Rosy-finch (*Leucosticte tephrocotis*), and Brown-capped Rosy-finch (*Leucosticte australis*) breed in high alpine tundra mountain ranges above 9,000 feet and migrate south in winter to lower elevations. Every year, Rosy Finches are present at the Sandia Crest House, located at the top of the Sandia Mountain range. Little is known about these bird species, including whether site fidelity is present, or the same individuals returning each year to the same location. The primary goal in this research project is to learn if the Rosy Finch population in the Sandia Mountain range has site fidelity. In this project, a live walk-in trap is used; a special trap, which is devised for this project. The trap is attached to a string that simultaneously triggers two doors when pulled. The doors fall and entrap the finches within. The finches are then retrieved within a few seconds of the trap being closed. A metal band is secured around the right tarsus. Each band has a specific number identifying each bird as an individual. Next, measurements and weight are recorded; fat content and feather composition are observed. The birds subsequently are released safely. This project will continue for as many years necessary to obtain data from recaptured finches. If a large percentage of the finches are recaptured in more than one consecutive year, this may prove that the Rosy Finches present in the Sandia Mountains do indeed have site fidelity. If a large percentage of the finches are not recaptured in more than one consecutive year, this may mean that the finches do not have site fidelity. In the latter case, more years of data collection will be needed. Either way this data will be new to ornithological science and will contribute to further knowledge about Rosy Finches.

A WETLAND IN THE DESERT: DEVELOPMENT OF THE HOLLAMAN CONSTRUCTED WETLANDS. Smith, J., M. Freehling, and K. Johnson. Natural Heritage New Mexico, University of New Mexico Biology Department, MSC03 2020, Albuquerque, NM 87131. The artificial wetland complex on Holloman Air Force Base near Alamogordo, New Mexico attracts about 60 species of wetland birds during breeding season and migration, and was designated in 2002 as a New Mexico Important Bird Area by the New Mexico Chapter of the National Audubon Society. This wetland complex was created by routing treated wastewater and rainwater runoff through a series of pipelines, canals, lagoons, and catchment basins separated by earthen dams. The water level in each catchment area can be controlled so that water is high in spring, gradually drawing down and revealing more foraging habitat on the shoreline as the season progresses. After water was added, aquatic insects colonized, creating a food base for shorebirds and waders. Many birds now occur there in large numbers, and a few species breed there, including the Snowy Plover (*Charadrius alexandrinus*), Black-necked Stilt (*Himantopus mexicanus*), and American Avocet (*Recurvirostra americana*). Maintaining feeding and nesting habitat is difficult, however, because invasive plants thrive in the nutrient-rich water, choking the

shorelines and shallow water with vegetation, and making the habitat unusable for most birds. Successful management of this desert wetland will require a flexible regime of weed control, flooding, and drawdown to maintain optimal habitat for the shorebirds and waders.

INVOLVING CITIZENS IN BURROWING OWL MONITORING THROUGHOUT NEW MEXICO. McInnes, L., Hawks Aloft, Inc., Albuquerque, NM 87184. In New Mexico, Burrowing Owl (*Athene cunicularia*) populations have declined in the past ten years. The New Mexico Burrowing Owl Working Group (NMBOWG) was formed in response to concerns about these population declines. A volunteer monitoring system was developed to involve citizens in documenting Burrowing Owl locations throughout the state. As part of NMBOWG, Hawks Aloft, Inc. compiled Burrowing Owl observations from volunteers in 2002 and 2003. Citizens reported Burrowing Owl observations from 15 of New Mexico's 33 counties in 2002, in which a total of 410 individual Burrowing Owls (88 observations) were detected. In 2003, Burrowing Owl observations were received from 15 counties, in which a total of 351 individual Burrowing Owls (60 observations) were detected. Citizen science is an extremely valuable component of the NMBOWG. Volunteer observations help document Burrowing Owl distribution in New Mexico. Through public involvement and education, a greater awareness of Burrowing Owls can be achieved, assisting in its preservation.

In Memoriam Jim Karo

Jim Karo died on January 24, 2004 at age 86. He was a long-time member of the NMOS, joining in the early 70s. He was a charter member of the Central New Mexico Audubon Society, and he was a very active participant of both groups. He was noted for his bird photography, and he gave slide shows to many groups.

He grew up in Bloomfield, Conn., graduated from the University of Connecticut, and served in World War II as an aerial photo officer. He worked at Los Alamos during the development of the atomic bomb, and that secret Z division at Los Alamos became Sandia Laboratories in Albuquerque, where he worked for 40 years, retiring in 1986.

He loved the natural world and spent most of his time outside photographing and studying birds, wildflowers, and all of nature. He shared his home with snakes, spiders, butterflies, etc. He studied oil painting and created many works of art. He was a careful draftsman and he provided the maps for the New Mexico Bird Finding Guides published by the NMOS. Any time art work was needed, he was willing to help.

It is hoped that his large collection of slides will be made available to groups in the Albuquerque area for research and education.

NMOS BULLETIN

The *Bulletin* is published four times a year; subscription is by membership in NMOS. The *Bulletin* serves two primary purposes: (1) to publish articles of scientific merit concerning the distribution, abundance, status, behavior, and ecology of the avifauna of New Mexico and its contiguous regions and (2) to publish news and announcements deemed of interest to the New Mexico ornithological community.

NMOS members are encouraged to submit articles and news. Articles received are subject to review and editing. Published articles are noted in major abstracting services, e.g., the AOU's "Recent Ornithological Literature" section of *The Auk*. Please submit news and articles in double-spaced hard copy or, preferably, electronically on disk or by e-mail to the Editor, Bruce Neville, 2105 Lakeview Road SW, Albuquerque, NM 87105, e-mail bneville@unm.edu.

ANNUAL DUES

Membership in the New Mexico Ornithological Society is open to anyone with an interest in birds. Memberships are for the calendar year and annual dues are payable 1 January.

Dues are: Regular \$10, Family \$15, Student \$5, Supporting \$35, and Life \$300.

Dues and membership applications may be sent to the New Mexico Ornithological Society, P.O. Box 3068, Albuquerque, NM 87190-3068 or to the Treasurer, Jerry Oldenettel, 499 Farm-to-Market Road, Socorro, NM 87801.

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See instructions, dates, and address in the February issue.

