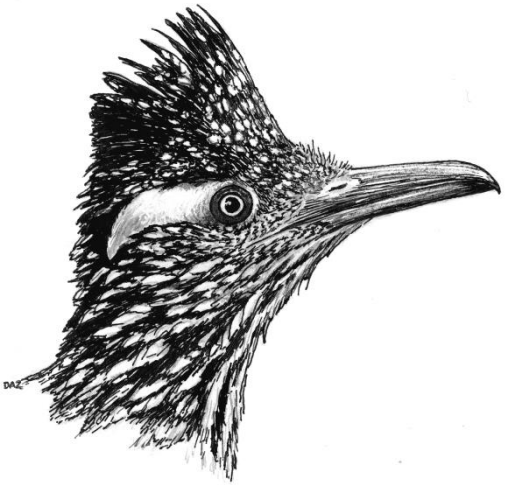
NMOS BULLETIN



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SITE FIDELITY IN A WINTERING "HARLAN'S" RED-TAILED HAWK IN NEW MEXICO

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Abstract–New Mexico hosts multiple morphs of Red-tailed Hawk (*Buteo jamaicensis*) during the winter (Cartron et al. 2010). "Harlan's Hawk," *B.j. harlani,* is an uncommon member of this polytypic species, but has been regularly documented in the last few decades. This Note details the return of a single individual to the same location in Santa Fe County, NM for five consecutive winter seasons.

Our repeated observations of a Harlan's Hawk with extensively dark plumage occurred on land managed by the Bureau of Land Management (BLM) near the residential area of La Cieneguilla, southwest of the city of Santa Fe, at latitude 35.606°, longitude -106.118° (WGS84 datum). The BLM site is crossed by the Santa Fe River 4 km downstream of the municipal sewage treatment plant, which provides permanent water. About 30 large deciduous trees line portions of the streambed, mostly Fremont's cottonwood (*Populus fremontii*) 4-16 m in height, with an understory of willow (*Salix* spp.) and various shrubs. Adjacent areas are open with grass and exotic forbs, and a forest of pinyon-juniper (*Pinus edulis* and *Juniperus monosperma*) begins about 300 m to the west. Observations were made on 7-11 dates each winter, from early November to mid-March. The earliest and latest dates by year were as follows: 17 January - 20 March 2011; 3 December 2011 - 4 March 2012; 3 November 2012 - 16 February 2013; 9 November 2013 - 1 February 2014; 27 November 2014 - 15 March 2015. A *B.j. harlani* was seen at the same perches on treetops in each season. We also briefly observed a bird in January 2009, but were not able to study plumage details.

The New Mexico distribution of *B.j. harlani* is somewhat clouded by difficulties in identification (S.O. Williams, personal comment), since the more numerous dark and rufous morphs of the Western subspecies *B.j. calurus* are similar (Wheeler 2003). Available data, however, points to a winter range for *B.j. harlani* extending through the whole north-south extent of New Mexico, with many sightings clustered along the Rio Grande axis (NMOS 2009). The Santa Fe River corridor at La Cieneguilla is ecologically similar to Rio Grande riparian sites.

As the list of sightings grew, we suspected that a single individual was responsible. *B.j. harlani* is a highly variable subspecies (Wheeler 2003, Clark 2009), so that markings can be used to distinguish individuals with reasonably high confidence. Lavers (1975) commented on this for hawks seen in a single season. Although exhibiting less individual variation, Peregrine Falcons (*Falco peregrinus*) can also be identified by plumage characters observable at high magnification. This has been used to compile

data on peregrine returns to breeding locations (Johnson 1988, Craig and Enderson 2004).

On the subject Harlan's Hawk, we noted overall dark brownish-black coloration, with thick white streaking on the breast and upper belly (Figures 1 and 2). Unlike many Harlan's Hawks, the head was uniformly dark except for white on the nape. In 2011-2012, the white was most conspicuous when the perched bird would look down, spreading the nape feathers. In 2013, the white feathers had become more prominent, so that they were visible as a white patch in all postures. The supercilium, crown, and auriculars were almost uniformly dark; there was only a very small white area on each side of the forehead (*i.e.* above the bill) that was just visible at short range in a spotting scope with 30X eyepiece. The tail was white on both surfaces, lacking any trace of red. The ventral surface was unmarked, typical of all adult *harlani*. The dorsal surface was white with limited blackish areas arranged asymmetrically, comprising longitudinal stripes of uneven length. A black terminal tail band was visible in flight. On the underwings in flight, the wing linings were almost uniformly dark, except for a limited number of white spots (Figure 1). Taken together, these characters indicate that the bird was a dark-intermediate morph Harlan's Hawk (Wheeler 2003); Liguori (2010) uses the simpler term "dark morph." The dorsal surface of the tail, in particular, is individually distinctive (Clark 2009, Lavers 1975). We examined the tail dorsum carefully in each of the four winter seasons. It seems unlikely that more than one hawk at this location would have shared the same combination of tail color, breast streaking, head pattern, and underwing coverts, justifying the conclusion that all observations referred to a single individual. Absolute certainty on this point is probably not achievable; the photographs presented here are compelling evidence.

Almost all of our sightings occurred along an approximately 1000 m stretch of the Santa Fe River. The hawk occasionally flew into an adjacent residential area to perch, and was seen twice perching in pinyon-juniper. It was very wary, leaving its perch whenever we approached on foot within about 200 m. This behavior is reportedly characteristic (Wheeler 2003). In addition, the arrival and departure dates and habitat type are all consistent with descriptions given by Wheeler (2003). Blackshaw (1990) noted a recognizable *B.j. harlani* in two winter seasons in Florida.

Harlan's Hawk is not unique; winter site fidelity is known in other raptor species. Color marked Bald Eagles (*Haliaeetus leucocephalus*) have been relocated on wintering grounds, in one case for six consecutive winters (Harmata and Stahlecker 1993). Using satellite telemetry, Stahlecker (D. Stahlecker, *personal comment.*) has found Golden Eagles (*Aquila chrysaetos*) returning to areas in New Mexico for three consecutive winters. We think it is noteworthy that an individual *B.j. harlani* returned to the same location in New Mexico for five consecutive winter seasons, 3100 - 4700 km from the breeding region of this subspecies in Alaska and western Canada (Wheeler 2003). This also testifies to the importance of maintaining good quality habitat for successful wintering of large raptors, and the continuing need for habitat conservation in New Mexico in both urban and undeveloped areas.

Additional photographs are available from the authors on request. Dawn Foy assisted in field observations. We thank Dale Stahlecker and Terry Johnson for information on other raptors.

Figure 1. Harlan's Red-Tailed Hawk at La Cieneguilla, NM on 13 March 2011. A dark-streaked white throat is evident. Photo By R. Clark.

Figure 2. Harlan's Hawk on 8 December 2013, 33 months after Figure 1. Although the lighting is different, some of the flight feathers have identical markings. Photo by B. Foy.

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ABSTRACTS FROM THE NMOS 53RD ANNUAL MEETING

The following abstracts are from the papers presented 11 April 2015 at the 53rd annual meting of the New Mexico Ornithological Society held at the Holiday Inn, Roswell, New Mexico.

ORAL PRESENTATIONS

(In Order of Presentation; Presenters Underlined)

The Potential Roles Of Primary Molt And Parasite Loads In Declining Snowy Plovers In The Southern Great Plains - L. E. Duffie, Arthur Temple College of Forestry and Agriculture – Division of Environmental Science, Stephen F. Austin State University, Nacogdoches, TX 75962; W. C. Conway, Department of Natural Resource Management, Texas Tech University, Lubbock, TX 79409; C. E. Comer, Arthur Temple College of Forestry and Agriculture, Stephen F. Austin State University, Nacogdoches, TX 75962; D. A. Haukos, U.S. Geological Survey, Kansas Cooperative Wildlife Research Unit, Kansas State University, Manhattan, KS 66506; D. P. Collins, Migratory Bird Office – Region II, U.S. Fish and Wildlife Service, Albuquerque, NM 87103; S. T. Saalfeld, Migratory Bird Office – Region VII, U.S. Fish and Wildlife Service, Anchorage, AK 99503; H. M. Ashbaugh, Department of Natural Resource Management, Texas Tech University, Lubbock, TX 79409

Interior western Snowy Plovers (Charadrius nivosus nivosus) are declining in the Southern High Plains of Texas, but appear to be stable in other portions of their interior breeding range, including eastern New Mexico and northern Oklahoma. While regional nesting habitat degradation is considered to be the principal factor negatively impacting population trends, recent observations (in 2013 and 2014) of primary feather molt and ectoparasites in both genders during the breeding season may indicate existence of other stressors that may suppress reproductive output and population health. The Texas subpopulation has been routinely monitored from 1998-2014. One private Texas saline lake, previously considered prime breeding habitat, has exhibited a 78% decline in adult plover numbers during surveys from 1999-2000 to 2008-2010, with a similar ≥80% decline in nest numbers since 1999. Snowy Plover primary molt and parasite loads were regularly documented in 2013 and 2014 in Texas, New Mexico, and Oklahoma. In total, 135 adult snowy plovers were captured while incubating from April to August 2014, of which 35 (26%; 27 female: 8 male) were actively molting inner primaries (P1-P5) and associated primary coverts. Ectoparasites were observed or collected from 50 (37%; 39 female: 11 male) adults. Of the 35 molting plovers, 6 females (17%) simultaneously hosted ectoparasites. The physiological outcome resulting from concurrent incubation, molt, and ectoparasite stressors in these saline lake environments remains unknown, as does the potential impact on adult or brood survival during the latter part of the breeding season.

Environmental Conditions of Saline Lakes Of The Southern Great Plains Associated With Breeding Snowy Plovers - H. M. Ashbaugh and W. C. Conway, Department of Natural Resources Management, Texas Tech University, Lubbock, TX 79409; D. P. Collins, Migratory Bird Office – Region II, U.S. Fish and Wildlife Service, Albuquerque, NM 87103; D. A. Haukos, U.S. Geological Survey, Kansas Cooperative Fish and Wildlife Research Unit, Kansas State University, Manhattan, KS 66506; D. Klein, The Institute of Environmental and Human Health, Texas Tech University, Lubbock, TX 79416

Interior Snowy Plover (*Charadrius nivosus*) exposure to potential environmental contaminants may be partially linked to declining populations that use saline lakes of the Southern Great Plains during the breeding season. We collected sediment and water samples during the 2013 breeding season and quantified V, As, Cd, Pb, and Se from snowy plover breeding habitats within Texas, Oklahoma, and New Mexico. Inductively coupled plasma optical emission spectrometry (ICP-OES) was used to quantify concentrations from sediment and water samples collected in close proximity to flowing and non-flowing artesian springs. Mean sediment concentrations varied only 1% among sediment subdepth strata (0-5, 5-10, and 10-20 cm) for both spring transect types. Most (> 80%) sediment samples had detectable (> 0.02 ppm) concentrations of V, As, Cd, and Pb, while Se was detected in only 20% of combined sediment samples. Metal concentrations were detectable (> 0.01 ppm) in water samples less frequently, and varied by spring flow conditions; although, no metal concentration exceeded 0.4 ppm. Overall, sampled sediment and water concentrations did not exist at levels of concern for avifauna, and were either below published background levels or similar to concentrations reported in previous playa wetland studies. Thus, none of these contaminants exist at sublethal or toxic levels in sediment and water in these environments. However, concurrent and ongoing analyses of metal concentrations in snowy plover blood and feathers will provide a basis for a more clear understanding of environmental risks (and potential trophic uptake and accumulation) these heavy metals possess for breeding Snowy Plovers.

Impacts Of Solar Energy Development On Breeding Birds Of The Nutt Grasslands, NM - D. Meliopoulos and M. J. Desmond, Department of Fish, Wildlife, and Conservation Ecology, New Mexico State University, Las Cruces, NM 88003, and D. Daniel, Department of Applied Statistics, New Mexico State University, Las Cruces, NM 88003

The Nutt grasslands of southcentral New Mexico are one of the important remaining tracts of desert grasslands. This research examines the effects of a recent solar development in this valuable and threatened ecosystem on grassland bird populations. Our objectives are to quantify avian abundance, community composition, and abundance of individual species at varying distances from the solar facility. The study

design entails 150, 50 m radius plots within the solar facility and at 4 distance rings from the facility. Each distance ring has 30 randomly selected plots. We will use regression analysis and an information theoretic approach to examine avian abundance in relation to environmental noise levels, soil temperatures, insect abundance, vegetation cover and various edges. Daily nest survival of Mourning Dove (*Zenaida macroura*) nests and depredation rates will also be evaluated. We will present preliminary data analyses from our first season of data collection. This research will enable recommendations for future planning and siting of solar energy developments.

Breeding Songbird Abundance: A Comparison Of Northeast And Northwest United States Forests At Different Fragmentation Amounts At A Landscape Scale - F. Anaya, and Z. Jones, Department of Biology, Eastern New Mexico University, Portales, NM 88130

Historically, contiguous hardwood forests covered much of the eastern U.S. landscape; whereas, western U.S. forests tend to be naturally fragmented by greater topographic variation and frequent natural disturbances. Thus effects of forest fragmentation on avian populations may not be as negative in the western U.S. as they are in the eastern U.S. Layers from the National Land Cover Database, along with GIS analysis, were used to identify three categories of forest fragmentation (Slight Fragmentation, Moderate Fragmentation, and High Fragmentation) on 24, 625 km² plots in the northeast and northwest U.S. Pre-existing data from Breeding Bird Survey routes (1992-2006) were used to examine how the varying degrees of forest fragmentation influences bird diversity, richness, abundance and response of 17 target species. Slight, moderate, and high fragmentation sites had an average bird richness of 62.82, 72.90, and 57.72 in northeast sites, and 47.58, 60.60, and 58.15 in northwest sites. Fragmentation categories had an average bird abundance of 626.97, 820.07, and 1369.40 in northeast sites, and 337.02, 593.37, and 618.92 in northwest sites. Also, five types of species responses to fragmentation category were observed in northeast sites; no preference (N=2), prefers slight (N=1), prefers high (N=3), avoids slight (N=4), and avoids high (N=7). Whereas, two types of species responses to fragmentation category were observed in northwest sites; no preference (N=16) and avoids slight (N=1). Overall, fragmentation appears to have more consequential effects on bird communities in northeast forests than northwest forests.

Thermal Physiology Of Sonoran Desert Nightjars - W. A. Talbot and B. O. Wolf, Department of Biology, University of New Mexico, Albuquerque, NM 87103

A mean annual temperature increase of 4.4°C is expected during this century in southwestern deserts of North America. For birds, this has the potential for individual mortality, decreased population sizes, and local extinctions. In the Sonoran desert, where current summer surface temperatures (T_s) can reach 70°C and air temperatures

(T_a) can reach 50°C, it is imperative for birds to defend body temperatures (T_b) below lethal levels. Cooling occurs primarily by evaporative water loss. Lesser Nighthawks (*Chordeiles acutipennis*) and Common Poorwills (*Phalaenoptilus nuttallii*) are exposed to these ambient temperature extremes, particularly in their nesting behavior. An understanding of the thermoregulatory capacity of these two caprimulgids may offer some prediction of their ability to adapt to changes in climate. Field studies were performed to assess rates of heat dissipation and maximum thermal tolerances using standard flow-through respirometry. As birds were exposed to increasing T_a, metabolic rates and rates of evaporative water loss were obtained by measuring CO_2 and H_2O output. For both species, metabolic rate and evaporative water loss increase linearly above the thermoneutral zone. Compared to passerines similarly studied, these caprimulgids are able to tolerate significantly higher ambient temperatures and are able to dissipate heat with greater efficiency. This appears to be due, at least in part to the mechanism of gular flutter, which allows evaporative heat loss with little increase in energy expenditure.

Shorebirds Of San Juan County, New Mexico - T. Reeves, 5101 Pinon Hills Blvd., Farmington, NM 87402

Several documented species of shorebirds infrequently reported or known to breed in San Juan Co., New Mexico, will be discussed. Documenting photographs by the author will be shown. In the following list * indicates breeding. The featured species are Black-necked Stilt, *Himantopus mexicanus*;* American Avocet, *Recurvirostra americana*;* Black-bellied Plover, *Pluvialis squatarola;* Snowy Plover, *Charadrius nivosus;* Killdeer, *Charadrius vociferus*;* Mountain Plover, *Charadrius montanus*;* Spotted Sandpiper, *Actitis macularius*;* Solitary Sandpiper, *Tringa solitaria;* Wandering Tattler, *Tringa incana;* Whimbrel, *Numenius phaeopus;* Long-billed Curlew, *Numenius americanus*?;* Ruddy Turnstone, *Arenaria interpres;* Stilt Sandpiper, *Calidris himantopus;* Sanderling, *Calidris alba;* Dunlin, *Calidris alpina;* White-rumped Sandpiper, *Calidris fuscicollis;* Pectoral Sandpiper, *Calidris melanotos;* Semipalmated Sandpiper, *Calidris pusilla;* Short-billed Dowitcher, *Limnodromus griseus;* Wilson's Phalarope, *Phalaropus tricolor*; and* Red-necked Phalarope, *Phalaropus lobatus.* San Juan County distribution maps for each species will be shown and are based upon published reports in eBird, NMOS Field Notes Searchable Database, printed NMOS Field Notes, published contracted field surveys, Four Corners Bird Club members' and other birders' records, and the author's personal records and photographs. A chronology of records for each species will be presented by date with locations and reporters.

Highly Pathogenic Avian Influenza In North America - K. Madden, Bird Program, Wildlife Management Division, New Mexico Department of Game and Fish, Santa Fe, NM 87507

In the winter of 2014-2015, highly pathogenic avian influenza (HPAI) was detected in poultry and wild birds in Canada and in the U.S. states of WA, OR, CA, and UT. HPAI continues to be documented in additional U.S. states. While none of the strains of avian influenza confirmed in birds to date has been shown to cause clinical disease in humans, careful planning is under way. Kristin will discuss potential risks, share recommendations, and provide an overview of current action plans for the Central and Pacific Flyways.

New Mexico Department of Game and Fish Nongame Bird Program Update - P. J. Darr, Wildlife Management Division, New Mexico Department of Game and Fish, Santa Fe, NM 87507

The Department's Nongame Avian Biologist, Peggy Darr, will discuss high priority projects throughout New Mexico, including a statewide Bendire's Thrasher (*Toxostoma bendirei*) survey and a collaborative project with New Mexico State University investigating the habitat needs of Bendire's Thrasher. Peggy will also discuss upcoming bird surveys on Department wildlife management areas and how birders can assist.

Hazards to Birds From Open Metal Pipes - C. D. Hathcock and J. M. Fair, Environmental Stewardship, Los Alamos National Laboratory Los Alamos, NM 87545

There are reports of open polyvinyl chloride (PVC) pipes causing bird deaths in the western United States (Brattstrom 1995). Here, we document cases of open bollards and open pipes on gates causing bird deaths in northern New Mexico. At Los Alamos National Laboratory (LANL), a 10,240-ha site, over 100 uncapped 10.16 cm diameter protective bollard posts were examined, and 27% of the open bollards contained dead birds. A total of 88 open pipes used as gate posts, with diameters of 8.89 cm or 10.16 cm, were examined, and 11% contained dead birds. We conducted a preliminary assessment of open pipes on gates along a highway on federal land north of LANL, and 14% of the open pipes contained dead birds. This gate configuration, with open pipes anchoring the gate on either side, is very common in the western United States. In all cases, Western Bluebirds (*Sialia mexicana*) composed the majority of the identifiable birds we discovered. Based on these preliminary findings, the number of bird deaths from this source is potentially very large and should be a concern in bird conservation and management.

Modeling The Demographics And Movements Of Band-Tailed Pigeons In New Mexico - C. L. Coxen, New Mexico State University, Department of Fish Wildlife and Conservation Ecology, Las Cruces, New Mexico 88003, S. A. Carleton, U.S. Geological Survey New Mexico Cooperative Fish and Wildlife Research Unit, New Mexico State University, Department of Fish Wildlife and Conservation Ecology, Las Cruces, New

Mexico 88033, D. P. Collins, Migratory Game Bird Coordinator USFWS-Region 2 Migratory Bird Office, Albuquerque, NM 87103

Survivability and recruitment estimates are critical for effective game species management. This project seeks to address the decades long gap in current demographic and habitat use data to advance the management of New Mexico and greater Four Corners region Band-tailed Pigeons (*Patagioenas fasciata*). Our goal is to establish a standardized population monitoring protocol through the novel use of PIT tag based mark-resight survivability and recruitment models. In 2013, we secured three geographically distinct feed sites located on private land adjacent to the Gila, Lincoln, and Santa Fe National Forests. 126 birds were banded and tagged at one site in 2013. We expanded trapping to all three sites in 2014, adding another 300 unique birds to our total marked population across the three sites. Survivability models have been created for one subpopulation and additional modeling will be completed after the 2015 field season. Pigeon movement and habitat use data will be collected through archival geolocators and satellite PTTs. These data will be used in conjunction with nesting and foraging habitat suitability models for each National Forest to compare model predictions, movement pattern data, and geospatial forest management data to evaluate bird habitat use in response to management practices. We will also compare PTT bird habitat use data with our suitability models to determine their ability to inform Breeding Bird Survey route placement to maximize sampling efficacy.

Effects Of Habitat Restoration And Climate Change On Scaled Quail In South Central New Mexico - K. M. Zummo, Department of Fish Wildlife and Conservation Ecology, New Mexico State University, Las Cruces, New Mexico 88003, S. A. Carleton, U.S. Geological Survey New Mexico Cooperative Fish and Wildlife Research Unit, Department of Fish Wildlife and Conservation Ecology, New Mexico State University, Las Cruces, New Mexico 88003

Scaled Quail (*Callipepla squamata*) have been experiencing population declines in the southwest for the past few decades. The factors thought be to contributing to this decline include the encroachment of shrublands on desert grassland habitat and shifts in the summer monsoon season. In New Mexico, the Bureau of Land Management has implemented chemical treatments to control creosote in an effort to reclaim these habitats. Our objectives in this study were to examine seasonal habitat use of scaled quail in relation to these treatments, as well as to understand how temperature and humidity affect reproductive success. We captured and placed VHF collars on 55 quail in the West Potrillo Mountains of south central New Mexico. Quail were tracked weekly to obtain habitat use points and to locate nesting hens. Nests had an iButton® placed inside the nest bowl and another 3 inches outside of the nest to collect temperature and humidity data. Preliminary data indicates that hens buffer nest temperatures, but have a limited ability to buffer humidity. Overall, temperature and

humidity did not have an effect on nest success. Brood success was poor during the early breeding season but improved as monsoonal rains increased. Adult selected, nest, and brood points will be analyzed by comparing habitat patch use versus availability in GIS. Further analysis will look at vegetative microhabitat selection of nest and brood points.

Development of a Range-Wide Conservation Plan For Lesser Prairie-Chickens - S. Kyle, Western Association of Fish and Wildlife Agencies, Lubbock, TX, 79409, J. Pitman, Western Association of Fish and Wildlife Agencies, Emporia, KS, 66801, D. Klute, Colorado Parks and Wildlife, Denver, CO 80201, G. Beauprez, New Mexico Department of Game and Fish, Portales, NM 88130, D. Schoeling, and A. Janus, Oklahoma Department of Wildlife Conservation Oklahoma City, OK 73101, and W. Van Pelt, Western Association of Fish and Wildlife Agencies, Phoenix, AZ 85001

The Range-Wide Conservation Plan (RWP) for Lesser Prairie-Chickens (*Tympanuchus pallidicinctus*; LEPC): 1) Identifies range-wide and sub-population goals for LEPC; 2) Identifies desired habitat amounts/conditions to achieve population goals; 3) Develops maps of focal areas/connectivity zones where conservation actions will be emphasized to produce the habitat conditions required to expand and sustain LEPC; 4) Enhances programs/cooperative efforts to encourage and expand voluntary landowner incentives and practices to produce the desired habitat conditions; 5) Promotes agreements to avoid impacts to LEPC from various development activities, and where avoidance is not possible, to minimize and mitigate impacts; 6) Establishes a mitigation framework to be used by any entity and administered by the WAFWA that will establish development agreements and when unavoidable impacts occur, will compensate for these impacts through off-site mitigation actions; 7) Identifies and implements monitoring/research needs; 8) Develops an adaptive management plan that will incorporate monitoring and new information into future adjustments to the plan; 9) Addresses input and suggestions from agencies, organizations, landowners, industries, other stakeholders, and the general public on the conservation plan for LEPC. In this talk I will discuss the development and implementation of the RWP and how it relates to LEPC conservation in New Mexico and across the species range.

Investigating Lesser Prairie-Chicken Seasonal Habitat Use, Reproduction, And Survival To Understand Patterns Of Declining Lek Attendance - C. Strong, Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces, NM 88003, S. A. Carleton, New Mexico Cooperative Fish and Wildlife Research Unit, Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces, NM 88003, W. Gould, Department of Applied Statistics, New Mexico State University, Las Cruces, NM 88003, Clay Nichols, USFWS, Arlington TX, 76011, Randy Howard, Bureau of Land Management, Roswell, NM 88201, and Grant Beauprez, New Mexico Department of Game and Fish, Portales, NM 88130

The Lesser Prairie-chicken (*Tympanuchus pallidicinctus*; LPC) is a charismatic prairie-grouse native to Western North America and is widely recognized to have experienced a significant decline of population and range over the past century. In Southeastern New Mexico on the Sand Ranch Area of Critical Environmental Concern (ACEC) and Mescalero Sands ACEC LPCs have exhibited an alarming trend of lek abandonment indicative of population decline. Intensity of abandonment varies between ACECs with an observed southward to northward trend of abandonment. We investigated breeding ecology, survival, and habitat use during the 2013 and 2014 breeding seasons in order to illuminate the cause of this decline in relation to vegetative structure, habitat patches, and demographic patterns. Estimated demographic rates suggest that survival rates are high in the observed population. They also suggest, however, that recruitment rates may be low. This low recruitment rate is a potential response to drought conditions; a response which has been observed by literature in previous years. In addition, movement of birds throughout the study area and continuing patterns of lek attendance decline suggest that mesquite encroachment may present a constraining influence on the study area's observed population. We will discuss these results in addition to future relevant research.

Use Of Conservation Reserve Program Habitat By Lesser Prairie-Chickens In Eastern New Mexico - A. R. Meyers, W. Gould, Department of Applied Statistics, New Mexico State University, Las Cruces, NM 88003, and S. A Carleton, New Mexico Cooperative Fish and Wildlife Research Unit, Department of Fish Wildlife and Conservation Ecology, New Mexico State University, Las Cruces, NM 88003

The Lesser Prairie-chicken (*Tympanuchus pallidicinctus*) is a threatened species under the Endangered Species Act. Research in Kansas has shown that Conservation Reserve Program (CRP) grasslands are used by lesser prairie-chickens for breeding, nesting, and brood rearing. Lesser Prairie-chicken use of CRP grasslands in New Mexico has not been well documented and there is disagreement as to its importance in their life history. Our objective was to determine if and why Lesser Prairie-chickens use CRP habitat in eastern New Mexico. We captured 30 Lesser Prairie-chickens in the spring of 2014 and monitored their movements throughout the breeding and winter seasons in relation to CRP and other habitat types. Lesser Prairie-chickens utilized CRP habitats in lower proportion than their availability and used native shinnery oak (*Quercus havardii*) dominated habitats in much higher proportion to their availability during the breeding season. During the winter season grassland habitats were used in closer proportion to availability. Although CRP is used by Lesser Prairie-chickens, further habitat improvement efforts for this species in eastern New Mexico should consider switching focus from CRP and concentrate on conservation of native shinnery oak rangelands.

POSTER

(In alphabetical order by first author; presenters underlined)

Ground Nesting Birds Of The Northeastern New Mexico Shortgrass Prairie - W. D. Hacker and T. R. Collins, Natural Resources Management Department - Forestry Discipline, New Mexico Highlands University, Las Vegas, New Mexico 87701
There is continued concern ground nesting bird populations on the western Great Plains shortgrass prairie are vulnerable to wildfire and its effects. Baseline studies were conducted during nesting season on Las Vegas National Wildlife Refuge (LVNWR) to determine what ground nesting bird species were present, bird density, species diversity and what effect seasonal grazing has on ground nesting birds. Inventories were conducted using a variable strip transect count as described by Emlen. Data from this study support that ground nesting bird populations are stable. Statistical evidence confirms that densities and diversity are not significantly changing as well. Also, seasonal grazing appears to have little effect on ground nesting birds. These data will prove useful for future researchers as a baseline for wildland fire studies on the Northeast Highlands grasslands yet to come. More work is needed in this arena especially in light of potentially changing climatic conditions at LVNWR and throughout the Southwest.

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OBITUARY - ROBERT W. DICKERMAN

24 September 1926 – 25 March 2015
Obituary by Andy Johnson

Bob Dickerman died peacefully in his Bernalillo home after a valiant struggle to overcome complications of a stroke he had suffered a month prior. With his passing, we lost among the most accomplished naturalists that I have known.

The trajectory of his career can be tracked through his varied peer-reviewed publications and the specimens upon which many of those publications were based. Perusal of those specimens and the titles of publications reveals that he was widely travelled, and although the majority of his publications were about bird distribution and taxonomy, he also was an accomplished mammologist, dabbled in animal behavior, and coauthored important virology publications (Johnson 2012, Western Birds 43:4).

We will miss his warmth, friendship, and sense of humor. However, long after the last Dickerman story is told by those who knew him, Bob's legacy of a vibrant Division of Birds at the Museum of Southwestern Biology and the treasure trove of specimens with 'RWD' on the label that he deposited at institutions across the country and around the world will remain.

Bob learned to prepare museum specimens as an undergraduate student at Cornell University in Ithaca, New York. He put those skills to use as a field collector and preparator at the University of Kansas in the 1950s, and finally as a doctoral student at the University of Minnesota. During his years at Kansas and Minnesota, Bob spent his field time in primarily Mexico. His Ph.D. advisor Dwain Warner said of Bob in the early 1990s that nobody knew Mexico better than Bob (Moments of Discovery, U. Florida Press 2010. K. Winker ed.). It would surprise a lot of people to learn that Bob spent his professional career officially employed as a virologist at the Cornell Medical School in New York City. However, he never forgot his roots, and he also held an appointment in the Bird Department at the American Museum of Natural History. Among his duties as a virologist was to screen wild populations of vertebrates for encephalitis viruses. Under his watch, these specimens didn't get discarded or released as so often happens in similar field efforts when hosts are screened for disease. Instead, he saved them, prepared them, and deposited them in museum collections.

He retired from Cornell in the late 1980s and moved southwest. Tucson was too big, and he never aspired to be a part of the golfing senior community that he perceived Tucson to be. Bob wanted a respite from the cold New York winters and a chance to continue to contribute to ornithology and museum collections. He was welcomed to the University of New Mexico as a Research Associate Professor and assumed the role of Acting Curator of the Bird Division at the Museum of Southwestern Biology, a position he held until January 2007.

During that time, the Bird Collection benefitted from his undivided attention and grew exponentially – from 6,000 specimens in 1989 to 24,000 in late 2003 when I arrived as Collection Manager of the Bird Division. Upon his arrival, Bob forged lasting relationships with personnel in the New Mexico Department of Game and Fish, the United States Fish and Wildlife Service, the wildlife rehabilitation community in New Mexico, and of course the University of New Mexico.

He built the MSB Bird Collection via three main avenues: He salvaged specimens aggressively, coordinating rehabilitators to send their mortalities to the MSB. He then selected the important specimens and discard the rest, or send it to other institutions that wanted regional representation from the Southwest. To him, there was little room in this collection for material that was not useful for taxonomic studies. He was a judicious collector of specimens – again, focusing on taxonomically useful specimens of geographically variable species - and many meadowlarks, Song Sparrows, and Red-winged Blackbirds gained eternal life in a museum drawer at the hands of Bob. He also made trades for and received donations of prepared specimens. Major collections received as donations during his tenure at MSB were the Amadeo Rea Collection, US Geological Survey Collection, and the Dale Zimmerman Collection of Birds of The World. He made an effort with the help of John Hubbard to repatriate historic specimens collected in New Mexico but housed in other museum by trading for them. Thus, the MSB has historic specimens collected by T. C. Henry, Frank Stephens (including New Mexico's first Aplomado Falcon), Charles Marsh, and many first and second state specimens.

Bob was among the hardest workers I have ever known: When I arrived here in 2003, he was in the museum most days - even weekends – preparing specimens, then working on manuscripts in the afternoons and evenings. For the amount of time Bob devoted to his work in the collection, he didn't neglect his other interests. He was an artist, and especially enjoyed sculpting the human figure in clay. He also painted oils on canvas, his subject matter often was landscapes and wildlife.

He was amazingly technologically savvy for his age, and was adept at working on a computer. It wasn't always pretty, and the most verbal abuse I ever witnessed him delivering was directed towards an electronic device. However, considering that most men of his generation did not even know how to type, and most of the technology he was using wasn't even available for the first three-quarters of his life, he did remarkably well at adapting to the pace of the electronic age.

It's hard to describe the personality of the man who accomplished all of this. The University of Alaska Museum bird collection staff described him to me before I met him as a classically-trained museum ornithologist with boundless energy and a heart of gold. Eventually age dampered his energy levels, but his heart was only enriched. He took great pleasure in introducing me to his friends at ornithological meetings; that's how I first met some of you. More than one person told me they would always remember Bob as the person who made an effort to come and talk to them as a scared new graduate student at his or her first meeting. He trained countless students in specimen preparation and field collecting. I'll remember him most for his warmth and generosity. He was a caring, gentle soul and saw the beauty and humor in life. He could find the good in everybody, and was everyone's friend if they gave him a chance, for he gave everyone he met that chance.

* * *

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The New Mexico Ornithological Society was organized to gather and disseminate accurate information concerning the bird life of New Mexico; to promote interest in and appreciation of the value of birds, both aesthetic and economic, to further effective conservation of the state's avifauna; to facilitate opportunity for acquaintance and fellowship among those interested in birds and nature; and to issue publications as a means of furthering these ends.

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