2014 JOINT MEETING

Estes Park, Colorado · USA
23-28 September 2014

ABSTRACT BOOK

Ornithologists from around the world ascend to the majestic Rocky Mountains for a meeting like no other. This joint meeting will feature six days of intellectually stimulating workshops, plenary talks, scientific sessions, and field trips that will facilitate the exchange of ideas and strengthen the science of avian biology.

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The **American Ornithologists' Union,** the **Cooper Ornithological Society,** and the **Society of Canadian Ornithologists/Société des Ornithologistes du Canada**

Co-Chairs

Susan K. Skagen and **Sara Oyler-McCance** U.S. Geological Survey, Fort Collins Science Center

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size was 43,570 (95% CI 40,880-46,570) and 44,100 (41,860-46,790) in 2011 and 2012, respectively. Early-arriving birds stayed 8-14 days and stopover durations decreased throughout the migration period. We describe how these stopover population estimates are used for state-dependent decision making for adaptive management of Red Knots and their food resources at Delaware Bay. (ID 15993)

MacDonald, N. M., Trent University, Canada, nicolemacdonald22@gmail.com
Nol, E., Trent University, Canada, enol@trentu.ca

THE EFFECTS OF ROTATIONAL GRAZING AND HAY MANAGEMENT ON THE REPRODUCTIVE SUCCESS OF BOBOLINK AND EASTERN MEADOWLARK IN EASTERN ONTARIO

We investigated the impact of beef-cattle farm management on the reproductive success of Bobolink (*Dolichonyx oryzivorus*) and Eastern Meadowlark (*Sturnella magna*) within Eastern Ontario, Canada. We monitored rotational grazing management regimes and hay cut dates while assessing breeding phenology and reproductive success of Bobolinks and Eastern Meadowlarks. In pasture paddocks the major factor determining Bobolink reproductive success was the date that cattle entered a paddock to graze, with earlier entries resulting in significantly lower nest success. On a landscape scale, within a series of paddocks grazed by a single herd, as the number of paddocks grazed during the nesting season increased, the number of Bobolinks that reproduced successfully decreased. Cattle exposed to clay pigeon targets, regardless of stocking rates, trampled the majority of targets. In hayfields associated with beef-cattle operations, grassland birds had a higher likelihood of reproductive success when cutting occurred after 1 July. The best method to improve the reproductive success of Bobolinks and Eastern Meadowlarks is to leave some hayfields and pasture paddocks undisturbed until nesting is complete. (ID 15933)

Macfarland, L. E., Simon Fraser University, Canada, lma65@sfu.ca
Mahony, N. A., Environment Canada, Canada, nancy.mahony@ec.gc.ca
Harrison, M. L., Canadian Wildlife Service, Canada, megan.harrison@ec.gc.ca
Green, D. J., Simon Fraser University, Canada, djgreen@sfu.ca

LEWIS'S WOODPECKER (MELANERPES LEWIS) HABITAT-SPECIFIC PRODUCTIVITY AND COMMUNITY DYNAMICS IN BRITISH COLUMBIA

The Lewis's Woodpecker is a threatened species in Canada and declining throughout their range in western North America. Conversion of suitable habitat to agriculture and urban development, cavity tree loss, and competition with other cavity-nesting birds are considered threats to their persistence. As weak cavity-nesters, Lewis's Woodpeckers are sensitive to loss of cavity trees. In areas with low cavity numbers and an abundance of cavity competitors such as European Starlings (Sturnus vulgaris), Lewis's Woodpeckers may use sub-optimal cavities, thereby reducing reproductive performance in the form of predation or consequences related to poor tree structure. In British Columbia, riparian cottonwood patches are the most productive habitat type compared with burned and live ponderosa pine forests. By documenting the abundance of cavities and cavity-nesting competitors, as well as their nest location changes between years surrounding active Lewis's Woodpecker areas, we will evaluate the role of competition on nesting success between three habitat types. Alternatively, food supply differences may influence nest success. Through nestling provisioning surveys, we will use quantifiable behavioral observations correlating directly with prey availability to determine the variation in food supply. Our overall objective is to understand the role of cavity dynamics interactions between members of the nest web and food supply on habitat-specific reproductive success in Lewis's Woodpeckers. (ID 15890 | Poster 20)

Macías-Duarte, A., Universidad Estatal de Sonora, Mexico, alberto.macias@ues.mx
Panjabi, A. O., Rocky Mountain Bird Observatory, USA, arvind.panjabi@rmbo.org
Strasser, E. H., Rocky Mountain Bird Observatory, USA, erin.strasser@rmbo.org
Levandoski, G., Rocky Mountain Bird Observatory, USA, greg.levandoski@rmbo.org
Ruvalcaba-Ortega, I., Universidad Autónoma de Nuevo León, Mexico, iruvalca@yahoo.com.mx
Doherty, P. F., Colorado State University, USA, paul.doherty@colostate.edu

WINTER SURVIVAL OF BAIRD'S AND GRASSHOPPER SPARROWS IN CHIHUAHUAN DESERT GRASSLANDS OF MEXICO

Populations of grassland bird species are declining across North America. Most grassland birds converge in the Chihuahuan Desert of northern Mexico and southwestern United States during winter. Non-breeding survival has been shown to have a strong influence on population growth rates of migratory species. Therefore, processes in the Chihuahuan Desert affecting winter survival probably play a major role in the regulation of grassland bird populations. Nevertheless, the study of winter ecology of grassland birds in the Chihuahuan Desert has received little attention until recently. To fill this information gap, we estimated winter survival of two grassland sparrows, Ammodramus bairdii and A. savannarum using radio-telemetry. We deployed transmitters on 177 Baird's and Grasshopper Sparrows near Janos, Chihuahua, and tracked these birds from November to March during the winters of 2012-2013 and 2013-2014. We estimated daily survival probability (DSP) as implemented by the known-fate model in program MARK. We estimated a DSP=98.61% (95%CI 98.04–99.01%) for the winter of 2012-2013. DSP was significantly higher in the winter of 2013-2014, likely in response to an increased precipitation in the summer of 2013 with a DSP=99.75% (95%CI 99.49–99.88%). Our work suggests that over-winter survival varies greatly between years and that climatic conditions in the Chihuahuan Desert significantly contribute to the population regulation of North American grassland birds. (ID 15801)

Mack, A. L., Indo-Pacific Conservation Alliance, USA, mack@indopacific.org

CONSERVATION AND ECOLOGY OF SEED DISPERSAL BY THE DWARF CASSOWARY CASUARIUS BENNETTI: A SYNTHESIS OF 25 YEARS OF RESEARCH AND CONSERVATION

The Dwarf Cassowary is a large obligate frugivore, much larger than any seed disperser in montane New Guinea. Large disperser body size allows plants to evolve large seeds that can tolerate extensive (50-70%) damage by rodents and other potential seed predators. Of 400 fruiting plant species, 12-15% produce diaspores too large for any other disperser. Gut transit is fast (1-4 hours) and does not damage seeds. Dispersal, usually less than a kilometer, is preferentially uphill, countering downhill movement of fallen fruits. Plant populations would collapse downhill in the absence of dispersal. Dispersal is rarely into treefall gaps, but there is a .02-.03 probability per year that a gap will form over dispersed seedlings, and roughly 0.35 probability per year that falling debris will kill dispersed seeds. Cassowaries are heavily hunted by people in rural PNG and comprise about 27 % of animal biomass harvested. Cassowaries in New Guinea deserve conservation attention as keystone seed dispersal agents and food sources for roughly 2 million rural people. Big budget conservation projects by international NGOs with budgets in hundreds of thousands to millions have accomplished little; smaller projects by local groups have had more impact. (ID 15942)

MacLean, S. A., UC Berkeley, USA, maclean@berkeley.edu
Beissinger, S. R., UC Berkeley, USA, beis@berkeley.edu

DO SPECIES' TRAITS PREDICT VARIATION IN RANGE SHIFTS OF BIRDS?*