

ABSTRACTS

PRESENTATIONS

HOW CITIZEN SCIENCE RESULTS (eBIRD) ARE USED FOR VULNERABILITY ANALYSES AND CONSERVATION PLANNING & MANAGEMENT

Beardmore, C.J. Dchrysoparia@gmail.com, 14239 N. 10th Street, Phoenix, AZ 85022

Partners in Flight, a bird conservation consortium, has assessed vulnerability of bird species in Canada, the United States, Mexico and the Central American countries since the early 1990s. In the past Partners in Flight has used data from the Breeding Bird Survey, Christmas Bird Counts, various regional monitoring projects, and experts to carry out the analyses. Partners in Flight's process scores Population Size, Population Distribution, Population Trend, Threats, and Relative Density to devise a total score both at the continental/global and regional levels. These scores are combined to determine a species' vulnerability and need for conservation planning and management at two levels of concern, continental and regional. More recently Partners in Flight has begun using eBird data to supplement or replace some of these data sources. eBird data is fast becoming as rich as the Breeding Bird Survey and is being used for calculating relative density and population trend. The use of eBird data underscores the importance of participating in eBird data collection and ensuring our eBird data is complete and accurate. Because most of the vulnerability assessment relates to breeding birds, it is especially important that eBirders record breeding code notations when observed. Examples of how the scores are combined to inform conservation planning and management will be given.

DO SOLAR FACILITIES IN THE SOUTHWESTERN U.S. POSE A THREAT TO YUMA RIDGEWAY'S RAILS?

Harrity, E. J.¹ and Conway, C. J.²

¹ Idaho Cooperative Fish & Wildlife Research Unit Department of Fish & Wildlife Sciences University of Idaho 875 Perimeter Dr. MS 1141 Moscow, Idaho 83844 808-938-0546 eharrity@uidaho.edu

² USGS Idaho Cooperative Fish & Wildlife Research Unit Department of Fish & Wildlife Sciences University of Idaho 875 Perimeter Dr. MS 1141 Moscow, Idaho 83844 208-885-6176 cconway@uidaho.edu

The Yuma Ridgway's rail (*Rallus obsoletus yumanensis*) is a federally endangered marsh bird endemic to wetlands throughout the Lower Colorado River basin. The U.S. population has declined in recent years for unknown reasons. Yuma Ridgway's rails depend on fragmented patches of emergent wetland vegetation that are separated by large expanses of non-habitat, primarily agricultural lands or desert. Yuma Ridgway's rails were thought to be sedentary, but recent rail mortalities at solar energy facilities suggest that these rails fly over desert regions during dispersal or migratory movements. Efforts to prevent future mortalities and potentially mitigate the effects of solar facilities require information on dispersal and migratory behavior of these rare birds (information that is currently lacking). We attached solar satellite transmitters to 16 Yuma Ridgway's rails in 2017 to document annual movement behavior.

Three of the radio-marked rails moved in the fall to estuaries in Mexico along the Gulf of California (as far as 250km south). These movements are the first documented records of rails moving from the U.S. to Mexico. We attached transmitters to 30 Yuma Ridgway's rails in 2018 and are currently monitoring their movements. Additional information on the annual movement behavior (i.e., direction, distance, and phenology of long distance movements) of Yuma Ridgway's rails will help inform land management actions and permitting decisions in the region, especially at solar facilities that may need to account for their impact to this endangered species.

CONSERVATION OF WESTERN BURROWING OWLS IN AN URBAN/SUBURBAN DESERT LANDSCAPE

Loyd, K.T., k.loyd@asu.edu; New College of Interdisciplinary Arts and Sciences, Arizona State University Colleges at Lake Havasu, 100 University Way, Lake Havasu City, AZ 86403

Watkins, R. T.

Davey, C. S.

Young, C.L.

Burrowing owls (*Athene cunicularia hypugaea*) are a species of conservation concern in Arizona. In Lake Havasu City, AZ, owls occupy nontraditional habitats- desert washes (arroyos) in developed locations. We began studying habitat characteristics and productivity of local burrowing owls in February of 2014. Over the past 5 breeding seasons, we monitored 112 nests. Nest success ranged from a low of 44% in 2014 to a high of 75% in 2015 with an average of 70% over all 5 years. The mean number of fledglings per nest to date is 2.9 (range 1-8). Nineteen nests were abandoned for unknown reasons and 16 experienced a mortality of one or more adults and chicks (predation and suspected secondary poisoning). Four breeding pairs were relocated to Phoenix from our population in 2017 due to wash stabilization projects. Results from regression models suggest that nest sites experiencing a mortality were less likely to produce fledglings but those with larger burrow diameter were more likely to have a larger number of offspring. This season, to address movement and juvenile dispersal, we began capturing and banding urban owls using walk-in traps at nests. We captured twenty-nine individual owls from 16 nest locations and 6 females, 1 male and 22 juveniles were banded. We will be recording information on resighted birds over the next 2 months and I discuss these results as well as challenges of capturing urban birds during my presentation. In the future, we will continue to work to provide baseline data on this unique population.

ESCAPING THE MIGRANT TRAP – FIELD ORNITHOLOGY IN UNDER-BIRDED LOCATIONS

McCreedy, C. cmccreedy-RA@pointblue.org; Atwell and Point Blue Conservation Science, Tucson, AZ

Things that are simultaneously supremely fun and supremely useful should be celebrated, and exploring under-birded locations is one of them! Data collected by Arizona Field Ornithologists are more important than ever, given rapid climatic change in our deserts and at best, static funding for avian research and monitoring projects. This talk will focus on the importance of escaping 'the migrant trap', a play on words based on a tendency for birders to devote a large proportion of their efforts to visiting the same locations repeatedly – locations which may not

necessarily be representative of the surrounding habitat matrix. We will discuss desert avicaching (<https://ebird.org/news/desert-avicaching-with-the-sonoran-joint-venture>), review examples of great data taken at under-birded locations, and suggest ways you can explore under-birded locations, take a walk on the wild side, and contribute to the Avian Knowledge Network.

YELLOW-BILLED CUCKOOS: MIGRATION AND THEIR COMPLICATED NATURAL HISTORY

McNeil, Shannon.

Final abstract pending

BIRD SOUNDS DECODED

Pieplow, N. Boulder, CO.

Identifying birds by sound is a crucial skill that can be difficult to learn. Author Nathan Pieplow has devised a system that lets you identify bird sounds without having to memorize them. The Peterson Field Guide to Bird Sounds lets you look up sounds, the way you look up words in the dictionary. The key is learning to visualize sounds. Nathan's clear, practical instructions for visualizing sounds will make you a better listener. You will hear details in sound that you hadn't noticed before, and you will have the vocabulary to describe those details. Nathan will help you identify birds by their sounds, but he will also help you understand birds by their sounds. For the sounds of birds are a language, carrying messages from one bird to another. To understand the language, and decode the messages, all you need is the right dictionary.

THE FERRUGINOUS PYGMY-OWL IN SOUTHERN ARIZONA: NATURAL HISTORY, DISTRIBUTION, AND STATUS

Tibbitts, Timothy J. 2828 West Calle Arandas, Tucson AZ 85745. ttibbitts000@gmail.com

Richardson, Scott. US Fish and Wildlife Service, 201 North Bonita, Suite 141, Tucson, AZ 85745.

The "Cactus" Ferruginous Pygmy-owl (*Glaucidium brasilianum cactorum*) is a small owl distributed irregularly in lower elevations of southern Arizona, generally below 4,000 ft elevation. More common and widespread a century ago, this pygmy-owl has experienced declines likely related to loss and degradation of habitat, climate change, and other factors and has been the subject of controversy and conservation in southern Arizona. This presentation will provide an overview of the species' natural history, habitat, and historic and currently known distributions. Variations in habitat across its range will be examined. Conservation and management actions will be discussed, including captive breeding /population augmentation and a history of it's status under the Endangered Species Act.

THE ALEUTIAN CACKLING GOOSE IN ARIZONA

Vander Pluym, D., dvanpluym@gmail.com; 2841 McCulloch Blvd N #1, Lake Havasu City, Az, 86403

There is little published information about the occurrence of Aleutian Cackling Geese *Branta hutchinsii leucopareia* in Arizona, though it has long been suspected to occur in the state. Formerly placed on the Endangered Species list in the United States, this taxon has rebounded which has led to an increase in numbers occurring outside of its historic range, including into Arizona. Though the “white-cheeked” *Branta* geese are an identification challenge, *B. h. leucopareia* is fairly distinctive within the group. Here we look at the status and the history of this taxon in Arizona as well as its identification.

POSTERS

RESULTS OF YELLOW-BILLED CUCKOO SURVEYS IN THE UPPER SAN PEDRO RIVER: EVIDENCE OF BREEDING BEHAVIOR IN MESQUITE BOSQUE

Cobbold, S. M., scobbold@acstempe.com; Archaeological Consulting Services, Ltd., 424 West Broadway Road, Tempe, AZ 85282
Stewart, L. R., lstewart@acstempe.com

We describe the results of our 2018 surveys for western yellow-billed cuckoos in support of an Arizona Department of Transportation bridge replacement project located on State Route 80 on the Upper San Pedro River near Benson, Arizona. Our surveys were conducted in potential cuckoo habitat within 0.5 mile of the San Pedro River Bridge and covered a total length of 2 miles along three watercourses: the San Pedro River, Dragoon Wash, and an unnamed wash. Vegetation in the survey area is dominated by mesquite bosque, which is widely recognized as a component of yellow-billed cuckoo breeding habitat but is less well-documented as breeding habitat in its own right. We discuss multiple yellow-billed cuckoo observations that suggest the presence of established breeding territories throughout the survey area.

SEASONAL MOVEMENTS OF CRESTED CARACARAS IN ARIZONA – PRELIMINARY DATA

Jenness, D., d_jenness@hotmail.com; 4375 E. Rollins Rd., Tucson, AZ 85739
Glinski, R., rich.glinski@gmail.com; P. O. Box 243, Arivaca, AZ 85601,
Morrison, J. L., joan.morrison@trincoll.edu; 390 Rincon Rd., Corrales, NM 87048

In 2017 we launched a project to place GPS/GSM transmitters on Crested Caracaras in Arizona. Our goal is to learn more about the seasonal movements of caracaras, particularly nonbreeding birds. So far, we have placed transmitters on a recent fledgling (now a second-year bird) and a nestling. The second-year bird was released at a Santa Cruz Flats agricultural field in November 2017. After a week near the release area, it traveled to Avra Valley and has spent much of its

time northwest of Marana. However, it has also returned to the Flats several times, including for weeks at a stretch. It has also made several long jaunts to the southwest. The area it has moved in stretches 83 km east to west and 56 km south to north. It has remained primarily in agricultural fields, typically foraging in cattle pastures and alfalfa and recently disked cotton fields. It mostly roosts in Sonoran Desert Scrub adjacent to farm fields. A fledgling tagged in early June has remained within 0.5 km of its nest and is moving around regularly in the nearby Sonoran Savannah. An abundance of ground squirrels, lizards, and young quail in this habitat in the summer likely constitute good food resources for young caracaras as they learn how to forage independently.

MOVEMENT PATTERNS, SURVIVORSHIP, AND HOME RANGE SIZE OF LECONTE'S THRASHER (*TOXOSTOMA LECONTEI*) ON THE BARRY M. GOLDWATER RANCE

Kondrat-Smith, C., ckondrat-smith@azgfd.gov, Arizona Game and Fish Department, 5000 W. Carefree Hwy, Phoenix, AZ 85086

Lowery, S., slowery@azgfd.gov

The LeConte's Thrasher (LCTH) is a species of conservation concern included on the Red Watch List of Partners in Flight. The species distribution range consists of sparsely vegetated Sonoran Desert landscapes (Lower Colorado Subdivision) across the southwest and northwestern Mexico. In southwestern Arizona, the Department of Defense (DoD) manages large tracts of habitat on the Barry M. Goldwater Range (BMGR) and Yuma Proving Grounds (YPG). Given the scale of this area, DoD installations play a major role in the conservation of this ecoregion. The Arizona Game and Fish Department (AGFD) conducted occupancy surveys during the 2011-2013 breeding seasons on the BMGR and YPG to better understand species distribution and identify potential habitat relationships. Survey results were used to develop detection probabilities across the DOD installations, and a Prediction of Occurrence model was built to provide a predictive index of the species habitat. In addition to species surveys, active nests were identified to monitor fledglings using VHF telemetry (2013). Fourteen birds were radio-tracked from the nestling to post-fledgling dispersal periods. Tracking results provided an understanding of survival, movement, and home range size of LCTH post-fledging. Results from this study allowed military installations in this ecoregion to adapt their Integrated Natural Resource Management Plans to better conserve LCTH habitat while maintaining military readiness into the future.

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MONTHLY PROGRESSION OF WATERFOWL AT TRES RIOS PONDS, 2017-2018

O'Brien, J., james.obrien@southwestwildlife.org; Southwest Wildlife Conservation Center, Scottsdale, AZ

Finden, H., City of Phoenix Water Services Department, 2474 South 22nd Avenue, Phoenix, AZ 85009

Brown, D. E., Arizona State University, Main Campus, PO Box 874501, Tempe, AZ 85287-4501

Urban wetlands using reclaimed water are increasingly used by both migrating and resident waterfowl. We conducted bi-monthly counts of water-birds using 6 ponds at Phoenix's Tres Rios Wetland Project from August 2017 to August 2018. Ruddy Ducks (*Oxyura jamaicensis*), Gadwall (*Anas strepera*), and Baldpate (*A. Americana*) were the most common wintering waterfowl; the most common waterfowl species in summer was the Mexican Duck (*Anas platyrhynchos diazi*) with 77 adult birds observed in July 2018. A major attraction was the presence of ~ 50 White Pelicans (*Pelecanus erythrorhynchos*) throughout the winter of 2017-18, and the greatest surprise was that Blue-winged Teal (*Anas discors*) outnumbered Cinnamon Teal (*A. cyanoptera*), both during migration and in winter. With the exception of Canada Geese (*Branta canadensis*) no juvenile aged waterfowl were observed, possibly due to the high numbers of raccoons (*Procyon lotor*) and other predators present.