

Discussion

We experienced very few logistical problems in the first season of this project. Of the 60 intended transects, 59 were established this season. We were able to obtain sufficient sample sizes for many species for which to run analysis. We detected some low-density, target species were detected in reasonable numbers (e.g., 44 Virginia's Warblers in Pinyon-Juniper) and recorded others in fairly large numbers (e.g., 232 Black-throated Gray Warblers in Pinyon-Juniper). We were able to obtain sufficient data even in habitats in which we ran very few transects; a very promising statistic.

Species that we consider well-sampled via transects are those with coefficients of variation of the density estimates (hereafter CV) of less than 50% and with two parameters or fewer included in the detection-curve function. We obtained CVs of less than 50% for 40 species.

We consulted the NMPIF Draft Land Bird Conservation Plan, which can be found on the Hawks Aloft Inc. web-site, (<http://www.hawksaloft.org/pif/exec.html>) for information regarding bird species that are considered priorities for land managers and conservation organizations (Appendix C). This information has been compiled through cooperation between several organizations and individuals which are very familiar with the status of New Mexico's birds. NMPIF classifies species of management concern into four categories: Highest Priority, Priority, High Responsibility, and Representative.

1) Species which NMPIF believes are in need of immediate action are classified Highest Priority management species. These species scored 21 or higher using eight criteria which are determined by NMPIF.

2) Priority management species also scored 21 or higher, however, NMPIF believes that these species are not in need of immediate action in New Mexico or conservation measures are being implemented in other locations where a greater portion of their populations exists.

3) Species classified as High Responsibility for management are listed as such because a significant percentage of the total population for the given species exists in that area.

4) Representative species are those that should also be taken into consideration when making land management decisions but their situation is not as urgent as Highest Priority and Priority species.

We were able to estimate densities for seven of the 36 species that were detected on three Aspen transects that were run in 2003. These seven species are also typically found on Aspen transects in Colorado and are good representatives of this habitat. The NMPIF conservation plan does not have a list of sensitive species for this habitat, so we are not certain if the species that we detected on these transects are of management concern. These three transects should be run again in 2004.

We detected several species that are normally found in low-elevation habitats on the alpine tundra transects that were run in 2003 (e.g., Vesper Sparrow and Western Meadowlark). We recorded only one species, Vesper Sparrow, in sufficient numbers to calculate a density estimate. However, we did detect 16 Mountain Bluebirds, which is listed as a Priority management species in Alpine Tundra, on these transects. These data show that next season the transects may need to be moved to other areas where true alpine species are detected or the CNF could opt to drop this habitat type and run an additional two transects in another habitat. We detected a total of 24 species in this habitat.

The three most common species detected on the two grassland transects (Chipping Sparrow, Western Wood-Pewee, and Green-tailed Towhee) are not species normally found in grassland habitat. These transects are not good examples of true grassland and should be moved to other locations where true grassland species are found or should be dropped so that more transects can be conducted in another habitat. We detected a total of 37 species in this habitat during the summer of 2003.

We conducted five Mixed Conifer transects in 2003 and these provided density estimates for seven species (of the 47 detected). The species detected are good examples of those that are typically found in this habitat, therefore these transects should be run again in 2004. We recorded 18 Red-naped Sapsuckers, a Priority Mixed Conifer management species in New Mexico in this habitat.

RMBO staff ran four Mid-elevation Riparian transects in 2003 and the data obtained enabled us to estimate densities for three of the 34 species found on these transects: Cordilleran Flycatcher, Warbling Vireo, and American Robin. We recorded six Violet-green Swallows, a High Responsibility management species for this habitat in New Mexico.

We conducted 30 Pinyon-Juniper transects during the summer of 2003. We were able to provide density estimates for 27 of the 80 species detected in this habitat. Of these 27, eight received high priority scores on the NMPIF conservation plan. Two of these species, Gray Flycatcher and Black-throated Gray Warbler, are on the Highest Priority list. One species, Virginia's Warbler, is listed as a Priority species. And, five are on the High responsibility NMPIF list (Ash-throated Flycatcher, Cassin's Kingbird, Pinyon Jay, Juniper Titmouse, and Lark Sparrow) for this habitat. We feel that the transects established in the summer of 2003 will do a great job of monitoring many of the birds that breed in the Pinyon-Juniper habitat in the CNF. This data will also be very valuable in the upcoming years as this habitat is changing dramatically as a result of the die-off of Pinyon Pine.

Six Ponderosa Pine transects were established in the summer of 2003. We provide density estimates for ten species of birds via these transects. Of these ten, Grace's Warbler (Highest Priority), Dusky Flycatcher (Priority), Western Wood-Pewee (High Responsibility) and Plumbeous Vireo (High Responsibility) can be found on the NMPIF

priority for management lists. A total of 64 species were encountered on the Ponderosa Pine transects.

We were able to successfully establish four sage transects this summer on which we detected a total of 49 species. We were able to provide density estimates for Sage Sparrow (Highest Priority), Green-tailed Towhee (Priority), and Ash-throated Flycatcher (High Responsibility) which are all on the NMPIF priority for management lists. We also provide density estimates for four other species, including Brewer's Sparrow which is listed by NMPIF as a representative species for this habitat. These transects should be run again in 2004.

A total of 47 species were recorded on three Spruce-Fir transects that were successfully established during the summer of 2003. Enough data was gathered to estimate densities on seven species of birds that breed in this habitat in the CNF. All of the seven species are good representatives of Spruce-Fir habitat. One of these species, the Dark-eyed Junco, is listed on the NMPIF High Responsibility for management list.

Acknowledgments

We would like to thank Deanna Williams (Carson National Forest) for assistance, advice, and logistical support on this project. We would also like to thank the excellent field staff that conducted the transects this summer: Ken Behrens, Brian Gibbons, Bill Reddinger, and Tom Tustison.

We are very grateful to Tony Leukering for the photograph of the Western Tanager on the cover page of this report. Finally, we are grateful to Doug Faulkner, Arvind Panjabi, Nancy Gobris, and Tony Leukering for reviewing this report.

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