

Seasonal Inventory of Birds in Low Elevation Riparian Habitats

White Sands National Monument

Source: R. Meyer, La Tierra Environmental Consulting, LLC, and D. Griffin, Griffin Biological Service.

PROJECT SUMMARY



Lake Lucero with American avocet and black-necked stilt.

Introduction and Background

In 2004, independent researchers began conducting a three-year inventory of birds in low-elevation riparian habitats in four parks in the National Park Service's Chihuahuan Desert Network. The objectives of this study were to (1) conduct surveys to document the presence, richness, and abundance of bird species; (2) compare results to existing information about birds at each sampling area and update park checklists; and (3) provide baseline data and site evaluations that may be used to develop bird monitoring programs in the Chihuahuan Desert Network. This summary presents information from the surveys at White Sands National Monument (NM). Summaries of the surveys conducted at the other Chihuahuan Desert Network parks are available on the Learning Center of the American Southwest website, www.southwestlearning.org.

Methods

The researchers initially visited each survey site to assess the extent of the habitat, determine the appropriate survey technique for the site, and establish the point count stations or survey area. The survey method for each site was based on the area's size and arrangement. Sampling was conducted during migration and breeding seasons over a three-year period from 2004 to 2007. Surveys for migrating species were conducted in spring (April and May) and fall (September and October); surveys for breeding species were conducted in June. Incidental observations accounted for a significant proportion of the species documented in this survey.

The researchers conducted point count transect surveys at Andrecito Creek and timed area searches at the monument headquarters and visitor center. In 2004, the sites were surveyed in June and during fall migration. In 2005, surveys were conducted in the spring, summer, and fall. Surveys were conducted in the morning, but were abandoned during inclement weather conditions such as high wind.

Results

A total of 86 species in White Sands NM were recorded during this inventory. This comprises 41% of the species known to occur in the monument, compared to a recent checklist. Five new species were added: Eurasian collared-dove (*Streptopelia decaocto*), gray flycatcher (*Empidonax wrightii*), cordilleran flycatcher (*Empidonax occidentalis*), Phainopepla (*Phainopepla nitens*), and chestnut-collared longspur (*Calcarius ornatus*). Incidental observations accounted for a significant proportion of the species documented in this survey. Higher precipitation and available food sources allowed birds to use other non-riparian areas in spring 2005. The survey areas were very dry during the spring and early summer of 2006.

Andrecito Creek

A total of 66 species or 31% of the species known to occur in the monument were observed during the surveys of Andrecito Creek. Of these species, 22 were breeding or potentially breeding. Cassin's sparrow (*Aimophila cassinii*), chestnut-collared longspur, crissal thrasher (*Toxostoma crissale*), loggerhead shrike (*Lanius ludovicianus*), all U.S. Fish and Wildlife Service (USFWS) species of conservation concern (2002), were observed. No federally or state-listed species were documented. This site may attract migrants and be used as stopover habitat.



NPS

Sandpiper on Lake Lucero.



NPS

American avocet.

Monument Headquarters and Visitor Center

A total of 59 species or 28% of the species known to occur in the monument were observed during the surveys of the monument headquarters and visitor center. Of these species, 20 were breeding or potentially breeding. Loggerhead shrike and northern harrier (*Circus cyaneus*), both U.S. Fish and Wildlife Service (USFWS) species of conservation concern (2002), were observed. No federally or state-listed species were documented. Several migrating species were observed despite limited habitat availability.

Discussion

The habitat at Andrecito Creek primarily consisted of desert shrub and arroyo shrub vegetation and no riparian habitat was present at the headquarters and visitor center site. Other sites in White Sands NM may provide more significant bird habitat. The researchers determined that the point count and area search methods were efficient and successful in detecting most species during the breeding season, while other methods may be more effective for very rare or elusive species. For species in migration, intensive searching and mist netting may be more appropriate.

Literature Cited

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Project Contacts

Raymond Meyer, La Tierra Environmental Consulting, LLC, Las Cruces, NM, USA, latierra@spinn.net

David Griffin, Griffin Biological Services, Las Cruces, NM, USA, griffinbio@gmail.com