



# SCOTTS BLUFF NATIONAL MONUMENT 2013 RESOURCE BRIEF

## LANDBIRD MONITORING

**Overview:** The Northern Great Plains Inventory and Monitoring Network (NGPN) jointly developed a long-term landbird monitoring protocol with Rocky Mountain Bird Observatory (RMBO) and three other Inventory and Monitoring (I&M) Networks (Sonoran Desert, Chihuahuan Desert, and Southern Plains). The 2013 breeding season was the first year of surveys for 11 of the NGPN Parks.

The basic sampling unit is a 1 km<sup>2</sup> grid that contains 16 evenly-spaced sample points, separated by 250 m. RMBO technicians stand at pre-determined fixed points and record birds observed/heard over a 6-minute period. Last summer, a total of 892 birds spanning 47 species were recorded at Scotts Bluff NM.

**Highlights:** The most common species at Scotts Bluff NM were the Spotted Towhee and White-throated Swift, representing 8% and 7% of all birds detected. The next most common species were the American Goldfinch, Western Kingbird, European Starling, American Robin, Mourning Dove, and Western Meadowlark, each at 6% of the detections. One new species was found at Scotts Bluff NM in 2013: the Eurasian Collared-Dove, an exotic species.



Above: The Western Kingbird (*Tyrannus verticalis*) was among the most common species detected at Scotts Bluff NM during the 2013 field season. Photo Credit: Bill Thompson, USFWS

Right: The Eurasian Collared-Dove (*Streptopelia decaocto*), an exotic species that is expanding its range throughout the United States, was the only new species found at Scotts Bluff NM in 2013. Photo Credit: J.M. Garg



| Condition Indicator                                                                                                                                                                                                                                                                                                                | Current Status/Trend | Rationale for Resource Condition                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Landbirds</b>                                                                                                                                                                                                                                                                                                                   |                      |                                                                                                                                                     |
| Selected Breeding Bird Species of Concern                                                                                                                                                                                                                                                                                          | TBD                  | Data collected in 2013 have not yet been fully analyzed.                                                                                            |
| <b>Weather and Climate</b>                                                                                                                                                                                                                                                                                                         |                      |                                                                                                                                                     |
| Drought Severity                                                                                                                                                                                                                                                                                                                   |                      | The park was under drought conditions for most of 2013. Conditions started improving in April and by mid-October the park was no longer in drought. |
| <b>Plant Community</b>                                                                                                                                                                                                                                                                                                             |                      |                                                                                                                                                     |
| Upland Plant Community Structure and Composition                                                                                                                                                                                                                                                                                   |                      | The diversity of native plants was fairly low, but it fell within the natural range of variation for mixed-grass prairie.                           |
| Exotic Plant Early Detection and Management                                                                                                                                                                                                                                                                                        |                      | Monitoring efforts showed high cover of exotic species in most areas of the park, though 2 sites were below 10% cover of exotic plants.             |
| Note: Table based on State of the Parks Reports - see annual report for more details. Green indicates "good condition", yellow indicates "caution", and red indicates "significant concern". Line thickness indicates confidence with dashed lines indicating "low confidence" and thick solid lines indicating "high confidence." |                      |                                                                                                                                                     |

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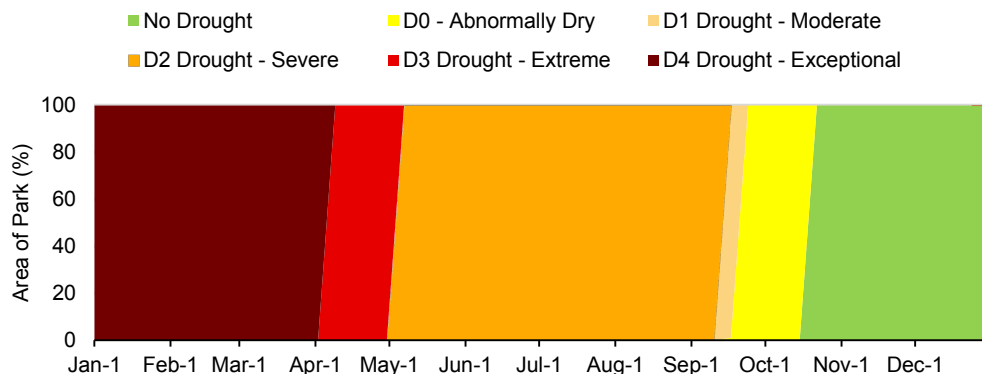


## WEATHER AND CLIMATE MONITORING

**Overview:** Weather is a fundamental driver of ecosystems in the Great Plains and may help explain trends seen in other natural resources. Drought categories are based on local reports and drought indicators including: Palmer Drought index, CPC Soil Moisture, USGS Streamflow, Standardized Precipitation Index, and Objective Short- and Long-term Drought Indicator Blends.

**Highlights:** Similar to most of the High Plains region at the beginning of 2013, Scotts Bluff NM continued to experience exceptional drought (D4) conditions. However, as the year progressed, drought conditions gradually subsided and by mid-October the park was no longer in any drought category.

Scotts Bluff National Monument, NE -- Drought Monitor Classes (2013)



Data Source: The U.S. Drought Monitor is jointly produced by the National Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture, and the National Oceanic and Atmospheric Administration.

Left: Percent area of Scotts Bluff NM under drought conditions in 2013. Colors represent different drought classes.

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## PLANT COMMUNITY MONITORING

**Overview:** NGPN staff completed the third year of plant community monitoring at Scotts Bluff NM in 2013. A total of 12 plots were visited, and 87 species were documented in the park.

**Highlights:** I&M staff found several individuals of a rare target species, spotted fritillary (*Fritillaria atropurpurea*), in the course of their surveys. Rare plants are often sensitive to habitat disturbance and alteration; the presence of these uncommon plants may indicate that the ecosystem in which they are found is in good condition at Scotts Bluff NM.



Bottom: Spotted fritillary (*Fritillaria atropurpurea*), an uncommon wildflower found in Scotts Bluff NM in 2013. Photo credit: Patrick Alexander courtesy of Southwest Environmental Information Network.

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**Network Parks:** Agate Fossil Beds NM • Badlands NP • Devils Tower NM • Fort Laramie NHS • Fort Union Trading Post NHS • Jewel Cave NM • Knife River Indian Villages NHS • Missouri NRR • Mount Rushmore NMEM • Niobrara NSR • Scotts Bluff NM • Theodore Roosevelt NP • Wind Cave NP