

JEWEL CAVE NATIONAL MONUMENT 2015 RESOURCE BRIEF

LANDBIRD MONITORING

Overview: Jewel Cave National Monument is recognized as the third longest cave in the world. It has over 180 miles of mapped and surveyed passages and many more miles yet to be discovered. Above ground, the 1,275 acre park was transformed by the Jasper fire in 2000 and now supports coniferous forest and prairie birds.

The Northern Great Plains Inventory and Monitoring Network developed a bird monitoring protocol jointly with the Bird Conservancy of the Rockies (formerly the Rocky Mountain Bird Observatory). The 2015 breeding season was the third year of bird surveys at Jewel Cave NM. This research is the beginning of a long-term effort to monitor species trends and densities.

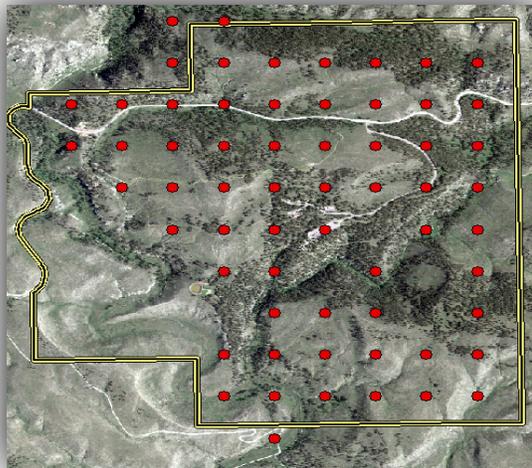
Technicians surveyed 63 points in 2015. A total of 1,320 birds representing 43 species were recorded.

Highlights: The red crossbill (9%), western wood-pewee (7%), and the house wren (7%) had the highest detection rates in 2015. Other common species included the northern flicker (6%), chipping sparrow (5%), and yellow-rumped warbler (4%). Interestingly, the great horned owl was recorded for the first time since monitoring efforts began at the Monument.

Several species at Jewel Cave are listed as species of importance by Partners in Flight and the state of South Dakota (page 2). One of these species, the vesper sparrow, is a regional species of concern. The sparrow's population has been declining in places where farming practices such as large-scale tillage and early hay harvesting occur. The grasslands within the park are likely a haven for nesting vesper sparrows. The sparrow was a common bird detected at Jewel Cave NM and comprised 4% of the species composition in 2015.



Above: A great horned owl with its chick. This bird is a fierce predator and can take ospreys, peregrine falcons and other owls. However, its main prey is small mammals.



Right: Point locations surveyed during the 2015 field season.



BIRD SPECIES DETECTED AT JEWEL CAVE NM

Common Name	2014	2015	Common Name	2014	2015
American Crow	2	1	Lewis's Woodpecker	2	0
American Goldfinch	42	14	Loggerhead Shrike	1	0
American Kestrel	2	6	MacGillivray's Warbler	2	2
American Robin	124	68	Mountain Bluebird	23	21
Black-capped Chickadee	36	13	Mourning Dove	16	40
Black-headed Grosbeak	3	0	Northern Flicker	62	95
Blue Jay	1	0	Northern Goshawk	1	0
Brown Creeper	3	1	Ovenbird	1	0
Brown-headed Cowbird	32	42	Pine Siskin	4	0
Canyon Wren	0	1	Plumbeous Vireo	9	30
Cassin's Finch	0	11	Red Crossbill	37	157
Cedar Waxwing	8	1	Red-breasted Nuthatch	7	18
Chipping Sparrow	85	78	Red-eyed Vireo	5	0
Clark's Nutcracker	2	0	Red-headed Woodpecker	24	54
Cliff Swallow	5	0	Red-naped Sapsucker	2	1
Common Nighthawk	1	13	Red-tailed Hawk	3	1
Cooper's Hawk	0	1	Rock Wren	6	14
Cordilleran Flycatcher	15	0	Spotted Towhee	41	44
Dark-eyed Junco	17	17	Townsend's Solitaire	7	9
Downy Woodpecker	2	0	Turkey Vulture	3	0
Dusky Flycatcher	2	52	Vesper Sparrow	24	59
Eastern Bluebird	0	2	Violet-green Swallow	8	34
Eastern Kingbird	10	6	Warbling Vireo	3	8
European Starling	1	0	Western Kingbird	2	0
Gray Catbird	1	0	Western Tanager	29	57
Gray Jay	5	8	Western Wood-Pewee	105	115
Great Horned Owl	0	4	White-breasted Nuthatch	14	26
Hairy Woodpecker	9	19	White-throated Swift	6	6
House Wren	123	109	Wild Turkey	0	1
Lark Sparrow	1	0	Yellow Warbler	3	0
Lazuli Bunting	4	0	Yellow-breasted Chat	1	0
Least Flycatcher	1	0	Yellow-rumped Warbler	51	61

Species of Importance:
Determined by Partners in Flight priority species list and State of South Dakota priority list.

Bird Conservancy of the Rockies 2016. The Rocky Mountain Avian Data Center. Brighton, CO. <http://adc.rmbo.org>. (Accessed January 24, 2016).

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