

Wildlife on Conservation Reserve Program (CRP) Lands

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Background

During 2003-2005, numerous landowners and farmers in eastern Washington allowed some of their lands to be used for wildlife research related to the Conservation Reserve Program (CRP). We are grateful for their interest in CRP and for their cooperation in this study. This report provides a brief update on the progress of that research.

Sagebrush-grassland habitat (shrubsteppe) historically was the dominant habitat in eastern Washington. Today, less than 40% of this shrubsteppe remains, and much of it fragmented and/or isolated from other similar habitats. Loss of once extensive shrubsteppe communities has greatly reduced the habitat available to a wide range of associated wildlife including sage-grouse, sharp-tailed grouse, sage thrasher, loggerhead shrike, Brewer's sparrow, sage sparrow, white-tailed jackrabbit, sagebrush vole, and sagebrush lizard.

The CRP is currently the only large-scale effort to restore habitat that may be used by shrubsteppe wildlife in the Columbia River Basin. Administered by the U.S. Department of Agriculture, this voluntary program pays farmers to take farmland out of production for periods of at least 10 years to achieve conservation objectives including reduction of soil erosion and provision of wildlife habitat. In Washington alone, over 1 million acres of converted farmland has been planted to native and non-native grasses under the CRP.



Grasses and sagebrush planted in "new" CRP

Because the CRP has enormous potential to provide habitat for many shrubsteppe species, we designed a study to examine CRP in Douglas, Lincoln, Grant, and Adams counties. We selected 32 CRP fields to compare with 16 areas of native shrub-steppe. The specific goals of the research are to: 1) compare wildlife populations in

CRP lands with those in nearby native shrubsteppe and 2) compare wildlife among CRP fields with different characteristics. This is the first study of this type in the Columbia Basin.

Preliminary Results

Birds



We counted 7310 individual birds on the 48 study areas over 3 years. Savannah sparrows were the most abundant in most CRP fields, followed by grasshopper sparrows and horned larks. These are typical species of arid grasslands and seem to have adapted well the new plantings. Several of the shrubsteppe-obligate species (Brewer's sparrows, sage sparrows, and sage thrashers) also used CRP when sagebrush was present, either seeded-in from adjacent native shrubsteppe (in the case of old CRP) or planted as part of the new CRP practices.

Species counted during surveys of 48 study areas in Douglas, Lincoln, Grant, and Adams counties, Washington, 2003-2005.

Species	
Horned lark	Cliff swallow
Savannah sparrow	Mourning dove
Grasshopper sparrow	Red-winged blackbird
Brewer's sparrow	Loggerhead shrike
Western meadowlark	Black-billed magpie
Vesper sparrow	House finch
Brown-headed cowbird	Ring-necked pheasant
Sage thrasher	Rock wren
Brewer's blackbird	Say's phoebe
Sage sparrow	Common nighthawk
Lark sparrow	Long-billed curlew

To see if birds found singing in CRP also were contributing to the regional population, we located and monitored the fate of 1511 nests on the study areas. The most common nests found in shrubsteppe and old CRP plots were those of the Brewer's sparrow; savannah sparrow nests were found most often in new CRP plots. Of interest, nests of many shrub-steppe birds (including sage sparrow, Brewer's sparrow, vesper sparrow, sage thrasher, and burrowing owl) were found in CRP fields when sagebrush was present. We analyzed the nesting success of the 3 most abundant species (Brewer's sparrow, savannah sparrow, and vesper sparrow) and found that nests in CRP were as likely to survive and produce young as those in the native shrubsteppe habitat.

Reptiles and Amphibians



We observed 248 individuals representing 10 species of reptiles and amphibians. The most common, and most widely distributed reptile was the short-horned lizard. Other reptiles that occurred in good numbers were the western rattlesnake and western skink. Few amphibians were found, largely a result of the scarcity of wetlands on our study sites. With the exception of short-horned lizards, reptiles were relatively scarce on CRP lands.

Reptiles and amphibians observed on study areas in Washington in 2003-2005.

Species	
Short-horned lizard	Terrestrial garter snake
Western rattlesnake	Night snake
Western skink	Spadefoot toad
Gopher snake	Tiger salamander
Racer	Long-toed salamander

Small Mammals



We captured 4788 small mammals representing 10 species. Three species, the deer mouse, Great Basin pocket mouse, and western harvest mouse, made up 90% of the captures.

Three rodents (deer mouse, western harvest mouse, and sagebrush vole) appeared to be more abundant in CRP than in shrubsteppe. In contrast, least chipmunks were captured mainly in shrubsteppe habitat. The Great Basin pocket mouse had a similar number of captures in all habitat types. The other species were too uncommon to evaluate.

Small mammals observed on study areas in Washington in 2003-2005.

Species	
Deer mouse	Vagrant shrew
Western harvest mouse	Montane vole
Great basin pocket mouse	Northern pocket gopher
Sagebrush vole	Merriams shrew
Least chipmunk	Long-tailed vole

Notable Trends

- Shrubsteppe birds were more likely to use CRP fields that contain sagebrush *and* were more likely to use CRP fields situated near abundant native shrubsteppe.
- Birds nesting in CRP has nest success rates equal to those of birds nesting in native shrubsteppe
- CRP fields supported more reptile species, and a greater abundance of reptiles, when situated near abundant native shrubsteppe.
- Small mammals occurred in greater numbers in CRP fields than in native shrubsteppe habitats and also occurred in greater numbers in CRP fields situated near abundant cropland.
- “New” CRP fields planted with sagebrush under more recent practices showed evidence of use by sage grouse; these sites likely will see increased use by shrubsteppe wildlife as the sage plants mature.

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