

Wildlife Habitat

111. Agricultural land use patterns of native ungulates in south-eastern Montana.

Selting, J. P. and Irby, L. R.

Journal of Range Management 50 (4): 338-345. (July 1997)

NAL Call #: 60.18-J82; ISSN: 0022-409X [JRMGAQ]

Descriptors: odocoileus hemionus/ odocoileus virginianus/ antilocapra americana/ wild animals/ habitat selection/ population density/ patterns/ seasonal variation/ agricultural land/ Montana/ Conservation Reserve Program lands

Abstract: Mule deer (*Odocoileus hemionus*), white-tailed deer (*Odocoileus virginianus*), and pronghorn antelope (*Antilocapra americana*) use of 6 agricultural land use categories in southeastern Montana were monitored to identify use patterns at specific sites.

Alfalfa (*Medicago sativa* L.), bottom rangeland, Conservation Reserve Program (CRP) lands, upland rangeland, wheat (*Triticum aestivum* L.) stubble, and growing wheat were observed during dawn, day, dusk, and night hours over a period of 12 months.

Mule deer densities on alfalfa peaked in fall and again in spring. The CRP lands were selected in all seasons. Rangeland sites were most heavily used in winter and summer. White-tailed deer used CRP lands in all seasons except fall. Alfalfa was selected in fall, spring, and summer. Antelope densities on alfalfa were highest in spring and fall, while growing wheat fields were used most in spring. Antelope in the northern study area selected CRP land in all seasons except fall. Densities of animals and patterns of use observed during this study would be unlikely to produce significant impacts on forage or crops at most of our study sites.

This citation is from AGRICOLA.

112. Agricultural Practices, Farm Policy, and the Conservation of Biological Diversity.

Gerard, P. W.

Laurel, Md: National Biological Service; PB95262515XSP, 1995. 32 p.

Notes: Also pub. as National Biological Service, Laurel, MD. rept. no. BIOLOGICAL-4.

Descriptors: Endangered species/ Birds/ Policies/ Biological indicators/ Cultivated lands/ Wildlife conservation/ Agricultural lands/ Biodiversity/ Natural resources and earth sciences/ Natural resource management/ Agriculture and food/ Agricultural equipment facilities and operations

Abstract: Long-term wildlife population declines are associated with changing agricultural practices. Cropland expansion, agricultural intensification, and national farm policies are all implicated in these declines. Social, economic, technological, and political factors determine where, what, and how a farmer produces crops and therefore his or her effect on wildlife habitat. Farmers are also influenced by

Department of Agriculture programs, which therefore are indirectly implicated in wildlife population declines. Changes in the prairie and Great Plains agricultural landscape since the 1950s provide a clear example of the relation between federal agriculture policy, farmers' land-use practices, and the decline of grassland bird species. Early research indicates that the Conservation Reserve Program may help to slow or reverse wildlife losses, including those of several species listed as endangered. However, Conservation Reserve Program benefits to wild life populations may vary considerably across the United States. Wildlife conservation in the agricultural landscape is limited by conflicting conservation objectives, the voluntary nature of federal agriculture programs, and the habitat requirements of many endangered vertebrate species.

113. Animal and habitat relationships in the South Platte basin with emphasis on threatened and endangered species.

Fitzgerald, J. P.

In: *Endangered Species Management: Planning Our Future*, Proceedings of the 6th Annual 1996 South Platte Forum. (Held 25 Oct 1995-26 Oct 1995 at Greeley, Colorado.) Graf, D. and Williams, D. J. (eds.)

Fort Collins, CO: Colorado Water Resources Research Institute, Colorado State University; pp. 8; 1995.

Descriptors: United States/ Colorado/ South Platte River Basin/ wildlife habitats/ river basins/ animal populations/ priorities/ wildlife management/ preservation/ spatial distribution/ species diversity/ Ecological impact of water development

Abstract: A minimum of 353 species of terrestrial vertebrates reside in or make important seasonal use of habitats in the South Platte River basin in Colorado. The list includes 252 birds, 69 mammals, 22 reptiles, and 10 amphibians. When species are tied to habitat requisites, the most critical habitats in priority of management needs/preservation are: 1. Grassland/Prairie; 2. Plains Riparian/Wetlands; 3. Middle to High Elevation Forests. In a management context the two most critical habitat types present the most serious problems. Most of the eastern plains is in private ownership with few incentives available to landowners for protection/habitat management. Habitat is becoming fragmented with less than one-third still in prairie. Water allocation and use patterns as well as human population growth patterns are increasing pressures on remaining plains landscapes, especially at the foothills/plains interface in the basin.

Agricultural patterns including increasing use of the Conservation Reserve Program will also likely effect distributional patterns of wildlife, perhaps to the detriment of some species.

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114. An annotated bibliography for wildlife responses to the Conservation Reserve Program.

Allen, A. W.

In: A comprehensive review of Farm Bill contributions wildlife conservation, 1985-2000/ Heard, L. P.; Hohman, W. L.; Halloum, D. J.; and Wildlife Habitat Management Institute (U.S.); Series: Technical Report USDA/NRCS/WHMI.

Madison, MS: USDA, NRCS, Wildlife Habitat Management Institute, 2000; pp. 151-206

NAL Call #: aS604.6 .C66 2000

Descriptors: Conservation Reserve Program/ wildlife habitats/ wildlife management

115. Annual set-aside programs: A long-term perspective of habitat quality in Illinois and the Midwest.

Warner, Richard E.; Etter, Stanley L.; David, Larry M.; and Mankin, Philip C.

Wildlife Society Bulletin 28 (2): 347-354. (2000)

NAL Call #: SK357.A1W5; ISSN: 0091-7648.

Notes: 3 tables; 1 figure.

Descriptors: policies and programs/ farms/ food crops/ production/ grassland/ cultivated farmland/ habitat management for wildlife/ conservation programs/ land use/ cover/ vegetation/ agriculture/ habitat change/ grains/ prairie/ extensive agriculture/ North America/ United States/ Illinois/ Iowa

Abstract: Farm programs that divert cropland from production have been important for establishing grassy habitat in the Midwest since the 1930s. This study documents 1) the expansion of row crop production and general decline of grasses on farm landscapes of the Midwest in recent decades, and 2) the trend toward short-term set-aside programs that establish grassy habitat of marginal value, depicted in Illinois. During the 1980s and early 1990s, row crop production in the Midwest moderated and millions of hectares of grassland were established on cropland diverted from production. Nonetheless, from 1964 to 1992, row crop plantings increased by 39%, with an 84% increase in soybeans being the most striking land-use change. Row crops supplanted numerous cover types that have grassy structure, including oats (-83%), wheat (-10%), other minor crops (-51%), permanent pasture (-54%), diverted cropland (-51%), and other farmland (-41%). On a study area in east-central Illinois, we evaluated and compared selected habitat characteristics of grassy cover for 1962-63 and 1991-94 on 100 randomly selected 4.05-ha plots, including tract width, heterogeneity of vegetation, disturbance during the growing season, persistence of vegetation from one growing season to the next,

and extent to which grassy fields were connected by permanent (grass) edges to surrounding landscape elements. There was a diminution ($P < 0.05$) in these habitat attributes in the 1990s compared to the 1960s. The conservation community has emphasized the potential benefits of the Conservation Reserve Program (CRP) for wildlife, while most of the grassland in the Corn Belt has been established by annual set-aside programs. Although the most recent set-aside era ended in the late 1990s, programs of this nature may reemerge. Our study underscores the need and opportunity for improving habitat conditions as part of future farm programs that would divert land from production under short-term contract.

This citation is provided courtesy of NISC, publisher of *Wildlife & Ecology Studies Worldwide*.

116. Are economic instruments the saviour for biodiversity on private land?

Gibbons, P; Briggs, S V; and Shields, J M

Pacific Conservation Biology 7 (4): 223-228. (2002);

ISSN: 1038-2097

Descriptors: Conservation Reserve Program/ biodiversity conservation/ economic instruments/ ecosystem vulnerability/ environmental condition/ metapopulation viability/ offset schemes/ private lands/ representative ecosystem examples/ stewardship schemes/ tax concessions/ temporal support

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117. Area Requirements of Grassland Birds: A Regional Perspective.

Johnson, D. H. and Igl, L. D.

Auk 118(1): 24-34. (2001)

NAL Call #: 413.8 AU4

Descriptors: Conservation Reserve Program/ Great Plains

Abstract: Examined the influence of fragmentation and isolation of CRP grassland fields on grassland breeding bird populations in the northern Great Plains.

118. The Arkansas response to federal farm program opportunities.

Long, J. D.; Akers, D.; and Wilson, S. N.

Journal of Soil and Water Conservation 46 (4):

272-275. (July 1991-Aug. 1991)

NAL Call #: 56.8-J822; ISSN: 0022-4561 [JSWCA3]

Descriptors: farmland/ wildlife conservation/ habitats/ environmental protection/ federal programs/ Conservation Reserve Program

This citation is from AGRICOLA.

119. Association of the Conservation Reserve Program with ring-necked pheasant survey counts in Iowa.

Riley, Terry Z

Wildlife Society Bulletin 23 (3): 386-390. (1995)

NAL Call #: SK357.A1W5; ISSN: 0091-7648

Descriptors: Phasianus colchicus (Galliformes)/ animals/ birds/ chordates/ nonhuman vertebrates/ vertebrates/ agriculture/ snowfall/ weather/ wildlife management

Abstract: More than 880,000 ha of Iowa farmland were enrolled in the Conservation Reserve Program (CRP) from 1986-1991. I evaluated the relationship between CRP enrollment and ring-necked pheasants (*Phasianus colchicus*) in Iowa and how cropland and weather affected that relationship. Six percent of the land area in Iowa was enrolled in the CRP between 1986 and 1991. Pheasant numbers in Iowa increased 30% during the first 5 years of the CRP compared to a similar period before the program began ($P = 0.026$). Numbers increased 34% ($P < 0.018$) in counties with $> 70\%$ cropland and 26% ($P = 0.12$) in counties with 50-70% cropland. I did not detect increases in pheasant numbers in counties with $< 50\%$ cropland ($P > 0.71$). Pheasant numbers were positively related to the CRP, but this function was also influenced by percent cropland and cumulative snowfall.

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120. Avian abundance and diversity in CRP, crop fields, pastures, and restored and native grasslands during winter.

Morris, Kelly

Passenger Pigeon 62 (3/4): 217-224. (2000);

ISSN: 0031-2703

Descriptors: birds/ crops/ conservation/ species diversity/ hibernation/ snow/ grass prairies/ meadows/ agricultural conservation programs

Abstract: I compared grassland bird use of land set aside by the Conservation Reserve Program (CRP), crop fields, pastures, and restored and native prairies during winter in southern Wisconsin. Species diversity was highest in crop fields, followed by restored prairie, CP2 (CRP fields planted to native grasses), native prairie remnants, and pastures. Avian abundance (number of individuals seen per hour of observation) was highest in pastures, followed by restored prairie, CP2, crop fields and native prairie. No birds were observed in CP1 fields (CRP fields planted to introduced grasses and legumes). Avian abundance in crop fields and native prairie was higher during periods of incomplete snow cover than during periods with 100% snow cover, while the reverse was true for restored prairie and CP2 sites. The variety of habitats used by grassland

birds during winter should be taken into account when management plans are being developed for these species.

This citation is provided courtesy of NISC, publisher of *Wildlife & Ecology Studies Worldwide*.

121. Avian abundance, composition, and reproductive success on Conservation Reserve Program fields in northern Missouri.

McCoy, T. D.

Columbia, MO: University of Missouri, 1996.

Notes: M.S. Thesis

Descriptors: Conservation Reserve Program/ State conservation programs/ Missouri

Abstract: Studied various avian species abundance, composition, and reproductive success in different grassland types (CP1 vs. CP2) in northern Missouri.

122. Avian abundance in CRP and crop fields during winter in the midwest.

Best, Louis B; Campa, Henry; Kemp, Kenneth E; Robel, Robert J; Ryan, Mark R; Savidge, Julie; Weeks, Harmon P Jr; and Winterstein, Scott R
American Midland Naturalist 139 (2): 311-324. (1998)
NAL Call #: 410 M58; ISSN: 0003-0031

Descriptors: dark eyed junco (*Passeriformes*)/ horned lark (*Passeriformes*)/ lapland longspur (*Passeriformes*)/ meadowlark (*Passeriformes*)/ mourning dove (*Columbiformes*)/ northern bobwhite (*Galliformes*)/ ring necked pheasant (*Galliformes*)/ American goldfinch (*Passeriformes*)/ American tree sparrow (*Passeriformes*)/ Canada goose (*Anseriformes*)/ European starling (*Passeriformes*)/ Animals/ Birds/ Chordates/ Nonhuman Vertebrates/ Vertebrates/ crop fields/ species abundance/ species composition/ winter/ Conservation Reserve Program

Abstract: We compared the abundance and species composition of birds in Conservation Reserve Program (CRP) fields with the same aspects in row-crop fields during the winter (January and February) over several years (1992-1995) for six Midwestern states (Indiana, Iowa, Kansas, Michigan, Missouri and Nebraska). Field techniques were standardized in all states. CRP fields consisted of either permanent introduced grasses and legumes (CP1) or permanent native grasses (CP2), and the plant species seeded in CRP fields differed within and among states. Vegetation characteristics of CRP fields varied considerably from state to state, but vertical density and total canopy cover (primarily grasses) were particularly high in Nebraska. Mean annual total bird abundance ranged from 0.1 to 5.1 birds per km of transect in CRP fields and from 0.1 to 24.2 in row-crop fields. The total number of bird species recorded in CRP fields in the six states ranged from 6 to 32; the range for row-crop fields was 8 to 18. The most abundant species in CRP fields differed among states but included the ring-necked pheasant, American tree sparrow, northern bobwhite, dark-eyed junco and

American goldfinch. The most abundant species in row-crop fields included the horned lark, American tree sparrow, European starling, mourning dove, lapland longspur, meadowlarks and Canada goose. Some of the most abundant bird species wintering on CRP fields have been undergoing long-term population declines, thus this program has the potential to mitigate population losses.

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123. Avian community structure, reproductive success, vegetative structure, and food availability in burned CRP Fields and grazed pastures in northeastern Kansas.

Klute, D. S.

Manhattan, KS: Kansas State University, 1994.

Notes: M.S. Thesis

Descriptors: Conservation Reserve Program/ State conservation programs/ Kansas

Abstract: Compared avian community structure and reproductive success, food availability, and vegetative structure in CRP grasslands in northern Kansas that were grazed and burned.

124. Avian Population Trends Within the Evolving Agricultural Landscape of Eastern and Central United States.

Murphy, MT

Auk 120 (1): 20-34. (Jan. 2003)

NAL Call #: 413.8 AU4; *ISSN:* 0004-8038

Descriptors: Conservation Reserve Program/ Migratory Birds/ CRP Fields/ Nesting Success/ Breeding Birds/ North America/ Habitat/ Grassland/ Abundance/ Songbirds

Abstract: State-level Breeding Bird Survey (1980-1998) and U.S. Department of Agriculture statistics were used to test the hypothesis that changes in agricultural land use within the eastern and central U.S. have driven population trends of grassland and shrub habitat birds over the past two decades. The degree to which population trends differed between grassland and shrub habitats was evaluated with respect to migratory and nesting behavior. Grassland birds declined significantly between 1980 and 1999, but, on average, shrub habitat species did not. Grassland-breeding, long-distance migrants exhibited the strongest negative trends. Most species (78%; n = 63) exhibited at least one significant association between population trends and changes in agricultural land use, and in most, land use "explained" 25-30% of the variation in population trends among states. Changes in the farmland landscape accounted for more of the interstate variability of population trends of short-distance migrants than of both long- distance migrants and residents, and that variability was greater in grassland than shrub species. Declines in the area of rangeland and cover crops were followed by population declines and increases, respectively, by

many species. Increases of land in the Conservation Reserve Program had negative associations with population trends of some shrub species. The results indicate that grassland birds have declined strongly over the past two decades, and that regardless of migratory behavior or nesting habits, avian population trends are linked strongly to changes in agricultural land use within North America.

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125. Avian response to landscape change in fragmented southern Great Plains grasslands.

Coppedge, Bryan R.; Engle, David M.; Masters, Ronald E.; and Gregory, Mark S.

Ecological Applications 11 (1): 47-59. (2001)

NAL Call #: QH540.E23; *ISSN:* 1051-0761

Descriptors: bird communities/ neotropical migrant species/ conservation/ aerial photography/ Juniperus spp/ plains/ prairies/ agricultural conservation programs

Abstract: We examined the dynamics of avian communities associated with fragmented grasslands in Oklahoma USA, using long-term (1965-1995) raw (stop-level) data from the Breeding Bird Survey (BBS). Aerial photography was used to document changes in land cover type and landscape pattern as affected by woody plant (mostly *Juniperus virginiana* L.) encroachment and concurrent cropland conversions to agricultural grassland under the Conservation Reserve Program (CRP). Rank trend analysis identified species with significant population trends, and canonical correspondence analysis (CCA) was used to identify important environmental gradients from a group of descriptive habitat variables that included land cover type composition and indices of vegetation cover, landscape pattern, and grassland patch structure. Avian community structure shifted along gradients of increasing woody plant cover and indicators of continuing landscape fragmentation. Open-habitat generalists, woodland, and successional scrub species generally increased, whereas many grassland species decreased. In some instances, neotropical migrants responded positively to increasing woody vegetation. Some grassland birds also showed a positive response to increases in agricultural grassland, but only in areas of severe juniper encroachment. Most grassland species exhibited consistent declines related to the influx of woody vegetation and associated landscape changes. Woody plant encroachment into southern Great Plains grasslands already fragmented by agricultural activity represents a conservation management dilemma. Although woody vegetation in remnant native prairies may provide habitat for some declining neotropical migrants that require shrubby areas, grassland structure and suitability is compromised for many declining grassland-endemic birds. Cropland conversion to agricultural grassland does appear to provide suitable for some grassland

species. However, this benefit appears to be limited to areas where woody plant invasion into grasslands is relatively advanced, and may have only a temporary effect, as most CRP areas are likely to return to agricultural production in the near future. Changes are needed in grassland management practices to restrict woody plant encroachment and fragmentation; otherwise, continued declines in grassland bird populations can be expected. This citation is provided courtesy of NISC, publisher of *Wildlife & Ecology Studies Worldwide*.

126. Avian use and vegetation characteristics of Conservation Reserve Program fields.

Delisle, Jennifer M. and Savidge, Julie A.
Journal of Wildlife Management 61 (2): 318-325. (1997)
NAL Call #: 410 J827; ISSN: 0022-541X
Descriptors: bobolinks (Passeriformes)/ common yellowthroat (Passeriformes)/ dickcissels (Passeriformes)/ grasshopper sparrow (Passeriformes) / ring necked pheasant (Galliformes)/ American tree sparrow (Passeriformes)/ Ammodramus savannarum (Passeriformes)/ Dolichonyx oryzivorus (Passeriformes)/ Geothlypis trichas (Passeriformes)/ Phasianus colchicus (Galliformes)/ Spiza americana (Passeriformes)/ Spizella arborea (Passeriformes)/ Sturnella spp. (Passeriformes)/ animals/ birds/ chordates/ nonhuman vertebrates/ vertebrates/ Conservation Reserve Program/ fields/ meadowlarks / seasonality/ species abundance/ vegetation structure/ wildlife management
Abstract: We compared avian use of Conservation Reserve Program (CRP) fields enrolled in the CP1 (cool-season grasses and legumes) and CP2 (warm-season native grasses) options in southeastern Nebraska from 1991 to 1995. In winter and in the breeding season CP2 fields had taller, denser vegetation than CP1 fields. However, total bird abundance did not differ between CP1 and CP2 fields ($P = 0.47$). Dickcissels (*Spiza americana*) and grasshopper sparrows (*Ammodramus savannarum*) were the most abundant species during the breeding season although population numbers varied among years ($P < 0.001$). Dickcissels and grasshopper sparrows showed no differences in abundance between CPs, but dickcissels were associated with tall, dense vegetation and grasshopper sparrows with sparser vegetation and a shallow litter layer. Bobolinks (*Dolichonyx oryzivorus*) were more abundant on CP1 fields ($P = 0.001$), and common yellowthroats (*Geothlypis trichas*) and sedge wrens (*Cistothorus platensis*) were more abundant on CP2 fields ($P = 0.001$ and $P = 0.05$). Average winter abundances did not change over years ($P = 0.90$). American tree sparrows (*Spizella arborea*) and ring-

necked pheasants (*Phasianus colchicus*) were the most abundant species during winter and were more abundant on CP2 fields ($P < 0.05$). Meadowlarks (*Sturnella* spp.) were more abundant on CP1 fields in winter ($P < 0.05$).
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127. Avian use of fields enrolled in the Conservation Reserve Program in southeast Nebraska.

Delisle, Jennifer M.
Lincoln, Nebraska: University of Nebraska, 1995.
Notes: Thesis (M.S.);
Includes bibliographical references.
NAL Call #: NBU LD3656-1995-D455
Descriptors: Conservation Reserve Program---United States/ Birds---Habitat---Nebraska
This citation is from AGRICOLA.

128. Big bluestem evaluations in the Eastern Plains.

Moyer, J. L.; Fine, G.; and Walker, J.
In: Report of progress: Kansas Agricultural Experiment Station, 606; Manhattan, Kan.: Agricultural Experiment Station, Kansas State College of Agriculture and Applied Science, 1990. 9 p.
Notes: ISSN: 1061-7841
NAL Call #: 100-K133P
Descriptors: andropogon gerardii/ cultivars/ forage/ comparisons / agronomic characteristics/ crop yield/ crude protein/ digestibility/ conservation areas/ weather data/ Kansas/ Oklahoma/ Conservation Reserve Program
This citation is from AGRICOLA.

129. Bird abundance and nesting in CRP fields and cropland in the midwest: A regional approach.

Best, Louis B; Campa, Henry; Kemp, Kenneth E; Robel, Robert J; Ryan, Mark R; Savidge, Julie; Weeks, Harmon P Jr; and Winterstein, Scott R
Wildlife Society Bulletin 25 (4): 864-877. (1997)
NAL Call #: SK357.A1W5; ISSN: 0091-7648
Descriptors: nest predation/ nesting success/ rowcrop field/ species abundance/ vegetational structure/ Conservation Reserve Program/ Agelaius phoeniceus [red winged blackbird] (Passeriformes)/ Ammodramus savannarum [grasshopper sparrow] (Passeriformes)/ Spiza americana [dickcissel] (Passeriformes)
Abstract: We compared the abundance and nesting success of avian species in Conservation Reserve Program (CRP) fields during the summer with that in rowcrop fields over 5 years (1991-1995) for 6 Midwestern states (Ind., Ia., Kans., Mich., Mo., and Nebr.). Field techniques were standardized in all states. CRP fields consisted of either perennial introduced grasses and legumes (CP1) or perennial

native grasses (CP2), and the plant species seeded in CRP fields differed within and among the states. Disturbances to CRP fields included mowing (partial or complete), application of herbicides, and burning. The height, vertical density, and canopy coverage of vegetation in CRP fields were measured in each state; values for these measurements were particularly low in Kansas. Mean annual total bird abundance in CRP fields ranged from 4.9 to 29.3 birds/km of transect. The most abundant species on CRP fields differed among states but included red-winged blackbirds (*Agelaius phoeniceus*), grasshopper sparrows (*Ammodramus savannarum*), and dickcissels (*Spiza americana*). Although the total number of bird species was similar in CRP and rowcrop fields across the region, bird abundance was 1.4-10.5 times greater in the former. Nests of 33 bird species were found in CRP fields compared with only 10 species in rowcrop fields, and the number of nests found was 13.5 times greater in CRP fields. Nest success in CRP fields was 40% overall; predation was the greatest cause of nest failure. Long-term farm set-aside programs that establish perennial grass cover, such as the CRP, seem to provide many benefits for grassland birds, including several species for which conservation is a great concern.

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130. Bird abundance and nesting success in Iowa CRP fields: The importance of vegetation structure and composition.

Patterson, Matthew P and Best, L B
American Midland Naturalist 135 (1): 153-167. (1996)
NAL Call #: 410 M58; *ISSN:* 0003-0031
Descriptors: passerine (Passeriformes)/ Aves (Aves Unspecified) / Plantae (Plantae Unspecified)/ animals/ birds/ chordates/ nonhuman vertebrates/ plants / vertebrates/ Conservation Reserve Program/ land management practice
Abstract: Bird use of Conservation Reserve Program (CRP) and row-crop fields was studied in central Iowa from May through July 1991-1993. Thirty-three bird species were recorded in CRP fields and 34 in row-crop fields. The most abundant species in both habitats was the red-winged blackbird (*Agelaius phoeniceus*), accounting for 35% of all birds in CRP and 24% in row-crop fields. The dickcissel (*Spiza americana*), grasshopper sparrow (*Ammodramus savannarum*), bobolink (*Dolichonyx oryzivorus*), common yellowthroat (*Geothypis trichas*), brown-headed cowbird (*Molothrus ater*), savannah sparrow (*Passerculus sandwichensis*) and ring-necked pheasant (*Phasianus colchicus*) were the next most abundant species in CRP plots. The horned lark (*Eremophila alpestris*), vesper sparrow (*Poocetes gramineus*) and brownheaded cowbird were the next most abundant species in row-crop fields. Nests of 16 bird species were found in CRP fields, with red-winged blackbirds accounting for 48% of all nests

found. The vesper sparrow and horned lark were the only species nesting in row-crop fields. The major cause of nest loss for all species was predation, accounting for 52% of all nest loss in CRP fields and 65% in row-crop fields. Mammals accounted for 89, 88 and 85% of the predation on grasshopper sparrow, red-winged blackbird and dickcissel nests, respectively. The Conservation Reserve Program has likely contributed to an increase in the abundance of many bird species in central Iowa, inasmuch as the row-crop habitat that it replaced has lower bird abundance and supports fewer nesting species. The vegetation structure and composition of CRP fields in central Iowa are diverse, resulting in differences in the bird species communities using these fields. The effects of several land-management practices are discussed relative to bird species composition and nesting success.

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131. Bird Abundance and Success in CRP.

Mccooy, T.
 In: 62nd Midwest Fish and Wildlife Conference. (Held 3 Dec 2000-6 Dec 2000 at Minneapolis. MN (USA).); 2001.

Notes: Paper No. 307; Conference Sponsor: NCD-AFS; World Meeting Number 000 5249

Descriptors: Aquatic Science/ Biology/ Environmental Science

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132. Birds and the Conservation Reserve Program: A retrospective study.

Lauber, T. B.
 Orono, Me.: University of Maine, 1991.
Notes: Thesis (M.S.) in Wildlife Management. Bibliography: leaves 243-248. Includes vita.
NAL Call #: MeU Univ.-1991-L38
Descriptors: Conservation Reserve Program U.S/ Bird populations Effect of agricultural conservation on This citation is from AGRICOLA.

133. Breeding bird composition and species relative abundance patterns on Conservation Reserve Program (CRP) land in Western Minnesota.

Hanowski, JoAnn M.
Loon 67 (1): 12-16. (1995).
Notes: WR 252
Descriptors: communities/ Conservation Reserve Program/ conservation programs/ birds/ North America/ United States/ Minnesota/ Minnesota, western
 This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

134. Changes in Breeding Bird Populations with Habitat Restoration in Northern Iowa.

Fletcher, RJ and Koford, RR

American Midland Naturalist 150 (1): 83-94.

(July 2003)

NAL Call #: 410 M58; ISSN: 0003-0031

Descriptors: Conservation Reserve Program/ Grassland Birds/ Avian Communities/ Area Sensitivity/ Prairie Wetlands/ Natural Wetlands/ Abundance/ Management/ Dakota/ Fields

Abstract: Native tallgrass prairie and wetland habitat in the Prairie Pothole Region of the United States have declined over the past two centuries. Bird communities using these habitats have also experienced widespread declines that are often attributed to severe habitat loss and fragmentation. We estimated the change, or turnover, in bird populations in the Eagle Lake Wetland Complex, Iowa, with ongoing grassland and wetland restoration by linking geographic information system data and bird surveys in different land cover types (hayland, pasture, restored grassland, restored wetland and rowcrop agriculture) during the 1999-2001 breeding seasons. Habitat restoration efforts primarily converted rowcrop agriculture and pastures into grassland and wetland habitat. Based on land conversion, abundances of most species have likely increased in the area, including many species of management concern. Yet a few species, such as killdeer (*Charadrius vociferus*), have probably decreased in abundance. This estimation approach and these estimates provided a critical first step for evaluating restoration efforts; however, information on demographic parameters, such as nesting success, in restored areas is needed for understanding how restoration ultimately affects bird populations.

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135. A comparison of Conservation Reserve Program habitat plantings with respect to arthropod prey for grassland birds.

McIntyre, N. E. and Thompson, T. R.

American Midland Naturalist 150 (2): 291-301. (2003)

NAL Call #: 410 M58; ISSN: 0003-0031.

Notes: Number of References: 64

Descriptors: Environment/ Ecology/ Texas High Plains/ North American grassland/ population trends/ CRP fields/ community structure/ avian abundance/ nestling diet/ vegetation/ Coleoptera/ landscape

Abstract: The Conservation Reserve Program (CRP) was designed to reduce soil erosion and curb agricultural overproduction by converting highly erodible agricultural land to various forms of perennial habitat. It has had an incidental benefit of providing habitat for wildlife and has been beneficial in reversing population declines of several grassland bird species. However, the mechanisms behind these reversals remain unknown. One such mechanism

may be differences in food availability on CRP vs. non-CRP land or between different types of CRP. The influence of CRP habitat type on the abundance of arthropod prey used by grassland birds has not been previously explored. We compared the abundance and diversity of arthropods among four CRP habitat types in Texas [replicated plots of exotic lovegrass (*Eragrostis curvula*), Old World bluestem (*Bothriochloa ischaemum*), mixed native grasses with buffalograss (*Buchlo dactyloides*) and mixed native grasses without buffalograss] and native shortgrass prairie. Attention was focused on adult and juvenile spiders (Order Araneae), beetles (Coleoptera), orthopterans (Orthoptera: grasshoppers and crickets) and lepidopterans (Lepidoptera: butterflies and moths), as these taxa are the primary prey items of grassland birds during the breeding season. Arthropod diversity and abundance were higher on indigenous prairie compared to CRP, reflecting differences in vegetative diversity and structure, but there were no differences in arthropod richness or abundance among CRP types. These results indicate that, although CRP is not equivalent to native prairie in terms of vegetation or arthropod diversity, CRP lands do support arthropod prey for grassland birds. More direct assays of the survivorship and fitness of birds on CRP compared to native shortgrass prairie are clearly warranted.

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136. A comparison of soil fertility between semi-natural and agricultural plant communities: Implications for the creation of species-rich grassland on abandoned agricultural land.

Gough, M. W. and Marrs, R. H.

Biological Conservation 51 (2): 83-96. (1990)

NAL Call #: S900.B5; ISSN: 0006-3207

Descriptors: grasslands/ agricultural ecosystems/ forests/ phosphorus/ old fields/ soil fertility/ comparison/ Soil

Abstract: Soils were collected from a number of community types including semi-natural grassland, scrub, woodland, arable fields and improved grassland on various parent substrates and their fertility assessed by chemical analysis and plant bioassay techniques. Under glasshouse conditions, the main limiting factor to plant growth on the soils collected was the availability of P. Levels of extractable P in the arable soils, improved grassland soils and in some of the scrub and woodland soils collected were found to be significantly higher than in adjacent, semi-natural grassland soils. It may therefore be necessary to reduce the availability of P in the soil before species-rich grassland can be successfully established and maintained on old field

sites produced by "set-aside" or extensification schemes, and in conservation management programmes where late successional vegetation is removed.

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137. A comprehensive review of Farm Bill contributions to wildlife conservation, 1985-2000.

Heard, L. P.; Hohman, W. L.; Halloum, D. J.; and Wildlife Habitat Management Institute (U.S.)
Madison, MS: USDA, NRCS, 2000.

Notes: "Technical Report, USDA/NRCS/WHMI-2000." "December 2000."

Includes bibliographical references.

NAL Call #: aS604.6 .C66 2000

Descriptors: Agricultural law and legislation---United States/ Agricultural conservation---Government policy---United States/ Wildlife habitat improvement---United States/ Wetland agriculture

Abstract: Contents: Conservation compliance and wetlands conservation provisions of the Omnibus Farm Acts of 1985, 1990, and 1996 / Stephen J. Brady; Grassland bird use of Conservation Reserve Program fields in the Great Plains / Douglas H. Johnson; Waterfowl responses to the Conservation Reserve Program in the Northern Great Plains / Ronald E. Reynolds; Impact of the Conservation Reserve Program on wildlife conservation in the Midwest / Mark R. Ryan; Wildlife responses to the Conservation Reserve Program in the Southeast / Wes Burger; The value of buffer habitats for birds in agricultural landscapes / Louis B. Best; Biological responses to wetland restoration: Implications for wildlife habitat development through the Wetlands Reserve Program / Charlie Rewa; Wildlife Habitat Incentives Program: A summary of accomplishments, 1998-1999 / Ed Hackett; Environmental Quality Incentives Program: Program summary and potential for wildlife benefits / Anthony Esser, Robert T. Molleur, Paige Buck, Charlie Rewa; Wildlife responses to wetland restoration and creation: An annotated bibliography / Charlie Rewa; An annotated bibliography for wildlife responses to the Conservation Reserve Program / Arthur W. Allen
This citation is from AGRICOLA.

138. Conducting a financial analysis of quail hunting within the Conservation Reserve Program.

Williams, C. F. and Mjelde, J. W.

Wildlife Society Bulletin 22 (2): 233-241.

(Summer 1994)

NAL Call #: SK357.A1W5; *ISSN:* 0091-7648

[WLSBA6]

Descriptors: colinus virginianus/ hunting/ economic analysis/ federal programs/ Texas

This citation is from AGRICOLA.

139. The Conservation Reserve Program: A wildlife conservation legacy.

Rude, Kathleen. and Wildlife Management Institute. Washington, D.C.: Wildlife Management Institute, 1994. 15 p.: ill., map

Notes: Original title: "The Conservation Reserve Program: A wildlife conservation legacy --- America needs the Conservation Reserve Program"; "October, 1994."

NAL Call #: S624.A1C67--1994

Descriptors: Conservation Reserve Program---United States/ Soil conservation---Government policy---United States/ Wildlife conservation---United States
This citation is from AGRICOLA.

140. The Conservation Reserve Program and grassland birds.

Johnson, D. H. and Schwartz, M. D.

Conservation Biology 7 (4): 934-937. (1993)

NAL Call #: QH75.A1C5; *ISSN:* 0888-8892

Descriptors: Aves/ grasslands/ environmental restoration/ habitat utilization/ government policy/ United States/ Birds

Abstract: Several bird species that breed in the temperate grasslands of North America, many of which winter in the Neotropics, declined in abundance during the past quarter century. The Lark Bunting (see Table 1 for scientific names) and Grasshopper Sparrow, as examples, declined by about half during that period, as indexed by the U.S. Fish and Wildlife Service's Breeding Bird Survey. Populations of other grassland species have also diminished steadily, if not as spectacularly. Why so many species declined is not known, but continued conversion of perennial grassland to annually tilled cropland is a suspected cause. A test of this possibility is offered by the Conservation Reserve Program, a program of the United States Department of Agriculture that caused the reversion of millions of hectares of marginal cropland to perennial grassland. We evaluated the use by breeding birds of selected Program fields in eastern Montana, North Dakota, South Dakota, and western Minnesota. These four states have about four million hectares of land enrolled in the Program.

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141. The Conservation Reserve Program and northern bobwhite population trends in Illinois.

Roseberry, J. L. and David, L. M.

Transactions of the Illinois State Academy of Science 87 (1-2): 61-70. (1994); *ISSN:* 0019-2252

Descriptors: Colinus virginianus/ population status/ land use/ agricultural ecosystems/ Illinois/ Management/ Birds/ United States

Abstract: We examined 3 indexes of Northern Bobwhite abundance in Illinois at various geographic scales to determine possible relationships with the Conservation Reserve Program. Over 256,000 ha

were enrolled in the CRP during the first 9 signup periods (1986-1990). About 87% of this land was in CP-1 vegetation (introduced cool-season grasses and legumes). Male bobwhite call counts in some parts of the state may have been positively related to amounts of CRP land. However, there was no strong evidence that autumn population densities increased as a result of the program. Positive CRP effects on local bobwhite habitat in some areas were probably offset by neutral or negative effects in others. We discuss possible reasons why potential benefits of the CRP for Northern Bobwhite have not been fully realized.

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142. The Conservation Reserve Program and wildlife habitat in the southeastern United States.

Carmichael, D. Breck Jr.

Wildlife Society Bulletin 25 (4): 773-775. (1997)

NAL Call #: SK357.A1W5; ISSN: 0091-7648

Descriptors: conservation programs/ Conservation Reserve Program/ habitat management/ management/ wildlife/ North America/ United States/ United States, Southeastern

Abstract: The author provides a history of the Conservation Reserve Program in the southeastern United States. A recent cooperative study by the International Association of Fish and Wildlife Agencies and the U.S. Fish and Wildlife Service conducted between 1988 and 1992 showed no significant, long-term enhancement of habitat attributable to the CRP in the Southeast. The author discusses reasons for this lack of success in this region.

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

143. Conservation Reserve Program: Benefit for Grassland Birds in the Northern Plains.

Reynolds, R. E.; Shaffer, T. L.; Sauer, J. R.; and Peterjohn, B. G.

Transactions of the 59th North American Wildlife and Natural Resource Conference: 328-336. (1994);

ISSN: 0078-1355

Descriptors: birds/ conservation programs/ ducks/ grassland/ nests and nesting/ waterfowl/ abundance/ cover, nesting/ policies and programs/ statistics/ North Dakota/ South Dakota/ Conservation Reserve Program/ Upland Nesting/ Nest Success/ Waterfowl Production Areas/ Breeding Bird Surveys/ Population Trends/ Grasslands/ North America/ United States/ North Dakota/ South Dakota/ northern plains

Abstract: The importance of the Conservation Reserve Program (CRP) to upland- nesting ducks and certain other grassland-nesting birds was investigated. For ducks, nest success in CRP cover was compared with nest success in planted cover on waterfowl production areas in the same period (1992-93) and with that of an earlier period (1980-84). For

nonwaterfowl, North American Breeding Bird Survey data were used to compare trends in populations of certain species found in CRP, for the Periods 1966-86 (pre-CRP establishment) and 1987-92 (post-CRP cover establishment) in North Dakota.

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

144. Conservation Reserve Program (CRP) contributions to avian habitat.

Allen, A. W.

In: U.S. Fish and Wildlife Service Federal Aid Report, National Biological Survey; Fort Collins, CO: National Ecology Research Center, 1994.

Descriptors: Conservation Reserve Program/ United States

Abstract: Discussed characteristics of CRP contracts with greatest potential benefits, landscape planning, and management recommendations.

145. The Conservation Reserve Program: Good for birds of many feathers.

Kantrud, H. A.; Koford, R. R.; Johnson, D. H.; and Schwartz, M. D.

North Dakota Outdoors 56(2): 14-17. (1993)

Descriptors: State conservation programs/ North Dakota

Abstract: Examined avian species' use and population trends on CRP land in North Dakota.

146. Conservation Reserve Program: Source or sink habitat for grassland birds in Missouri?

McCoy, Timothy D.; Ryan, Mark R.; Kurzejeski, Eric W.; and Burger, Loren W. Jr.

Journal of Wildlife Management 63 (2): 530-538. (1999)

NAL Call #: 410 J827; ISSN: 0022-541X.

Notes: Project Number: MO W-013-R

Descriptors: Fringillidae/ Passeriformes/ Agelaius phoeniceus/ Ammodramus savannarum/ Carduelis tristis/ Geothlypis trichas/ Spiza americana/ Spizella pusilla/ Sturnella magna/ behavior/ birds/ communities/ Conservation Reserve Program/ ecosystems/ fecundity/ grasslands/ habitat management/ management/ nests/ nesting/ species diversity/ wildlife/ wildlife/ habitat relationships/ wild birds/ wildlife conservation/ federal programs/ Missouri/ Natural Resources/ Land Development, Land Reform, and Utilization (Macroeconomics)/ conservation programs/ grassland/ habitat/ reproduction/ nests and nesting/ statistics/ wildlife habitat relationships/ population dynamics/ grasshopper sparrow/ field sparrow/ eastern meadowlark/ American goldfinch / common yellowthroat/ dickcissel/ red winged blackbird/ North America/ United States/ Missouri/ Missouri, Northcentral/ Knox County/ Macon County/ Linn County

Abstract: The Conservation Reserve Program (CRP) has been credited with contributing substantially to the conservation of grassland birds. Although many species have nested on grasslands established under the CRP, little evidence of positive effect on populations has been reported. We measured reproductive rates and estimated fecundity of 7 grassland bird species in CRP fields in northern Missouri and compared those rates to estimates of fecundity needed to maintain stable populations ($\lambda = 1$). Under conservative assumptions of survival CRP fields seemingly were source habitats (fecundity exceeded levels necessary for $\lambda = 1$ for grasshopper sparrows (*Ammodramus savannarum*) and field sparrows (*Spizella pusilla*) in at least 2 of 3 years, 1995 $P = 0.02$, 1995 $P < 0.001$) and pooled over 3 years ($P_s < 0.001$). Although evidence was less compelling CRP fields were likely source habitat for eastern meadowlarks (*Sturnella magna*) and American goldfinches (*Carduelis tristis*). For American goldfinches, fecundity was greater than that necessary of $\lambda = 1$ in 1995 ($P < 0.001$), and pooled over 3 years (< 0.001). Our pooled estimate of fecundity was greater than necessary for $\lambda = 1$ for eastern meadowlarks ($P_s < 0.001$), but only under a liberal assumption of survival in 2 of 3 years (1993: $P = 0.001$; 1995: $P = 0.088$). Fecundity of common yellowthroats (*Geothlypis trichas*) varied substantially; therefore, source-sink status alternated among years, although the pooled estimate of fecundity was less than required for $\lambda = 1$ ($P < 0.001$). Dickcissel (*Spiza americana*) fecundity was consistently less than necessary for $\lambda = 1$ (conservative survival assumption; all $P_s < 0.001$; liberal survival assumption: 1994 $P = 0.009$, pooled $P = 0.014$). For red-winged blackbirds (*Agelaius phoeniceus*), CRP fields were consistently a sink habitat (all $P_s < 0.001$). Based on our evidence, the CRP likely has contributed to the conservation of grasshopper sparrows, field sparrows, and eastern meadowlarks. Although large numbers of dickcissels and red-winged blackbirds nested in CRP fields, there is little evidence that the CRP has contributed to populations of those species. This citation is provided courtesy of NISC, publisher of *Wildlife & Ecology Studies Worldwide*.

147. Conserving biological diversity and the Conservation Reserve Program.

Szentandrasei, S.; Polasky, S.; Berrens, R.; and Leonard, J.

Growth Change 26 (3): 383-404. (1995)

NAL Call #: HT390.G74; ISSN: 0017-4815

[GRCHDH].

Notes: Published: Lexington, Ky., College of Business and Economics, University of Kentucky; In the special issue: Wilderness areas. Paper presented

at the conference, "Wilderness areas, regional planning, and the quality of life" held October 8, 1994. This citation is from AGRICOLA.

148. Le Conte's Sparrows Breeding in Conservation Reserve Program Fields: Precipitation and Patterns of Population Change.

Igl, L. D. and Johnson, D. H.

In: *Ecology and Conservation of Grassland Birds of the Western Hemisphere/* Vickery, P. D. and Herkert, J. R.; Series: *Studies in Avian Biology* 19, 1999; pp. 178-186

Descriptors: Conservation Reserve Program/ Regional conservation programs/ Great Plains

Abstract: Discussed pattern of population change in Le Conte's Sparrows associated with changes in precipitation and moisture condition.

149. Contributions of the Conservation Reserve Program to populations of breeding birds in North Dakota.

Johnson, Douglas H and Igl, Lawrence D

Wilson Bulletin 107 (4): 709-718. (1995)

NAL Call #: 413.8 W692; ISSN: 0043-5643

Descriptors: Aves (Aves Unspecified)/ animals/ birds/ chordates/ nonhuman vertebrates/ vertebrates/ habitat/ North American Breeding Bird Survey

Abstract: Previous studies have shown that habitat provided by the Conservation Reserve Program (CRP), a feature of the 1985 farm bill, is used by many birds. The present study quantitatively assesses the importance of the CRP by estimating changes in breeding-bird populations of North Dakota projected if CRP land would revert to cultivation. Of 18 species that were common in CRP or crop fields or both, 12 were more abundant in CRP habitats. Six of these species had suffered significant population declines during 1967-1990, according to the North American Breeding Bird Survey. In contrast, none of the six species that were more common in cropland than in CRP fields had declined significantly.

Termination of the Conservation Reserve Program and a return of enrolled land to cultivation is projected to cause population declines in North Dakota exceeding 17% for Sedge Wren (*Cistothorus platensis*), Grasshopper Sparrow (*Ammodramus savannarum*), Savannah Sparrow (*Passerculus sandwichensis*), Dickcissel (*Spiza americana*), and Lark Bunting (*Calamospiza melanocorys*).

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150. Cooperative Upland Wildlife Research. Impacts of Farm Programs on Bobwhites: ACR and CRP Seedings as Bobwhite Nesting and Brood-rearing Habitat.

Roseberry, J. L.

In: Illinois Department of Conservation 1992. 29 pp.; Final Report, 1992.

Notes: Project Number: IL W-106-R/Job 4.1A/Study 4

Descriptors: Colinus virginianus/ bobwhite/ seeding/ habitat management for wildlife/ farms/ habitat/ nests and nesting/ broods and brooding/ utilization/ cultivated farmland/ policies and programs/ transect survey/ vegetation/ cover, nesting/ population density/ North America/ United States/ Illinois/ Jasper County

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

151. Cover quality of Conservation Reserve Program grasslands in Minnesota, USA.

Haroldson, K.; Kimmel, R.; and Riggs, M.

Gibier Faune Sauvage 15 (4): 501-516. (1998); ISSN: 0761-9243.

Notes: Numero Special Tome 1

Descriptors: Phasianus colchicus (Phasianidae)/ Sturnella (Icteridae)/ Farming and agriculture/ Conservation measures/ Conservation Reserve Programme/ Breeding site/ Grassland, cover quality/ South central Minnesota/ Grassland cover quality/ Conservation Reserve Programme fields/ Birds/ Chordates/ Vertebrates

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152. Cover Types Planted on Illinois CP-1 CRP Fields.

David, L. M.; Warner, R. E.; and Roseberry, J. L. Gibson City, IL: Department of Conservation, Div. Of Wildlife Resources; PB96138318XSP, 1992. 38 p.

Notes: Administrative Report. Prepared in cooperation with Illinois Natural History Survey, Center for Wildlife Ecology, Champaign, IL and Southern Illinois Univ. at Carbondale, Cooperative Wildlife Research Laboratory; Sponsored by Fish and Wildlife Restoration Program, Washington, DC

Descriptors: Illinois / Farmers/ Birds/ Habitats/ Tables Data/ Grasses/ Legumes/ Conservation Reserve Program CRP/ Agriculture and food/ Agricultural equipment facilities and operations/ Natural resources and earth sciences/ Natural resource management

Abstract: Illinois farmers enrolled in the Conservation Reserve Program (CRP) entered 87% of CRP acres in the introduced grass and legume practice (CP-1). We determined vegetative cover planted by farm operators on fields enrolled in CP-1 by examining files at 87 USDA county offices in Illinois. In a sample of 2,472 CP-1 fields from the first 9 enrollment periods, orchard grass was the most commonly planted species; in all, landowners planted 26 species of grasses and legumes on Illinois CP-1

fields. Farmers seeded mixtures of smooth brome and alfalfa on 49% (106,609 acres) in the Illinois range of the ring-necked pheasant. We judge 204,820 acres (95% of CP-1) in the pheasant range to be suitable pheasant nest cover if unmowed. Farm operators planted mixtures containing Korean lespedeza on 138,944 acres (30%) of CP-1 in the range of the northern bobwhite; bobwhite range farmers planted 95,579 acres (21%) with tall fescue. We judge 240,568 acres (52%) in the quail range to be suitable bobwhite nest cover for a limited time if unmowed. We provide recommendations for CRP cover management for pheasant and bobwhite habitat.

153. CRP land and game bird production in the Texas High Plains.

Berthelsen, P. S.; Smith, L. M.; and Coffman, C. L. *Journal of Soil and Water Conservation* 44 (5): 504-507. (1989)

NAL Call #: 56.8 J822; ISSN: 0022-4561

Descriptors: agricultural practices/ game management/ Aves/ Texas / government policy/ conservation/ Conservation/ Birds/ Management/ United States

Abstract: Soil Conservation Service personnel were surveyed about the land enrolled in the Conservation Reserve Program (CRP) in the Southern High Plains of Texas (71 counties, 903,215 ha). Information included type of cover established, land enrolled, establishment success, and cost of establishment for five conservation practices (CP1, 2, 4, 10, 12). Land in permanent introduced grasses (CP1) and permanent native grasses (CP2) accounted for 98% of the total CRP land. Establishment costs for the most common cover types averaged \$142.90/ha (\$57.85/acre). Establishment success was 87%. Ring-necked pheasant and waterfowl production in a four-county area was estimated on selected CRP grass combinations (blue grama /side-oats grama mixtures, blue grama/Kleingrass mixtures, and blue grama/old world bluestem mixtures) using 1988 nesting information and land enrollment figures. Estimated pheasant production was 174,204 chicks/year. Water-fowl production was estimated at 1,426 ducklings/year.

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154. CRP, succession, and Brewer's sparrows: Advantages of a long-term, federal land retirement program.

Igl, Lawrence D. and Murphy, Lisa A.

South Dakota Bird Notes 48 (3): 69-70. (1996); ISSN: 0038-3252

Descriptors: Fringillidae/ Passeriformes/ Spizella breweri/ behavior/ birds/ breeding/ conservation programs/ Conservation Reserve Program/ distribution/ ecosystems/ grasslands/ habitat use/ home range/ territory/ range extension/ succession/

vocalization/ Brewer's sparrow/ artemisa/ Artemisia spp/ North America/ United States/ South Dakota: Butte County

Abstract: Brewer's sparrows have extended their breeding range to the grasslands created by the Conservation Reserve Program in Butte County, South Dakota. These grasslands provide habitat for sagebrush nesting and other shrubland bird species. This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

155. The CRP & wildlife habitat.

Bucklin, R.
Agricultural Outlook [AO] (162): 30-31. (Apr. 1990)
 NAL Call #: aHD1751.A42; ISSN: 0099-1066
Descriptors: wildlife/ habitats/ land management/ farm surveys/ farm income/ United States/ Conservation Reserve Program/ farm costs and returns surveys
 This citation is from AGRICOLA.

156. Declining survival of ring-necked pheasant chicks in Illinois during the late 1900s.

Warner, Richard E.; Mankin, Philip C.; David, Larry M.; and Etter, Stanley L.
Journal of Wildlife Management 63 (2): 705-710. (1999)
 NAL Call #: 410 J827; ISSN: 0022-541X.
Notes: Project Number: IL W-103-R
Descriptors: Galliformes/ Phasianidae/ Phasianus colchicus/ agricultural practices/ behavior/ birds/ broods/ brooding/ census/ survey methods/ Conservation Reserve Program/ ecosystems/ fledglings/ habitat alterations/ habitat management/ land use/ management/ physiology/ survival/ transect surveys/ wildlife/ pheasant, ring necked/ cultivated farmland/ broods and brooding/ transect survey/ statistics/ wildlife habitat relationships/ changes detrimental to wildlife/ common pheasant/ juvenile/ conservation/ mortality/ agriculture/ ring necked pheasant/ North America/ United States/ Ford County/ Illinois
Abstract: Previous studies indicated that survival of ring-necked pheasant (*Phasianus colchicus*) chicks during the first 6 weeks of life declined from the early 1950s through early 1980s in Illinois with the expansion of corn and soybean production and associated clean farming practices. From the early 1980s through mid-1990s intensive row-crop production was moderated by farm programs such as the Conservation Reserve Program (CRP) and annual set-aside, which diverted millions of hectares of cropland from production. We evaluated the survival of pheasant chicks in Illinois in relation to these recent land-use practices. Specifically, our objectives were to determine if there were changes in chick survival during the 1980s and 1990s, and if there were regional differences in chick survival related to land-use practices. We observed 574

broods along transect road routes on the Sibley Study Area (SSA) in eastcentral Illinois, and 964 broods on routes throughout the pheasant range in Illinois. In spite of the increase in potential brood habitat on set-aside farmland, chick survival remained low from 1982 to 1996. For example, there was a 5-fold increase in the amount of forage legumes and small grains on the SSA from 1987-91 compared to 1975-81, with the average number of chicks per brood at 4.3 (1987-91) and 4.2 (1975-81). For survey routes throughout the Illinois pheasant range, the number of grassy fields (primarily narrow, linear tracts) in 1990 was positively correlated ($r = 0.15$, $P < 0.02$, $n = 37$) with chicks per brood, but this relation explained only 15% of the variation. The lack of improvement in chick survival in recent decades relates to the pervasive clean farming practices in the Illinois pheasant range. Moreover, most of the set-aside land in the Illinois pheasant range was under annual contract and seeded late to monotypic oats, which is cover of marginal value to foraging pheasant chicks.

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

157. Density and fledgling success of grassland birds in Conservation Reserve Program fields in North Dakota and west-central Minnesota.

Koford, R. R.
Studies in Avian Biology 19: 187-195. (1999)
Descriptors: Conservation Reserve Program/ State conservation programs/ Minnesota/ North Dakota
Abstract: Studied how CRP field habitat influences grassland bird density and fledgling success.

158. Do artificial nests reveal meaningful patterns of predation in Kansas grasslands?

Robel, R. J.; Hughes, J. P.; Keane, T. D.; and Kemp, K. E.
Southwestern Naturalist 48 (3): 460-464. (2003)
 NAL Call #: 409.6 So8; ISSN: 0038-4909.
Notes: Number of References: 37; Publisher: Southwestern Assn Naturalists
Descriptors: Environment/ Ecology/ duck nests/ success/ prairie/ fragmentation/ dickcissels/ habitats/ cropland/ density/ birds/ Iowa
Abstract: We determined the fates of artificial and natural bird nests in Conservation Reserve Program (CRP) fields in northeastern Kansas from mid May through early August 1994. The CRP fields had been planted to native grasses in 1988 or 1989. Artificial nests contained Japanese quail (*Coturnix japonica*) or house sparrow (*Passer domesticus*) eggs in nest baskets in bunchgrass clumps to simulate nests of dickcissels (*Spiza americana*), the most common avian species nesting in the CRP fields. Natural dickcissel nests were found by rope dragging and intensive searches of the CRP fields. Losses among 562 artificial nests did not differ by egg type;

however, the 9.8% loss of artificial nests was significantly lower than the 70.1% loss-level among 97 natural dickcissel nests in those CRP fields. The daily survival rate for artificial nests was 0.99, significantly more than the 0.92 for natural dickcissel nests. An assessment of nest depredation based on data from artificial nests might not be representative of depredation on natural nests in grasslands.

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159. Does habitat fragmentation influence nest predation in the shortgrass prairie?

Howard MN; Skagen SK; and Kennedy PL

Condor 103 (3): 530-536; 41 ref. (2001)

This citation is provided courtesy of CAB

International/CABI Publishing.

160. Duck nesting success on Conservation Reserve Program land in the prairie pothole region.

Kantrud, H. A.

Journal of Soil and Water Conservation 48 (3):

238-242. (1993)

NAL Call #: 56.8 J822

Descriptors: Conservation Reserve Program/

Regional conservation programs/

Prairie Pothole region

Abstract: Studied duck nesting success in Waterfowl Production Areas and CRP tracts.

161. The dynamics of nongame bird breeding ecology in Iowa alfalfa fields.

Frawley, B. J.

Ames, IA: Iowa State University, 1989.

Notes: M.S. Thesis

Descriptors: Conservation Reserve Program/

State conservation programs/ Iowa

Abstract: Nesting, abundance, and density of nongame birds in Iowa alfalfa fields were addressed and linked to CRP.

162. Eastern meadowlarks nesting in rangelands and Conservation Reserve Program fields in Kansas.

Granfors, D. A.; Church, K. E.; and Smith, L. M.

Journal of Field Ornithology 67 (2): 222-235. (1996)

NAL Call #: 413.8 B534; ISSN: 0273-8570

Descriptors: *Sturnella magna*/ nests/ site selection/

rangelands / old fields/ ecosystem management/

Kansas/ Birds/ United States

Abstract: Eastern Meadowlark (*Sturnella magna*) nesting habitat was studied to make management recommendations for fields enrolled in a federal land retirement program. We compared available microhabitat, nest-site selection, and nest success on rangelands and Conservation Reserve Program (CRP) fields in eastern Kansas. Daily nest survival rates and numbers fledged per female did not differ significantly between land-use types, but the power of

these tests was low. Predation was the primary source of nest failure throughout incubation, hatching, and nestling stages; abandonment, trampling, inviability, and unknown causes also were important during incubation. Mowing CRP fields was a source of nest failure and also induced adults to abandon some fields. CRP fields had a significantly higher percent, depth, and density of litter cover; a taller herbaceous canopy; less herbaceous cover; and more standing dead cover than rangelands.

Differences in habitat structure indicate that CRP has increased the diversity of available nesting habitats.

Eastern Meadowlarks selected nest sites with significantly greater litter cover, higher proportion of grass, more uncompacted litter, and more structural homogeneity than available on random plots. Delay of mowing and prescribed burning are recommended to enhance and maintain habitat suitability for nesting Eastern Meadowlarks in CRP fields.

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163. Ecological impacts of federal Conservation and Cropland Reduction Programs.

Abernathy, J. R.

Ames, IA: Council for Agricultural Science and

Technology (CAST); Task Force Report

Number 117, 1990.

Descriptors: Conservation Reserve Program/ United States

Abstract: Summarized history of agricultural overproduction in the U.S. and recommended CRP changes related to overproduction. [Addresses the ecological implications of several programs established in the 1985 Food Security Act, including the Conservation Reserve Program (CRP), Sodbuster, Swampbuster, Conservation Compliance, and Acreage Reduction Program (ARP): from publisher.]

164. Ecological impacts of federal conservation and cropland reduction programs: Summary.

Council for Agricultural Science and Technology.

Ames, Iowa: Council for Agricultural Science and

Technology; 8 p.: ill.: 1990.

Notes: Cover title. "September 1990." Includes bibliographical references (p. 8).

NAL Call #: S441.C771-1990

Descriptors: Agricultural ecology---United States/

Agriculture and state---Environmental aspects---

United States/ Agricultural conservation---

Government policy---Environmental aspects---

United States/ Environmental policy---United States

This citation is from AGRICOLA.

165. Effects of agriculture on raptors in the western USA: An overview.

Young, L S.

In: Proceedings of the Western Raptor Management Symposium and Workshop. (Held 26 Oct 1987-28 Oct 1987 at Boise, Idaho, USA.)

Pendleton, B. G. (ed.)

Washington, D.C.: National Wildlife Federation; pp. 209-218; 1989.

Notes: ISSN: 1044-4971; Institute for Wildlife Research, National Wildlife Federation, Scientific and Technical Series No. 12; XI+317P

Descriptors: prey density/ foraging/ environmental disturbances/ habitat preservation/ enhancement/ conservation programs/ education/ Farm Bill/ Animals/ Birds/ Chordates/ Nonhuman Vertebrates/ Vertebrates/ Conservation Resource Management/ Agronomy

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166. Effects of Burning and Discing Conservation Reserve Program Fields to Improve Habitat Quality for Northern Bobwhite (Colinus virginianus).

Greenfield, KC; Chamberlain, MJ; Burger, LW; and Kurzejeski, EW

American Midland Naturalist 149 (2): 344-353. (Apr. 2003)

NAL Call #: 410 M58; *ISSN:* 0003-0031

Descriptors: Vegetation/ Wildlife

Abstract: Since 1985 considerable expanses of highly erodible cropland have been enrolled in the Conservation Reserve Program (CRP). Areas enrolled in CRP provide wildlife habitat; however, habitat quality and specific resources on these sites vary in relation to seasonal biological processes of target wildlife species, planted cover and vegetation succession. Throughout the southeastern United States habitat quality for early successional species, such as northern bobwhite (*Colinus virginianus*), may decline as CRP grasslands age. Although disturbance may enhance and maintain habitat quality for bobwhite, concerns regarding perceived conflicts between wildlife habitat and soil erosion objectives of the CRP persist. During 1995 and 1996 we evaluated effects of strip- discing or prescribed burning on vegetation structure and composition and soil erosion in fescue (*Festuca arundinacea*) dominated CRP fields in Mississippi. Fall discing generally increased percentage bare ground and plant diversity and decreased percentage litter cover and litter depth. Fall discing enhanced bobwhite habitat quality, but responses diminished by the second growing season post treatment. Burning increased plant diversity and improved quality of habitat for bobwhite. Soil loss for all treatments was

within United States Department of Agriculture tolerable limits. Discing or burning intensity on CRP fields could be increased without compromising soil erosion provisions of CRP.

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167. Effects of cattle grazing and haying on wildlife conservation at National Wildlife Refuges in the United States.

Strassmann, B. I.

Environmental Management 11 (1): 35-44. (1987)

NAL Call #: HC79.E5E5

Descriptors: Domestic livestock/ environmental impact/ wildlife conservation

Abstract: Examined the effects of cattle grazing and haying on vegetative ecology and its correlation with wildlife conservation efforts.

168. Effects of Conservation Reserve Program field age on avian relative abundance, diversity, and productivity.

Millenbah, K. F.; Winterstein, S. R.; Campa, H.; Farrow, L. T.; and Minnis, R. B.

Wilson Bulletin 108 (4): 760-770. (1996)

NAL Call #: 413.8 W692; *ISSN:* 0043-5643

Descriptors: Aves/ species richness/ abundance/ productivity/ fields/ age/ Michigan/ Birds/ United States

Abstract: Introduced grass dominated Conservation Reserve Program (CRP) fields were monitored in summer 1992 in Gratiot County, Michigan, to determine the relationship between field age and avian relative abundance, diversity, and productivity. Younger CRP fields (1-2 years old), best described as a combination of forbs and bare ground, had the greatest diversity and relative abundance of avian species. Older CRP fields (3-5/6 years old) were a combination of grasses and deep litter cover and had the greatest avian productivity. We recommend that after 3-5 growing seasons CRP fields be manipulated to provide a variety of successional stages to maintain simultaneously high avian relative abundance, diversity, and productivity.

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169. Effects of Conservation Reserve Program seeding regime on harvester ants (Pogonomyrmex), with implications for the threatened Texas horned lizard (Phrynosoma cornutum).

McIntyre, N. E.

Southwestern Naturalist 48 (2): 274-277. (2003)

NAL Call #: 409.6 So8; *ISSN:* 0038-4909.

Notes: Publisher: Southwestern Assn Naturalists; Number of References: 25

Descriptors: Environment/ Ecology/ fire ants/ hymenoptera/ formicidae/ grassland/ birds

Abstract: I compared the presence and abundance of nest-sites made by harvester ants

(*Pogonomyrmex*), the primary prey for the endangered Texas horned lizard (*Phrynosoma cornutum*), among restored grassland plots planted in different grass species and indigenous prairie. The restored plots had been seeded as part of the Conservation Reserve Program (CRP) as exotic monocultures of either Old World bluestem (*Bothriochloa ischaemum*) or weeping lovegrass (*Eragrostis curvula*), or as mixtures of native grasses (both with and without buffalograss, *Buchloe dactyloides*). On average, the fewest ant mounds were found on Old World bluestem plots, whereas the indigenous grassland had the highest density of harvester ant mounds. However, there were no significant differences between native and exotic CRP plantings. Results obtained from a simultaneous visual survey for Texas horned lizards corroborate these findings. Thus, there is no evidence that CRP plots planted in exotic grasses are significantly poorer habitat for Texas horned lizards in terms of ant abundance than native grass plantings.

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170. Effects of CRP field age and cover type on ring-necked pheasants in eastern South Dakota.

Eggebo, S. L.; Higgins, K. F.; Naugle, D. E.; and Quamen, F. R.

Wildlife Society Bulletin 31 (3): 779-785. (2003)

NAL Call #: SK357.A1W5; *ISSN:* 0091-7648.

Notes: Number of References: 32;

Publisher: Wildlife Society

Descriptors: Environment/ Ecology/ Conservation Reserve Program/ cool season/ cover/ CRP/ habitat/ *Phasianus colchicus*/ ring necked pheasant/ South Dakota/ warm season/ Conservation Reserve Program/ grassland bird conservation/ vegetation/ populations/ abundance/ models

Abstract: Loss of native grasslands to tillage has increased the importance of Conservation Reserve Program (CRP) grasslands to maintain ring-necked pheasant (*Phasianus colchicus*) populations. Despite the importance of CRP to pheasants, little is known about the effects of CRP field age and cover type on pheasant abundance and productivity in the northern Great Plains. Therefore, we assessed effects of these characteristics on pheasant use of CRP fields. We stratified CRP grasslands (n=42) by CRP stand age (old [10-13 yrs] vs. new [1-3 yrs] grasslands) and cover type (CP1 [cool-season grasslands] vs. CP2 [warm-season grasslands]) in eastern South Dakota and used crowing counts and roadside brood counts to index ring-necked pheasant abundance and productivity. Field-age and cover-type effects on pheasant abundance and productivity were largely the result of differences in vegetation structure among fields. More crowing pheasants were recorded in old cool-season CRP fields than any other age or cover type, and more broods were recorded in cool- than warm-season CRP fields. Extending existing

CRP contracts another 5-10 years would provide the time necessary for new fields to acquire the vegetative structure used most by pheasants without a gap in habitat availability. Cool-season grass-legume mixtures (CP1) that support higher pheasant productivity should be given equal or higher ratings than warm-season (CP2) grass stands. We also recommend that United States Department of Agriculture administrators and field staff provide broader and more flexible guidelines on what seed mixtures can be used in CRP grassland plantings in the northern Great Plains. This would allow landowners and natural resource professionals who manage pheasant habitat to plant a mosaic of cool- and warm-season CRP grassland habitats.

© Thomson ISI

171. Effects of Different Age Classes of Fields Enrolled in The Conservation Reserve Program in Michigan On Avian Diversity, Density, and Productivity.

Millenbah, Kelly Francine

East Lansing, MI: Michigan State University, 1994.

Notes: Degree: MS; Advisor: Winterstein, Scott R.;

ISSN: 0898-9095

Descriptors: Agriculture, Forestry and Wildlife/ Biology/ Ecology/ bird communities/ wildlife density/ agricultural conservation/ landowners

Abstract: Agricultural landowners have enrolled lands in the Conservation Reserve Program (CRP) for wildlife and economic benefits. Avian communities and vegetative characteristics were examined on 6 age classes (1-6 growing seasons) of CRP fields in Gratiot County, Michigan in 1991 and 1992 to determine the relationships between field age and characteristics of avian communities. Younger CRP fields (1-3 growing seasons), characterized by forbs and bare ground, supported greater avian densities and diversities than older fields (4-6 growing seasons). Older CRP fields, characterized by grasses and high litter cover, supported greater avian productivity. Results indicate that grassland birds in Michigan may require a diversity of age classes of CRP fields in agricultural landscapes to meet their habitat requirements. Continued enrollment of lands into the program and periodic manipulation of these lands, will create a mosaic of grassland successional stages important to a diversity of avian species. This citation is provided courtesy of NISC, publisher of *Wildlife & Ecology Studies Worldwide*.

172. Effects of emergency haying on duck nesting in Conservation Reserve Program fields, South Dakota.

Luttschwager, K. A.; Higgins, K. F.; and Jenks, J. A. *Wildlife Society Bulletin* 22 (3): 403-408. (Fall 1994)
NAL Call #: SK357.A1W5; ISSN: 0091-7648
[WLSBA6]

Descriptors: Anas/ nesting/ reproduction/ population density/ habitats/ grasslands/ federal programs/ private ownership/ South Dakota/ nesting success/ private land

This citation is from AGRICOLA.

173. Effects of habitat manipulations on Texas horned lizards and their prey.

Fair, W. Scott and Henke, Scott E.

Journal of Wildlife Management 61 (4): 1366-1370. (1997)

NAL Call #: 410 J827; ISSN: 0022-541X

Descriptors: Phrynosoma cornutum/ amphibians/ reptiles/ ants/ Conservation Reserve Program/ fires/ burns/ foods/ feeding/ habitat alterations/ habitat use/ livestock/ Texas horned lizard/ North America/ United States/ Texas/ Duval County

Abstract: The effects of habitat manipulations on Texas horned lizards (*Phrynosoma cornutum*) and their main prey, harvester ants (*Pogonomyrmex* spp.) were studied in South Texas. The relative abundance of lizards, their scat, and active harvester ant mounds was assessed on 1-ha plots that were manipulated with either prescribed burning, disking, burning and disking combination, grazing, or land in the Conservation Reserve Program (CRP). We determined differential habitat use or avoidance using Chi-square analysis and Bonferroni Z-statistics to control the experiment-wise error probability at 10%. Lizards used burned plots disproportionately more, were neutral in their use of the disked and grazed plots, and under-utilized the burned and disked combination and CRP plots. Analysis of scat led to similar conclusions in relation to burned, grazed, and CRP plots, but scats were distributed on combination plots pro rata to availability and were underrepresented on the disked plots. No difference was detected in the relative abundance of active ant mounds among the 5 land management practices. Even though Texas horned lizards preferentially used areas that were recently burned, the process of burning may harm them due to the shallow depths in which they hibernate.

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

174. Effects of habitat on dickcissel abundance and nest success in Conservation Reserve Program fields in Kansas.

Hughes, John P.; Robel, Robert J.; Kemp, Kenneth E.; and Zimmerman, John L. *Journal of Wildlife Management* 63 (2):

523-529. (1999)

NAL Call #: 410 J827; ISSN: 0022-541X

Descriptors: Fringillidae/ Passeriformes/ *Spiza americana*/ behavior/ birds/ Conservation Reserve Program/ ecosystems/ edge habitat/ farmland/ habitat management/ habitat use/ management/ nesting sites/ nests/ nesting/ productivity/ wildlife/ wildlife/ habitat relationships/ wild birds/ reproduction/ federal programs/ wildlife conservation/ Kansas/ *spiza americana*/ species abundance/ Natural Resources/ Land Development, Land Reform, and Utilization (Macroeconomics)/ dickcissel/ North America/ United States/ Kansas: Riley County

Abstract: Declining avian populations in the Midwest have increased interest in various aspects of grassland habitats and their effects on grassland birds. We studied the effects of vegetation characteristics, woody field edges and surrounding land use on abundance and daily nest survival of the dickcissel (*Spiza americana*) in Conservation Reserve Program (CRP) fields in the northeastern Kansas. We observed 873 dickcissels during surveys on 11 CRP fields during the summers of 1994 and 1995. In those fields, we located 186 dickcissel nests of which 13.2% were successful in 1994 and 14.9% were successful in 1995. The vertical density of vegetation in CRP fields, wooded area surrounding the fields, and amount of woody edge bordering fields were associated with dickcissel abundance ($P = 0.001$). Live and dead canopy cover and litter cover were associated with daily nest survival ($P = 0.005$). Therefore, the habitat quality of CRP fields for dickcissels might be enhanced by modifying vegetation characteristics. The outcome of any modifications of CRP habitat for dickcissels should be judged on changes in the number and success of their nests rather than on the abundance of birds. This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

175. Effects of Landscape Composition and Multi-Scale Habitat Characteristics on the Grassland Bird Community.

McCoy, T. D.

Columbia, MO: Univ. of Missouri-Columbia, 2000.

Notes: Ph.D. Dissert.; Project Number:

MO W0-013-R-54/Job 1/Study 43

Descriptors: habitat/ modeling/ grassland/ birds/ communities/ wildlife habitat relationships/ species diversity/ conservation programs/ nests and nesting/ abundance/ sparrows/ reproduction/ statistics/ meadowlarks, blackbirds and orioles/ population density/ vegetation/ North America/ United States/

Missouri/ North central region/ Adair County/ Know County/ Linn County/ Macon County/ Shelby County
Abstract: Measures of grassland bird demography on Conservation Reserve Program (CRP) fields were compared and modeled at several spatial scales to identify habitat factors associated with increased conservation value for grassland birds. Grassland bird populations and species richness were compared between fields located in landscapes with different amounts of CRP habitat and total grassland. Multi-scale habitat models were developed from and validated on two independent data sets to identify the primary habitat features that could predict the potential value of CRP and other idle grasslands for grassland bird conservation.

This citation is provided courtesy of NISC, publisher of *Wildlife & Ecology Studies Worldwide*.

176. Effects of livestock grazing on neotropical migratory landbirds in western North America.

Bock, C. E.; Sabb, V. A.; Rich, T. D.; and Dobkin, D. S.

In: Status and management of neotropical migratory birds. (Held 21 Sep 1992-25 Sep 1992 at Estes Park, Colorado.) Finch, D. M. and Stangel, P. W. (eds.) Fort Collins, Colo.: Rocky Mountain Forest and Range Experiment Station, U.S. Dept. of Agriculture; pp. 263-309; 1993.

NAL Call #: aSD11.A42

Descriptors: Conservation Reserve Program/ Regional conservation programs

Abstract: Examined the idea that moderate haying/grazing of CRP coupled with livestock enclosures on public land could enhance the value of public rangelands for wildlife.

177. Effects of mammalian predator removal on waterfowl and non-game birds in North Dakota.

Garrettson, P. R.; Rohwer, F. C.; Zimmer, J. M.; Mense, B. J.; and Dion, N.

Transactions of the North American Wildlife and Natural Resource Conference 61: 94-101. (1996); *ISSN:* 0078-1355.

Notes: Conference: 61st North American Wildlife and Natural Resources Conference: Facing Realities in Resource Management, Tulsa, OK, 22-27 Mar 1996

Descriptors: Aquatic birds/ Predator control/ Environmental impact/ Nesting/ Bird eggs/ Nature conservation/ Habitat improvement (physical)/ Breeding sites/ Environment management/ Aves/ North America/ Species interactions: general/ Conservation, wildlife management and recreation/ Freshwater/ Brackish water/ Marine environment

Abstract: Waterfowl managers have long been concerned about low nest success on the North American prairies. A review of duck nesting success shows that, despite great variation between studies, there is a dramatic pattern of decline in nest success in the past 50 years (Beauchamp et al. 1996). The

linear regression of success versus year shows that hatching rates dropped from 33 percent in 1935 to only 10-percent nest success in 1992. Low nest success, which reflects high nest predation, is viewed as the most significant limitation on waterfowl productivity in the prairies. Most of the management effort under the North American Waterfowl Management Plan (NAWMP) in the prairie region of the United States and Canada is an attempt to elevate nest success for upland-nesting ducks. Compounding habitat degradation is a major shift in numbers types of nest predator on the prairies. Extirpation of wolves (*Canis lupus*) and reduction of coyotes (*Canis latrans*) has allowed medium-sized predators, such as red fox (*Vulpes vulpes*), skunk (*Mephitis mephitis*) and raccoon (*Procyon lotor*); to flourish. Raccoons are a recent arrival to much of the prairies, though they now are abundant and the dominant nest predator for many prairie ducks. Abundance of medium-sized mammals and scarcity of nesting cover has been a very detrimental combination for breeding ducks. Most attempts to increase duck nesting success have focused on ways to make nests less accessible to predators. Dense nesting cover has been the dominant management on United States Waterfowl Production Areas (WPA) and on NAWMP areas in Canada, yet this strategy typically has improved nest success by only a few percentage points, with highly variable results. Improved nest success associated with the Conservation Reserve Program (CRP) suggests that landscape-level additions of nesting cover improve recruitment, but habitat improvement on this scale is not economically feasible for wildlife groups. Intensive management efforts to make nests inaccessible, such as construction of islands and predator barrier fences, can increase nest success, but costs are high.

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178. Effects of supplemental prey, vegetation, and time on success of artificial nests.

Vander, Lee Bruce a; Lutz, R Scott; Hansen, Leslie A; and Mathews, Nancy E
Journal of Wildlife Management 63 (4): 1299-1305. (1999)

NAL Call #: 410 J827; *ISSN:* 0022-541X.

Notes: methods and equipment: artificial-nests; predation-; supplemental-prey; vegetation-density; Conservation-Reserve-Program

Abstract: Despite intensive management on many grassland areas, nest loss to predators continues to result in low nest-survival rates. Management efforts are complicated by complex relationships among habitat, predators, and prey resources. We monitored the fates of artificial nests (908 in 1993, 827 in 1994) on Conservation Reserve Program (CRP) plots from April to July to test effects of prey supplementation, vegetation density, and time (month) on nest survival

in agricultural and range landscapes in northwest Texas. Supplemental prey had the greatest effect on artificial nest survival and increased nest survival in both sparse and dense vegetation. Prey supplementation may be useful when used in conjunction with habitat management for dense nesting cover or in areas that already have dense vegetation. Nest survival was highest early in the nesting season, emphasizing the importance of available nesting cover during this period. Although least important, dense vegetation increased artificial nest survival. When evaluating management options, managers should consider logistical and economic costs of using supplemental prey, as well as potential effects on predator population dynamics.

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179. Effects of the Conservation Reserve Program on selected wildlife populations in southeast Nebraska.

King, Justin W.

Lincoln, NE: University of Nebraska, 1991.

Notes: Thesis (M.S.)--University of Nebraska, Lincoln--Forestry, Fisheries, and Wildlife, 1991. Includes bibliographical references.

NAL Call #: NBU LD3656-1991-K564

Descriptors: Wildlife conservation---Nebraska/ Wildlife management---Nebraska/ Conservation of natural resources---Nebraska

This citation is from AGRICOLA.

180. Effects of the Conservation Reserve Program On Wildlife Habitat in The Great Plains.

Baker, Bryan Douglas University of Minnesota, 1992.

Notes: Degree: PhD; Advisor: Gersmehl, Philip J.; Cited in: DAI-A 52(08): p. 3026, February 1992; Volumes I and II.

Descriptors: Geography/ Agriculture, Forestry & Wildlife/ birds/ climate/ behavior conservation/ predators/ erosion/ wildlife/ conservation practices/ agricultural practices/ South Dakota/ Nebraska/ Kansas/ Texas

Abstract: The Conservation Reserve Program (CRP), a ten-year federal agricultural land retirement program, returned several million acres of the Great Plains to grass by 1989. Improvement of wildlife habitat was a secondary but important rationale for the program. Enrollments are concentrated in the southern High Plains and the northern glaciated Plains. CRP fields increase in size from east to west, with many counties exceeding 320 acres for mean contract size. A study of Plains land use, soils, geology, and climate helped construct a list of expected effects of the CRP on the mammals and breeding birds. The list was revised based on comments from Plains biologists. Most of the species on the Plains depend on woodlands, wetlands, or other cover the CRP does not provide. Some species that use grassland or agricultural land will gain

habitat, mainly for nesting. Nine-section study areas in six Plains counties detailed land cover changes associated with the CRP. Most areas have seen a net increase in cropland since the late 1960s despite the CRP retirements. In some counties, especially far western ones, CRP land is in larger blocks, isolated from woodland and shrubs. These areas favor small to medium sized grassland birds and mammals. CRP parcels in other counties, especially to the east, are well-interspersed with other cover. Mosaic species using grassland, cropland and woodland should benefit there. These include bobwhite quail, white-tailed deer, and some predators. A dynamic programming model was developed to help investigate the effects of landscape pattern on animal behavior and survival. A preliminary version calculated winter survival of bobwhite quail. Small demonstration areas selected from the study areas suggested that the configuration of CRP fields could be improved to maximize wildlife benefits. Many of the wildlife benefits of the CRP could vanish after the program expires if farmers return CRP fields to cropland. Other long-term alternatives could prove less costly. Limited federal buy-outs of erosion-prone land may be feasible, especially in expansion of National Grassland. Easements, purchase of cultivation rights, and subsidies for alternative agricultural practices are other tools for encouraging long-term conservation on the Great Plains. This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

181. Effects of the Conservation Reserve Program on wildlife in southeast Nebraska.

King, J. W. and Savidge, J. A.

Wildlife Society Bulletin 23 (3): 377-385. (Fall 1995)

NAL Call #: SK357.A1W5; ISSN: 0091-7648

[WLSBA6]

Descriptors: wild birds/ species diversity/ population density/ seasonal variation/ agricultural land/ federal programs/ wildlife conservation

This citation is from AGRICOLA.

182. The effects of the Conservation Reserve Program on wildlife in southeastern Wyoming.

Wachob, Douglas Glenn.

University of Wyoming, 1997.

Notes: Degree: PhD; October 1997; Cited: DAI-B

58(04): p. 1651, October 1997; ISBN: 0-591-39611-4

Descriptors: Biology, Ecology/ Agriculture, Forestry & Wildlife/ Urban & Regional Planning/ alfalfa/ aves

Abstract: The primary objective of this study was to identify the vegetation and spatial characteristics of CRP that influence habitat use by non-game birds, small rodents, sharp-tailed grouse (*Tympanuchus phasianellus*), raptors, carnivores, and big game in a CRP/agricultural landscape. The study was conducted in Laramie, Platte, and Goshen counties in southeastern Wyoming, during 1993-5. The study

area was dominated by intensively grazed native range land and winter wheat (*Triticum* sp.); CRP comprised 15% of the study area. Non-game bird use was higher in CRP with an alfalfa component, compared to CRP without alfalfa in 1994, but not in 1993. Fine scale selection by birds for specific vegetation structure was detected in 1994 but not in 1993. Bird use of CRP was independent of the spatial characteristics of CRP patches. Small mammal use of CRP and range lands was higher than winter wheat lands. Vegetation species richness, vegetation height, standard deviation of vegetation cover, and patch area were significant predictors of small mammal use of CRP patches. This small mammal community selected habitat at the landscape and patch scale but not at the intrapatch scale. I investigated use of CRP lands by sharp-tailed grouse during nesting and brood-rearing seasons. All nests were located in CRP. Hens selected nest sites in larger CRP patches. Hens with broods used CRP and irrigated alfalfa patches more often and wheat and rangeland patches less often than they were available. Hens with broods used CRP patches with high coverage of broad leafed weeds and annual grasses more often and patches without alfalfa less often than these patch types were available. I found that CRP was the vital reproduction habitat for sharp-tailed grouse in southeastern Wyoming. Sharp-tailed grouse dancing grounds (leks) were located closer to CRP and had greater coverage of CRP within 1 km, compared with the entire study area. I also found that CRP patch size, percent cover of CRP, and CRP patch number predicted the number of leks and the number of males at leks, at a scale of 100 km²/sp². I investigated the spatial relationship of CRP fields to bird and mammal species richness using computer simulations. I used observations of 28 common species as model input data. Computer simulations of a hypothetical landscape showed that species richness increased rapidly as CRP coverage increased from 0-15%, and less rapidly as CRP coverage increased from 15-50%.

This citation is provided courtesy of NISC, publisher of *Wildlife & Ecology Studies Worldwide*.

183. Effects of the CRP on wildlife habitat: Emergency haying in the Midwest and pine plantings in the Southeast.

Hays, R. L. and Farmer, A. H.

Transactions of the North American Wildlife and Natural Resource Conference (55th): 30-39. maps. (1990)

NAL Call #: 412.9-N814; ISSN: 0078-1355 [NAWTA]

Descriptors: afforestation/ farmland/ forest plantations/ haymaking/ nature reserves/ pinus/ planting/ remuneration/ colinus virginianus/ southeastern states of USA/

Conservation Reserve Program (CRP)

This citation is from AGRICOLA.

184. Effects of the U.S. Conservation Reserve Program on Landscape Structure in Southwest Kansas.

Egbert, S. L.; Park, S.; Peterson, D.; Stewart, A. M.; and Price, K. P.

In: 133rd Annual Meeting of the Kansas Academy of Science. (Held 6 Apr 2001-7 Apr 2001 at Lawrence, KS (USA).); 2001.

Notes: Conference Sponsor: Kansas Academy of Science; World Meeting Number 000-5622

Descriptors: Multidisciplinary

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185. Effects of Thinning CRP Pine Stands on Nesting Songbirds in Georgia.

Schaeffbauer, M. K. and Schweitzer, S. H.

In: 7th Annual Conference of the Wildlife Society. (Held 12 Sep 2000-16 Sep 2000 at Nashville, TN (USA).); 2000.

Notes: Conference Sponsor: The Wildlife Society; World Meeting Number 003 0833

Descriptors: Biology

© Cambridge Scientific Abstracts (CSA)

186. Effects of two haying provisions on duck nesting in Conservation Reserve Program (CRP) fields in South Dakota.

Luttschwager, K. A.

Brookings, SD: South Dakota State University, 1991.

Notes: M.S. Thesis

Descriptors: Conservation Reserve Program/ State conservation programs/ South Dakota

Abstract: Evaluated the effects of emergency haying on duck nesting success in CRP fields.

187. Environmental Quality Incentives Program: Program summary and potential for wildlife benefits.

Esser, A.; Molleur, R.; Buck, P.; and Rewa, C.

In: A comprehensive review of Farm Bill contributions wildlife conservation, 1985-2000/ Heard, L. P.; Hohman, W. L.; Halloum, D. J.; and Wildlife Habitat Management Institute (U.S.); Series: Technical Report USDA/NRCS/WHMI.

Madison, MS: U.S. Department of Agriculture, 2000; pp. 125-134

NAL Call #: aS604.6 .C66 2000

Descriptors: Environmental Quality Incentives Program/ conservation/ conservation buffers/ farming systems/ nutrient management/ erosion control / wildlife management

188. Evaluating potential effects of CRP on bobwhite quail in Piedmont Virginia.

Stauffer, Dean F.; Cline, Gerald A.; and Tonkovich, Michael J.

North American Wildlife and Natural Resources Conference, Transactions 55: 57-67. (1990); ISSN: 0078-1355.

Notes: WR 222

Descriptors: Galliformes/ Odontophoridae/ Colinus virginianus/ Conservation reserve programs/ habitat classification/ habitat management/ management/ modeling/ wildlife/ bobwhite/ habitat/ dispersion/ North America/ United States/ Virginia

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

189. Evaluation of select CRP lands as bobwhite quail habitat.

Burger, L. W.; Kurzejeski, E. W.; Dailey, T. V.; and Ryan, M. R.

Proceedings of the Forage and Grassland Conference: 27-30. (1991)

NAL Call #: SB193.F59; ISSN: 0886-6899.

Notes: Meeting held April 1-4, 1991, Columbia, Missouri. Includes references.

Descriptors: quails/ colinus virginianus/ habitats/ conservation areas/ Missouri/ Conservation Reserve Program

This citation is from AGRICOLA.

190. Evaluation of the effect of CRP on duck recruitment in the prairie pothole joint venture area of Fish & Wildlife Service Region 6.

Reynolds, R.

Bismark, ND: U.S. Fish & Wildlife Service, 1992. U.S. Fish & Wildlife Service Progress Report.

Descriptors: Conservation Reserve Program/ Regional conservation programs/ State conservation programs/ Prairie pothole region/ Montana/ South Dakota/ North Dakota

Abstract: Reported the 1992 results of a pilot effort to evaluate waterfowl production in CRP grasslands compared to Waterfowl Production Areas.

191. Factors influencing mourning dove nest success in CRP fields.

Hughes, John P.; Robel, Robert J.; and Kemp, Kenneth E.

Journal of Wildlife Management 64 (4): 1004-1008. (2000)

NAL Call #: 410 J827; ISSN: 0022-541X

Descriptors: Zenaida macroura/ dove, mourning/ zenaida macroura/ nests and nesting/ conservation programs/ grassland/ land use/ mating grounds/ survival/ cultivated farmland/ cover/ vegetation/ reproduction/ habitat management for wildlife/ mourning dove/ nest/ habitat/ agriculture/ ecological requirements/ Riley County/ Kansas/ United States

Abstract: Mourning doves (*Zenaida macroura*) nest

primarily in trees. However, ground nesting is prevalent in the Great Plains region where mourning dove numbers have increased since the mid 1980s when the Conservation Reserve Program (CRP) was initiated. We monitored mourning dove nest success in CRP fields in Kansas during 1994 and 1995 to determine if that habitat could be a source for the increased numbers. Mourning dove nest success averaged 56% (n = 90) in our CRP fields. Daily nest survival rates in CRP fields were associated positively with height of live vegetation (P = 0.011) and negatively with percent grass cover (P = 0.001) and percent live vegetation cover (P = 0.005). Management practices that produce sparse overall cover but tall vegetation height may increase mourning dove nest success in CRP fields.

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

192. Field evaluation of the northern bobwhite habitat suitability index model with implications for the Conservation Reserve Program.

Tonkovich, Michael Joseph

Blacksburg, Va.: Virginia Polytechnic Institute and State University, 1995.

Notes: Thesis (Ph. D.); Bibliography: leaves 182-203.

NAL Call #: ViBibV LD5655.V856-1995.T665

This citation is from AGRICOLA.

193. The first distributional record of the least weasel, *Mustela nivalis*, in Northeastern Missouri.

Mock OB; Sells GD; Ellis LS; and Easterla DA

Transactions of the Missouri Academy of Science 35: 7-11. (2001)

This citation is provided courtesy of CAB International/CABI Publishing.

194. GIS analysis of the effects of habitat configuration and the Conservation Reserve Program (CRP) on the abundance of ringnecked pheasants, gray partridge, and meadowlarks.

Lockman, Drake J. and Kimmel, R. O.

In: MN DNR Farmland Wildlife Population and Research Unit Report, 1994; pp. 33-39

Descriptors: Phasianus colchicus/ Aves/ Perdix perdix/ common pheasant/ birds/ partridge/ dispersion/ prairie/ GIS/ United States/ geographic information systems

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

195. Grassland bird conservation: CP1 vs. CP2 plantings in Conservation Reserve Program fields in Missouri.

McCoy, Timothy D; Ryan, Mark R; and Burger, Loren W Jr

American Midland Naturalist 145 (1): 1-17.

(Jan. 2001)

NAL Call #: 410 M58; ISSN: 0003-0031

Descriptors: Conservation/ Conservation measures/ Reproduction/ Reproductive productivity/ Ecology/ Population dynamics/ Habitat/ Terrestrial habitat / Land and freshwater zones/ Nearctic region/ North America/ United States/ Aves/ Habitat management/ Reproductive productivity/ Nesting success/ Fecundity/ Community structure/ Population density/ Nests/ Grassland/ Cool season and warm season grass fields/ nesting success and fecundity/ conservation implications/ Missouri/ Knox County/ Macon County/ Linn County/ Conservation biology/ Birds/ Chordates/ Vertebrates

Abstract: To determine the relative value of different Conservation Reserve Program (CRP) plantings for breeding grassland and winter birds we measured vegetation structure, avian abundance and reproductive success, and estimated fecundity during 1993-1995 on CP1 (cool-season grass) and CP2 (warm-season grass) plantings in 16 fields in northern Missouri. CP1 fields had been planted to cool-season grasses or cool-season grass-legume mixtures and CP2 fields had been seeded with switchgrass (*Panicum virgatum*). Species richness, abundance and nesting success of grassland birds during the breeding season and total bird use in the winter did not differ between CPs. During the breeding season CP1 fields had higher abundances of grasshopper sparrow (*Ammodramus savannarum*), eastern meadowlark (*Sturnella magna*), Henslow's sparrow (*Ammodramus henslowii*) and American goldfinches (*Carduelis tristis*), whereas common yellowthroats (*Geothlypis trichas*) were more abundant in CP2 fields. Fecundity of dickcissels (*Spiza americana*) and nesting success and fecundity of red-winged blackbirds (*Agelaius phoeniceus*) were higher on CP2 than on CP1 habitat, but both CPs were likely sinks ($[\lambda] < 1$) for these species. Both CPs were likely source ($[\lambda] > 1$) habitat for grasshopper sparrows, whereas only CP1 habitat was likely a source for eastern meadowlarks and American goldfinches. In winter American goldfinches were more abundant in CP1 fields than CP2 fields. The shorter, more diverse, cool-season grass fields were equal or better habitat than taller, more vertically dense, switchgrass-dominated fields for grassland birds, including several species of high conservation concern. Single-species plantings of warm- or cool-season grasses should be avoided to increase the potential wildlife benefits of CRP and other grassland habitats.

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196. Grassland bird use of Conservation Reserve Program fields in the Great Plains.

Johnson, D. H.

In: A comprehensive review of Farm Bill contributions wildlife conservation, 1985-2000/ Heard, L. P; Hohman, W. L.; Halloum, D. J.; and Wildlife Habitat Management Institute (U.S.); Series: Technical Report USDA/NRCS/WHMI.

Madison, MS: USDA, NRCS, Wildlife Habitat Management Institute, 2000; pp. 19-33

NAL Call #: aS604.6 .C66 2000

Descriptors: Conservation Reserve Program/ wildlife habitats/ wildlife management/ birds

197. Grassland Birds: Development and Testing of Models to Predict Species Richness, Abundance, and Reproductive Success at Local and Landscape Levels.

Schultz, J.

Columbia, MO: Missouri Dept. Of Conservation, Wildlife and Research Div.; PB2001104751XSP, 2000. 180 p.

Notes: Study No. 43; Final Report to Research and Survey Projects as Required by Federal Aid in Wildlife Restoration Act, Missouri, Federal Aid Project no. W-13-R-54. (2000). Contains Dissertation of Timothy McCoy on Effects of Landscape Composition and Multi-Scale Habitat Characteristics on the Grassland Bird Community; Prepared in cooperation with Missouri Univ.-Columbia. Graduate School.; Sponsored by Fish and Wildlife Restoration Program, Washington, DC

Descriptors: Endangered species/ Models/ Abundance/ Reproduction Biology/ Conservation/ Habitats/ Landscapes/ Birds/ Wildlife management/ Conservation Reserve Program/ Grassland birds/ Natural resources and earth sciences/ Natural resource management/ Medicine and biology/ Ecology

Abstract: Measures of grassland bird demography on Conservation Reserve Program (CRP) fields were compared and modeled at several spatial scales to identify habitat factors associated with increased conservation value for grassland birds. Grassland bird populations and species richness were compared between fields located in landscapes with different amounts of CRP habitat and total grassland. Multi-scale habitat models were developed from and validated on two independent data sets to identify the primary habitat features that could predict the potential value of CRP and other idle grasslands for grassland bird conservation.

198. Habitat associations of grasshopper species (Orthoptera : Acrididae) in winter wheat (Triticum aestivum L.) and adjacent rangeland.

Gillespie, R. L. and Kemp, W. P.

Journal of the Kansas Entomological Society 68 (4): 415-424. (1995); ISSN: 0022-8567

Descriptors: Acrididae/ Triticum aestivum/ rangelands/ species composition/ population density/ United States/ Orthoptera/ Populations & general ecology/ Insects

Abstract: Thirty-one species of grasshoppers were collected in either winter wheat or adjacent rangeland/CRP, at ten study sites for three years. Eighteen species were collected in winter wheat fields while 29 species were collected in adjacent reseeded native rangeland or newly seeded Conservation Reserve Program (CRP) land, seeded to crested wheatgrass (*Agropyron cristatum* (L.) Gaertn. and alfalfa *Medicago sativa* L.). In native rangeland these two species were reseeded into *Stipa comata* Trin. and Rupr., *Bouteloua gracilis* (H.B.K.) habitat. *Melanoplus sanguinipes*, *M. bivittatus*, and *M. packardii*, pest species of crops and rangeland in the Northern Great Plains, were the predominant species in winter wheat and together with *Aulocara elliotti* were the predominant species in adjacent rangeland or CRP. The number of *M. sanguinipes* collected per unit of effort in CRP was the same as the number collected in "established" reseeded rangeland. Fewer *A. elliotti* were collected per unit effort in CRP when compared to "established" reseeded rangeland. The results suggest that CRP supports a lower population of *A. elliotti* than "established" reseeded rangeland or there has been an insufficient span of time for *A. elliotti* to disperse into these areas.

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199. Habitat use, home ranges, and survival of swift foxes in a fragmented landscape: Conservation implications.

Kamler, J. F.; Ballard, W. B.; Fish, E. B.;

Lemons, P. R.; Mote, K.; and Perchellet, C. C.

Journal of Mammalogy 84 (3): 989-995. (2003)

NAL Call #: 410 J823; ISSN: 0022-2372.

Notes: Number of References: 33; Publisher: Alliance Communications Group Division Allen Press

Descriptors: Animal Sciences/ habitat use/ home range/ survival/ swift fox/ Texas/ *Vulpes velox*/ Joaquin kit foxes/ arid land foxes/ *vulpes velox*/ western Kansas/ North America/ mortality/ *macrotis*/ rates/ size

Abstract: Habitat loss might be one of the primary reasons for the decline of the swift fox (*Vulpes velox*) in the western Great Plains of North America. From 1998 to 2001, we monitored 42 swift foxes in a landscape interspersed with native short-grass prairies, nonnative grasslands enrolled in the Conservation Reserve Program, irrigated agricultural

fields, and dryland agricultural fields. Survival estimates ranged from 0.52 to 0.66 for both adults and juveniles, and the primary causes of death were vehicle collisions (42% deaths) and coyote (*Canis latrans*) predation (33%). Annual home-range size was similar for males and females (10.8 and 10.5 km², respectively). Within the study area, swift foxes selected only short-grass prairies and had lower-than-expected use or complete avoidance of all other habitat types. Our results indicate swift foxes are more specialized in habitat selection than other North American canids; thus, protection of native short-grass prairies might be necessary for their long-term existence.

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200. History and economics of farm bill legislation and the impacts on wildlife management and policies.

Harmon, K. W.

In: General Technical Report RM.

Fort Collins, Colo.: Rocky Mountain Forest and Range Experiment Station, 1988; pp. 105-108.

Notes: Report Series ISSN: 0277-5786; Proceedings of a Symposium on "Impacts of the Conservation Reserve Program in the Great Plains," held Sept 16-18, 1987, Denver, Colorado. Includes references.

NAL Call #: aSD11.A42

Descriptors: land diversion/ wildlife/ legislation/ revegetation/ habitats/ pheasants/ resource conservation/ soil conservation/ erosion control/ Conservation Reserve Program/ food security act of 1985

This citation is from AGRICOLA.

201. The history, status and future needs of fish and wildlife management on private lands as related to USDA agricultural programs.

Heard, L Pete; Allen, Arthur W; Best, Louis B; Brady, Stephen J; Burger, Wes; Esser, Anthony J; Hackett, Ed; Helinski, Ronald R; Hohman, William L; Johnson, Douglas H; Pederson, Roger L; Reynolds, Ronald E; Rewa, Charles; and Ryan, Mark R

Transactions of the North American Wildlife and Natural Resources Conference 66: 54-67. (2001)

NAL Call #: 412.9 N814; ISSN: 0078-1355.

Notes: From: Sixty-sixth North American Wildlife and Natural Resources Conference, Washington, DC, USA, March 16-20, 2001

Descriptors: 1985 Food Security Act [Farm Bill]/ Conservation Reserve Program [CRP]/ Environmental Quality Incentive Program [EQIP]/ Wetland Reserve Program [WRP]/ Wildlife Habitat Incentives Program [WHIP]/ agricultural programs/ compliance provisions/ highly erodible land/ land retirement programs/ private land management/ wildlife conservation/ wildlife management: future needs, history, status/ wildlife responses

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202. Home ranges of ring-necked pheasants in northwestern Kansas.

Applegate, Roger D; Flock, Brian E; Gipson, Philip S; Mccoy, Matthew W; and Kemp, Kenneth E
Prairie Naturalist 34 (1-2): 21-29. (2002)
NAL Call #: QH540 .P7; ISSN: 0091-0376

Descriptors: Conservation Reserve Program [CRP]/ adaptive kernels/ brooding behavior/ habitat density/ home range size/ minimum convex polygons/ nesting behavior/ travel distance/ Animals/ Birds/ Chordates/ Nonhuman Vertebrates/ Vertebrates/ Phasianus colchicus [ring necked pheasant] (Galliformes): female, male

Abstract: We studied the home ranges of 29 female and 9 male ring-necked pheasants (*Phasianus colchicus*) in northwestern Kansas during 1994 to 1995. Home ranges for hens varied from an average of 127 ha in high-density (25%) Conservation Reserve Program (CRP) to 155 ha on low-density (8 to 11%) CRP sites. Home ranges for cocks averaged 179 ha on the high-density CRP site and 105 ha on the low-density CRP site. The amount of CRP in areas where home ranges were located had no detectable effect on size of home ranges. Our estimates of hen home ranges during nesting and brooding periods were larger than reported from other regions. This might reflect the need for hens to travel greater distances in northwestern Kansas in order to obtain adequate food and cover for themselves and their broods.

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203. Illinois Wildlife Enhancement Bonus Program: Analysis of the Illinois Department of Natural Resources and Illinois Quail Unlimited Conservation Program.

Hasstedt, S. C.
Edwardsville, IL: Southern Illinois University at Edwardsville, 2002.

Notes: Report numbers: CI01316, ADA398508XSP; Thesis

Descriptors: Natural resources/ Theses/ Population/ Preservation/ Birds/ Agriculture/ Farms/ Land areas/ Illinois/ Silviculture/ Conservation/ Habitats/ Wildlife/ Bobwhite quails/ IWEBP/ wildlife enhancement bonus programs/ Natural resources and earth sciences/ Natural resource management/ Medicine and biology/ Botany/ Zoology/ Ecology

Abstract: In 1998 the Illinois Department of Natural Resources (IDNR), Division of Wildlife Resources, Habitat Stamp Fund in conjunction with Illinois Quail Unlimited (QU) initiated the Illinois Wildlife Enhancement Bonus Program (IWEBP). Financial incentives are available to property owners for implementation of wildlife friendly practices on land enrolled in the United States Department of Agriculture's (USDA) Conservation Reserve Program (CRP) and non-CRP acres are eligible under a fescue (*Festuca arundinaceae*) conversion initiative.

Mail surveys following the Total Design Method (Salant and Dillman 1994) were used to gauge both land owner I operator and Natural Resources Conservation Service (NRCS) professional's perceptions regarding IWEBP efficacy in improving wildlife habitat, administrative costs of IWEBP, and characteristics of enrolled participants. Proportional response histograms and higher order analyses revealed IWEBP participants place a high intrinsic value on both habitat and the presence of wildlife on their land, and the financial incentive is most important to offset the high cost of re-establishing native grasses and forbs. NRCS personnel generally believe, compared to other state conservation programs, IWEBP provides similar or better habitat benefits for wildlife in general and is particularly beneficial to bobwhite quail (*Colinus virginianus*). Land owners and NRCS personnel alike appreciate the relative simplicity of IWEBP enrollment procedures, but further education efforts regarding the singular importance of habitat (Brennan 1991, Jenkins 2000) in improving upland wildlife populations could further the success of this program.

204. The impact of CRP on avian wildlife: A review.

Ryan, M. R.; Burger, L. W.; and Kurzejeski, E. W.
Journal of Production Agriculture 11 (1): 61-66.
(Jan. 1998-Mar. 1998)

NAL Call #: S539.5.J68; ISSN: 0890-8524 [JPRAEN]
Descriptors: wildlife / wild birds/ habitats/ government policy/ populations/ grasslands/ species diversity/ nests/ population growth/ literature reviews/ land banks/ wildlife conservation/ Conservation Reserve Program

Abstract: We reviewed the literature to assess the impact of the Conservation Reserve Program (CRP) on bird populations in the central USA. The CRP replaced production agriculture fields with grassland habitat used by more than 90 species of birds. At least 42 bird species nested in CRP habitats. Bird species richness in CRP fields was similar to that in rowcrop fields, but relative abundance was 1.4 to 10.5 times higher in CRP plantings. Nest abundance was 13.5 times higher in CRP than crop fields, although nesting success of songbirds was only slightly higher in CRP fields (40% vs. 36% in crops). Limited evidence suggests that the CRP has positively affected the population growth rates of several nongame grassland bird species. Waterfowl nest densities and nesting success in CRP fields were similar to these occurring in grassland habitats managed specifically for waterfowl. The presence of CRP grassland has been postulated to have improved the quality of existing duck nest habitat by dispersing nests over a larger area. Ring-necked pheasant (*Phasianus colchicus* L.) populations seemingly increased substantially with CRP acres. Little evidence of positive population response by

northern bobwhites (*Colinus virginianus* L.) to the CRP is available. Overall, grassland birds known to be declining throughout North America were seemingly the most benefited by the CRP. This citation is from AGRICOLA.

205. The impact of haying Conservation Reserve Program lands on productivity of ducks nesting in the Prairie Pothole Region of North and South Dakota.

Renner, R. W.; Reynolds, R. E.; and Batt, B. D. J. *Transactions of the North American Wildlife and Natural Resource Conference* 60: 221-229. (1995) NAL Call #: 412.9-N814; ISSN: 0078-1355 [NAWTA6].
Notes: Meeting held March 24-29, 1995, Minneapolis, Minnesota
Descriptors: anatidae / prairies/ conservation areas/ haymaking/ reproductive performance/ nature reserves/ land banks/ North Dakota/ South Dakota
Abstract: Compared nest success and duck production in hayed and non-hayed CRP fields. This citation is from AGRICOLA.

206. Impact of Haying CRP Lands on Duck Nesting in the Prairie Pothole Region.

Renner, R. W. and Reynolds, R. E.
In: 60th North American Wildlife and Natural Resources Conference. (Held 24 Mar 1995-29 Mar 1995 at Minneapolis, MN (USA).); 1995.
Notes: Conference Sponsor: Wildlife Management Institute (Washington, DC); World Meeting Number 951 0315
© Cambridge Scientific Abstracts (CSA)

207. Impact of the Conservation Reserve Program on duck recruitment in the U.S. Prairie Pothole Region.

Reynolds, R. E.; Shaffer, T. L.; Renner, R. W.; Newton, W. E.; and Batt, B. D. J.
Journal of Wildlife Management 65 (4): 765-780. (2001)
NAL Call #: 410 J827; ISSN: 0022-541X
Descriptors: Breeding success/ Recruitment/ Land use/ Wildlife management/ Conservation Reserve Program/ Habitat improvement/ Breeding sites/ Food availability/ Hunting/ Aquaculture/ Anas/ Montana/ South Dakota/ North Dakota/ Prairie Pothole Region/ Prairie Pothole Region/ Conservation Reserve Program/ Dabbling ducks/ Management/ Culture of other aquatic animals/ United States
Abstract: The U.S. Department of Agriculture (USDA)'s Conservation Reserve Program (CRP) resulted in the conversion of about 1.9 million ha of cropland to perennial grass cover in the Prairie Pothole Region of North Dakota, South Dakota, and northeastern Montana by 1992. Many wildlife managers believed this cover would provide benefits to wildlife, including upland nesting ducks. During

1992-1995, we evaluated success of 5 duck species nesting in CRP fields and nearby Waterfowl Production Areas (WPA) throughout the region. We examined relationships between daily survival rates (DSR) of duck nests in CRP cover and landscape-level habitat and population parameters. We computed DSR of duck nests in other major cover types in our study area from data collected during 1980-1984 (pre-CRP) and 1990-1994 (CRP) periods. We then applied recruitment models to estimate duck production in our study area during peak CRP years (1992-1997) and compared these results with those that simulated the scenario in which cropland was in place of CRP cover (i.e., the CRP had not occurred). DSR were higher in all habitats combined during the CRP period compared to the pre-CRP period. Regressions of DSR in CRP cover on the percent of each study plot in perennial cover and geographic location were significant ($P < 0.01$) for 4 of 5 duck (*Anas* spp.) species. Estimated nest success and recruitment rates for the 5 species combined during 1992-1997 were 46% and 30% higher, respectively, with CRP cover on the landscape compared to a scenario where we simulated cropland in place of CRP. Our model estimated an additional 12.4 million recruits from our study area to the fall flight as a consequence of the CRP during 1992-1997. Our results document benefits to 5 duck species in the northern plains associated with a farm program that provided financial incentives to landowners for planting undisturbed grass cover as an alternative to annual crops.
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208. Impact of the Conservation Reserve Program on wildlife conservation in the Midwest.

Ryan, M. R.
In: A comprehensive review of Farm Bill contributions wildlife conservation, 1985-2000/ Heard, L. P.; Hohman, W. L.; Halloum, D. J.; and Wildlife Habitat Management Institute (U.S.); Series: Technical Report USDA/NRCS/WHMI. Madison, MS: USDA, NRCS, Wildlife Habitat Management Institute, 2000; pp. 45-54
NAL Call #: aS604.6 .C66 2000
Descriptors: Conservation Reserve Program/ wildlife habitats/ wildlife management

209. The importance of Conservation Reserve Program fields to breeding grassland birds at Buffalo Ridge, Minnesota.

Leddy, Krecia L.; Higgins, Kenneth F.; and Naugle, David E.
South Dakota Academy of Science: Proceedings 76: 105-111. (1997); ISSN: 0096-378X.
Notes: Papers presented at The 82nd Annual Meeting of the South Dakota Academy of Science, April 25-26, 1997, Northern State University, Aberdeen, South Dakota. Editor: Higgins, Kenneth F.

Descriptors: Passeriformes/ agricultural crops/ habits/ behavior/ birds/ breeding/ Conservation Reserve Program/ density/ ecosystems/ farmland/ grasslands/ habitat management/ habitat use/ management/ pastures/ species diversity/ wildlife/ North America/ United States/ Minnesota/ Minnesota, Southwestern

Abstract: Nongame birds were surveyed during summer 1995 at Buffalo Ridge in southwestern Minnesota, to evaluate the importance of Conservation Reserve Program (CRP) grasslands to local avifauna. Bird abundance and composition were compared among three habitat types (CRP grasslands, pasturelands, and croplands) using an index to breeding bird density (i.e., number of singing males/transect area), percent species composition, and total species richness. Vertical height and density of vegetation were measured early in the growing season (mid-May) and during the peak of the growing season (mid-June) to determine whether vegetative structure was related to bird use of vegetation. Conservation Reserve Program fields had higher vegetation measurements and supported higher bird densities and species richness than pasturelands and croplands. Mean bird density (birds/100 ha) in CRP grasslands was 312.5 compared to 166.7 in pasturelands and only 75.0 in croplands. Ten bird species were present in CRP grasslands compared to eight in pasturelands and nine in croplands. The presence of three native bird species (sedge wren, dickcissel, and clay-colored sparrow) in CRP grasslands that were not found in pasturelands or croplands indicated that CRP grasslands were an important habitat type for maintaining avian diversity at Buffalo Ridge.

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

210. The Influence of Field Age On Mammalian Relative Abundance, Diversity, and Distribution On Conservation Reserve Program Lands in Michigan.

Furrow, Ly Thi

East Lansing, MI: Michigan State University, 1995.

Notes: Masters Thesis; Cited: Masters Abstracts International 33 (05): p. 1442

Descriptors: Agriculture, Forestry & Wildlife/ conservation/ wildlife distribution/ prairies/ meadows/ agricultural conservation programs

Abstract: Past research evaluating wildlife use of Conservation Reserve Program (CRP) lands have focused primarily on avian populations as indicators of wildlife habitat quality. In addition to avian species, mammals may also serve as indicators of wildlife habitat quality and have not been adequately evaluated on CRP lands. Relative small mammal abundance, species composition, diversity, and vegetative characteristics were examined on replicated CP1 fields of 6 age classes and on

agricultural fields in Gratiot County, Michigan in 1992 and 1993. Additionally, predator scent stations were used to monitor medium sized mammals associated with CRP fields. Results suggest that the structure and composition of various age classes of CRP fields influenced mammal abundance, richness, and diversity. Reverting CRP lands to cropland may have significant impacts on a diversity of mammal species that depend on habitat conditions provided by these grasslands.

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

211. Influence of the Conservation Reserve Program on landscape structure and potential upland wildlife habitat.

Weber, Whitney L; Roseberry, John L; and Woolf, Alan

Wildlife Society Bulletin 30 (3): 888-898. (Fall 2002)

NAL Call #: SK357.A1W5; *ISSN:* 0091-7648

Descriptors: Conservation/ Conservation measures/ Land and freshwater zones/ Nearctic region/ North America/ United States/ Comprehensive Zoology/ Habitat management/ Illinois: South and west central/ Conservation Reserve Program/ landscape structure/ upland wildlife habitat/ Phasianidae: Galliformes, Aves/ Birds/ Chordates/ Vertebrates

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212. The influence of the CRP on grasshopper sparrow population trends in the mid-continental United States.

Herkert, James R.

Wildlife Society Bulletin 26 (2): 227-231. (1998)

NAL Call #: SK357.A1W5; *ISSN:* 0091-7648

Descriptors: Fringillidae/ Passeriformes/ Ammodramus savannarum/ birds/ Conservation Reserve Program/ ecosystems/ habitat management/ land use/ land, private/ management/ population ecology/ techniques/ wildlife/ wildlife/ habitat relationships/ conservation programs/ sparrows/ abundance/ evaluation/ habitat changes/ grasshopper sparrow/ North America/ United States/ Northcentral States

Abstract: Data suggest that a balance of both managed and undisturbed Conservation Reserve Program lands in the northcentral United States would be most beneficial to a wide variety of grassland birds, including the grasshopper sparrow. This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

213. Land-use changes and hunter participation: The case of the Conservation Reserve Program.

Langner, L. L.

Transactions of the North American Wildlife and Natural Resource Conference (54th): 382-390. (1989)
 NAL Call #: 412.9-N814; ISSN: 0078-1355 [NAWTA]

Descriptors: erosion control/ land use/ soil conservation/ wildlife management/ United States

This citation is from AGRICOLA.

214. Land-use patterns surrounding greater prairie-chicken leks in northwestern Minnesota.

Merrill, M. D.; Chapman, K. A.; Poiani, K. A.; and Winter, B.

Journal of Wildlife Management 63 (1): 189-198. (Jan. 1999)

NAL Call #: 410 J827; ISSN: 0022-541X

Descriptors: Land use / Lek/ Wildlife management/ Tympanuchus cupido / United States, Minnesota/ Greater prairie chicken/ Management

Abstract: To better manage wildlife populations, managers must know which combination of land uses creates optimal habitat. We used spatial analysis at a landscape scale to describe land-use patterns and patch characteristics surrounding leks of greater prairie-chicken (*Tympanuchus cupido pinnatus* L.) in the Agassiz Beach Ridges (ABR) landscape (2,467 km²) in northwest Minnesota. We hypothesized that types and patterns of land use favorable to greater prairie-chickens would be associated positively with lek versus non-lek points, and particularly more stable (traditional) leks. Using a Geographic Information System (GIS), we analyzed land-use proportions and patch characteristics within an 810-ha area (1.6-km radius) surrounding traditional leks, temporary leks, and randomly located non-lek points. We found locations of greater prairie-chicken leks were strongly dependent on land use as revealed by a multivariate analysis of variance (MANOVA; $P < 0.001$). A discriminant function analysis and univariate analysis of variance (ANOVA) showed that several land-use characteristics were associated most strongly with leks: smaller amounts of residential-farmstead, smaller amounts and smaller patches of forest, and greater amounts of Conservation Reserve Program (CRP) lands. Comparisons between traditional and temporary leks revealed that traditional leks were surrounded by a lesser proportion of forest and cropland than were temporary leks ($P < 0.001$). Univariate ANOVAs showed that traditional leks also were associated with larger patches of grassland ($P < 0.001$), and grassland ($P = 0.016$) and forest patches ($P = 0.017$) having more irregular shapes. Our study suggests efforts to manage and conserve greater prairie-chicken populations in the Tallgrass Prairie Region should focus on landscape-scale land-use patterns in addition to local habitat characteristics. Landscape-scale efforts could include enlarging grasslands

around traditional leks by completing prairie restorations and CRP plantings, while local-scale strategies should seek to improve the quality of habitat in existing and new grassland areas.

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215. Male dickcissels feed nestlings in east-central Illinois.

Maddox, J. D. and Bollinger, E. K.

Wilson Bulletin 112 (1): 153-155. (Mar. 2000)

NAL Call #: 413.8 W692; ISSN: 0043-5643

Descriptors: Feeding behavior/ Paternal behavior/ Nests/ Food availability/ Illinois/ *Spiza americana*/ Dickcissel/ Birds/ United States

Abstract: We observed male Dickcissels (*Spiza americana*) commonly feeding nestlings in Conservation Reserve Program (CRP) fields in 1997 in east-central Illinois. Male Dickcissels fed nestlings at six of the eight nests we observed, accounting for 37% of the total nest visits. Overall, females made significantly more nest visits than males. However, at the six male-assisted nests, the number of male and female nest visits did not differ significantly. Male Dickcissel feeding behavior may have been prompted by low food abundance. Males were not observed feeding nestlings in 1998, when overall nest success was higher and nestling starvation was less than in 1997.

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216. Mammalian species composition, diversity, and succession in Conservation Reserve Program grasslands.

Hall, D. L. and Willig, M. R.

Southwestern Naturalist 39: 11-10. (1994)

NAL Call #: 409.6 So8; ISSN: 0038-4909

Descriptors: Mammalia / species composition/ species diversity/ succession/ nature reserves/ Texas/ Conservation/ United States

Abstract: Species diversity and composition of small mammals were each compared between Conservation Reserve Program (CRP) grasslands and native shortgrass prairie on the Southern High Plains of Texas. Small mammals were livetrapped in all four seasons during a one-year interval at six CRP sites (1, 2, and 3 years of age) and two control sites. Two factors (vegetational heterogeneity and age of habitat) known to affect species diversity were analyzed by a variety of quantitative methods. No significant differences in mammalian diversity (Fisher's log series alpha) were found among sites, and diversity was not significantly correlated with vegetational heterogeneity or site age. Species composition (proportional density of species) was significantly different among all sites in each season. Regardless of season, a priori hierarchical comparisons revealed significant differences in the proportional abundances of species between all CRP sites as a group and in the control sites. The CRP

grasslands simulate shortgrass prairies in species diversity, but not in species composition. Differences in species composition between CRP grasslands and shortgrass prairie may be a result of the lack of natural disturbances (i.e., grazing, fire) on the CRP grasslands.

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217. Managing your CRP for wildlife.

United States Department of Agriculture, Natural Resource Conservation Service NRCS, 2002
<http://www.greatplains.org/resource/1999/mancrp/mancrp.htm>

Descriptors: Conservation Reserve Program/
United States

Abstract: Addressed the issue of wildlife habitat management and enhancement practices to better target CRP objectives.

218. Modeling the Effects of Conservation Reserve Program Lands On the Diversity and Abundance of Wildlife and Plant Species in A Temperate Agro-ecosystem.

Minnis, Richard B.
East Lansing, MI: Michigan State University, 1996.

Notes: Degree: MSC; Cited: Masters Abstracts International 34(05): p. 1842, October 1996

Descriptors: Agriculture, Forestry & Wildlife/
Environmental Sciences/ conservation/ forest fauna/
land use

Abstract: The Conservation Reserve Program (CRP) provides the opportunity to model changes in wildlife and plant species composition in agricultural landscapes when land use practices are altered. Avian, mammalian, invertebrate, and vegetation characteristics were examined in 5 age classes (1-5 growing seasons) of CRP fields in Gratiot County, Michigan in 1992. Models developed from the data indicate that both field specific and landscape variables are important in predicting wildlife abundance and diversity. Field specific variables that describe the successional changes in vegetation composition and structure of CRP fields were important in predicting the relative abundance and diversity of invertebrate and avian species. Landscape variables such as the proportion and juxtaposition of different cover types within the landscape also significantly ($P < 0.10$) affected wildlife diversity and abundance. Maintaining a diversity of CRP age classes within a landscape, through enrollment or periodic manipulation of fields, produces the highest and most stable overall wildlife diversity.

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

219. New Mexico's CRP and wildlife habitat improvement.

Schmidt, Robert J. Jr.; Mullins, Charles J.; Woody, Monty; and Knight, Jim
North American Wildlife and Natural Resources Conference, Transactions 55: 68-73. (1990);
ISSN: 0078-1355.

Notes: WR 222

Descriptors: Conservation Reserve Programs/
habitat management/ management/ wildlife/ North America/ United States/ New Mexico

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

220. Nongame bird nesting on CRP lands in the Texas Southern High Plains.

Berthelsen, Peter S. and Smith, Loren M.
Journal of Soil and Water Conservation 50 (6): 672-675. 1995. (1995)

NAL Call #: 56.8 J822; ISSN: 0022-4561.

Notes: Special issue on wetlands.

Includes references.

Descriptors: Fringillidae/ Passeriformes/ Agelaius phoeniceus/ Aimophila cassinii/ Ammodramus savannarum/ Sturnella neglecta/ agricultural practices/ birds/ clutches/ communities/ conservation programs/ Conservation Reserve Program/ distribution/ ecosystems/ grasslands/ habitat management/ land use/ management/ nesting sites/ nests/ nesting/ nongame wildlife/ productivity/ species diversity/ Texas/ Texas, Southern/ wildlife/ agricultural land/ land diversion/ environmental impact/ permanent grasslands/ wild birds/ species/ diversity/ density/ habitats/ federal programs/ nest density/ agricultural economics (general)/ land development, land reform, and utilization (macroeconomics)/ natural resources land resources/ western meadowlark/ red winged blackbird/ grasshopper sparrow/ Cassin's sparrow/ North America/ United States

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

221. Northern Prairie Science Center Conservation Reserve Bibliography.

Allen, A. W., 2002

<http://www.npwrc.usgs.gov/resource/literatr/crpbib/crpbib.htm>

Descriptors: Conservation Reserve Program/
United States

Abstract: Bibliography of documents relating to effects of CRP on wildlife.

222. Observations of avian nesting activity in burned and non-burned weeping lovegrass CRP.

Oberheu, D.; Mitchell, R.; Dabbert, B.; and Davis, S. *Texas Journal of Agriculture and Natural Resources* 12: 14-17. (1999)

NAL Call #: S1.T49; ISSN: 0891-5466.

Notes: Publisher: Agriculture Consortium of Texas / Kingsville, Tx.

Descriptors: eragrostis curvula/ wild birds/ habitats/ nesting/ nature conservation/ nests/ prescribed burning / species/ drought/ ground cover/ endangered species/ Texas

This citation is from AGRICOLA.

223. Opportunities for enhancing wildlife benefits through the Conservation Reserve Program.

Isaacs, B. and Howell, D.

Transactions of the North American Wildlife and Natural Resource Conference (53rd):

222-231. (1988)

NAL Call #: 412.9-N814; ISSN: 0078-1355 [NAWTA]

Descriptors: wildlife conservation/ conservation areas/ farmland/ windbreaks/ woody plants/ United States

This citation is from AGRICOLA.

224. Perceptions of wildlife damage by Conservation Reserve Program contract holders in Riley County, Kansas.

Hughes, J. P. and Gipson, P. S.

Proceedings - Vertebrate Pest Conference: 154-157. (1996)

NAL Call #: SB950.A1V4; ISSN: 0507-6773 [PVPCBM]

Descriptors: vertebrate pests/ crop damage/ surveys

This citation is from AGRICOLA.

225. Plow: Lessons Learned From CRP - Counterpoint, Negative Impacts of the Conservation Reserve Program on Prairie Wildlife.

Bidwell, T. G.

In: 50th Annual Meeting of the Society for Range Management. (Held 15 Feb 1997-20 Feb 1997 at Rapid City, SD (USA).); 1997.

Notes: Conference Sponsor: South Dakota Section of the Society for Range Management; HQ: Society for Range Management (Denver, CO); World Meeting Number 971 0113

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226. Population trends of the Henslow's sparrow in relation to the Conservation Reserve Program in Illinois, 1975-1995.

Herkert, J. R.

Journal of Field Ornithology 68 (2): 235-244. (1997)

NAL Call #: 413.8 B534; ISSN: 0273-8570

Descriptors: Ammodramus henslowii/ population status/ agricultural practices/ government policy/

conservation/ Illinois/ Birds/ United States

Abstract: Data from Illinois' Spring Bird Count was used to estimate long-term population trends of Henslow's Sparrows in Illinois and to examine if the Conservation Reserve Program has affected these trends. Spring Bird Count data suggest that Henslow's Sparrow populations in Illinois have declined significantly over the last 21 yr, with an estimated average rate of decline of 7.1% per year between 1975-1995. These data corroborate analyses of other long-term data sets and provide additional support for the general impression that populations of this species have declined in many parts of its range. Analyses of the potential benefits of the Conservation Reserve Program for Henslow's Sparrows revealed that recent population trends (1987-1995) in counties with high enrollment in this program were significantly greater than trends in counties with little Conservation Reserve Program enrollment. Although these data suggest that the Conservation Reserve Program may have benefitted Henslow's Sparrows in Illinois, this benefit has been insufficient to offset long-term declines due to other factors. Other conservation actions, beyond those associated with efforts aimed at reauthorizing and improving the Conservation Reserve Program, will likely be needed to achieve adequate protection for this species.

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227. Potential effects on grassland birds of converting marginal cropland to switchgrass biomass production.

Murray, L. D.; Best, L. B.; Jacobsen, T. J.; and Braster, M. L.

Biomass and Bioenergy 25 (2): 167-175. (2003); ISSN: 0961-9534

Descriptors: Biotechnology & Applied Microbiology/ biomass/ birds/ energy crops/ switchgrass (*Panicum virgatum*)/ watershed/ wildlife/ Conservation Reserve Program/ habitat selection/ CRP fields/ communities/ abundance/ Missouri

Abstract: Habitat loss is a major reason for the decline of grassland birds in North America. Five habitats (pastures, hayfields, rowcrop fields, small-grain fields, Conservation Reserve Program fields) compose most of the habitat used by grassland birds in the Midwest United States. Growing and harvesting switchgrass (*Panicum virgatum*) as a biomass fuel would create another habitat for grassland birds. Bird abundance information from studies conducted in Iowa and adjacent states and land-use data for the Rathbun Lake Watershed in southern Iowa were used in a Geographic Information System to model the potential effects on bird abundances of converting rowcrop fields to biomass production. Abundances of bird species that are management priorities increased in both biomass scenarios. Common yellowthroat (*Geothlypis trichas*) abundance in the watershed also

increased greatly in both scenarios. Other species (e.g., horned lark (*Eremophila alpestris*), killdeer (*Charadrius vociferous*)) were more abundant in the existing land use than in the biomass scenarios, and conversion of fields from rowcrop to biomass production could be detrimental to these species. In general, biomass fields will provide habitat for grassland birds that are management priorities, but future monitoring of birds in such fields is needed as conversion of rowcrop fields to biomass production continues.

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228. Predation rates on real and artificial nests of grassland birds.

Davison, W. B. and Bollinger, E.

Auk 117 (1): 147-153. (Jan. 2000)

NAL Call #: 413.8 AU4; ISSN: 0004-8038

Descriptors: Nests/ Predation/ Site selection/ Human impact/ Grasslands/ Illinois/ Aves/ Birds/ Birds/ United States

Abstract: We estimated nesting success at real and artificial nests of grassland birds to test the influence of nest type, nest position, and egg size on predation rates. We distributed wicker nests and realistic woven-grass nests baited with a clay egg and either a Northern Bobwhite (*Colinus virginianus*) egg or a House Sparrow (*Passer domesticus*) egg in four grasslands that were part of the Conservation Reserve Program in east-central Illinois. Nesting success averaged 86.5% for 12 days of exposure for artificial nests. For real nests, nesting success was markedly lower, averaging 39% over the entire nesting cycle and 59% during approximately 12 days of incubation. Wicker nests were depredated more often than woven-grass artificial nests (18% vs. 8%), and nests baited with House Sparrow eggs were depredated more often than nests baited with Northern Bobwhite eggs (22% vs. 9%). Elevated and ground nests were depredated at the same rate. Patterns of nest predation on wicker nests were markedly different from depredation patterns on real nests over time and among fields. In contrast, patterns of nest predation on realistic woven-grass nests corresponded much more closely with predation rates of real nests over time and among fields. We suggest that future artificial nest studies use nests and eggs that mimic as closely as possible the real nests and eggs of target species. Use of unrealistic artificial nests and eggs, at least in grasslands, may result in patterns of predation that do not accurately reflect those of real nests. Artificial nests of any type appear to underestimate predation rates on nests of grassland birds, possibly because of a lack of snake predation on artificial nests.

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229. Predicting juniper encroachment and CRP effects on avian community dynamics in southern mixed-grass prairie, USA.

Coppedge, B. R.; Engle, D. M.; Masters, R. E.; and Gregory, M. S.

Biological Conservation 115 (3): 431-441. (2004)

NAL Call #: S900.B5; ISSN: 0006-3207.

Notes: Number of References: 66

Descriptors: Environment/ Ecology/ breeding bird survey/ Conservation Reserve Program/ grassland/ juniper/ logistic regression/ Oklahoma/ conservation reserve program/ great plains grasslands/ woody plant invasion/ population trends/ breeding birds/ North America/ United States/ cover type/ fields/ vegetation

Abstract: The probability of occurrence of 30 bird species was modeled as a function of landscape covertype in northwestern Oklahoma, USA. This grassland region has been extensively fragmented by agricultural activity, and remnant grassland patches are undergoing severe degradation from encroaching juniper (*Juniperus virginiana* L.). In addition, many marginal or highly erodible croplands have been placed into perennial pasture dominated by exotic grasses under the Conservation Reserve Program (CRP). Based on temporal patterns of landscape change observed between 1965 and 1995, we estimated the covertype composition of the landscapes in the year 2015 under various CRP administrative and juniper expansion/control scenarios. We then used logistic regression to predict bird responses to these landscape composition estimates. Our estimates suggest that at the current rate of expansion, juniper will overtake substantial areas of remnant grassland even with extensive control measures. As a result, some obligate and facultative grassland birds are projected to decline, while numerous species tolerant of or partially reliant on woody vegetation will increase. Landscape dynamics due to changes in the CRP might be significant and could be designed to benefit declining grassland birds, but these benefits thus far are relatively minor compared to the effects encroaching juniper woodlands will have on the landscape and the avian community. (C) 2003 Elsevier Ltd. All rights reserved.

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230. Pronghorn use of agricultural land in northwestern South Dakota.

Griffin, S. L.

Brookings, SD: South Dakota State University, 1991.

Notes: M.S. thesis

Descriptors: Conservation Reserve Program/ State conservation programs/ South Dakota

Abstract: Studied the seasonal use of CRP grasslands by pronghorns.

231. Recreational opportunities on CRP Lands.

Varnedoe, L. E.

Conservation Reserve Program Forest Land Opportunities (13) (1995)

Descriptors: Conservation Reserve Program/ United States

Abstract: Compared consumptive and non-consumptive uses of recreational lands, along with wildlife associated recreation.

232. Relation of grassland bird abundance to mowing of Conservation Reserve Program fields in North Dakota.

Horn, D. J. and Koford, R. R.

Wildlife Society Bulletin 28 (3): 653-659. (2000)

NAL Call #: SK357.A1W5; ISSN: 0091-7648

Descriptors: Grasslands/ Mowing/ Conservation/ Population decline/ North Dakota/ *Cistothorus platensis*/ *Passerculus sandwichensis*/ Sedge wren/ Savannah sparrow/ Conservation/ Birds/ United States

Abstract: One factor that may be contributing to declines of several grassland bird species is mowing of grassland fields. We compared the relative abundance of birds in idled and mowed portions of grassland fields to investigate the influence of mowing in the previous summer on the grassland bird community. The study occurred in central North Dakota in 12 reseeded cropland fields enrolled in the Conservation Reserve Program. Sedge wrens (*Cistothorus platensis*) were more abundant in idled portions of grassland fields, whereas savannah sparrows (*Passerculus sandwichensis*) were more abundant in portions of fields that were mowed the previous year. Our findings are similar to other studies indicating that several grassland bird species in the central United States and Canada respond consistently to mowing.

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233. Relationships of habitat patch size to predator community and survival of duck nests.

Sovada, M. A.; Zicus, M. C.; Greenwood, R. J.; Rave, D. P.; Newton, W. E.; Woodward, R. O.; and Beiser, J. A.

Journal of Wildlife Management 64 (3): 820-831. (2000)

NAL Call #: 410 J827; ISSN: 0022-541X

Descriptors: Patches/ Habitat/ Predators/ Survival/ Nests/ United States, Minnesota/ United States, North Dakota/ United States, South Dakota/ Community composition/ Aquatic birds/ Breeding success/ Area/ Anatidae/ Mammalia/ United States, Minnesota/ United States, North Dakota/ United States, South Dakota/ Ducks/ Mammals/ patch size/ Prairie Pothole Region/ Mammals/ Environmental effects

Abstract: We studied duck nest success and predator community composition in relation to size of

discrete patches of nesting cover in the Prairie Pothole Region (PPR) of the United States in 1993-95. We focused on nests in uplands that were seeded to perennial grasses and forbs and enrolled in the Conservation Reserve Program (CRP) in Minnesota, North Dakota, and South Dakota. We estimated daily survival rates (DSRs) of upland duck nests and indices of activity for red foxes (*Vulpes vulpes*), coyotes (*Canis latrans*), American badgers (*Taxidea taxus*), striped skunks (*Mephitis mephitis*), and Franklin's ground squirrels (*Spermophilus franklinii*), and related these variables to habitat patch size. The effect of patch size (small vs. large) on estimated annual mean DSR was dependent on date of nest initiation (early vs. late) and year. Examination of within-year comparisons for early and late nests suggested that DSR was generally greater in larger habitat patches. Activity indices for the 5 mammalian nest predators were influenced differently by year, location, and patch size. Activity indices of the red fox were greatest in small patches. Coyote indices were the most inconsistent, demonstrating a year x location x patch size interaction. Activity indices of the striped skunk and American badger varied only among years. Franklin's ground squirrel indices were affected by study area location, with higher indices in the southeast than the northwest. Red fox activity was weakly correlated with that of the striped skunk and coyote. Although a positive relationship between habitat patch size and nest success probably exists, we believe the experiment to fully test this hypothesis will continue to be elusive.

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234. Reproductive success of grasshopper sparrows in relation to edge.

Delisle, Jennifer M and Savidge, Julie A

Prairie Naturalist 28 (3): 107-114. (1996)

NAL Call #: QH540 .P7; ISSN: 0091-0376

Descriptors: Conservation Reserve Program/ ecology/ edge relation/ reproductive success/ Southeast Nebraska/ wildlife management/ animals/ birds/ chordates/ nonhuman vertebrates/ vertebrates/ animal (Animalia Unspecified)/ grasshopper sparrow (*Passeriformes*)/ *Ammodramus savannarum* (*Passeriformes*)

Abstract: Using an index based on observations of breeding behaviors, we estimated reproductive success of 31 territorial grasshopper sparrows (*Ammodramus savannarum*) on Conservation Reserve Program fields in southeast Nebraska. Reproductive success was 52%, and no difference was detected between birds holding interior (gt 100 m from the edge) vs. edge territories. However, grasshopper sparrows appeared to avoid nesting within 50 m of edge habitats. Territories ranged from 0.36-1.24 ha, and territory size did not differ between successful and unsuccessful males.

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235. Reuse of annual set-aside lands: Implications for wildlife.

Frawley, B. J. and Walters, S.

Wildlife Society Bulletin 24 (4): 655-659.

(Winter 1996)

NAL Call #: SK357.A1W5; ISSN: 0091-7648

[WLSBA6]

Descriptors: agricultural land/ land management/ wildlife/ conservation/ Indiana/ Conservation

Reserve Program

This citation is from AGRICOLA.

236. Ring-necked pheasant nesting ecology and production on CRP lands in the Texas Southern High Plains.

Berthelsen, Peter S.; Smith, Loren M.; and

George, Ronnie R.

North American Wildlife and Natural Resources Conference, Transactions 55: 46-56. (1990);

ISSN: 0078-1355.

Notes: WR 222

Descriptors: Galliformes/ Phasianidae/ Phasianus colchicus/ birds / behavior/ Conservation Reserve Programs/ management/ nests/ nesting/ productivity/ wildlife/ common pheasant/ fertility/ recruitment/ density/ North America/ United States/ Texas/ Texas, Northwestern

This citation is provided courtesy of NISC, publisher of *Wildlife & Ecology Studies Worldwide*.

237. The Role of the Conservation Reserve Program in Relation to Wildlife Enhancement, Wetlands and Adjacent Habitats in the Northern Great Plains.

Higgins, K. F.; Nomsen, D. E.; and Wentz, W. A.

In: General Technical Report RM; Vol. 159.

Fort Collins, Colo.: Rocky Mountain Forest and Range Experiment Station, 1987.

Notes: Report Series ISSN: 0277-5786; Proceedings of a Symposium on "Impacts of the Conservation Reserve Program in the Great Plains," held Sept 16-18, 1987, Denver, Colorado.

Descriptors: Conservation Reserve Program/ Regional conservation programs/ Northern Great Plains

Abstract: Focused on the value of CRP grasslands directly related to wetlands and their associated wildlife (primary migratory birds).

238. The role of trees and shrubs as economic enterprises and wildlife habitat development in the Great Plains.

Hoefler, P. and Bratton, G. F.

In: General Technical Report RM.

Fort Collins, Colo.: Rocky Mountain Forest and Range Experiment Station, 1988; pp. 109-112.

Notes: Report Series ISSN: 0277-5786; Proceedings of a Symposium on "Impacts of the Conservation Reserve Program in the Great Plains,"

held Sept 16-18, 1987, Denver, Colorado.

NAL Call #: aSD11.A42

Descriptors: soil conservation/ resource conservation/ revegetation/ erosion control/ shrubs/ trees/ wildlife/ habitats/ northern plains states of USA/ southern plains states of USA/ Conservation Reserve Program

This citation is from AGRICOLA.

239. The role of wildlife as an economic input into a farming or ranching operation.

Bryant, F. C. and Smith, L. M.

In: General Technical Report RM.

Fort Collins, Colo.: Rocky Mountain Forest and Range Experiment Station, 1988; pp. 95-98.

Notes: Report Series ISSN: 0277-5786; Proceedings of a Symposium on "Impacts of the Conservation Reserve Program in the Great Plains," held Sept 16-18, 1987, Denver, Colorado. Includes references.

NAL Call #: aSD11.A42

Descriptors: farming/ wildlife/ wildlife management/ economic impact/ Texas/ Conservation Reserve Program/ high plains/ rolling plains

This citation is from AGRICOLA.

240. Rural economic effects of the Conservation Reserve Program in North Dakota.

Bangsund DA; Leistriz FL; and Hodur NM

Fargo, N.D.: Department of Agribusiness and Applied Economics, North Dakota State University, 2002. viii; 117 p. Agribusiness and Applied Economics Report (AAER).

This citation is provided courtesy of CAB International/CABI Publishing.

241. Seasonal use of Conservation Reserve Program fields by white-tailed deer in eastern South Dakota.

Gould, J.

Brookings, SD: South Dakota State University, 1991.

Notes: M.S. Thesis

Descriptors: Conservation Reserve Program/ State conservation programs/ South Dakota

Abstract: CRP land cover and maintenance practices, where white-tailed deer populations nested in eastern South Dakota, were examined.

242. Seasonal use of Conservation Reserve Program lands by white-tailed deer in East-Central South Dakota.

Gould, Jeffrey H. and Jenkins, Kurt J.

Wildlife Society Bulletin 21 (3): 250-255. (1993)

NAL Call #: SK357.A1W5; ISSN: 0091-7648.

Notes: WR 240; Project Number:

SD W-075-R/Study 7541

Descriptors: *Odocoileus virginianus*/ behavior/ Conservation Reserve Programs/ habitat use/ management/ mammals/ season/ wildlife/ *odocoileus virginianus*/ habitat selection/ seasonal variation/

diurnal variation/ conservation areas/ telemetry/ natural resources/ agriculture (general)/ deer, white tailed/ land, private/ cultivated farmland/ policies and programs/ habitat/ utilization/ seasons/ seasonal activities/ white tailed deer/ North America/ United States/ South Dakota/ East central region/ Brookings County/ Kingsbury County/ Lake County/ United States

Abstract: Objectives were to describe variation in deer use of Conservation Reserve Program (CRP) lands by season, diel period, and deer activity class as a means of assessing seasonal importance of CRP fields to white-tailed deer in the agricultural midwest. Use of CRP fields was determined by locating radiomarked female deer from 15 September 1989 to 31 December 1990.

This citation is provided courtesy of NISC, publisher of *Wildlife & Ecology Studies Worldwide*.

243. Seed availability in grazed pastures and Conservation Reserve Program fields during winter in Kansas.

Klute, D. S.; Robel, R. J.; and Kemp, K. E. *Journal of Field Ornithology* 68 (2): 253-258. (1997)
NAL Call #: 413.8 B534; ISSN: 0273-8570

Descriptors: grasslands/ seeds/ abundance/ winter/ agricultural practices/ government policy/ Kansas/ Management/ United States

Abstract: Studies have documented the importance of Conservation Reserve Program (CRP) fields to breeding birds, but few have examined them as food sources for wintering birds. We compared the biomass of seeds in CRP fields to that in grazed native grass pastures in northeastern Kansas during two winters. Log transformed total seed biomass was significantly lower in grazed pastures than in CRP fields during the first winter but not the second. Total seed biomass in CRP fields was highly variable, and decreased between November and February. Seeds that were typically abundant in CRP fields are important food items of wintering grassland birds. In conclusion, CRP fields are superior to grazed native grass pastures in northeastern Kansas as winter foraging habitat for birds.

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244. Selection of flooded agricultural fields and other landscapes by female northern pintails wintering in Tulare Basin, California.

Fleskes, J. P.; Jarvis, R. L.; and Gilmer, D. S. *Wildlife Society Bulletin* 31 (3): 793-803. (2003)
NAL Call #: SK357.A1W5; ISSN: 0091-7648.

Notes: Number of References: 49

Descriptors: Environment/ Ecology/ *Anas acuta*/ California/ habitat selection/ northern pintail/ San Joaquin Valley/ Tulare Basin/ San Joaquin Valley/ habitat use/ sacramento valley/ feeding ecology/ waterfowl/ ducks/ shorebirds/ movements/ wetlands
Abstract: Habitat selection and use are measures of

relative importance of habitats to wildlife and necessary information for effective wildlife conservation. To measure the relative importance of flooded agricultural fields and other landscapes to northern pintails (*Anas acuta*) wintering in Tulare Basin (TB), California, we radiotagged female pintails during late August-early October, 1991-1993 in TB and other San Joaquin Valley areas and determined use and selection of these TB landscapes through March each year. Availability of landscape and field types in TB changed within and among years. Pintail use and selection (based upon use-to-availability log ratios) of landscape and field types differed among seasons, years, and diel periods. Fields flooded after harvest and before planting (i.e., pre-irrigated) were the most available, used, and selected landscape type before the hunting season (Prehunt). Safflower was the most available, used, and-except in 1993, when pre-irrigated fallow was available-selected pre-irrigated field type during Prehunt. Pre-irrigated barley-wheat received 19-22% of use before hunting season, but selection varied greatly among years and diel periods. During and after hunting season, managed marsh was the most available, used, and, along with floodwater areas, selected landscape type; pre-irrigated cotton and alfalfa were the least selected field types and accounted for less than or equal to 13% of pintail use. Agricultural drainwater evaporation ponds, sewage treatment ponds, and reservoirs accounted for 42-48% of flooded landscape available but were little used and least selected. Exodus of pintails from TB coincided with drying of pre-irrigated fallow, safflower, and barley-wheat fields early in winter, indicating that preferred habitats were lacking in TB during late winter. Agriculture conservation programs could improve TB for pintails by increasing flooding of fallow and harvested safflower and grain fields. Conservation of remaining wetlands should concentrate on increasing the amount and productivity of marsh that is shallow-flooded as pre-irrigated grain fields dry. If pintails were provided with adequate preferred field and marsh habitats, including hunt-day sanctuaries, contaminant risks associated with exposure to drainwater evaporation ponds probably should remain low for these waterfowl even if their abundance in TB increased.

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245. Short-Term Bird Response to Harvesting Switchgrass for Biomass in Iowa.

Murray, LD and Best, LB
Journal of Wildlife Management 67 (3): 611-621. (July 2003)
NAL Call #: 410 J827; ISSN: 0022-541X

Descriptors: Biomass/ Birds/ Energy Crops/ Grassland/ Iowa/ Nest Success/ *Panicum Virgatum*/ Switchgrass/ Conservation Reserve Program/ Grassland Birds/ Nest Success/ North Dakota/ CRP

Fields/ Abundance/ Habitat/ Vegetation/
Pheasants/ Survival

Abstract: Conservation Reserve Program (CRP) provides habitat for grassland birds, but as contracts expire, some CRP fields might be returned to rowcrop production. One alternative to returning CRP fields to rowcrops is to produce switchgrass (*Panicum virgatum*) for use as a biomass fuel. Because the biomass is harvested during the fall and winter, breeding birds would not be directly affected by mowing the fields but might be influenced by changes in vegetation structure resulting from the harvest. We evaluated bird abundances and nest success in totally, harvested, partially harvested (alternating cut and uncut strips), and nonharvested CRP switchgrass fields in southern Iowa, USA, in 1999 and 2000. Species richness did not differ among harvest treatments. Abundances of most species (16 of 18) were not affected by the harvesting of switchgrass fields, and strip width did not affect bird numbers in strip-harvested fields. Grasshopper sparrows (*Ammodramus savannarum*) were more abundant in harvested portions of fields, and more sedge wrens (*Cistothorus platensis*) were recorded in nonharvested areas. The residual vegetation in nonharvested areas provided nest cover for species that begin nesting early in the season (e.g., northern harrier [*Circus cyaneus*] and ring-necked pheasant [*Phasianus colchicus*]). Nest success rates of grasshopper sparrows and common yellowthroats (*Geothlypis trichas*) were similar to those reported by other studies in switchgrass fields and might be sufficient to maintain stable populations. In general, switchgrass biomass fields create breeding habitat for some grassland birds, and a Mixture of harvested and nonharvested fields would be more beneficial to grassland birds than totally harvesting or partially harvesting all switchgrass fields.

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246. Small mammal populations occurring in a diversified winter wheat cropping system.

Olson RA and Brewer MJ

Agriculture, Ecosystems and Environment

95 (1): 311-319; 33 ref. (2003)

NAL Call #: S601 .A34

This citation is provided courtesy of CAB International/CABI Publishing.

247. Spring burning: Resulting avian abundance and nesting in Kansas CRP.

Robel, R. J.; Hughes, J. P.; Hull, S. D.; Kemp, K. E.; and Klute, D. S.

Journal of Range Management 51 (2): 132-138.

(Mar. 1998)

NAL Call #: 60.18-J82; ISSN: 0022-409X [JRMGAQ]

Descriptors: fire ecology/ prescribed burning/ brush control/ wild birds/ nests/ Kansas

Abstract: Spring burning is used to control invasion

by woody vegetation of rangelands in eastern Kansas and also of Conservation Reserve Program (CRP) fields planted to native grasses. We measured the effects of spring burning of CRP fields on vegetation structure and avian populations in northeastern Kansas during the summers of 1992 through 1995. Several vegetation characteristics differed between burned and unburned CRP fields in May, but few differed in July. Mean avian abundance on burned CRP fields was 5.6 birds km⁻¹ of survey transect, significantly less ($P < 0.01$) than the 8.6 km⁻¹ on unburned fields. The avian-assemblages on burned and unburned fields differed more in May/June [Morisita's Index to Similarity (MIS) = 0.86] than in June/July or July/August (MIS = 0.98 and 0.97, respectively). Avian species richness ranged from 12 to 21 on burned fields and from 10 to 19 on unburned fields. A total of 27 nests was found on burned fields, significantly less ($P < 0.01$) than the 372 found on unburned fields. The 22.2% nesting success on burned fields was not significantly different ($P = 0.205$) than the 34.1% success on unburned fields. Spring burning reduced bird-nest numbers in the summer of the same year, but did not reduce significantly ($P = 0.235$) the number of nests found in those fields the following summers nor the abundance of birds or nesting success. Avoidance of annual burning would reduce adverse impacts on bird populations relying on CRP fields for nesting habitat. This citation is from AGRICOLA.

248. Status and management of the greater prairie-chicken *Tympanuchus cupido pinnatus* in North America.

Svedarsky, W. D.; Westemeier, R. L.; Robel, R. J.;

Gough, S.; and Toepfer, J. E.

Wildlife Biology 6 (4): 277-284. (Dec. 2000);

ISSN: 0909-6396

Descriptors: Management/ Biogeography/

Grasslands/ Conservation/ North America/

Tympanuchus cupido pinnatus/ Management

Abstract: Greater prairie-chickens *Tympanuchus cupido pinnatus* are grouse of the tallgrass prairie of North America. Their range expanded greatly following the spread of early European agriculture into the grasslands and logging in forested areas. When the optimum mix of cropland and grass was exceeded, their range generally contracted to the regions where climatic and/or soil factors favoured the retention of grassland. Historically they probably occurred in 20 states of the United States and four Canadian provinces, but presently they only occur in 11 states and no longer in Canada. Their current status throughout the range varies considerably depending on habitat conditions, population levels, management capabilities and local land-use economic factors. A variety of conservation efforts, including translocation, are underway in the states where they occur, the intensity of which is generally

inverse to numbers remaining. Noteworthy, is the Conservation Reserve Program (CRP) which has increased grassland cover on private land through incentive payments.

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249. Strategies for biodiversity protection.

Bean, Michael J.

In: Precious heritage: The status of biodiversity in the United States/ Stein, Bruce A.; Kutner, Lynn S.; and Adams, Jonathan S.

New York: Oxford, 2000; pp. 255-273

Descriptors: Wetlands Reserve Program/ biodiversity protection/ conservation interests/ conservation land acquisition/ land trusts/ land use/ water use/ wildlife refuges/ Animals/ Plants/ animal (Animalia)/ plant (Plantae)

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250. Structural characteristics of vegetation in CRP fields in Northern Missouri and their suitability as bobwhite habitat.

Burger, Loren W.; Kurzejeski, E.; Dailey, Thomas V.; and Ryan, Mark R.

North American Wildlife and Natural Resources Conference, Transactions 55: 74-83. (1990);

ISSN: 0078-1355.

Notes: WR 222

Descriptors: Galliformes/ Odontophoridae/ Colinus virginianus/ Conservation Reserve Program/ habitat classification/ habitat surveys/ management/ wildlife/ bobwhite/ cultivated farmland/ habitat/ vegetation/ conservation programs/ cover/ habitat management for wildlife/ land, private/ agriculture/ North America/ United States/ Missouri

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

251. Success of artificial nests in CRP fields, native vegetation, and field borders in southwestern Montana.

Clawson, M. R. and Rotella, J. J.

Journal of Field Ornithology 69 (2): 180-191. (1998)

NAL Call #: 413.8 B534; ISSN: 0273-8570

Descriptors: Nests/ Survival/ Site selection/ Environment management/ Grasslands/ United States, Montana/ Aves/ Birds/ Management/ Birds

Abstract: In 1993-1994, we used artificial nests to study relationships between nest success and various spatial, temporal, and vegetation variables in three grassland types: Conservation Reserve Program (CRP) fields, field borders and watercourses, and native vegetation. Nest success was higher and vegetation was structurally more complex in CRP fields than in other grassland types. Nest success was 63% in CRP fields but only 24% in native vegetation. Results of univariate and multivariate analyses indicated that nests surrounded by taller, thicker cover were more likely to survive

than nests with less concealing vegetation. Nests initiated later in the season, when vegetation volume was greater, survived at higher rates than nests initiated earlier. Spatial variables were not strongly related to nest success. Field size was directly related to nest success in CRP fields but not in other grassland types. However, field size not included in the most parsimonious, multivariate model of factors related to nest success in CRP fields. Similarly, proximity to field borders was not related to nest success in any grassland type. Our results suggest that CRP fields, which cover a large area in the Northern Great Plains and attract a greater diversity of grassland birds than the croplands they replaced, provide secure nesting cover for ground-nesting species.

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252. Summer avian abundance, invertebrate biomass, and forbs in Kansas CRP.

Hull, Scott D; Robel, Robert J; and Kemp, Kenneth E

Prairie Naturalist 28 (1): 1-12. (1996)

NAL Call #: QH540 .P7; ISSN: 0091-0376

Descriptors: invertebrate biomass/ Kansas Conservation Reserve Program/ species abundance/ species richness/ terrestrial ecology/ bird (Aves Unspecified)/ Aves (Aves Unspecified)/ animals/ birds/ chordates/ nonhuman vertebrates/ vertebrates

Abstract: Conservation Reserve Program (CRP) fields planted to native grasses have the potential to provide summer habitat for grassland bird populations in the Great Plains. Forbs in native grasslands are thought to increase the suitability of grasslands for birds. We measured invertebrate biomass (summer food for birds) and avian abundance in Kansas CRP fields planted to native grasses to determine if they were correlated with forb abundance in those fields. Sweep nets were used to collect invertebrate samples and avian abundance was estimated along line transects in six CRP fields from May through August 1992. Correlation analysis did not detect a statistically significant relationship between forb abundance and invertebrate biomass or avian abundance, or between avian abundance and invertebrate biomass. Avian species richness did not vary with forb abundance and the avian community assemblages on CRP fields with low and high forb abundance were similar.

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253. Surveys and Investigations Projects as Required by Federal Aid in Wildlife Restoration Act, Missouri.

Kurzejeski, E. W.

Columbia, MO: Missouri Dept. Of Conservation; PB97170112XSP, 1996. 64 p.

Notes: Final Report; Includes Study No. 1, Job No. 1, and Job No. 2; Sponsored by Fish and Wildlife Service, Washington, DC

<http://www.monwtf.org/attitudesurvey.pdf>

Descriptors: Grasses/ Population/ Reproduction Biology/ Birds/ Vegetation/ Missouri/ Conservation Reserve Program/ Medicine and biology/ Ecology/ Zoology/ Natural resources and earth sciences/ Natural resource management

Abstract: During 1993-1995, we monitored vegetative conditions and avian abundance, composition, and productivity on 8 blocked sites in northern Missouri containing CP1 (cool-season grass), CP2 (warm-season grass), and rowcrop fields. Total bird abundance (P less than 0.0001 in 1994), grassland bird abundance (P less 0.05 in 1994 and 1995), nest density (P less than 0.001 each year), and number of nesting species (P less than 0.05 each year) were all lower on crop fields than on CRP fields. The bird community using crop fields markedly differed from that of CRP fields, with short-grass and open-ground feeding birds predominant on crop fields. Grassland bird species richness (P equals 0.057 in 1993, P less than 0.0001 each year), Henslow's sparrows (*Ammodramus henslowii*) (P less than 0.001 in 1993 and 1995), meadowlarks (*Sturnella* spp.) P less than .01 in 1993 and 1995, and American goldfinches (*Carduelis tristis*) (P less than 0.01 in 1994 and 1995) were higher on the structurally diverse than on CP2 fields. CP2 fields were tall, dense warm-season grass monocultures having higher abundances of red-winged blackbirds (*Agelaius phoeniceus*) (P less than 0.05 in 1994) and common yellowthroats (*Geothlypis trichas*) P less than 0.001 each year than CP1 fields. Difference in nesting success and nest densities of species between CP1 and CP2 fields, although rarely significant, were similar to those of relative abundance. The conservation value of CRP fields for declining grassland bird species was higher for CP1 fields than for CP2 fields; species of concern were either more abundant in both CP types. Monotypic stands of both warm-season and cool-season grasses should be avoided to increase the potential wildlife benefits of CRP and other idle grassland habitats.

254. Using Conservation Reserve Program Maps Derived From Satellite Imagery to Characterize Landscape Structure.

Egbert, SL; Park, S; Price, KP; Lee, RY; Wu, JP; and Nellis, AD

Computers and Electronics in Agriculture 37 (1-3): 141-156. (Dec. 2002)

NAL Call #: S494.5.D3C652; *ISSN:* 0168-1699

Descriptors: Remote Sensing/ Conservation Reserve Program/ Landscape Metrics/ Wildlife Habitat/ Great Plains/ Agriculture/ Patch Size/ Accuracy/ Land/ GIS/ Geographic Information Systems

Abstract: The Conservation Reserve Program (CRP) instituted one of the largest and most rapid land use/land cover conversions in US history.

Approximately 14.8 million ha (36.5 million acres) of cropland were converted to grassland, woodland, and other conservation uses between 1986 and 1995. As policy makers continue to evaluate the future of the program and as scientists examine its effects, it is critical that the impact of CRP on landscape structure be considered because of its potential influence on wildlife populations. Utilizing multi- seasonal Landsat thematic mapper imagery in an unsupervised classification technique, we produced highly accurate maps of cropland and grassland for 1987 and 1992 for Finney County, Kansas. Post-classification differencing identified regions of cropland that had been converted to CRP. We then used the Finney County CRP map to examine changes in landscape structure caused by the introduction of CRP. Using the FRAGSTATS spatial pattern analysis program, we calculated the number of patches, mean patch size, patch density, edge density, mean shape index, nearest neighbor distance, and an interspersion/juxtaposition index. In addition, we calculated total grassland area and percent of area in grassland for the pre- and post-CRP enrollment years. We found that the total grassland area and the percent area in grassland in Finney County increased due to CRP and that mean grassland patch size also increased. The total number of grassland patches decreased, however, due to coalescence of smaller grassland patches. Patch density, edge density, mean shape index, nearest neighbor distance, and the interspersion/juxtaposition index all showed relatively small changes. These small changes appear to reflect geographic differences in CRP effects within the county-large aggregating patches in the northeast were offset by a number of isolated patches of CRP in other areas. The implication of these findings for wildlife managers is that, for species that require large areas of grassland habitat, especially habitat that is contiguous, CRP in Finney County represents a substantial increase in potential habitat. This holds for species at all levels of management interest. ranging from economically valuable species to species that are rare, threatened, and endangered. These findings emphasize the importance of CRP for wildlife conservation and should further inform ongoing debate concerning the importance of the CRP. (C) 2002 Elsevier Science B.V. All rights reserved.
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255. Valuation of agriculture's multi-site environmental impacts: An application to pheasant hunting.

Hansen, L.; Feather, P.; and Shank, D.

Agricultural and Resource Economics Review 28 (2): 199-207. (1999)

NAL Call #: HD1773.A2N6; *ISSN:* 1068-2805

This citation is provided courtesy of CAB International/CABI Publishing.

256. The value of buffer habitats for birds in agricultural landscapes.

Best, L. B.

In: A comprehensive review of Farm Bill contributions wildlife conservation, 1985-2000/ Heard, L. P.; Hohman, W. L.; Halloum, D. J.; and Wildlife Habitat Management Institute (U.S.); Series: Technical Report USDA/NRCS/WHMI.

Madison, MS: USDA, NRCS, Wildlife Habitat Management Institute, 2000; pp. 75-94

NAL Call #: aS604.6 .C66 2000

Descriptors: wildlife habitats/ conservation buffers/ agricultural land

257. Value of the Conservation Reserve Program to birds in the Texas southern high plains.

Berthelsen, P. S.

Lubbock, TX: Texas Tech University, 1989.

Notes: M.S. Thesis

Descriptors: Conservation Reserve Program/ State conservation programs/ Texas

Abstract: Examined what habitat type would provide the greatest potential benefit of the CRP to avian wildlife species in the Texas southern high plains.

258. Vegetation Management Practices on Conservation Reserve Program Fields to Improve Northern Bobwhite Habitat Quality.

Greenfield, KC; Burger, LW; Chamberlain, MJ; and Kurzejeski, EW

Wildlife Society Bulletin 30 (2): 527-538. (Summer 2002)

NAL Call #: SK357.A1W5; ISSN: 0091-7648

Descriptors: Agriculture/ CRP/ *Colinus virginianus*/ Conservation Reserve Program/ Habitat/ Northern Bobwhite/ RUSLE(C)/ Revised Universal Soil Loss Equation/ Missouri/ Wildlife

Abstract: Since 1985, an annual average of more than 14 million ha of very erodible cropland has been removed from production and enrolled in perennial grass practices under the Conservation Reserve Program (CRP). The rate of changes in plant communities on CRP fields can be modified (intentionally or accidentally) by disturbance-management regimes. Throughout the Midwest and Southeast, habitat quality for early successional and grassland species may decline as CRP grasslands age, but premeditated disturbance regimes may enhance and maintain habitat quality for these species. However, concerns regarding perceived conflicts between wildlife habitat and soil erosion objectives of the CRP persist among United States Department of Agriculture (USDA) and Natural Resources Conservation Service (NRCS) personnel. Therefore, we evaluated effects of strip- discing on vegetation structure and composition and soil erosion in tall fescue (*Festuca arundinacea*) and orchard grass (*Dactylis glomerata*) CRP fields in Missouri. We interpreted vegetation response in the context of

habitat quality for a socially and economically important species, the northern bobwhite quail (*Colinus virginianus*). Fall discing generally increased percentage bare ground and plant diversity and decreased percentage litter cover and litter depth. However, plant community response and duration of effects differed between fescue and orchard grass fields. Gains in habitat quality in fescue fields were minimal and short-lived, whereas enhancements in orchard grass fields were substantial and longer-lived. Overall, fall discing enhanced bobwhite habitat quality, but responses diminished by the second growing season post-treatment, especially in CRP fields planted to fescue. Soil-loss potential, as estimated by the Revised Universal Soil Loss Equation (RUSLE), was well within USDA tolerable limits for all treatments. Our findings indicated that discing intensity on CRP fields could be increased by 2-3 times without compromising soil erosion provisions of CRP. Therefore, we suggest that strip-discing on a 2- to 3-year rotation should be a permissible and encouraged practice to maintain early succession plant communities on CRP fields in the Midwest and Southeast.

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259. Vegetation Structure and Avian Species Composition in Diverted Farmland: Evaluation of Vegetation Structure on CRP Lands in Northern Missouri/Avian Species in Diverted Farmland.

Kurzejeski, E. W.

In: Missouri Department of Conservation Annual Report, 1996. 62 p.

Notes: Final Report; Project Number: MO W-013-R-50/ Jobs 1&2/ Study 1; Unpublished Wildlife Report; ISSN: 0085-3496

Descriptors: cultivated farmland/ conservation programs/ vegetation/ birds/ abundance/ reproduction/ grassland/ sampling/ nests and nesting/ population density/ species diversity/ statistics/ North America/ United States/ Missouri/ Northern central region/ Knox County/ Macon County/ Linn County This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

260. Waterfowl responses to the Conservation Reserve Program in the Northern Great Plains.

Reynolds, R. E.

In: A comprehensive review of Farm Bill contributions wildlife conservation, 1985-2000/ Heard, L. P.; Hohman, W. L.; Halloum, D. J.; and Wildlife Habitat Management Institute (U.S.); Series: Technical Report USDA/NRCS/WHMI.

Madison, MS: USDA, NRCS, Wildlife Habitat Management Institute, 2000; pp. 35-43

NAL Call #: aS604.6 .C66 2000

Descriptors: Conservation Reserve Program/ wetlands/ waterfowl/ wildlife habitats/ wildlife management

261. Why haven't pheasant populations in western Kansas increased with CRP?

Rodgers, Randy D.

Wildlife Society Bulletin 27 (3): 654-665. (1999)

NAL Call #: SK357.A1W5; ISSN: 0091-7648.

Notes: Project Number: KS FW-009-P; KS W-039-R

Descriptors: Galliformes/ Phasianidae/ Phasianus colchicus/ birds / conservation programs/ Conservation Reserve Program/ ecosystems/ grasslands/ habitat management/ management/ status/ wildlife/ wildlife/ habitat relationships/ phasianus colchicus/ population density/ land management/ federal programs/ Kansas/ Natural Resources/ Land Development, Land Reform, and Utilization (Macroeconomics)/ pheasant, ring necked/ population loss/ food crops/ habitat management for wildlife/ changes detrimental to wildlife/ cultivated farmland/ surveys/ summer/ burning/ pesticides/ habitat changes/ food supply/ land, private/ winter/ common pheasant/ ecological requirements/ habitat change/ agriculture/ loss of habitat/ population dynamics/ reserve / biocide/ vegetation/ ring necked pheasant/ North America/ United States/ Kansas/ Kansas, Western/ western region/ United States Kansas / United States Kansas

Abstract: Ring-necked pheasant (*Phasianus colchicus*) populations in western Kansas declined an average of 65% from 1966-75 to 1986-95, particularly in the 1980s. Although 686,000 ha of Conservation Reserve Program (CRP) grasslands have been added to the western Kansas landscape since 1985, pheasant populations have not recovered. Summer observations suggested that CRP was used proportionally more by pheasant broods than indicated by its relative availability. Overwinter pheasant use of CRP (a habitat gained) averaged just 37% of that in weedy wheat stubble (a habitat being lost). Widespread deterioration of abundant wheat stubble habitats, largely from increased herbicide use, represents an overwhelming habitat loss in western Kansas for which CRP could not compensate. In addition, anticipated pheasant benefits from CRP were not fully realized due to inadequate plant diversity, poor stand maintenance, and large field size. The habitat value of established CRP can be enhanced by strip-disking fireguards around the margins of fields to facilitate occasional controlled burns, stimulate growth of broad-leaved annuals, and increase edge. Interseeding perennial legumes and other forbs into recently burned grass stands also can be effective. Interspersion of grass-legume strips on intensively farmed croplands through the continuous signup of CRP offers great potential to improve pheasant habitat.

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

262. Wildlife and federal cropland retirement programs.

Berner, A. H.

In: When Conservation Reserve Program contracts expire: The policy options; Ankeny, IA: Soil and Water Conservation Society, 1994.

Descriptors: Conservation Reserve Program/ United States

Abstract: Reviewed studies of wildlife responses to cropland retirement programs from 1956 to 1984 and discussed the future of cropland retirement programs.

263. Wildlife and Vegetative Response to Diverted Agricultural Land in Gratiot County, Michigan.

Campa, H.; Winterstein, S. R.; Minnis, R. B.; and

Pearks, A. J.

In: Michigan Department of Natural Resources:

Annual Report, 1995. 50 p.

Notes: Project Number: MI W-127-R

Descriptors: birds/ blackbirds and cowbirds/ changes detrimental to wildlife/ conservation programs/ cultivated farmland/ cutting/ grassland/ land use / modeling/ pheasant, ring necked/ productivity/ vegetation/ abundance/ cover/ habitat management/ history/ statistics/ North America/ United States/ Michigan/ Gratiot County

Abstract: Project is composed of two separate studies. For the first study, vegetation characteristics of Conservation Reserve Program (CRP) fields and the differences in avian relative abundance, diversity, and productivity between CRP and agricultural fields were evaluated. For the second study, effects of various methods of mowing on vegetation characteristics and avian populations were examined, and information was gathered to evaluate habitat suitability index (HSI) models of selected avian species. Both studies provide management recommendations for a diversity of wildlife species on CRP fields.

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.

264. Wildlife benefits of the Conservation Reserve Program: A national perspective.

Allen, A. W.

Land and Water 38: 23-25. (1994)

Descriptors: Conservation Reserve Program/ United States

Abstract: Provided a synopsis of the wildlife benefits of CRP and discussed how the pattern of CRP land distribution within a watershed would influence wildlife.

265. Wildlife benefits of the Conservation Reserve Program in Ohio.

Swanson, D. A.; Scott, D. P.; and Risley, D. L.
Journal of Soil and Water Conservation 54 (1):
390-394. (1999)

NAL Call #: 56.8 J822; ISSN: 0022-4561

Descriptors: Wildlife management/ Agricultural land/
Habitat utilization/ Nests/ Ohio/ Aves/ Conservation
Reserve Program/ Birds/ Conservation/ United States

Abstract: Federal agriculture programs significantly impact a variety of wildlife species. Grassland birds, in particular, should benefit from establishment of permanent vegetative cover through conservation initiatives like the Conservation Reserve Program (CRP). Evaluation of current conservation programs is needed to help shape future initiatives and ensure the long-term continuation of beneficial programs. The vegetative and physical characteristics of CRP fields in Ohio were quantified, the timing and extent of disturbances during the nesting season noted, avian use of these habitats measured, and indices of avian use related to field characteristics. It was found that more than half of the sampled fields were disturbed, primarily by mowing, during the nesting season (May to July). These same fields, however, were used by 43 avian species. Use of CRP fields by several grassland-dependent species was related to the amount of grassland habitat provided by the field and/or adjacent grasslands. Age of permanent cover and field size were not related, however, to total species richness. Eliminating disturbance of vegetative cover during the nesting season could significantly add to the wildlife value of these habitats. Policy options that include establishment of larger fields or grassland cover near existing grasslands should positively benefit the widest array of grassland birds.

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266. Wildlife habitat criteria in relation to future use of CRP lands.

Allen, A. W.

Proceedings of the Great Plains Agricultural Council:
41-88. (1993)

NAL Call #: 282.9-G7992; ISSN: 0434-5835.

Notes: Meeting held June 2-4, 1993, Rapid City,
South Dakota. Includes references.

Descriptors: wildlife / habitats/ land diversion/
selection criteria / federal programs/ United States/
Conservation Reserve Program

This citation is from AGRICOLA.

267. Wildlife Habitat Incentives Program: A summary of accomplishments, 1998-1999.

Hackett, E.

In: A comprehensive review of Farm Bill contributions
wildlife conservation, 1985-2000/ Heard, L. P;
Hohman, W. L.; Halloum, D. J.; and Wildlife Habitat
Management Institute (U.S.); Series: Technical

Report USDA/NRCS/WHMI.

Madison, MS: USDA, NRCS, Wildlife Habitat
Management Institute, 2000; pp. 117-124

NAL Call #: aS604.6 .C66 2000

Descriptors: Wildlife Habitat Incentives Program
[WHIP]/ wildlife habitats/ wildlife management/
endangered species/ ecological restoration/
landowners/ *Colinus virginianus*/ *Salmo salar*/
conservation programs

268. Wildlife management on Conservation Reserve Program land: The farmer's view.

Miller, E. J. and Bromley, P. T.

Journal of Soil and Water Conservation 44 (5):
438-440. ill. (Sept. 1989-Oct. 1989)

NAL Call #: 56.8-J822; ISSN: 0022-4561 [JSWCA3]

Descriptors: wildlife management/ soil conservation/
natural resources/ farmers' attitudes

This citation is from AGRICOLA.

269. Wildlife management on Virginia Conservation Reserve Program land: The farmer's view.

Miller, E. J.

Blacksburg, VA: Virginia Polytechnic Institute and
State University, 1989.

Notes: M.S. Thesis

Descriptors: Conservation Reserve Program/
State conservation programs/ Virginia

Abstract: Surveyed land owners/farmers to ascertain
their views on the CRP and its implementation.

270. Wildlife responses to the Conservation Reserve Program in the Southeast.

Burger, W.

In: A comprehensive review of Farm Bill contributions
wildlife conservation, 1985-2000/ Heard, L. P;
Hohman, W. L.; Halloum, D. J.; and Wildlife Habitat
Management Institute (U.S.); Series: Technical
Report USDA/NRCS/WHMI.

Madison, MS: USDA, NRCS, Wildlife Habitat
Management Institute, 2000; pp. 55-73

NAL Call #: aS604.6 .C66 2000

Descriptors: Conservation Reserve Program/
wildlife habitats/ wildlife management

271. Wildlife responses to wetland restoration and creation: An annotated bibliography.

Rewa, C.

In: A comprehensive review of Farm Bill contributions
wildlife conservation, 1985-2000/ Heard, L. P;
Hohman, W. L.; Halloum, D. J.; and Wildlife Habitat
Management Institute (U.S.); Series: Technical
Report USDA/NRCS/WHMI.

Madison, MS: USDA, NRCS, Wildlife Habitat
Management Institute, 2000; pp. 135-150

NAL Call #: aS604.6 .C66 2000

Descriptors: wetlands / constructed wetlands/ water
quality/ wildlife habitats

272. Will conversion of Conservation Reserve Program (CRP) lands to pasture be detrimental for grassland birds in Kansas?

Klute, David S.; Robel, Robert J.; and Kemp, Kenneth E.

American Midland Naturalist 137(2): 206-212. (1997)

NAL Call #: 410 M58; ISSN: 0003-0031

Descriptors: Ammodramus savannarum/ Bartramia longicauda/ Molothrus ater/ Spiza americana/ Sturnella magna/ agricultural practices/ behavior/ birds/ conservation/ Conservation Reserve Program/ ecosystems/ farmland/ grasslands/ habitat use/ land use/ management/ nest parasitism/ nests/ nesting/ pastures/ productivity/ public relations/ status/ wildlife/ federal programs/ wild birds/ nature conservation/ natural resources/ agricultural economics (general)/ land development, land reform, and utilization (macroeconomics)/ dickcissel/ grasshopper sparrow/ meadowlark/ brown headed cowbird/ upland sandpiper/ North America/ United States/ Kansas/ Riley County

Abstract: Most Conservation Reserve Program contracts expire in 1997 and approximately 70 per cent of CRP fields in Kansas may be converted into pastures. The authors compared bird use of CRP fields to their use of pastures. Total avian abundance was greater in pastures than on CRP fields. Data on five species using these habitats are provided.

This citation is provided courtesy of NISC, publisher of Wildlife & Ecology Studies Worldwide.