

# STATED PREFERENCES FOR ECOTOURISM ALTERNATIVES ON STANDING ROCK SIOUX INDIAN RESERVATION

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**ABSTRACT**—Despite favorable locations and the potential for economic development, Native American tribes have not developed their ecotourism markets substantially. In this paper we present a choice experiments analysis of potential tourists' and local residents' preferences for alternative ecotourism development scenarios for the Standing Rock Sioux Indian Reservation. The choice experiments' elicitation featured attributes of both cultural and nature-based tourist attractions. Survey results demonstrated that visitors interviewed at powwows had significantly different preferences from those interviewed at local tourist attractions. Results from all samples showed positive preferences toward an amphitheater, a nature trail, and a bison meal, and no preference toward an all-terrain-vehicle (ATV) trail. Non-powwow tourists had significant willingness to pay for a number of potential attractions, including nature trails, a road through the bison pasture, and an interpretive center with amphitheater show.

**Key Words:** choice experiments, ecotourism, Native Americans, Standing Rock Sioux Tribal Reservation, willingness to pay

# INVESTIGATING PSYCHOSOCIAL WELL-BEING AMONG ETHNICALLY DIVERSE RURAL WOMEN: EXPECT THE UNEXPECTED

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**ABSTRACT**—The purpose of this study was to examine patterns of similarity and difference in psychosocial well-being among 42 first-generation, Spanish-speaking Latinas, 23 second-generation, English-speaking Latinas, and 25 English-speaking Caucasian women residing in five unique rural Nebraska communities. Participants completed a series of self-report survey instruments to assess indices of psychosocial health, including: marital satisfaction, marital communication, family communication, social support, and depression. Spanish-speaking Latinas and English-speaking Caucasians evidenced the greatest *similarity* in patterns of experience. Twenty-eight percent of the total sample ( $n = 25$ ) scored above the clinical cutoff for depression. Implications and suggestions for future work are discussed.

**Key Words:** Non-Latina Caucasian, Latina, Midwest, psychosocial well-being, rural, women

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# MOVING TO THE RURAL GREAT PLAINS: POINT OF ORIGIN DIFFERENCES IN THE DECISION-MAKING PROCESS

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**ABSTRACT**—Census data demonstrate that the movement of population in the rural Great Plains is not one-way. People do indeed move into as well as out of the region. Past research has identified perceptions of the quality of life in rural areas as an important consideration in the decision to migrate to such areas. However, those studies have not segmented the population of migrants in such a way as to fully inform efforts to recruit new residents. Using data collected from a survey of new Nebraska Panhandle residents, this study describes the motivations of recent migrants from both metropolitan and nonmetropolitan points of origin, and identifies significant differences in how both push and pull factors are perceived.

**Key Words:** in-migration, labor force, population, population retention, rural community

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# PRODUCER RESPONSES TO CARBON SEQUESTRATION INCENTIVES IN THE NORTHERN GREAT PLAINS

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**ABSTRACT**—Agricultural lands can be used as a terrestrial sink for atmospheric CO<sub>2</sub> by changing their management and/or use. The goal of this study was to evaluate the economic potential of carbon sequestration on cropland in the spring wheat producing region of the northern Great Plains. In order to provide a more realistic assessment of the economic potential for agricultural carbon sequestration, this study reflects regional trends in land management practices, incorporates the value of co-products from the conversion of cropland to permanent grass, and considers producer differences in crop production profitability. The economic model compared the expected net present value of (1) maintaining current farm practices, (2) switching tillage practices, or (3) converting cropland to permanent grass over a 20-year time horizon. Six different carbon prices (\$10, \$25, \$50, \$75, \$100, and \$125 per metric ton) were used to gauge producer/landowner response to incentive payments. A carbon price of \$25 per metric ton led to a 29% increase over the baseline level of C sequestration, representing 49% of the study area's technical storage capacity. The study area's technical capacity to store C was fully attained when the price of C was increased to \$125 per metric ton.

**Key Words:** cropland management, Great Plains, greenhouse gas emissions (GHGE) mitigation, soil carbon sequestration

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# SIX CENTURIES OF FIRE HISTORY AT DEVILS TOWER NATIONAL MONUMENT WITH COMMENTS ON REGIONWIDE TEMPERATURE INFLUENCE

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**ABSTRACT**—This study documents over six centuries of historic fire events at Devils Tower National Monument in northeast Wyoming, USA. The 691-year tree-ring chronology is based on 37 ponderosa pine (*Pinus ponderosa* C. Lawson) trees collected at the monument. The period of tree-ring record ranged in calendar years from 1312 to 2002 and fire scar dates ( $n = 129$ ) ranged from 1330 to 1995. The mean fire interval (MFI) for the entire record was 24.6 years, and intervals for individual trees ranged from 4 to 119 years. A period of increased fire frequency (MFI = 5.7 years) occurred from about 1860 to 1880, corresponding to the period of Euro-American exploration and settlement of the region. Comparisons of fire–climate relationships derived from Devils Tower, the Black Hills, and other Great Plains sites suggest that Devils Tower presettlement fire events were more similar to those of grasslands. Despite this, current fire intervals and vegetation assessments suggest that conditions are departed from historical conditions. In the Great Plains, temperature appears to be a strong regional-scale determinant of fire frequency, which may become more evident considering global warming predictions.

**Key Words:** Devils Tower, drought, fire history, Great Plains, ponderosa pine

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# HISTORIC AND RECENT DISTRIBUTIONS OF ELK IN NEBRASKA

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**ABSTRACT**—Elk (*Cervus elaphus*) were historically found throughout North America but were extirpated from Nebraska and much of the Great Plains in the 1880s due to consumptive uses by settlers, miners, market hunters, and others. Elk began to reappear in Nebraska in the 1950s and 1960s, and established a stable, nonmigratory population that currently consists of seven herds and an estimated 1,400 individuals throughout western and central Nebraska. The reappearance and subsequent persistence of elk in Nebraska suggests there is adequate habitat to support a self-sustaining population. The general movement of elk eastward may lead to an eventual statewide distribution, and populations being established in states to the east and south of Nebraska, where elk populations were historically present and suitable habitat still exists. We examined published historic accounts, museum and archeological records, and current literature to determine historic and current distribution of elk in Nebraska and the Great Plains.

**Key Words:** *Cervus elaphus*, distribution, elk, expansion, extirpation, Great Plains, Nebraska

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# ASSESSMENT OF CONSERVATION RESERVE PROGRAM FIELDS WITHIN THE CURRENT DISTRIBUTION OF LESSER PRAIRIE-CHICKEN

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**ABSTRACT**—Populations of lesser prairie-chicken (*Tympanuchus pallidicinctus*) have declined by more than 90%, due primarily to the conversion of sand-sage and mixed-grass prairie to agriculture, overgrazing by domestic livestock, juniper encroachment, and fossil-fuel development. Degradation of native habitats has made restored cropland through the Conservation Reserve Program (CRP) potentially one of the best management options for lesser prairie-chicken. An estimated 1.4 million hectares of CRP exist within the lesser prairie-chicken range. We assessed 1,019 CRP fields representing more than 51,000 hectares within the current distribution of the lesser prairie-chicken. We sampled various grassland plantings including Farm Service Agency conservation practices 1, 2, 4, 4D, 10, and 25. In the context of lesser prairie-chicken habitat requirements for nesting and brood-rearing, our data suggest the following conservation practices (CP) have the highest potential for lesser prairie-chicken management: in Colorado and New Mexico, CP10 and CP2; in Oklahoma, CP2, followed by CPs 25 and 10; in northeast Texas, CP2, and in northwest Texas CPs 1, 10, and 2. Kansas CRP fields consistently displayed a high forb component and tall average grass height, habitat attributes that are consistent with the incidence of range expansion and population stability of the lesser prairie-chicken within that state. These field assessments are the first step in a process to target fields for CRP re-enrollment and to guide management to benefit lesser prairie-chicken.

**Key Words:** conservation practice, Conservation Reserve Program, grassland restoration, grassland structure, lesser prairie-chicken, prairie grouse

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# LITERATURE REVIEW OF MULE DEER AND WHITE-TAILED DEER MOVEMENTS IN WESTERN AND MIDWESTERN LANDSCAPES

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**ABSTRACT**—The relationships among seasonal change, population dynamics, social pressures, landscape dynamics, anthropologic disturbances, and behavioral ecology are complex. Therefore, migration and seasonal movements are poorly understood and dispersal continues to be one of the least understood aspects of animal ecology in North America. We reviewed scientific literature on movements of mule deer (*Odocoileus hemionus*) and white-tailed deer (*O. virginianus*) in western and midwestern landscapes to identify gaps in our knowledge and direct future research. We used electronic databases, library catalogs, Internet search engines, and peer-reviewed journals to conduct key word searches for pertinent articles. We found that deer disperse due to habitat conditions and social pressures that are based on seasonal influences. Dispersal rates and distances vary regionally and are influenced by landscape characteristics and competition for resources such as food, cover, and mates. Migration and dispersal may influence local population levels. Decisions to manipulate densities, sex ratios, and age structures should account for local deer movements.

**Key Words:** dispersal, migration, movements, mule deer, *Odocoileus hemionus*, *Odocoileus virginianus*, white-tailed deer

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