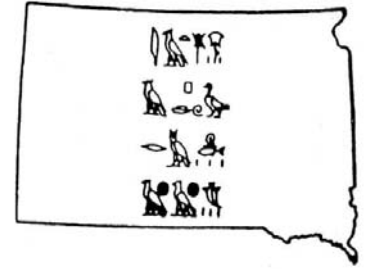




**South Dakota Chapter of The Wildlife Society  
2009 Annual Meeting Program  
Cedar Shore Resort & Convention Center  
Oacoma, South Dakota  
February 23 - 25, 2009**



**Monday, February 23rd**

11:00 am -1:00 pm - Registration and Free Lunch (lunch sponsored by the Truax Company)

1:00 pm -1:10 pm - Welcome and Introductions

1:10 pm – 5:00 pm - Special Session: *“Recessionary Economics and the impacts on conservation programs.”*

**Session 1 - Recessionary Economics and the impacts on conservation programs (Dennie Mann, Moderator)**

1:00 – 1:10 Opening Remarks

1:10 – 1:40 **Tom Slowey (Regional Director RMEF)** - Economic impacts on fundraising for wildlife organizations.

1:40 – 2:10 **Tom Kirschenmann (SD Game Fish and Parks Terrestrial Chief)** – Economic impacts on state wildlife agency programs

2:10 – 2:30 **Dave Thom (Black Hills National Forest)** – Economic impacts on management in the Black Hills

2:30 – 3:00 **Jarrold Johnson** – South Dakota School and Public Lands Commissioner – Economic impacts on state school lands programs

3:00 – 3:30 Break

3:20 – 3:50 **Susan Rupp (Professor South Dakota State University)** - educational challenges to ensure that the link between agencies and higher education is maintained.

3:50 – 4:20 **Judge Jessop, Jim Faulstich (SD Grassland Coalition)** – Partnering with land managers to optimize wildlife benefits

4:20 – 4:50 **Noel Matson (SD Realty Association)** – Economic impacts

6:00 pm Social and Fund Raiser Auction

**Tuesday, February 24th**

8:30 am-12:00 pm - SDTWS Business Meeting

12:00 pm-1:00 pm - Lunch

**Session 2 - Contributed papers (Bill Smith, Moderator)**

1:00 – 1:20 Block predator management on duck and pheasant nesting success.  
**Nick Docken (Presenter), Charles Dieter (Advisor)**

1:20 – 1:40 Why science is important, lessons learned when initiating a mountain lion harvest strategy.  
**Joshua B. Smith (Presenter), Jonathan J. Jenks (Advisor)**

1:40 – 2:00 Crop damage by resident Canada geese in eastern South Dakota.  
**Troy M. Radtke (Presenter)\* and Charles D. Dieter (Advisor)**

2:00 – 2:20 Nesting success of colonial tree-nesting waterbirds in northeastern South Dakota.  
**Nathaniel J. Baker (Presenter), Charles D. Dieter (Advisor)**

2:20 – 2:40 Evaluation of barriers to black-tailed prairie dog expansion  
**Marcus B Gray (Presenter), Jonathan Jenks (Advisor)**

2:40 – 3:00 **Break**

3:00 – 3:20 Whitetail deer productivity: Population ecology of neonates  
**T. W. Grovenburg (Presenter) J.A. Jenks, R.W. Klaver, S.P. Rupp, C.N. Jacques (Advisors)**

- 3:20 – 3:40 Sexual segregation in white-tailed deer.  
**T. W. Grovenburg (Presenter) J.A. Jenks, R.W. Klaver, S.P. Rupp, C.N. Jacques (Advisors)**
- 3:40 – 4:00 Factors affecting and implications of post-CRP land use intentions in South Dakota.  
**Dr. Larry Janssen (Professor SDSU)**

6:00 pm - Social

7:00 pm - Awards Banquet

Guest Speaker: **Doug Hansen** – Reflections of 18 years as the Director of South Dakota's Wildlife Division

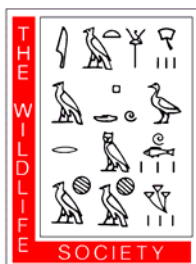
### Wednesday, February 25th

#### Session 3 - Contributed papers (Chad Switzer – Moderator)

- 9:00 – 9:20 Habitat use and requirements for grassland bird species of greatest conservation need.  
**Mitch Greer (Presenter), Kristel Bakker, and Charles D. Dieter (Advisors)**
- 9:20 – 9:50 Seasonal and daily movements, dispersal, reproductive rates, mortality factors, and habitat use by elk that use the park is needed to make informed decisions about the management of this large population as it affects Wind Cave National Park and the surrounding public and private lands.  
**Duane Weber (Presenter), Dan Roddy (Biologist) Dr. Glen Sargeant (USGS)**
- 9:50 – 10:10 Prevalence of Disease-Causing Organisms in Mountain Lions of Black Hills, South Dakota.  
**Jansen, B. D., M. R. Lappin, and J. A. Jenks**
- 10:10 – 10:30 Announcements and meeting adjournment

### MEETING SPONSORS:

The Truax Company, Minneapolis, MN, CPS Timberland, Spearfish, SD, Ducks Unlimited  
Mid Dakota Vegetation Management, Miller, SD, Pheasants Forever, Milborn Seeds Inc. of  
Brookings, The Greater Dacotah Chapter of SCI, Rapid City,



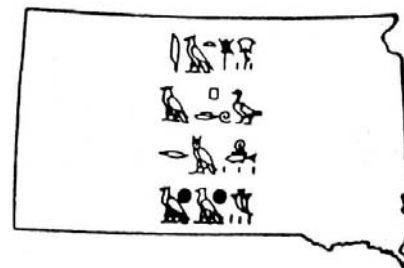
Founded in 1936 as The Society of Wildlife Specialist, The Wildlife Society (TWS) has evolved into an international nonprofit organization of professional wildlife ecologists and managers. Members number over 9,000 from 40 different countries and include administrators, biologists, conservation officers, educators, managers and researchers. The objectives of TWS are to:

1. Promote sound stewardship of wildlife resources and the environments upon which wildlife and humans depend;
2. Undertake an active role in preventing human-induced environmental degradation;
3. Increase awareness and appreciation of wildlife values; and
4. To seek the highest standards in all activities of the wildlife profession.

The South Dakota Chapter of TWS (SDTWS) was initiated on February 19, 1966 with 56 charter members. SDTWS is affiliated with the Central Mountains and Plains Section, one of 7 subdivisions of TWS.

#### Chapter Meetings and Activities

The full membership of SDTWS meets annually in the spring to exchange scientific information through presented papers, debate current issues in wildlife management and land use, and conduct chapter business. The chapter's Executive Board of Directors, consisting of President, Past-President, President-Elect, Secretary-Treasurer, and two standing board members meet at least 4 times each year to discuss issues that do not require full chapter approval. The chapter also communicates with its membership through a newsletter, *The Prairie Voice*, published within 30 days of Executive Board meetings. The newsletter includes board meeting minutes, committee activity reports, a summary of chapter correspondence, updates on professional conferences, and profiles of chapter members.



# Program Abstracts

## Listed in Order of Presentation

### **Dinosaur “Daze”: Observations from the Middle**

Susan P. Rupp

Department of Wildlife and Fisheries Sciences, South Dakota State University, Box 2140B, Brookings, South Dakota, USA 57007

Traditional fisheries and wildlife programs in higher education tend to target biota, habitat, and human users/values as interacting components of a system. In the 2007 *Journal of Wildlife Management* article “Dinosaur Ramblings,” Scalet described a shifting continuum between applied or management-oriented research and basic ecological research that continues to challenge how programs in higher education approach the education of young professionals. In a 2008 issue of the same journal, a seminar on this topic resulted in the students publishing “Dinosaur Evolution: Student Response to Dinosaur Ramblings,” in which they concurred that this continuum exists, but argued that change has been more an integration of applied and basic research as opposed to a shift away from management. As a new, “inter-generational” faculty member faced with challenges that include curriculum decisions, generational changes that influence the classroom, demographic changes that affect both the classroom and the profession, and changes in university funding, I will discuss how these apparently opposing philosophical views play out personally and professionally. Change is inevitable in our society and our natural resource management agencies, and change will thus continue in higher education. Our educational challenge is to ensure that the link between agencies and higher education is maintained.

### **A Look at Block Predator Management on Duck and Pheasant Nest Success in Northeastern South Dakota**

Dr. Charles Dieter, Advisor and Nick Docken, Presenter

MSc. South Dakota State University, Biology Department, Agricultural Hall 304 / SAG 304, Biology & Microbiology-Box 2207BA, [nrdocken@jacks.sdstate.edu](mailto:nrdocken@jacks.sdstate.edu), Phone: 608 516-1999

Duck nest success is the greatest limiting factor to waterfowl production in the Prairie Pothole Region. Mammalian predation accounts for the majority of nest losses. Township size block predator management has been effective at increasing duck nest success in North Dakota and Canada, but no work has been done in South Dakota. In addition, there has been no research on block predator management on pheasant nest success. The objectives of this study are to evaluate the effectiveness of increasing duck and pheasant nest with the aid of trapping as a management tool. Trappers were hired by the Delta Waterfowl Association to remove mammalian predators in Northeast South Dakota on two 36-square mile blocks in 2007 and three blocks in 2008 during the time period of March 15-July 15. Trapped blocks along with a representative block adjacent to them serving as a control were searched for nests using nest dragging techniques from early May to early July. Nests were monitored weekly to determine their fate. A total of 1,989 duck nests (815 mallards, 757 blue-wing teal, 231 gadwall, 128 northern shoveler, 55 northern pintail, 2 redheads, and 1 lesser scaup) and 463 pheasant nests were located during the study. Pooled Mayfield duck nest success was 34.3% for the trapped sites and 22.2% for the control sites. Mayfield pheasant nest success was 18.3% for the combined trapped sites and 6.9% for the control sites. An additional year of data collection along with continued analysis of nest success with the Mayfield method will better determine the effectiveness of trapping on ground nesting bird production.

## **Evaluation of barriers to black-tailed prairie dog (*Cynomys ludovicianus*) colony expansion, Bad River Ranches, South Dakota**

Marcus B. Gray and Jonathan A. Jenks

Department of Wildlife and Fisheries Sciences, South Dakota State University, Brookings

The state of South Dakota recently approved a black-tailed prairie dog (*Cynomys ludovicianus*) conservation and management plan (House Bill 1252 and Senate Bill 216, An Act to Mitigate the Impact of Prairie Dogs), which places restrictions on prairie dog colonies that encroach upon private property where their presence is not desired. A one-mile (1.6 km) prairie dog free zone must be maintained if a formal complaint is issued with the state. Passage of the plan has elevated the importance of barrier development in the management of prairie dogs. The objectives of our study were: 1) evaluate the efficacy of different physical and visual barrier designs at limiting the expansion of prairie dog colonies and 2) analyze the cost-effectiveness of barrier designs in terms of materials, installation, and maintenance. Five study sites were chosen on the Bad River Ranches owned by Turner Enterprises, Inc. in Stanley and Jones counties near Fort Pierre, South Dakota. Barriers evaluated include: vinyl fencing with chicken wire, American Bison (*Bison bison*) enclosures, and straw bales. Barriers were 100 meters (328 ft) in length and located within 1 hectare monitoring plots (2.47 ac). Grazing and mechanical mowing were allowed on both sides of barriers.

A prairie dog free zone was established on property adjacent to active colonies. Variables such as weather, soil type, topography, vegetative characteristics, prairie dog density, and rate of expansion were recorded for each colony. Efficacy of barriers was evaluated by the presence of active burrows in the prairie dog free zone beyond barriers and the relative cost of each barrier type. We documented 528 active burrows beyond treatments, 231 occurred within the control treatments. The enclosures, vinyl, and straw bales exhibited 122, 78, and 97 burrows respectively. Use of barriers to deter movement of prairie dogs may represent a viable alternative to poisoning.

## **Crop Damage by Resident Canada Geese in Eastern South Dakota**

Troy M. Radtke and Charles D. Dieter

Department of Biology/Microbiology - South Dakota State University

Resident giant Canada geese (*Branta canadensis maxima*) can cause significant crop damage to soybeans especially when adult geese are molting and young geese are still flightless. We evaluated the effectiveness of a program administered by South Dakota Game Fish and Parks Department (SDGFP) designed to alleviate this crop damage. We also determined other factors that affected the amount of goose damage to soybeans. Distance of soybean field from standing water and visual obscurity by shoreline vegetation were important in determining use by geese. Geese damaged soybeans that were closer to water ( $p < 0.001$ ) and had shorelines with less visual obstruction ( $p = 0.007$ ). The application of deterrents by SDGFP was effective in reducing crop damage ( $p \leq 0.001$ ), but the date of application was important ( $p \leq 0.003$ ). Fields where deterrents were applied early in the growing season had less damage than fields where deterrents were applied later. If deterrents are properly applied as soon as damage starts, Canada goose damage to soybeans can be kept to a minimum. Energized fences were the most effective deterrent for molting geese, while visual and sonic deterrents were effective for flying geese. In addition, sites must be maintained regularly and adjustments made to deterrents if goose damage continues.

## **Nesting success of colonial tree-nesting waterbirds on selected wetlands in northeast South Dakota**

<sup>1</sup>Nathaniel J. Baker, <sup>1</sup> Charles D. Dieter, and <sup>2</sup> Kristel K. Bakker

<sup>1</sup>Department of Biology and Microbiology, South Dakota State University, Brookings, SD 57007, USA.

<sup>2</sup>College of Arts and Sciences, Dakota State University, Madison, SD 57042, USA.

The northern Great Plains of North America provides the primary breeding habitat for numerous species of waterbirds. Reproductive status and population parameters of colonial tree-nesting waterbirds are largely unknown within the prairie pothole region. We monitored nesting success of: Black-crowned Night Heron (*Nycticorax nycticorax*), Cattle Egret (*Bubulcus ibis*), Double-crested Cormorant (*Phalacrocorax auritus*), Great Blue Heron, (*Ardea herodias*), Great Egret (*A. alba*), and Snowy Egret (*Egretta thula*) during the 2008 breeding season on selected wetlands in northeast South Dakota. Our objectives were to determine nesting and fledging success, and to identify important habitat variables required for colonial tree-nesting waterbirds. We hypothesized that nesting success will increase with colony size, percent water edge, and wetland density (within a 5 km radius),

and be inversely related to human disturbances. Colonies ( $n = 28$ ) were visited once every six - eight days throughout the breeding season. Individual nests ( $n = 1171$ ) were observed with a 20-60x82 spotting scope from distance of 150 m to mitigate observer disturbance. Nest success was analyzed by using the apparent nest success estimator. Percent nest success was highest for Cattle Egret (88.9), followed by Snowy Egret (88.0), Double-crested Cormorant (62.0), Black-crowned Night Heron (50.0), Great Egret (46.6), and Great Blue Heron (41.5). Determining reproductive success and habitat parameters of colonial tree-nesting waterbirds is essential to understanding population breeding biology trends. This research will facilitate decisions and actions taken concerning waterbird conservation in wetlands of northeast South Dakota.

### **Why science is important: lessons learned when initiating a harvest on mountain lions.**

Joshua B. Smith and Jonathan A Jenks

Department of Wildlife and Fisheries Sciences, South Dakota State University, Brookings, SD 57007

The Coalition for the Public Understanding of Science (COPUS) has designated 2009 as the “Year of Science” (YOS) – a national, yearlong, grassroots celebration. The campaign is focused on engaging the public by celebrating how science works, who scientists are, and why science matters. In today’s politically charged climate, wildlife management and conservation are fraught with controversy and complications, and the challenges we face are formidable. A well-informed public and work-force will be a key factor for successful management of our natural resources in the 21<sup>st</sup> century and beyond. Although wildlife management as a science is relatively young, it does not detract from, perhaps even accentuates, the need to conduct sound research when addressing critical policy decisions. Because the decisions we reach are often up for public scrutiny, it is imperative to have a public educated in the scientific process so that they are able to distinguish science from opinion. A case in point was the lawsuit filed in 2005 against South Dakota Game Fish and Parks (SDGFP) to block a mountain lion hunting season. Research from 1998 to 2005 indicated mountain lions in the Black Hills had begun to exceed carrying capacity and the population was healthy enough to sustain a harvest season. The plaintiffs in the case disputed many of the conclusions reached, attacked the methodologies used, and were very vocal in local and national media outlets. In recognition of the YOS, we will discuss some of the arguments raised at trial, ways in which those arguments were defended, and why a public that understands the scientific process is important for wildlife management here in South Dakota.

### **Understanding White-tailed Deer Productivity: Population Ecology of Neonates**

<sup>1</sup>Grovenburg, T. W., <sup>1</sup>J. A. Jenks, <sup>2</sup>R. W. Klaver, <sup>1</sup>S. P. Rupp, and <sup>3</sup>C. N. Jacques

<sup>1</sup>Department of Wildlife and Fisheries Sciences, South Dakota State University, Brookings, SD 57007, USA

<sup>2</sup>U.S. Geological Survey, National Center for Earth Resources Observation and Science (EROS), Sioux Falls, SD 57198, USA

<sup>3</sup>Wisconsin Department of Natural Resources, Bureau of Science Services, Madison, WI 53716, USA

Knowledge of neonate ecology is critical to understanding how to effectively manage ungulate populations. We captured 49 white-tailed deer (*Odocoileus virginianus*) neonates during summer 2007 and 2008, gathered a total of 3,407 locations, and documented a total of 9 mortalities. During 2007, survival rates for the months of May-August were 1.0 (SE < 0.001,  $n = 10$ ), 0.95 (SE = 0.05,  $n = 22$ ), 1.00 (SE < 0.001,  $n = 21$ ), and 1.00 (SE < 0.001,  $n = 19$ ), respectively. Summer and 6 month survival rates for 2007 were 0.94 (SE = 0.06,  $n = 22$ ) and 0.85 (SE = 0.10,  $n = 22$ ), respectively. During 2008, survival rates for the months of May-August were 0.86 (SE = 0.13,  $n = 20$ ), 0.88 (SE = 0.06,  $n = 26$ ), 1.00 (SE < 0.001,  $n = 23$ ), and 0.96 (SE = 0.04,  $n = 23$ ), respectively. Summer and 6 month survival rates for 2008 were 0.78 (SE = 0.08,  $n = 27$ ) and 0.73 (SE = 0.09,  $n = 27$ ), respectively. Mean 95% home range during summer 2007 and 2008 was 92.2 (SE = 14.1,  $n = 21$ ) and 136.9 ha (SE = 18.6,  $n = 23$ ), respectively, and differed between years ( $P = 0.068$ ). Cluster analysis of locations indicated usage of a neonate home range during early summer and a fawn home range during late summer. Mean date of movement for cluster analysis was 12 July during 2007 and 23 July during 2008 and coincided with a corn height of 80-85 cm. During 2007, neonates selected for tall grass/CRP ( $\hat{w} = 1.25$ ) during early summer and for corn ( $\hat{w} = 1.34$ ) during late summer. During 2008, neonates showed no selection preference during early summer and selected for corn ( $\hat{w} = 1.40$ ) and tall grass/CRP ( $\hat{w} = 1.17$ ) during late summer. Our results indicated that tall grass/CRP and corn habitats offering vertical structure are important fawning areas for deer in north-central South Dakota.

## **Sexual Segregation in White-tailed Deer**

<sup>1</sup>Grovenburg, T. W., <sup>1</sup>J. A. Jenks, <sup>2</sup>R. W. Klaver, <sup>1</sup>S. P. Rupp, and <sup>3</sup>C. N. Jacques

<sup>1</sup>Department of Wildlife and Fisheries Sciences, South Dakota State University, Brookings, SD 57007, USA.

<sup>2</sup>U.S. Geological Survey, National Center for Earth Resources Observation and Science (EROS), Sioux Falls, SD 57198, USA.

<sup>3</sup>Wisconsin Department of Natural Resources, Bureau of Science Services, Madison, WI 53716, USA.

Sexual segregation is an important component of life history strategies of polygynous ungulates, and as such, has potential important theoretical and management implications. However, selecting the inappropriate scale in determining segregation can lead to misleading results. Our objectives were to determine effects of spatial and temporal scales on measurements of segregation in white-tailed deer (*Odocoileus virginianus*). We observed deer by driving a fixed transect (72.4 km) approximately 2-3 times/week from 1 March 2008 to 31 August 2009. To date, we have documented 2,503 social groups with mean group size of 3.95 (SE = 0.08,  $n = 2497$ , range 1-41) and a mean monthly sex ratio of 28.3:100 (SE = 0.97,  $n = 10$ ). We documented a significant increase in solitary females, a decline in mixed-sex groups and female groups, and an increase in solitary male groups near time of parturition. Mean monthly density along the transect was 1.89 deer/km<sup>2</sup> (SE 0.19,  $n = 10$ , range 1.15-2.71); however density varied greatly along the transect from 0 to 180.25 deer/km<sup>2</sup>. The sexual segregation and aggregation statistic (SSAS) indicated significant sexual segregation from April to October with no significant aggregation documented to date. The timing and extent of segregation is thought to influence recruitment rates in ungulates via density-dependence, therefore biologists need to consider segregation information in management strategies.

## **Factors affecting and implications of post-CRP land use intentions in South Dakota.**

Dr. Larry Janssen, Dr. Nicole Klein, Mr. Emmanuel Opoku, and Dr. Gary Taylor

Economics Dept., South Dakota State University

CRP contract expiration is occurring in an economic environment of very high crop prices and returns to crop production, rapid increases in ethanol production in South Dakota, and many concerns about effects of post-CRP land use changes on wildlife habitat and hunting / recreation opportunities. Post CRP contract land use decisions will impact commodity market prices and production levels, farm-level costs and returns, and environmental (soil erosion, water quality, and wildlife habitat) quality. This study summarizes key results from a 2007 survey completed by 753 CRP contract holders in South Dakota. Projected re-enrollment rate into a new CRP contract varies from 34 percent to 63 percent of existing CRP acres, depending on scenario. Statewide, 61 percent of post-CRP acres, not re-enrolled, are projected to be used for crop production, 30 percent used for grass hay or livestock grazing, and 9 percent for other uses. Results from logistic regression models indicate regional location of CRP land, crop prices, new CRP program provisions, and livestock variables are major factors affecting post-CRP land use plans.

## **Prevalence of Disease-Causing Organisms in Mountain Lions of Black Hills, South Dakota.**

Jansen, B. D., M. R. Lappin, and J. A. Jenks.

Little to no information exists regarding disease exposure in species of wild cats worldwide. Disease exposure in wild populations of mountain lion (*Puma concolor*) has seldom been examined in North America. We collected ocular, whole blood, and blood sera samples from 80 individual and independent mountain lions in the Black Hills from July 2006 to June 2008. We conducted 18 tests for disease-causing organisms by using polymerase chain reaction (PCR) and standard serologic procedures. We found little exposure to ocular disease-causing organisms with Feline Calicivirus being the most prevalent (5%). *Mycoplasma haemominutum* was most prevalent (60%) in whole blood samples. Feline/Canine Parvovirus (80%) and *Toxoplasma* IgG (48%) were highly prevalent in blood sera followed by Feline Calicivirus (24%), Feline Immunodeficiency Virus (14%), and Canine Distemper (14%). Notably, Feline Herpes Virus, *Mycoplasma* spp., and *Chlamydophila felis* were absent (0%) from ocular swabs, as well as, *Toxoplasma* IgM (0%) and Plague (0%) were absent from blood sera. Our exposure results were similar to those found in mountain lions in Florida, Wyoming, Montana, and California.

## **An evaluation of habitat use and requirements for grassland bird species of greatest conservation need in central and western South Dakota**

By: Mitch Greer<sup>1</sup>, Dr. Kristel Bakker<sup>2</sup>, and Dr. Charles Dieter<sup>3</sup>

<sup>1</sup>Masters Candidate, Department of Biology, South Dakota State University, Brookings, SD 57007.

<sup>2</sup>Associate Professor, Department of Biology, Dakota State University, Madison, SD 57042.

<sup>3</sup> Professor, Department of Biology, South Dakota State University, Brookings, SD 57007.

Tall and mixed-grass prairies are being urbanized or converted to cropland at an accelerated rate. Nationwide, these losses total 99.9% for tallgrass and 70-80% for mixed grass prairies. Previous research has shown that local vegetation structure affects habitat use by grassland birds, in addition patch size and landscape composition affect the occupation, abundance, and nesting success of some, but not all, species. With current trends in grassland conversion, combined with other negative affects, grassland birds have become the fastest declining guild of birds in North America. Little research has been conducted on the grassland birds of the mixed-grass prairie, and for many of these birds South Dakota constitutes the central portion of their breeding range. Objectives of this study were to identify (1) local habitat characteristics, (2) habitat associations, and (3) patch and landscape level habitat requirements for the grassland birds of this region. We used fixed-width belt transects to survey birds on 288 native-sod sites in 29 counties within central and western South Dakota. Vegetation was surveyed at 50m increments along the bird survey transect. Arc-GIS was used to estimate patch size and other landscape variables. We will present habitat models generated to predict the presence/absence and the abundance of grassland birds. These models will supply baseline data to managers for preservation and restoration of grassland habitat to help maintain grassland bird populations.

### **Wind Cave National Park Elk Telemetry Project**

Duane Weber, Biological Science Technician, Wind Cave National Park

In January 2005 Wind Cave National Park, with the science expertise of the US Geological Survey, Northern Prairie Wildlife Research Center, Jamestown ND, did the first capture of elk for this project. 54 on board data storage GPS collars from Advanced Telemetry Systems of Asanti, MN were placed on sub adult bull and sub adult and adult cow elk. Information about seasonal and daily movements, dispersal, reproductive rates, mortality factors, and habitat use by elk that use the park is needed to make informed decisions about the management of this large population as it affects Wind Cave National Park and the surrounding public and private lands.

As we enter the fifth and final year of this phase of the project, with over 200 collar deployments, and 10's of thousands of data points collected, we are nearing the end of the planned field work. Data analysis is just beginning. This presentation will bring you up to date on methods and some of the early surprises the study has revealed.

### **Awards Banquet Guest Speaker - Doug Hansen**

#### **Reflections of an 18-year Wildlife Division Director**

After serving 18 years as a "contented" fisheries research biologist in northeast South Dakota for the SDGFP, in 1989, Doug was asked to come to Pierre and be the acting Director of the Division of Wildlife. He said yes and spent the next 18 years as its Director.

During his 18 years as Director, Doug was involved in several activities of the Midwest and Western Associations of Fish and Wildlife Agencies, as well as the Association of Fish and Wildlife Agencies. He chaired the Association's Fisheries and Water Resources Policy Committee for several years, and also led the Association's efforts to achieve registration of aquaculture drugs and chemicals. Doug was also a member of the Dept. of Interior's Sport Fisheries and Boating Partnership Council and was instrumental in the origination and development of the National Fisheries Habitat Plan. Doug's years of active involvement were recognized last September when he received the Association's prestigious Seth Gordon Award.

Doug received a bachelor's degree from the University of South Dakota and a master's degree from Iowa State University. Since retiring as Director in October, he has stayed engaged in natural resource conservation on a part-time basis as U.S. Policy Advisor for Delta Waterfowl Foundation. Doug and his wife, Lynne, are currently in the process of transitioning to a new life on their 160-acre piece of paradise in northeast South Dakota, where it all began.