

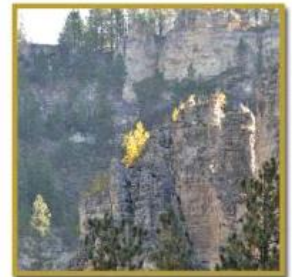
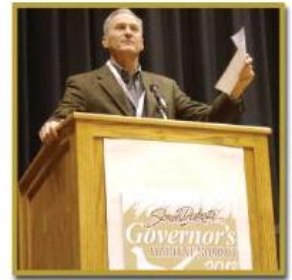


Department of Game, Fish & Parks

2013 Annual Report



**Serving People,
Managing Wildlife**



INTRODUCTION

The Wildlife Division of the Department of Game, Fish and Parks works hard to protect and enhance the natural resources of South Dakota and provide opportunities for outdoor recreation. You will find highlights of these activities of the past year in this report. In addition to these noteworthy accomplishments, many additional goals and objectives were met in the course of striving to meet our mission, Serving People, Manage Wildlife.

This past year, we updated the Division's strategic guidance document. This document details the principles and philosophical foundation of resource management of the Division. It is intended to provide strategic guidance to every program, every planning process and every policy decision while guiding the daily activities of every Division of Wildlife employee.

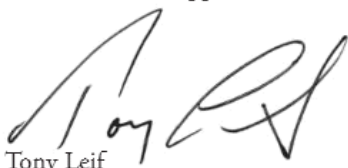
This document, entitled "Perpetuating the Outdoor Heritage of South Dakota," communicates our Mission, Motto and our Vision for the future of outdoor resources and our agency. It also identifies the Values that guide the delivery of Division of Wildlife's programs and services and some of the Opportunities and Challenges currently facing the Division of Wildlife. Lastly, it provides a prescription for Professional Excellence necessary to strive towards our Mission under the umbrella of our Agency Values.

The document can be viewed on the GFP website at: <http://gfp.sd.gov/agency/information/docs/PerpetuatingOutdoorHeritage.pdf>.

While the resource management responsibilities of the Division of Wildlife originate in statute, it is the obligation of service to the citizens of South Dakota and its visitors that motivates our actions. At the same time, our actions are guided by the science of wildlife management. Maintaining and enhancing the rich wild resources come foremost in management decisions and policies. The wants and desires of people that enjoy these rich resources figures a very close second.

Each year of success brings with it a new set of challenges. The accomplishments of 2013 provide the motivation for us to move forward in 2014. We are committed to working with the people we serve to help us identify goals and will diligently pursue those goals in 2014 and beyond.

We feel fortunate to have wildlife management responsibilities in a state with rich natural resources where outdoor recreational opportunities abound and we take pride in telling you of our accomplishments.



Tony Leif
Wildlife Division Director

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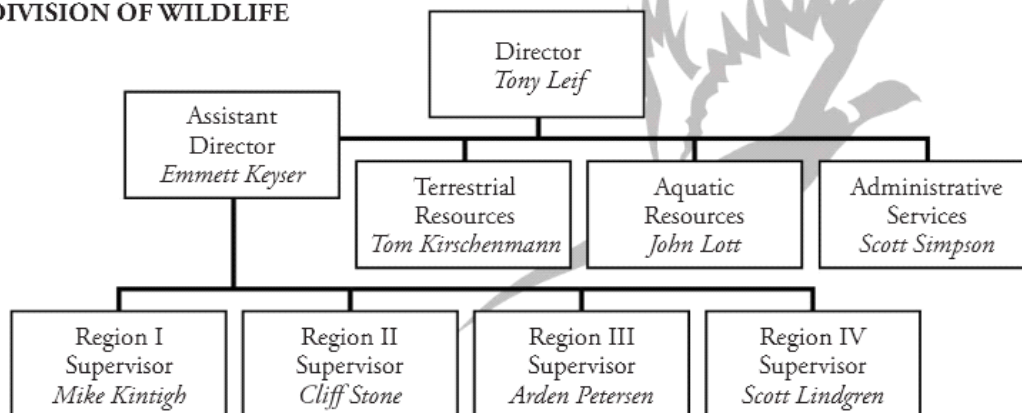
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WHO WE ARE

DEPARTMENT OF GAME, FISH & PARKS

Jeff Vonk, Department Secretary

DIVISION OF WILDLIFE



The Division of Wildlife is staffed by 280 employees organized in the following sections:

The Operations section includes conservation officers, law enforcement specialists and trainers, fish/wildlife/habitat management staff, wildlife damage specialists, and support staff.

Administrative Services includes the federal aid, human dimensions, surveys, communications and education programs.

Aquatic Resources includes management of both recreational and non-game fish species, fish hatchery production, fish habitat development, fishing access development, aquatic nuisance species, and environmental review.

Terrestrial Resources includes management of wildlife for hunting, management of fur-bearing animals, management of non-game wildlife, habitat development on both private and public lands, and development of hunting access.

GFP COMMISSION

The Division of Wildlife works under the guidance of an 8-member citizen board. Board members are appointed by the Governor. Members of the Game, Fish and Parks Commission in 2013 were:

Susie Knippling, Gann Valley
John Cooper, Pierre
Jim Spies, Watertown
Barry Jensen, White River
Cathy Peterson, Salem
Duane Sather, Sioux Falls
Gary Jensen, Rapid City

YEAR AT A GLANCE

- Helped coordinate the Pheasant Habitat Summit which allowed 400 interested citizens to gather ideas to address changing landscape and loss of quality pheasant habitat in South Dakota
- Partnered with over 3,412 farmers/ranchers/landowners to affect wildlife habitat on 17,697 acres and provide public hunting access to 1.4 million acres. \$6.27 million paid directly to these habitat and access cooperators
- Responded to over 3,000 requests for assistance through the WDM program which impacted nearly 2,000 landowners and producers in South Dakota; total program expenditures including staff time, mileage, equipment and materials totaled \$2.5 million
- Sent 144 emails to 2,153,842 contacts. The topics included news, application deadlines, Commission rule proposals and Legislative updates
- Conducted a comprehensive aerial survey which estimated the Black Hills winter elk population at 6,067 animals
- Provided a mountain lion hunting season where 61 mountain lions were harvested, 35 of which were females
- Conducted roadside surveys which indicated a pheasant per mile index that was 64% lower than a year ago and over 70% lower than 10-year average
- Realized a 20% reduction in Nonresident small game license from 2012
- Developed a 43-point action plan in response to Governor's independent review of the Division of Wildlife's big game management programs
- Collected approximately 72 million fish eggs
- Stocked 55 million fish and eggs in 195 waters
- Continued the research on impacts of massive flooding of 2011; lack of rainbow smelt affects health of game fish
- Hosted approximately 100,000 people at each of the Outdoor Campuses (Sioux Falls and Rapid City)
- Offered over 80 Step Outside hunting/fishing outreach programs
- Coordinated class offerings that allowed over 5,000 students to attain hunter safety certification
- Worked with 245 schools to provide National Archery in the Schools programming, reaching nearly 20,000 students
- Certified 1849 South Dakota bowhunters in 2013, surpassing the previous record high of 1,833 in 2006

MANAGING WILDLIFE RESOURCES

GOVERNOR'S PHEASANT HABITAT SUMMIT

Declining pheasant numbers over the past few years has elevated awareness and concern from sportsmen, businesses, and communities across the state. With a 64% reduction in the statewide pheasant per mile index from last year, discussions have revolved around environmental factors such as weather but more attention has been focused on landscape changes which include the loss of important wildlife habitat like Conservation Reserve Program acres, wetlands, native prairie, and woody habitat.



In effort to identify issues, and more importantly generate ideas and potential solutions to resolve habitat needs, Governor Dugaard hosted a Pheasant Habitat Summit on Dec. 6 in Huron with over 400 people in attendance. The summit provided a forum for landowners, sportsmen, members of the tourism industry and other interested individuals to learn about the current state of pheasant habitat in South Dakota. The most important outcome of the summit was the effort put forth to obtain public input in order to begin the process of identifying ways to maintain and enhance pheasant habitat.

The one day summit included a plenary session in the morning with guest speakers from the agriculture, conservation and tourism industries. The afternoon included break-out sessions where summit attendees shared ideas and offered recommendations. The Summit concluded with a wrap-up session where ideas and recommendations were summarized and Governor Dugaard outlined his vision for the next steps in the process. Guest speakers and topics of the plenary session were:

- History of Pheasants in South Dakota - Tony Leif, Director, Wildlife Division of South Dakota Dept. of Game, Fish and Parks
- South Dakota Land Use Change - Barry Dunn, Ph.D., South Dakota Corn Utilization Council Endowed Dean, SDSU College of Agriculture and Biological Sciences
- Modern Agricultural Production - Bruce Knight, Strategic Conservation Solutions, LLC
- Conservation Policies - Dave Nomsen, VP of Governmental Affairs, Pheasants Forever
- Pheasant Hunting & Tourism - Jim Hagen, Secretary, South Dakota Dept. of Tourism
- Audience Questions / Panel Discussion - moderated by Lucas Lentsch, Secretary, South Dakota Dept. of Agriculture

Those unable to attend the summit were able to view it through a live webcast provided through a partnership with South Dakota Game, Fish and Parks and South Dakota Public Broadcasting. In addition, the webcast provides an archive for those who were not able to watch the event live. The archive can be found at <http://gfp.sd.gov/pheasantsummit>.

A unique email address was created for any comments or ideas generated by those viewing the webcast or archive. These comments and ideas continue to be accepted at pheasanthabitat@state.sd.us.

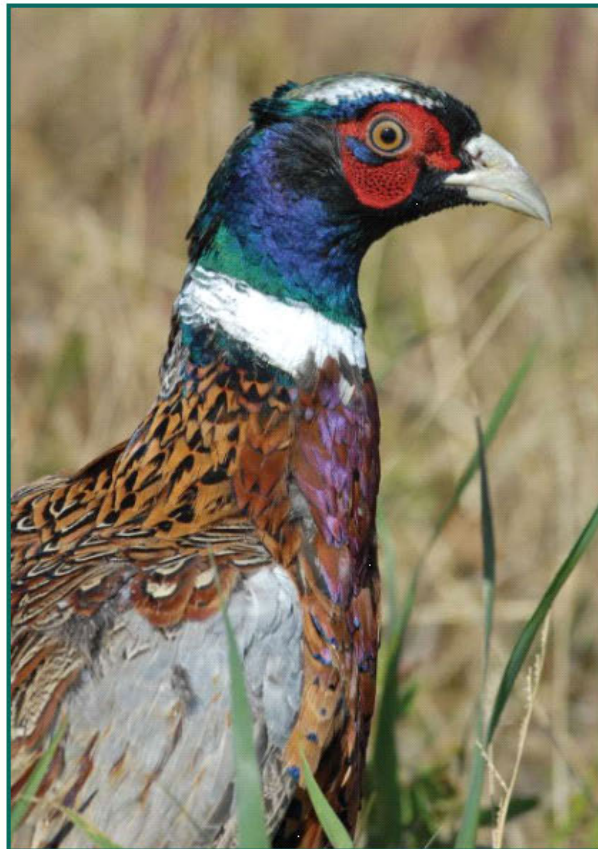
PHEASANT POPULATION STATUS

The Division of Wildlife conducts pheasant brood surveys each summer to evaluate the status of pheasant populations and predict pheasant population levels relative to previous years.

In 2013, survey indices were derived from 108 thirty-mile pheasant brood routes that are distributed across South Dakota where pheasants are found in sufficient number for surveying. Routes are surveyed from July 25 through Aug. 15 each year using standardized methods on mornings when weather conditions are optimal for observing pheasants. Also, pheasant brood members are counted as the opportunities arise throughout the survey period to estimate an average number of young per brood. Pheasants per mile (PPM) estimates are calculated by summing the product of mean brood sizes and broods observed with numbers of cocks and hens observed on each route. PPM estimates for 2012 and the average of the previous 10 years are then compared with the 2013 survey results.

Pheasant abundance has steeply declined since 2008 due to factors such as accelerating habitat loss (particularly CRP grasslands) and a series of very unfavorable weather events. The 2013 PPM index of 1.52 was 64% lower than last year and 76% lower than the 10-year average.

A severe drought, which intensified during late August of 2012 and persisted until winter, is thought to



have caused high pheasant mortality. Survival of radio-collared pheasants as part of a cooperative research project revealed 50% survival of adult hens from Aug. 15 through Nov. 15, 2012 in south central South Dakota. This extremely low survival during a time of year when survival is typically high suggests the drought conditions had a substantial negative impact on the pheasant population. This scenario is rare and the mechanisms causing the mortality are poorly documented or understood. Extremely sparse vegetation conditions could have resulted in higher predation rates. The extreme drought may have also overlapped the late brood-rearing period, which could have reduced survival of pheasant chicks due to reduced invertebrates which are their prime food source. The spring of 2013 was one of the coldest on record with above normal precipitation, much of which fell as snow during the month of April. These conditions likely greatly reduced reproductive success of pheasants which further contributed to the low PPM index.

IMPACTS OF REDUCED LICENSE SALES

The reduced pheasant population has required action by the Division of Wildlife to maintain funding for critical programs and daily operations.

Nonresidents purchased 76,301 small game licenses in 2013. This is a reduction of over 20% from 2012 and equates to over a \$2 million decrease in revenue. Though the fiscal impact is less, resident small game license sales were also behind those of 2012.

In addition to the impacts of the reduced pheasant population, Division of Wildlife funding is also being impacted by reduced sales of deer and antelope licenses due to disease, drought, harsh winters and habitat loss.

To address shortfalls in revenues, the Department of Game, Fish and Parks and the GFP Commission have taken steps to align current spending and planned future expenditures with current and future revenues. Declines in license sales and increased costs associated with state-provided health care and salaries along with inflation (estimated by US Bureau of labor statistics to be 20% from 2005 to 2013) eroded the ability of GFP to generate sufficient revenue to maintain the current level of programs and services.

The plan includes three components.

First, the Department has instituted spending reductions that will decrease expenditures during Fiscal Year 2014 (July 1, 2013 - June 30, 2014) by approximately \$2.5 million dollars. These spending reductions are primarily contained within allocated funding for equipment, supplies and travel costs. The target of spending reductions is focused on budgeted items that will have minimal immediate impact on the current GFP programs and services.

The second step being taken by the Department is a process of identification of current programs and services that can be funded by federally-collected excise taxes. Availability of these federal funds has increased due to a recent national spike in purchase of firearms and ammunition. The Department has identified \$2.3 million in programmatic expenditures where federal dollars could supplant funding currently originating from state license fee collections. GFP is in the process of filing the federal grant requirements to utilize this funding.

Lastly, the Department recommended and the GFP Commission recently adopted adjustments to most hunting and fishing license fees. Based upon 2014 license sales projections, these fee increases will generate just under \$2.0 million in revenue during calendar year 2014. The last year when a general fee increase package was adopted by the GFP Commission was in 2005.

Implementation of these three steps will allow GFP to maintain the current level of programs and services that the citizens of South Dakota and our state's visitors have come to expect.



THE FARM BILL AND LOSS OF CRP

Perhaps no other government program has had as profound an impact on South Dakota's landscape and wildlife population as the Farm Bill. The Division of Wildlife's private lands habitat and access programs and incentives are designed to both complement the federal legislation in a manner that increases soil, water, and wildlife benefits to our State's landscape, and meet the needs of landowners seeking to establish and enhance wildlife habitat on their farms and ranches.

The Conservation Reserve Program (CRP) is perhaps the most widely recognized and successful conservation initiative in the last five farm bills. CRP puts large blocks of undisturbed grassland habitat on the landscape in 10 and 15 year contracts. In addition to providing valuable soil, water, and erosion benefits, CRP helped South Dakota's pheasant population reach a 62-year high in 2007, with hunters harvesting approximately 2.1 million pheasants.

Since 2007, CRP acres have declined by one-third. Currently less than 900,000 acres of CRP remain in South Dakota. Funded through the US Department of Agriculture (USDA), CRP alone is a \$66.5 million per year program in South Dakota.

Farm bill conservation programs in South Dakota (CRP, WRP, Grasslands Reserve Program, and Environmental Quality Incentive Program) inject nearly \$97 million annually in conservation practices across South Dakota. In comparison, SDGFP's entire private lands habitat program funding is budgeted at less than \$5 million annually. While our private lands program could never replace programs provided at a national level, it does complement farm bill conservation programs like CRP and WRP and provides additional opportunities to create and manage wildlife habitat.

BUILDING HABITAT WITH LANDOWNER COOPERATORS

The Private Lands Habitat & Access Program operates with the following goals in mind: (1) In cooperation with private landowners, manage, conserve, and restore habitat to sustain diverse wildlife populations; and (2) provide the public with high quality opportunities to access fish and wildlife resources on private land.

The Division of Wildlife recognizes it can only achieve these goals by maintaining existing strong partnerships with local, state, and federal agencies; private conservation organizations; and most importantly with the continued support and cooperation of farmers, ranchers, and other private landowners.

Dating back to the mid-1970's, the Division of Wildlife has offered voluntary private land habitat programs to interested landowners. Every year the Division works with numerous private landowners to cost-share projects, such as providing winter cover and food, developing nesting habitats, or protecting vital areas for wildlife benefit.

One of the Division's most utilized wildlife habitat programs on private lands is our food plot program. This program provides additional food sources for wildlife during difficult winter conditions. In 2013, 9,357 acres of winter food plots are enrolled for cost-share. Payments to the 822 landowner partners totaled \$195,102.

In order to provide ground-level cover for wildlife during winter months, private lands biologists established partnerships with 77 private landowners to establish more than 183 new acres of woody habitat at a cost-share level of \$302,067 in 2013.

No habitat is more critical than undisturbed nesting cover, in particular for ground nesting species such as pheasants, grouse, waterfowl, and other grassland birds. Through the year, the Division has worked with six landowner partners to establish over 63 acres of new nesting cover at a cost-share level of \$9,264.

Other valuable habitats were protected by developing seven habitat fencing agreements with private landowners on more than 47 acres of land, at a cost of \$6,645.

The Wetland and Grassland Program specializes in working with landowners interested in developing or restoring wetland and associated uplands for waterfowl and upland birds, and in most situations enhancing livestock and grazing land management. In 2013, 75 projects were completed through this program affecting a total of 7,940 acres. A total of 32 wetland projects restored, enhanced or created 176 acres of wetland habitat; and 43 upland projects restored or enhanced 7,763 acres of grassland and riparian areas. Total cost of all projects was \$582,302 with a cost-share of \$377,221 provided to landowners by the Division. Landowner partners contributed \$189,761 and others, primarily the U.S. Department of Agriculture, provided \$15,320 toward the projects.

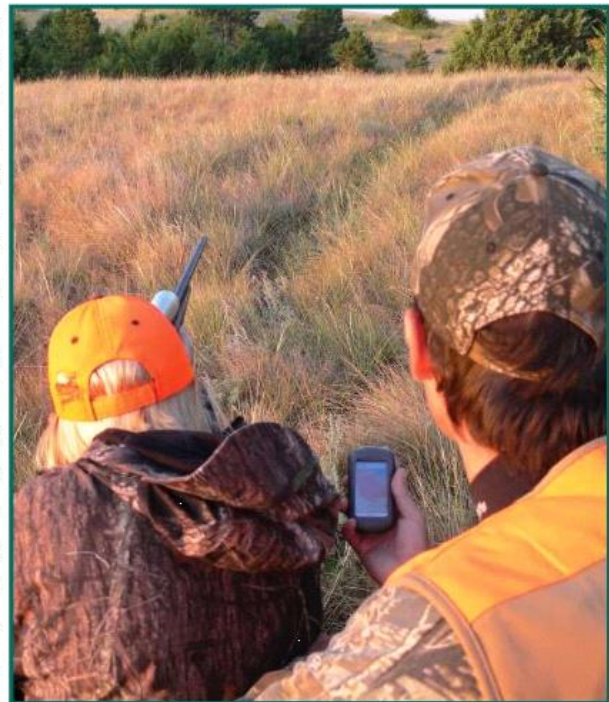
PUBLIC HUNTING ACCESS PROGRAMS

2013 marked the 25th anniversary of the creation of the Walk-In Area (WIA) program. This popular program's goals remain unchanged, with the objective of improving public hunting access to private lands and a specific emphasis on gaining hunter access to land enrolled in CRP. In 2013, 1.27 million acres of private land was enrolled in WIA. Total WIA lease payments to private landowners for 2013 were \$2.1 million dollars.

As an alternative to the WIA program, the Controlled Hunting Access Program (CHAP) began in 2008 with the objective of leasing private land for hunting access from landowners who desired to maintain some control over the number of hunters accessing their property, which hunting seasons access would be allowed, or which method of take (e.g. archery, firearm) would be allowed on their property. CHAP has grown to include 11 cooperators enrolling 17,851 acres across the state.

On average, payments to cooperating landowners average approximately \$1 per CHAP acre enrolled.

To complement the WIA and CHAP programs, the Division of Wildlife partnered with USDA in 2009 to develop a Conservation Reserve Enhancement Program (CREP) in the James River Watershed. This partnership effort, designed to enroll private lands into CRP habitat practices with a public hunting and



fishing access requirement, has cooperated with 790 landowners to date, and enrolled 82,139 acres at an annual cost to the Division of \$3,039,057.

The Lower Oahe Waterfowl Access (LOWA) program, created in 1998 at the direction of the Legislature, leases private land around the Pierre & Ft. Pierre area for public waterfowl hunting access. This popular area offers hunters field decoy and pass shooting opportunities. This program has maintained a hunter satisfaction score of approximately 80% since 2003. For the 2013-2014 hunting season, 8 landowners have enrolled 36,700 acres in the LOWA at a cost of \$212,573.

WORKING WITH LANDOWNERS TO ALLEVIATE DAMAGE

An important partnership between the Division of Wildlife and private landowners and agriculture producers occurs through the Wildlife Damage Management (WDM) program.

The Division could not successfully manage the wildlife resources that occur throughout South Dakota without this important partnership. The majority of wildlife produced in South Dakota comes from privately-owned property and sportsmen rely heavily on private lands for hunting opportunities as well. It is because of these important considerations that the Division operates a comprehensive WDM program.

During the 2013 legislative session, policy-makers enacted legislation that added an additional \$300,000 annually, specifically designated for coyote and beaver control in South Dakota. These new monies have allowed the Division to expand these important wildlife damage services to better serve South Dakota landowners and producers.

The Division responded to a total of 3,052 requests for assistance through the WDM program during fiscal year 2013, which directly impacted 1,952 landowners and producers in South Dakota. The total program expenditures including staff time, mileage, equipment and materials totaled \$2,542,123.

Wildlife damage specialists responded to 1,409 requests for assistance regarding livestock loss from coyotes and fox. Livestock prices have been favorable and when coupled with high coyote populations, there was a significant workload within this portion of the program. More than \$654,000 was expended responding to these requests for service which included staff time, mileage, and supplies.

Sylvatic plague throughout most of western South Dakota, as well as previous control efforts, has significantly reduced the number of prairie dog complaints compared to five years ago. The Division treated approximately 1,200 acres of prairie dog colonies on private land in western South Dakota this past year. The Division also responded to 392 requests for assistance regarding beaver damage and 121 nuisance animal complaints.

Wildlife damage staff drove a total of 431,000 miles and worked 23,000 hours to assist livestock producers and other citizens with stored feed concerns, impacts to crops and other wildlife damage concerns. Total expenditures to address these requests for service regarding these species exceeded \$1,075,000.

Due to lingering winter weather and a cold spring, resident Canada goose production was below normal. Nonetheless, the existing goose population coupled with high commodity prices maintained a high demand by producers for Division services. Staff worked with 353 landowners to address more than 700 requests for service regarding resident Canada goose damage to growing crops in eastern South Dakota. To respond to

these landowner requests, staff drove 118,000 miles and worked more than 16,000 hours. The Division also provided more than \$62,000 in cost-share assistance to landowners who installed permanent fence, temporary and permanent buffer strips, or food plots on their property to reduce crop damage caused by Canada geese. Total expenditures to address goose depredation was \$467,000.



South Dakota experienced a mild winter with little snow accumulation in most areas; however, the northeastern corner of the state and the Black Hills area experienced more typical harsh winter conditions. Deer and elk depredation complaints were slightly higher than the previous winter and the Division worked with 237 landowners to address big game depredation. This work included providing cost-share assistance for the construction of stackyards and protective fencing projects, installation of livestock panels to protect stored hay and feed-supplies, supplemental food sources and utilization of diversionary food-plots.

Division staff drove a total of 73,000 miles and worked more than 7,000 hours to provide assistance to landowners experiencing big game species (i.e. deer, elk, antelope, and turkey) depredation. Overall, the Division spent more than \$700,000 assisting landowners with big game depredation issues. Statewide, Division expenditures exceeded \$1.4 million for game species (deer, elk, Canada goose, turkey, etc.) depredation assistance in 2013.

EHD AND DEPARTMENT RESPONSE

Though not as widespread or intense as in 2012, South Dakota experienced local die-off of white-tailed deer in several counties during August-October due to epizootic hemorrhagic disease.

As soon as the Division of Wildlife started receiving reports of sick and dead white-tailed deer, efforts were made to document and confirm the virus strains through the diagnostic lab at South Dakota State University. Through laboratory testing, both epizootic hemorrhagic disease and blue tongue were confirmed. South Dakota continued with documentation of sick deer until the end of October when most of the state experienced its first killing frost which killed the mite that carries the disease effectively ending the spread.

Eleven counties from across South Dakota had confirmed EHD virus cases and five counties had confirmed blue tongue virus cases. Laboratory results confirmed epizootic hemorrhagic disease in eight white-tailed deer and three pronghorn and blue tongue in 14 white-tailed deer and two elk. Most reported dead deer were located in the western and east-central part of the state with a total 818 dead deer reported, compared to 3,714 in 2012.

Due to the large number of white-tailed deer that were lost to the disease in isolated areas, the Division removed 242 remaining unsold licenses from four West River counties and one East River county after the second lottery drawing. The Division also offered refunds (with preference points reinstated if used to obtain the license) to hunters who were issued a deer license if they voluntarily returned their licenses due to limited opportunities created by the hemorrhagic disease die-off. A total of 842 licenses, which accounted for 1,743 tags, were returned to the Division and \$71,489 in license fees were returned to license holders who chose not to hunt in the affected areas.

BIG GAME MANAGEMENT PROGRAM INDEPENDENT REVIEW

In response to public concerns about big game management, Governor Daugaard ordered an independent review of the Division of Wildlife's big game management programs.

A Request for Proposals was issued inviting proposals to examine the big game program and identify strengths and weaknesses and provide recommendations to improve various aspects of the big game management program. Four proposals were submitted and the Wildlife Management Institute was awarded a \$131,000 contract to conduct the evaluation.

The review process spanned a six month period and input was gathered through public meetings, public comments received via electronic media, one-on-one interviews with representatives from identified interest groups or individuals from the public, interviews with commissioners (present and past) and interviews with Division staff including administrators, biologists and conservation officers. The final report was presented to the Governor's office and GFP Commission in early October.

While the focus of the review was the big game management program, several of the recommended improvements pertain to the Division as a whole. Such items were improved internal communications, use of human dimensions in resource management and planning, management plans that include public input early in the process and GFP Commission approval, leadership and career development and social media enhancements.

From the final report, a 43-point action plan was generated by the department and presented to the GFP Commission in November. The action plan is divided into four categories: population monitoring, management plans, communication and commission regulation development. Several action items will be addressed and completed within the next



several months while others will require additional time and resources to complete. All action items were assigned a lead person(s) and are time bound. The GFP Commission will be provided status reports for each action item at their regularly scheduled meetings following the completion date assigned within the action plan.

The Request for Proposal from WMI, consulting contract with WMI, Big Game Review Final Report and Big Game Review Action Plan are posted on the GFP website at <http://gfp.sd.gov/agency/information/independent-review-biggame-management.aspx>.

RESEARCH GUIDES WILDLIFE MANAGEMENT

In an effort to fill information gaps and needs, the Division of Wildlife continues to participate in numerous research projects that provide management information that refine or improve our approach to managing wildlife and their associated habitats. The Federal Aid in Wildlife Restoration Program (PR Grants) and State Wildlife Grants serve as the funding foundation for these efforts. Due to limited staff and current workloads, much of the research conducted through the Division is contracted to outside sources, with close coordination among Division staff.

Currently, we have 11 research projects funded by PR grants. Of these projects, seven are associated with big game/predator species, one pheasant, one Canada goose, one bobcat, and one water bird and wetlands project.

State Wildlife Grant funds have been a valuable source to carry out non-game related research. We



currently have 15 SWG research/management projects. Some examples of projects include the second edition of the South Dakota Breeding Bird Atlas, revision of the South Dakota Wildlife Conservation Plan, James River CREP evaluation, native grassland inventory of the Prairie Coteau, and Dakota skipper conservation and management.

One internal Division-funded project is evaluating the availability and ingestion rates of lead shot by wild ring-necked pheasants.

The Division of Wildlife is in the process of completing three years of elk research which include two study areas, Custer State Park and its surrounding area and the southwestern portion of the Black Hills.

The Custer State Park study area is being evaluated internally while the southwestern Hills study area is being researched by South Dakota State University. The primary objectives of the research include the following: 1) quantify movements of cow elk; 2) determine nutritional

condition during winter and pregnancy rates of cow elk; and 3) determine cow and calf elk survival rates and cause-specific mortality.

Preliminary results indicate annual cow survival to range from 80-83%, with annual calf survival ranging from 7-27% in the Custer State Park study area. In the southwestern Hills study area, annual cow survival was 88% and calf survival was 66% in 2012. Primary cause of elk calf mortality was mountain lion predation. Final analyses will provide the Division a better understanding of elk population dynamics and movements in the Black Hills and enhance elk management in the future.

In conjunction with this research, a Black Hills elk population aerial survey was conducted between Feb. 8 – March 9 using an R-44 helicopter with 2 observers. A total of 174 hours were flown during the survey effort.

The Black Hills was divided into 254 subunits and 100% of these subunits were surveyed. Helicopter survey crews flew systematic search patterns (i.e., transects) within each subunit, spaced 650-1000 feet apart. Subunit maps were uploaded onto GPS devices to ensure transect widths were followed precisely. To avoid double counting, adjacent subunits were flown with minimal time delays. Once a group of elk was detected the search pattern was interrupted to record information and to get an accurate group count. Pictures were taken and analyzed for groups that exceeded 50 individuals to ensure accurate counts.

Survey results estimated a Black Hills winter elk population of 6,067 (95% CI: 5,794-7,115), including both Custer State Park and Wind Cave National Park. A detailed summary of this survey can be found at <http://gfp.sd.gov/hunting/docs/elk-survey-2013.pdf>.

PHEASANT LEAD STUDY UPDATE

In the 1970s, research showed that lead shot was causing mortality to waterfowl. Similar concerns have been raised about potential harm to the ring-necked pheasant through ingestion of lead shot on private land where lead shot is legal to use for upland game bird hunting, leading to a research project undertaken by the Division of Wildlife.

Gizzards and livers were collected from hunter harvested wild rooster pheasants from a 160 acre study site in Lyman County, SD during the 2011-12 pheasant hunting season. Gizzards and livers from an additional 212 roosters harvested by the same commercial hunting operation, but not on the designated study site, were also collected. The gizzards were X-rayed to determine the presence of pellets, a necropsy was performed to determine if the pellets were ingested or lodged and if the pellets were lead or non-toxic. Livers from 45 birds were tested for lead concentration.

Eight of 123, or 6.5% of roosters collected from the study site, had ingested at least one lead pellet. Of these eight birds, the mean number of lead pellets ingested was approximately 2.38 with a range of 1-9 with most (6 of 8) ingesting one or two lead pellets.

With all birds combined, 12 of 335 or 3.6% of roosters collected had ingested at least one lead pellet. Of these 12 birds, the mean number of lead pellets ingested was 2.17 with a range of 1-9 with most (10 of 12) ingesting one or two lead pellets. Eleven of 236 young of the year birds and 1 of 97 adult birds ingested more than one lead pellet. The proportion of young birds that had ingested more than one lead pellet was higher

than for adults, but no significant difference was detected.

Liver lead concentrations were tested for all 12 birds that had ingested more than one lead pellet and 33 birds that had no lead pellets in their gizzard. Liver lead concentrations were higher in birds that had ingested more than one lead pellet (4.117 ppm) when compared to the 33 reference samples (0.223 ppm).

Methods were replicated in 2012 on a different study site which was a licensed shooting preserve. Only pre-hunt soil samples were collected. 167 gizzards were collected from hunter harvested wild roosters, nine had ingested lead pellets. Prevalence rate was 5.4%. For gizzards with at least one ingested pellet, the mean number of pellets ingested was 1.55.

WILDLIFE ACTION PLAN UPDATE

The Division of Wildlife began revision of the South Dakota Wildlife Action Plan five years after its initial approval to take advantage of information gained from State Wildlife Grant projects, to incorporate predicted impacts of climate change and to include draft conservation opportunity areas for terrestrial and aquatic habitats.

Staff has worked on the revision for the past three years, with extensive involvement from specific entities with relevant expertise in landscape-level planning, climate change analyses and involvement from government agencies and tribes in South Dakota. The plan will be submitted to the U.S. Fish and Wildlife Service during the spring of 2014.

A major emphasis during the planning effort has been to develop web-based tools for use by the public, land managers, landowners, and conservation partners. Tools will incorporate information on South Dakota's lands and waters, fish and wildlife species (not limited to species of greatest conservation need) and eco-site information for land use planning and restoration. We have used the revision process as a springboard for this effort. Our hope is that interest in wildlife, not necessarily a wildlife plan, will attract web users to this tool which will continue to be expanded and refined with new information.

The Wildlife Action Plan revision benefited from the involvement of the Plains and Prairie Potholes LCC, which contributed funds to allow experts at South Dakota State University to conduct a climate change analysis related to terrestrial and riparian-wetland habitats. Also during the revision process, the Coop Unit at SDSU conducted an updated public attitude survey, using some repeated questions from a previous survey during the preparation of the original South Dakota Wildlife Action Plan plus additional questions reflecting emerging issues. Survey results will assist the agency in planning public involvement strategies for specific issues.



MOUNTAIN LION SEASON UPDATE

South Dakota has held a resident-only mountain lion season since 2005. The 2013 mountain lion season offered an unlimited number of licenses and included a limited access season within Custer State Park (CSP). Residents were allowed one mountain lion permit valid for taking a single lion during the 2013 season.

Inside the Black Hills Fire Protection District, the season dates were from Dec. 26, 2012 to March 31, 2013, or until reaching the maximum harvest limit, whichever occurred first. The maximum harvest limit was set at 100 mountain lions or 70 female mountain lions.

On land located outside of the Black Hills Fire Protection District, the 2013 mountain lion season was open year round. Except for specified hunting intervals in CSP that allowed hunting with dogs, the use of dogs, traps, or bait to hunt mountain lions was prohibited.

A limited number of free access permits to hunt mountain lions within CSP during specified hunting intervals were issued through a random drawing. The interval structure consisted of five hunting intervals 14 to 16 days in length, each having 30 access permits with no dog hunting allowed; and three hunting intervals 7 days in length, each having four access permits with dog hunting allowed. If the Black Hills mountain lion season closed prior to the March 31 end date, mountain lion hunting within CSP also closed.

The 2013 Black Hills mountain lion season ran for the full 96 days and closed on March 31, 2013. A total of 61 mountain lions were harvested, 35 of which were females.

The 2014 mountain lion hunting season dates were established to run from Dec. 26, 2013 to March 31, 2014, or until reaching the maximum harvest limit, whichever comes first. The maximum harvest limit is set at 75 mountain lions or 50 female mountain lions. A slightly modified limited access season will again occur within Custer State Park. There will be four hunting intervals (17 days in length) with 30 access permits per interval and no dogs allowed; and four hunting intervals (7 days in length) with four access permits per interval which allows the use of dogs.



MANAGING FISHERIES RESOURCES

LAKE OaHE FISHERY STATUS

Lake Oahe is South Dakota's largest Missouri River reservoir at approximately 312,000 acres (at normal operating pool) and is a premier destination walleye fishery recognized throughout the Midwest. Following the Missouri River flood of 2011, rainbow smelt (the primary prey for Lake Oahe walleye) became scarce and resulted in fewer and skinnier large sport fish.

Rainbow smelt abundance remained low through 2013; however Lake Oahe began to turn the corner on the prey fish abundance.

Lake Oahe witnessed the sixth highest abundance of warm-water prey-fish (those prey-fish other than rainbow smelt) since surveys started in the early 1980s. These prey-fish included various minnows and shiners, yellow perch, white bass, crappie, freshwater drum, gizzard shad and so forth. In early July 2013, these fish became available for consumption by walleye and other sport fish in Lake Oahe and these predators responded to the surge in prey-fish abundance.

June walleye harvest in Lake Oahe was the highest single month on record since the creel surveys began. However, the bite quickly shutdown when small prey-fish became abundant. Walleye catch rates dropped and resulted in some of the lowest harvest rates recorded for Lake Oahe walleye in July and August.

The condition of the walleye also reflected the boost in prey fish on Lake Oahe. In August, population surveys indicated a modest increase in the condition of sport-fish. Since prey fish were present during this short window of time, we expected to find healthier fish. However, walleye were measured through Division of Wildlife creel efforts into the fall and showed an increase in condition. Walleye, particularly in the northern third



of the reservoir, exhibited very good body condition and mirrored that of walleyes measured in years past.

Biologists with the Division are still hopeful for a successful rainbow smelt spawn next year. Evidence suggests that the walleye population grows faster and is more stable when on a rainbow smelt diet. However, 2013 showed that other prey-fish in Lake Oahe can contribute positively to walleye diets and growth.

AQUATIC INVASIVE SPECIES OUTREACH CAMPAIGN

After working to strengthen and improve Aquatic Invasive Species regulations and management in previous years, the Division of Wildlife focused efforts on AIS education and outreach in 2013.

Multiple years of survey work showed that although AIS awareness in South Dakota was good, many types of media were likely not being utilized to their full potential. As prevention through education is largely thought to be the most cost-efficient means to fight the spread of invasive species, the Division contracted with a marketing firm to develop and implement an “AIS Brand” for South Dakota.

The campaign, SD Least Wanted (www.sdleastwanted.com), was launched on May 1 and included traditional media such as billboards, signs, and radio PSAs, as well as contemporary media like ice chest wraps, smart phone app banners and Asian carp cutouts.

In addition to the media campaign, thousands of people were also able to view and touch Asian carp at the South Dakota State Fair and receive “SDLeastWanted” t-shirts.

The initial response to the campaign has been extremely promising. Survey data from 2013 is still under review, however it appears that the improved use of many of the under-utilized media types was very successful at increasing awareness and possibly slowing the spread of AIS in South Dakota.



HABITAT AND ACCESS

In 2013 Division of Wildlife staff oversaw the planning and completion of a host of projects providing fishing access to anglers and enhancing aquatic habitats across the state. Projects varied in size and scope and many were completed with the help of partners.

Fishing access projects completed included the construction of a fishing access site on Richmond Lake in Brown County. This was a cooperative project with the Richmond Lake Association and included the construction of an ADA accessible parking area, side walk and landing, floating fishing pier and a vault toilet. The lake association provided funds for the purchase of the fishing pier to honor Brook Brown a Wildlife Conservation Officer who passed away following a long battle with cancer.

Fishing access projects also included:

- Construction of a trail along Crow Creek in Lawrence County to provide anglers stream access.
- Construction or installation of fishing piers or hard points on Lake Alexander at the Boy Scout Camp in Custer County, Isabelle Lake in Dewey County and at Lake Eureka in McPherson County.
- Cooperative access projects were completed or initiated with the cities of Aberdeen, Newell, Winner and Wagner.
- A fishing pier project with the Fredrick Men's Club is nearing completion on Elm Lake in Brown County.
- Ice fishing access was maintained on nearly 100 lakes across the state during the winter.

Aquatic habitat projects that have been completed include the dredging of Mickelson Pond in Pierre, reconstruction of Trout Dam on the Ft. Pierre National Grasslands and clearing a valve on Sheridan Lake to allow the release of cold water into Spring Creek in Pennington County.

Two projects with lakeshore home owners were completed to restore shorelines to a more natural state. The goal of this program is to encourage lakeshore homeowners to slow shoreline erosion, improve water quality, enhance natural beauty and provide habitat for fish and wildlife around highly developed lakes.

Plans are complete for trout habitat restoration during the fall of 2014, on a section of Rapid Creek below Lake Pactola in Pennington County. This project will be done in cooperation with The Black Hills Flyfishers and the U.S. Forest Service. In addition, funding has been set aside to partner with the U.S. Forest Service to dredge three lakes in the Black Hills during 2014.

In addition to habitat and access projects Division staff attended lake association meetings to help educate people about the issues of lake shore development, presented habitat and water quality concerns at water and irrigation district meetings, and reviewed and provided comments on over 200 public or private projects, applications and plans that may have impacts on aquatic habitats and resources in the state.

FISH STOCKING AND SURVEYS BENEFIT FISHERIES

Major fisheries management efforts include surveying fish populations, stocking fish to enhance populations, and conducting angler surveys. Angler surveys are an evaluation tool used to help determine if management activities are meeting the needs of the public and if current harvest regulations are appropriate for a fishery.

Approximately 72 million eggs were collected and 55 million fish and eggs stocked in 195 waters in 2013, to enhance fish populations. A total of 158 fish population surveys were conducted on 145 different waters and angler surveys were conducted for 24 different fisheries to determine fish population status and appropriateness of management activities.

FISHERIES RESEARCH HELPS MANAGEMENT EFFORTS

Federal aid funded research projects in association with South Dakota State University were again a major part of the aquatics research program in 2013. Research topics were diverse, attempting to answer management-driven questions that will help the Division of Wildlife better manage fisheries resources. Current projects include studying flood impacts on fishes in the Missouri River, comparing survey methods with newly devised national standards, use of bony structures in fish to answer research questions, beginning a tagging study on Lake Oahe walleye population, and sampling of western South Dakota streams.

Asian carp have become one of the most highly publicized aquatic invasive species. A research project on the distribution of Asian carp in South Dakota is nearly finished. Silver, bighead and grass carp have been found throughout the James River, below the Vermillion Dam on the Vermillion River, and below the falls on the Big Sioux River.

While young Asian carp have been collected, it has not been confirmed that they were produced in South Dakota. Of the adult Asian carp collected during the project, 92% were hatched during 2010. Once these fish

become sexually mature, biologists would like to monitor their population to see if they will produce large numbers of offspring. Other species of fish that may be in competition for food resources with Asian carp, such as bigmouth buffalo, emerald shiner and gizzard shad were also sampled during this project. Sampling results indicate that abundance of these native species has remained relatively similar throughout the study.

The Division also conducts internal research projects covering a number of different topics. Projects vary from evaluation of habitat improvements, to hatchery rearing methods and specialized analysis of long term data sets to determine why anglers fish.

Lake Sharpe contains one of the most popular walleye fisheries in South Dakota. During 2013, staff developed a research proposal to locate crucial over winter habitat and spawning locations for gizzard shad, the primary forage species for walleye in Lake Sharpe. Starting in 2014, shad will be implanted with radio telemetry tags that will allow stationary receivers to detect shad locations. With sediment issues threatening prime shad spawning areas, this project will be vital to determining if efforts should be made to protect these areas.

FISHERIES AND AQUATICS PROGRAM PLANNING EFFORTS

Fisheries and Aquatics program staff spent a great deal of time in 2013 developing a statewide strategic plan and plans for the four fisheries management areas in the state. These strategic plans will serve as the foundation for an adaptive management framework for the fisheries and aquatics resources program. Each plan contains an inventory of existing resources, current management issues, goals and objectives, and strategies to address issues and accomplish objectives.

Some of the key strategies established at the statewide level include development of a fisheries data management system, updating the fish health plan and aquatic invasive species plans for South Dakota, inventorying fishing access throughout the state and developing a needs assessment, establishing standard non-game aquatic species surveys, and establishing a fish population and angler survey review and prioritization process. Performance measures for the recreation component of the program have been established and accomplishment of measures will be determined through an annual statewide angler survey.

Strategies to address issues and accomplish objectives at the management area level include using outreach efforts to reduce unwanted species introductions, surveying Black Hills anglers about management preferences prior to revising the Black Hills Streams and the Small Lakes and Ponds management plans, establishing new fisheries in major population centers, improving information exchange with the public, improving the quality of small impoundment panfish and bass fisheries, and watershed and lakeshore habitat enhancement projects.



CONNECTING WITH THOSE WE SERVE

THE OUTDOOR CAMPUS

GFP has sister facilities on each side of the state positioned for outreach in South Dakota's two largest cities – Sioux Falls and Rapid City. Each facility hosts approximately 100,000 visitors over the course of the year.

The Outdoor Campus facilities feature education programs for all ages, and center their programs on four core topics: hunting, fishing, outdoor skills and outdoor education. These free programs increase awareness and knowledge of South Dakota's outdoors with the overall goal of The Outdoor Campus education programs being to encourage participation in outdoor activities.

Naturalists run education programs throughout the year with the assistance of college-aged interns and a strong corps of community volunteers. The Outdoor Campus system has nearly 300 volunteers assisting with their operations.

In addition to scheduled education programs, both facilities feature unique and diverse outdoor settings for hiking trails, wildlife watching, and outdoor recreation activities including kayaking and cross-country skiing.

Besides regular programming, The Outdoor Campus system features special outdoor education opportunities throughout the year, including Halloween Hikes, Women Try It days, International Mud Day and the Outdoor University.



OUTREACH EVENTS

The Division of Wildlife hosted a number of outreach events around the state. The purpose of the events was to provide an inviting setting for young families and others who might be novice users of outdoor recreation opportunities in South Dakota.

Outdoor University is a large-scale event geared toward young families that may have little exposure to the outdoors, and where they are invited to try absolutely everything outdoors, including kayaking, fishing, fly fishing, target shooting, fish and game cleaning, rock climbing, outdoor cooking, canoeing, archery and more.

The first event in Sioux Falls in 2011 attracted 1,800 people. In 2012, over 2,625 people attended, and in 2013 3,500 people attended. Rapid City, in the second year of their event, hosted over 800 people.

Another successful event at both of the Outdoor Campus locations was Women's Try It day, where women were invited to spend part of the day trying outdoor recreation activities.

The Division also hosted a series of Step Outside programs around the state. These programs introduced youth to hunting and fishing opportunities, as well as other recreational activities. Over 80 programs were conducted with over 1,000 kids in attendance.

Fisheries staff made over 115 presentations to 3,800 people and state fish hatcheries and spawning stations hosted 7,300 visits including 45 tours and 13 school and group presentations.

HUNTER EDUCATION PROGRAM

South Dakota Game, Fish and Parks provides hunter education for youth who would like to participate in the hunting tradition and for adults looking to meet requirements before they take to the field for the first time. Approximately 5,100 students successfully completed some form of hunter or bowhunter education in South Dakota in 2013.

A new delivery method for bowhunter education was made available to South Dakota residents on August 1st. This 100% online course does not require a field day and teaches safety in-the-field, bowhunting basics, and shot placement and recovery techniques. Through Dec. 3, 800 people had taken the new bowhunter course. When coupling online graduates with those who took the traditional in-person class, South Dakota certified 1849 in 2013. The previous record high was 1,833 in 2006.

GFP continues to make strides in offering hunter education in the school systems. Four schools had teachers who completed HuntSAFE instructor training in 2013. These instructors will now be able to provide HuntSAFE certification to their students as part of the school curriculum.

National Archery in the Schools Program (NASP) continued to be a popular program for many school districts throughout South Dakota. 245 schools have chosen to participate in NASP, reaching almost 20,000 students on a yearly basis. This year GFP hosted the largest state tournament to date with over 30 schools and 660 students registered.

NASP equipment kits were provided to approximately 15 new schools and over 120 professional educators received Basic Archery Instructor training throughout 2013.

RECRUITMENT AND RETENTION EFFORTS

The Division of Wildlife started a sustainable conservation "Hunt Club" in partnership with the South Dakota School of Mines and Technology to engage the interest of young adults who may have an interest in hunting local, free-ranging game for food. We have provided a comfortable learning atmosphere with a low student-teacher ratio. There is no cost to the program and we are tracking participants to evaluate the success of this program.

The Division has worked with several of our outdoor education naturalists on recruitment and retention programs, and has included them in some nationwide workshops to raise their awareness of recruitment and retention efforts. We are beginning a process to examine current programs in the context of the hunter adoption model.

The Division again partnered with the Recreational Boating and Fishing Foundation as part of their national recruitment and retention efforts for anglers. 2013 results were: 856 lapsed anglers purchasing 866 licenses; \$26,228 generated in license revenue; \$23,247 of net revenue; \$5,829 estimated revenue from Sport



Fish Restoration and Boating Trust Fund; 48 lapsed anglers purchased licenses; and \$1,459 generated in new license revenue.

The Division held 50 fishing clinics statewide with just over 1,700 people participating. Fishing clinics continue to be very popular and are growing. Fishing clinics were held in some new locations this year and were very well attended. Some stations, such as Sioux Falls and Custer State park now hold scheduled weekly fishing clinics. We added some ice fishing clinics this year.

This year's Becoming an Outdoor Woman event was held in September. Seven fishing-oriented classes were taught with 48 women participating. Classes included fly fishing, shore fishing, and canoe fishing. Shooting classes offered included shotgun, handgun and rifle shooting. Archery was also offered and is always very popular and well attended. Thirty-eight women participated in the shooting/archery classes. Hunting related classes included turkey hunting and deer hunting with 24 women participating in these classes.

The Outdoor Campus-East partnered with the City of Sioux Falls Parks and Recreation to maintain and grow the second year of a program at our new urban fishery, Family Park. For nine weeks one seasonal employee brought a pickup loaded with fishing rods and bait to the park and made them available to the public. The programs were Friday evenings from 6-9 p.m. and Saturdays from 8 a.m. to noon. Division staff members reported many participants who had never gone fishing before, but came to the event because they heard about it through the media. Some 270 people attended the event over the course of the summer and enjoyed catching bluegills, trout and an occasional northern pike. We also had fishing publications and regulations available at those times.



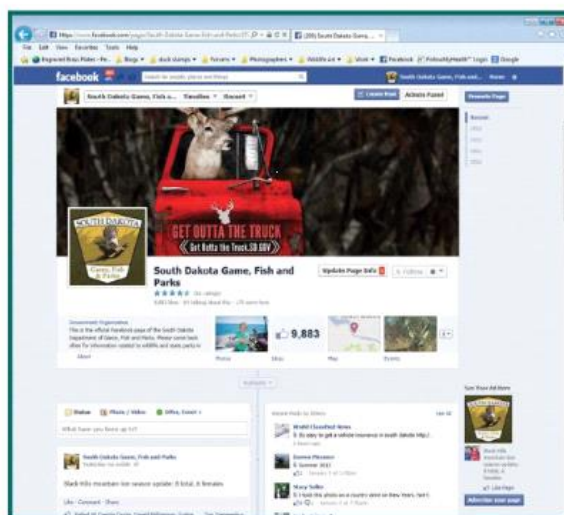
YOUTH CONSERVATION CAMP

The Division of Wildlife, working in partnership with the South Dakota Wildlife Federation, hosted the 2013 Youth Conservation Camp and celebrated its 50th anniversary this year from June 2-8.

Classes were taught by volunteer instructors as well as partnership organizations such as the National Wild Turkey Federation, Delta Waterfowl, and South Dakota Trappers Association. Attendance at this year's YCC was an all-time record of 120 high school students.

Aquatic education classes included lake survey and stream ecology, fly fishing and reservoir fishing. These classes were attended by 66 students. Fishing equipment was also available for those who wanted to fish during free time and all the students had a short fishing class, as well as fly tying and lure making one day of camp.

Shooting classes included shotgun shooting, handgun shooting, rifle shooting, and muzzleloader. Archery was also offered. Hunting classes included turkey hunting, waterfowl hunting, and deer hunting as well as trapping. These classes were attended by 88 students.



SOCIAL MEDIA

The Division of Wildlife added over 3,000 people to the list of those following us on Facebook this past year bringing the total number of our Facebook followers to nearly 9,900. We also make use of YouTube and Pinterest for various outreach efforts. We appreciate the diversity of the audience we are able to reach through social media and the healthy exchange of information and ideas that takes place.

A major outreach for the Division is through direct email contact. A total of 144 messages were sent to 2,153,842 contacts. The messages included news, application deadlines, Commission rule proposals and Legislative updates.

ANNUAL LICENSE SALES

Despite a decline in both resident and non-resident small game license sales, the sales of most general hunting and fishing licenses were comparable to 2012.

LICENSE TYPE	2012	2013	PERCENT CHANGE
Resident Predator/Varmint	1,669	1,576	-5.6%
Resident Small Game	27,876	21,015	-24.6%
Combination	46,183	45,788	-0.9%
Junior Combination	8,178	8,111	-0.8%
Resident Youth Small Game	5,746	4,949	-13.9%
Furbearer	4,050	3,971	-2.0%
Resident 1-Day Fishing	6,802	6,654	-2.2%
Resident Annual Fishing	68,304	65,634	-3.9%
Senior Fishing	13,335	12,538	-6.0%
Resident Migratory Bird Certificate	30,607	31,150	1.8%
Nonresident Predator/Varmint	5,374	5,012	-6.7%
Nonresident Small Game	95,298	76,301	-19.9%
Nonresident Youth Small Game	3,064	2,401	-21.6%
Nonresident Spring Light Goose	2,738	4,215	53.9%
Nonresident Youth Spring Light Goose	106	131	23.6%
Nonresident 1-Day Fishing	22,464	21,585	-3.9%
Nonresident 3-Day Fishing	22,176	24,042	8.4%
Nonresident Annual Fishing	20,378	22,343	9.6%
Nonresident Family Fishing	8,071	8,486	5.1%
Nonresident Migratory Bird Certification	1,179	1,230	4.3%
Nonresident Annual Preserve	483	321	-33.5%
Resident 1-Day Small Game	1,121	925	-17.5%
Nonresident 5-Day Preserve	9,398	9,687	3.1%
Nonresident 1-Day Preserve	1,109	1,113	0.4%
Nonresident Furbearer	16	15	-6.3%
Resident Gamefish Spearing/Archery	2,036	2,578	26.6%
Nonresident Gamefish Spearing/Archery	321	601	87.2%
Nonresident Youth Annual Fishing	1,155	1,264	9.4%
Resident Senior Combination	5,242	6,458	23.2%
TOTAL ON FILE	414,479	390,094	-5.9%

