

36th Midwest Deer and Wild Turkey Study Group Meeting
Custer State Park, Custer, SD October 16-19, 2012
Notes by Robert E. Rolley

The meeting was held at the Blue Bell Lodge at Custer State Park.

Welcome to Custer. We were welcomed by Matt Snyder, Superintendent of Custer State Park. Julie Brazell, Custer State Park Naturalist, summarized the history of the park.

Teddy Roosevelt Award and Teddy Roosevelt Family Day – Bill Jensen, ND. ND Game and Fish Department partnered with Boy and Girl Scouts and 4-H to host a Teddy Roosevelt Family Day in September to promote outdoor skills and the North American Model and Wildlife Conservation. The program was also aimed at linking scouts with hunter safety and archery programs. Participants could earn a TR Award. There were 19 field stations that participants could visit. An estimated 1500 people attended, approximately 600 kids were able to shoot a bow.

Whitetail Deer Trustee: Review of Wisconsin's Deer Management System. Robert Rolley presented a summary of the review process and recommendations from the review.

CPR for urban deer management objectives. Brent Rudolph, Michigan DNR, summarized a Wildlife Society Bulletin (2011) article related to the need for clarity, practicality, and relevance of objectives of urban deer management. It is important to have clear fundamental and enabling objectives, related to practical limitations, and measured through metrics relevant to the fundamental desires of stakeholders.

Update on the Midwest Wild Turkey Consortium: Where do we go from here? Andrea Bowling, Graduate Research Assistant, Michigan State University, presented a project update. Goal is to better understand factors limiting population growth throughout the Midwest (harvest, predation, density-dependent reproduction, habitat changes). The project proposal has been approved by the Midwest Association and 6 states are fully committed to funding a 2-year post doc position.

Providing public hunting opportunity on private land in South Dakota. Mark Norton described South Dakota's efforts to provide hunter access to private land. ~1.3 million acres have been enrolled in their "Walk-in Areas" program. Initial funding was from a \$5 surcharge on hunting licenses. Pays landowners \$1/acre plus \$5/acre for undisturbed habitat. Primary emphasis has been for pheasants but increasing emphasis for big game in the west. Approximately 36,000 acres have been enrolled for waterfowl hunting access. They also have a controlled hunting access program that pays landowners by the number of hunters (\$6-10/hunter-day) but landowners can control the number of hunters, type of game harvested, method of harvest, etc. Information of the areas enrolled is provided in a printed atlas and is also available on the web and as a smartphone application.

Attitudes and opinions of deer and turkey hunters in South Dakota – 1990s to Today. Cynthia Longmire summarized survey data over the past 20 years related to satisfaction of South Dakota's deer and turkey hunters. Deer harvest success rates have tended to average around 50%, declining slightly in the east and increasing slightly in the Black Hills. Overall satisfaction with deer hunting has tended to be stable, averaging neutral to slightly satisfied. Most hunters have rated crowding to be "about right". In the Black Hills satisfaction with deer hunting is a function

of success and crowding. Motivation of deer hunters has primarily been “time in nature”, “time with family and friends”, and the “excitement of the hunt”. Most deer hunters rated “meat to take home” and “a trophy” as relatively unimportant. Turkey hunters have tended to have similar levels of satisfaction and motivations for hunting as deer hunters. Turkey hunters were evenly split over support or opposition to restrictions on rifle use for turkey hunting.

Technology advances in wildlife applications. Chris Marsh described recent incorporation of mobile devices for collecting survey data. South Dakota is using a handheld GPS unit for waterfowl surveys to automatically record date, time and location during waterfowl surveys. Developing interactive maps for biologists to view survey data. Making some maps available to the public via the web.

Mountain pine beetles. Chad Lehman reported on the outbreak of mountain pine beetles in the Black Hills. Currently ~400,000 acres have been affected in the northern and central hills, starting to move into Custer State Park. The insect transports a blue stain fungus that prevents water transport within trees. Pine beetles are native and there was a massive attack in the late 1800s and early 1900s. Beetle larvae are killed by prolonged periods of -35F degrees. Vulnerability of pine trees is greater with a high stand density of large trees of a single species. Control efforts include stand thinning before beetles arrive. The beetle invasion is expected to increase early successional habitats with more shrubs and aspen benefitting deer and creating better brood habitat for turkeys but also reducing roosting habitat and decreasing winter food for turkeys.

South Dakota’s rapidly changing landscape. Mark Norton. Grasslands, shelterbelts, and wetlands across the state are rapidly being converted to croplands due to high commodity prices. Over 3.4 million acres of grassland in eastern SD were converted during 2001-10. About 8% of wetlands were converted during the same decade.

Energy development in western North Dakota. Bill Jensen. Western North Dakota is undergoing a boom in oil development with ~2000 wells/year being drilled. An estimated 33,000 wells are predicted during the next 15 years. This is resulting in a huge demand for water. There is significant illegal pumping of surface water from lakes and wetlands. Also significant issues of illegal dumping of sewage and spills of drilling waste. Wells are being placed in river flood plains. Salaries of agency staff are not keeping pace with the cost of living in the region and with limited staff poaching is becoming a greater problem.

Deer Breakout Session

Factors affecting survival of white-tailed deer in the Black Hills. Jonathan Jenks. Research on deer started in late 1980s. Approximately 70-80% of the deer in the hills are white-tailed deer and 20-30% are mule deer. Reproduction tends to be lower in the northern portion of the hills than in the southern hills. Major mortality factors are harvest and late winter-early spring snow storms during migration with some predation in the southern hills. In areas with high productivity of forage there has been competition with cattle and elk. The population of mountain lions increased in the late 1990s and early 2000s. The effect of predation has increased during the past 10 years.

Aerial sightability of white-tailed deer and mule deer within various habitat types and geographical areas throughout South Dakota. Kevin Robling discussed efforts to develop sightability models for fixed-wing transect surveys in a variety of habitats across South Dakota. 230 deer were captured in 4 study areas with helicopter net guns. Surveys were conducted with

and without snow. He was able to develop logistic regression models for 2 study areas; group size, canopy cover, and topography were significant predictors in the models developed. The numbers of groups observed were insufficient for model development in 2 study areas due to rugged topography and/or cedar cover.

Captive Cervid Legislation: Current Status and Proposed Expansion. Matt Ross, Quality Deer Management Association. QDMA issued a position statement opposing captive breeding of deer citing a number of concerns including erosion of the North American Model of Wildlife Conservation, loss of public support for hunting, unnatural extreme manipulation of white-tailed deer, potential spread of disease and other biological agents, lack of benefits for wild deer and the majority of deer hunters, public cost, and devaluation of the intrinsic value of deer and the hunting experience. He reported over 600 deer farms in WI, >700 in Minnesota, ~1,000 in Texas, and ~10,000 in the US. The policy was specific to captive breeding and did not address “high fences”.

Assessing Michigan Deer Hunter Compliance with a Baiting Ban. Brent Rudolph. Michigan has had a complete ban on baiting in their TB area for 7-8 years. Used a mail survey to try to better understand the mental cost-benefit analysis that people go through in deciding whether to comply with the ban. Estimated that 25-35% of deer hunters violated the ban. Hunters who believed that baiting increased their likelihood of harvesting at least 1 deer were 3X more likely to violate. Hunters who believed that most other hunters didn't bait were less likely to violate. Hunters who believed that the DNR used the best science as a basis for the ban were less likely to violate.

Discussion on implementation of recommendations from Wisconsin's White-tailed deer Trustee.

Telecheck (Collection of biological data, Compliance)

Nebraska – Only uses telecheck outside of their main November gun season which is when they collect their biological data. Wardens do compliance checks at locker plants and taxidermists. Estimates of success rates from telecheck seem reasonable compared to data from prior in-person registration.

Kansas – Doesn't use telecheck but previously sent tooth envelopes to hunters but stopped due to changes in postal regulations; they currently lack harvest age data. Nebraska still can send teeth through the mail with padded envelopes.

Illinois – Does not use telecheck during their 7 day firearm season in their CWD counties to facilitate CWD surveillance. Requests that hunters using telecheck measure face length on antlerless deer (nostril to tip of eye) and antler beam circumference. With these measurements they can separate fawns from does ≥ 1.5 year of age does and yearling bucks from adult bucks. They collected face length and antler data at mandatory registration stations for 2-3 years prior to implementing telecheck to develop classification rules. Illinois has a millimeter scale printed along the edge on the back of their carcass tag with pictures of how to take the measurements.

Ohio – Hunters can register using phone, internet, or in-person at license vendors with terminals. Sends biologist to meat processors to collect age samples. They have 200 meat processors in eastern OH. In the year prior to conversion examined processor records and determined which processors mainly handle locally harvested deer, and they avoid

processors that handle a lot of deer from out of county. This is important because for does the biologists are pulling heads out of a barrel and not keeping track of county of harvest for individual heads. They are measuring antler beam diameter for yearling bucks. Biologists must be at processors right away to intercept adult bucks that are headed to taxidermist. Estimates of harvest age composition were similar to those from mandatory registration. In year before conversion they selected a sample of hunters at in-person registration stations, had them register their deer using a cell phone and then had hunters complete a survey about the experience. About 60% of OH hunters process their own deer. Whitetails Unlimited opposed telecheck based on loss of camaraderie, culture, interaction with DNR, impact on small business check stations. Businesses can still serve as telecheck locations by providing a computer terminal with internet connection.

Iowa – Does not collect harvest age structure data. Iowa historically estimated harvest from questionnaires and had a long history of underreporting. Now hunters can use phone, internet or license dealers. They believe reporting rates are higher than before. Compliance checks have been made via CWD sampling and checks of hanging sheds. Estimate that ~88% of checked deer had been registered.

Missouri – Pays student chapters of TWS to staff meat processors and age deer via tooth wear and replacement to fawns/yearlings/adults and collects incisors from adults. This misses big bucks. They also work with taxidermist to collect incisors.

Deer Management Assistance Programs/Deer Management Cooperatives

No states in the Midwest has a formal DMAP.

Missouri – Has hired a biologist to work with cooperatives. Position is jointly funded with QDMA. This position has existed for about 1 year. Took ~ a year to define what a cooperative is, have ~17 formal cooperatives. Number of property owners and years in existence varies. Minimum property size is 500 acres. Encourage management of a variety of species, not just deer. Missouri has private land conservationists who can provide assistance to landowners interested in developing cooperatives. The goals of most coops are to increase antler size. MDC has worked with University Extension to produce a series of 11 publications for interested landowners and hunters to learn more about deer and deer management.

(<http://extension.missouri.edu/main/DisplayCategory.aspx?C=547>)

The relationship is landowner driven, they come to the MDC.

Michigan – Does not have a formal program. Anna Mitterling is a graduate student studying coops in Michigan. Biologists will visit with cooperatives and the agency may or may not support the landowner's goals. There is no certification. Because antlerless permits are readily available the agency doesn't have a lot to offer landowners other than information.

New York has a formal DMAP program but it is mostly related to damage abatement.

Private versus Public Land Antlerless Quotas

Michigan – Only state with separate quotas for private and public land. Started as a way to make some permits available for private land in places where there was strong political pressure to have no antlerless quotas for large areas of public land. There is no formula for determining quotas. The allocation is made by the local biologist.

Kansas – Conducts spotlight surveys on public and private land. Consistently has higher deer density on public land than private land. It was recommended that quota allocation among land ownerships should be data driven.

Deer Status Reports

Illinois. Total harvest ~181,000 deer (~39% antlered bucks, 61% antlerless deer). Most CWD positive deer were removed by sharpshooters (25 of 36). Detected first positive in Kendall County in July. All counties with CWD were included in the late CWD season and bag limits were removed. The number of nuisance deer removal permits issued has declined from the peak levels in 2007. Forty-one deer population control permits were issued to land management agencies, municipalities, homeowner associations, airports, etc., more than in any previous year. Received reports of ~2,000 dead deer suspected of EHD from 76 counties. The last significant outbreak was in 2007 with ~2,000 dead deer reported from 57 counties. The legislature passed a bill allowing anyone to use a crossbow in the late archery season. 10 counties were removed from the late-winter antlerless gun season because of reduced numbers of deer-vehicle collisions.

Iowa. Estimated harvest ~121,400 (38% antlered bucks, 62% antlerless deer). Most liberal season with greatest opportunity on record. Estimated populations are at or below goal in 63 of 99 counties. Population goal is to reduce populations to the mid-1990s level. Deer-vehicle accidents and agricultural damage complaints have declined. Governor's office is starting to be involved in deer season setting. As population is coming in line with goals, antlerless harvest opportunity is being reduced. For the 2012-13 season the November antlerless season was eliminated and the January antlerless season was shortened by a week. Hunters have been good at shooting antlerless deer but are starting to complain. EHD: ~2,200 reported dead deer, counties where populations are still over goal are hardest hit. CWD was detected on a shooting preserve, linked to 2 other facilities. In one facility 9 of 13 deer were CWD+. Will be testing around all 3 facilities this fall. Depopulation is hindered by lack of state or federal indemnity payments.

Indiana. (Did not attend but sent report). Total harvest in 2011 was ~129,000 (39% antlered bucks, 61% antlerless deer). EHD, major outbreak in 2007, in 2011 had reports of dead deer from 9 counties. Rule changes for 2012-13: archery season is now continuous from October 1-January 6, added a late antlerless firearm season (Dec 26-Jan 6) in select counties, and earn-a-buck regulations for urban deer zones. Extended the allowable rifle cartridge length to 1.8 inches. Crossbows are allowed to be used throughout the archery season but a separate crossbow license is required and only 1 deer may be harvested with a crossbow.

Kansas. Approximately 118,000 people purchased ~186,000 permits and harvested an estimated ~98,000 (~95,000 WTD, 3,000 MD) in 2011, an increase of 8.9% from 2010. White-tailed deer harvest was composed of 47% antlered bucks and 53% antlerless deer. Monitors deer population using deer-vehicle collisions, bow hunter observation survey, and spot-light surveys on public and private land within 19 DMUs. Density estimates are generally higher on public than on private land. Estimates a population of roughly 650,000 deer statewide. Legislature pass bill to allow use of crossbows during archery season in a number of management units. The bill also created a "combo permit" with 2 tags, 1 for antlerless deer, for the cost of 1. CWD was detected in 8 out of 2,442 deer tested in 2011, positives were found in 3 new counties in 2011.

Michigan. An estimated 648,000 hunters spent 9.6 million days afield in 2011. The estimated number of hunters was down 1% from 2010, continuing a downward trend since the late 1990s. 2011 was the 4th year that crossbows could be used in the archery season, ~40% of archers used a

crossbow, success rates have been similar to vertical bows. Total deer harvest was ~422,000 deer in 2011 (~50% antlered bucks, ~50% antlerless deer). 45% of hunters harvested a deer in 2011. Less than 45% of hunters were satisfied with number of deer seen, bucks seen, deer taken, and their overall hunting experience. Reduced hunting opportunity in September by combining youth and disabled hunts to the same weekend as the early antlerless gun season due to concerns about pre-archery season disturbance of deer.

Missouri. 2011 harvest ~288,600 deer (40% antlered bucks, 60% antlerless). Missouri had their first deer killed with an atlatl. Population goals have been to stabilize populations in southern Missouri and to reduce populations in northern Missouri. These goals have largely been achieved. Putting more focus on local situations and attempting to increase communication with landowners. Hunters are starting to express some concerns regarding lower deer populations. The statewide population appears to have stabilized at ~1.5 million deer. CWD was detected in a captive facility in October 2011 and testing near that facility of hunter harvested deer found 2 CWD+ wild deer. MDC in cooperation with landowners collected 657 deer in March and found 3 more CWD+ free-ranging deer, all positive deer were within 2 miles of the captive facility. They have established a 6 county containment zone and lifted antler-point restrictions in the zone. New captive breeding permits will be banned starting January 31st. May do additional culling in sections with CWD+ deer in late winter. Fetal counts were conducted on the does shoot in the March CWD surveillance, no fawns were pregnant, 47% of yearlings were pregnant, but 95% of does > 2 years old were pregnant. EHD: suspected reports as of 10/15/2012 was 5513.

Ohio. Total deer harvest in 2011 was ~220,000 (37% antlered bucks, 63% antlerless). Approximately 90,800 deer were taken during the traditional firearm season, ~82,700 were harvested by archers (37,700 deer by vertical bow hunters, ~45,000 by crossbow hunters), ~19,500 deer taken in the muzzleloader season, and ~8,800 by youth hunters. 75% of gun hunters also use vertical bows or crossbows. 2011 was the 2nd year in a row with reduced deer harvest and the number of deer damage complaints has declined since peak levels in the mid-2000s. Eleven counties are within 25% of goal. Believes an expiration date at the end of the early archery season encourages hunters to fill their antlerless permit rather than defer harvesting and results in a higher success rate. Used telecheck (phone, internet, and in-person registration at license vendors) for first time in 2011, the change was fairly smooth. Piloted telecheck in 2010 and surveyed hunters. Landowners who don't have to purchase a deer permit have been an issue with telecheck because they don't have a permit number to enter. A free landowner permit will be issued beginning this year. Considering an early muzzleloader season for 2013, appears there is hunter support for this. Developed a deer management working group that includes field staff, LE, and I&E staff to build internal support for the deer program. Looking to convert from managing with 88 counties to a smaller number of deer management units. Plan to update population goals (last set in 2000) with input from all stakeholders not just rural landowners (farmers) as in the past. Ohio currently does not allow rifles, but they are getting pressure from people to allow pistol-caliber rifles but concerned about perception of landowners. May require group that is asking for it to pay \$40-60,000 for a survey of landowners.

Nebraska. Total deer harvest ~91,000 in 2011 (81,200 WTD, 9800 MD). Permits and harvests have both been increasing during last 10 years with most of the increase being in harvest of white-tailed deer, mule deer harvest fairly stable, except for decline in 2011. Getting reports of brain worm in mule deer. Used earn-a-buck regulations in some areas in 2010 and 2011, will not use in 2012 due to hunter complaints. Have a hunters-helping-the-hungry program funded by donations. Deer populations in eastern units are starting to be controlled, populations in central units are still increasing (may be affecting mule deer in these units). Approximately 5,600 dead deer reported by the public suspected from EHD this summer/fall. Commission will be meeting

end of October and may pull back unissued permits (~9,000). The four units along the eastern border of the state are hardest hit with ~1000 reported cases in each unit. More CWD+ deer are being found in the central part of the state. Nebraska now allows hand-thrown spears for hunting deer.

North Dakota. 2011 deer harvest ~57,200 (52,500 WTD, 4,700 MD). Monitor populations using winter aerial surveys, deer-vehicle collisions, and hunter observations (few aerial surveys were flown in 2012). Hunter questionnaire asks deer seen/hour on opening weekend. Developed a field guide to wildlife diseases (based on a similar booklet from Canada). Cost is \$1.80/copy. Had a significant EHD die-off in 2011, relatively few cases this year.

South Dakota. 2011 total deer harvest ~ 85,000 (~74,000 WTD, ~ 11,100 MD), down ~10% from record harvest in 2010. Been working to reduce populations for last 10 years with liberal harvests. With 2 severe winters believe most units are now below goals. Deciding where to restrict antlerless harvests. Elk and pronghorn populations are also reduced. Radiocollared elk calves suffered significant predation but aerial surveys are still estimating 50 calves/100 cows. They are receiving complaints from both hunters and landowners. The governor's office has issued an RFP (\$150K) for a review of their big game program including deer, elk, pronghorn, and mountain lion. EHD: had significant number of dead deer reported in 2011, but to date in 2012 about 3,300 dead deer have been reported. SD is reducing number of unsold licenses available and offering refunds for hunters who want to turn their license back in.

Business Meeting

Illinois is planning to host next year's meeting.

Baiting and Feeding Education Materials

The Wildlife Health Committee of MAFWA developed a brochure. It is available for states to use and modify as appropriate.

Iowa Deer Genetics Study

Project will be using genetics to assess deer movements across the Midwest as a way to predict possible disease spread. The study has received samples from 7 states and still needs samples from 4.

Midwest Deer-Vehicle Collisions

There is a student at Michigan State interested in a geospatial statistical analysis of county level deer-vehicle collision data and traffic from across the region. States should expect to be contacted.

Collection of Past Proceedings

An effort is being made to collect all past proceedings and other products of the Midwest Deer and Wild Turkey Study Group and scan them and produce a digital record. Looking at either a CD or possibly a web site to store proceedings. Notes from the Great Lakes Deer Group (1944-1996) will be included in the collection.