

Midwest Deer and Wild Turkey Study Group Meeting
Canter's Cave 4-H Camp, Jackson, OH
August 19-22, 2007

In David Graham's welcoming address to the Study Group the Ohio wildlife division director stressed the importance of deer and turkeys to keep sportsmen and sportswomen hunting and to maintain the funding for the agency. He pointed out that the 700-800 bucks that are annually entered into Ohio's Big Bucks Club are important for drawing in non-resident deer hunters to the state. He did acknowledge that they were trying to reduce deer populations in places with agricultural damage. Ohio is increasing their efforts to recruit women and youths to hunting and appear to have a slight increase in license sales in the last few years. He did a mention that they were working on ways to obtain alternative funding from their 2 million outdoor enthusiasts. Dave Risley, administrator for the wildlife management section, also stressed that deer and turkeys pay the bills for the agency with 90% of hunting license buyers in Ohio buying deer tags.

Marketing the Ohio Division of Wildlife – Jeff Ivany: Ohio has contracted with a marketing and internet design consultant to develop a marketing plan for the Division of Wildlife. There is a fair amount of churn among customers (buying licenses in some years and not in others). The goal is to get and keep more customers to increase revenue and to further the mission and vision of the division of wildlife. Revenue increases occur by 1) increasing the number of customers, 2) increasing what you sale to existing customers, and/or 3) keeping customers coming back. There are 300,000 subscribers to Ohio DNR's kid's magazine. They have implemented a user-friendly URL for their web site (www.WildOhio.com). The live web cam of a falcon nest in Columbus was very popular and draws many people to their web site. They are looking at adding an online store for wildlife products.

Modeling License-buying Behavior & Evaluating Strategies to Increase Hunter Participation – David P. Scott and Michael J. Tonkovich : Ohio has been evaluating strategies to increase hunter participation. Approximately 500,000 individuals bought hunting licenses since 1999 but only 375,000 do so each year. They attempted to identify people who were likely to lapse and targeted marketing material to them. The hypothesized that people who are likely to lapse would but their license late in the year, buy only 1 permit, have limited success, and have low social support. They used data mining to develop their predictive model but available data limited the number of variables they could include in the model. They mailed an Ohio Hunting Guide with a theme of "We Got Game" to sporadic hunters. The guide was described as "horn porn". Tried a promotion to register for a lottery to win \$2,500 at Bass Pro when you buy a license. Comparisons of license sales among targeted and control groups showed that the marketing effort had limited effect, 1-3% increase in license sales to the sporadic hunters.

The Future of Game Checking in Ohio – Korey Brown and Jeff Rowley: Ohio is in the process of expanding their IT system to capture all aspects of customer interactions. They are incorporating law enforcement and research into their business system. They will be integrating game checking into their POS license sales system to improve

customer satisfaction, to provide real time access to harvest data, and to improve data quality by removing the middle man. Currently scanning of paper check station forms is time consuming and harvest data is difficult to integrate with license sales data. They have issued an RFP for vendors to deliver a system to permit deer to be registered 1) over the internet, 2) by telephone, and 3) at traditional checkstations with data terminals. Customers will enter a transaction number (include information on date and time of purchase) from their temporary tag into the data base and it will produce a confirmation number that must be written on the permanent tag that includes information about the year, sex of deer, weapon used, county of harvest, and a sequential number.

The Impact of Viral Hemorrhagic Septicemia (VHS) on Ohio's Fish Hatcheries – Elmer Heyob: VHS is a reportable disease and detection in a hatchery would require depopulation and decontamination. It has not yet been detected in a hatchery in the US. Ohio experienced many large fish kills last year but only had a few minor detections this year. They are experimenting with iodine treatments for eggs collected from the wild before they are brought into the hatchery. Treatment concentrations and times differ by fish species.

An Overview of Avian Research – Dr. Amanda Rodewald, Terrestrial Wildlife Ecology Lab, The Ohio State University: Research is showing that shrub-nesting birds are more frequently captured in the interior of young timber cuts that near the edges. Edge avoidance was stronger than area sensitivity. Believed this is due to a passive avoidance due to just being able to fit fewer circular territories into smaller patches. Many mature forest interior species were captured in clearcuts after the nesting season when juveniles moved into clearcuts for food and shelter. Thick habitat was important for post-fledging survival. Recommended large clearcuts with less edge in addition large blocks of mature forest.

Living on the edge: population ecology of badgers in Ohio – Jared Duquette, Ohio State University: Badgers are a species of special concern in Ohio. Study documented distribution from solicitation of reported sightings (web-based, fur harvester surveys, bowhunter surveys). Obtained 33 carcasses for age structure and reproductive data. Most observations in western and northwestern glaciated part of state. Radioed 8 badgers whose home ranges averaged 2-3 km². Woodland edges appeared to be preferred habitat.

Ecology and Restoration of the American Chestnut – Dr. Brian McCarthy, Ohio University: Chestnuts had high value as mast producers for wildlife but also for lumber. Described a large stand of chestnuts in LaCrosse County, Wisconsin that had survived until recent years. Provided breeding material for effort to develop a blight resistant strain that is now being planted in Ohio. Seedlings need significant protection from deer and mice.

Aquatic invasive plant control in a Lake Erie-coastal wetland – Frank Lopez, Old Woman Creek Nat'l Estuarine Research Reserve: Estuaries of Lake Erie are important for their high biological production. There is serious invasion of phragmites and reed canary grass. Described efforts to control phragmites with aerial spraying.

CWD Update and Status Report – Dr. Jim Crum, West Virginia DNR: CWD first detected in a roadkilled 2.5 year old buck from Hampshire County. Estimated deer density of 44 deer/sq. mile. County has a significant number of sublegal spikes among yearlings. To date have sampled ~2,000 deer from Hampshire County and ~3,000 from the rest of the state. 13 deer have tested positive to date, 11 were collected by agency sharpshooters. The affected area is ~150 mi². Have banned baiting and feeding only in part of Hampshire County. Are attempting to lower deer densities in affected area. Will have a 2 day October antlerless season. Most hunters whose deer were sampled did not check the web for test results.

Estimating deer density using infrared-triggered cameras – Ms. Emily Dunbar, Minnesota Department of Natural Resources: Experimenting with cameras to estimate deer density on Itasca State Park. They are interesting in testing regulations to reduce deer densities and monitor vegetation change as the population is reduced. The park is 52 sq. miles in size with dense conifer cover so aerial surveys are not possible. Conducted a pilot study in 2005 and a larger effort in 2006. In 2006 had 42 cameras, 1/130 ha distributed in a systematic grid pattern over ½ of the park. Cameras were operated for 3 weeks before the hunt and 1 week posthunt. Batteries and memory cards were changed once per week. 4-6 cameras could be checked per day per person. Used a change-in-ratio estimator for estimation of population size, using the ratio of sublegal spikes to legal antlered bucks as their ratio. The initial estimate is 34 deer/sq. mile. Camera boxes were not waterproof and with other malfunctions had to replace 1 camera in 6. Costs were \$30-40,000 for equipment and travel and ~\$50,000 including personnel.

QDMA's REACH program: how it can help state agencies – Kip Adams, QDMA: REACH stands for Research, Education, Advocate, Certify, Hunt. QDMA has granted \$200,000 for research on deer biology in 7 states, primarily in the southeast. They are producing a living with deer educational package for adults and high school students. Students role play as a city council dealing with an overabundant deer population. Their TV show focus is on habitat with just a little hunting. They are in the process of producing a computer game used to teach shot placement. They have advocated on numerous issues including the USDA CWD rule. They have a certification program for landowners who take their deer stewards courses. Their mentored hunting program involves a long-term commitment between the mentor and the new hunter. The program has 8 steps that stress woodmanship skills and small game hunting. Deer hunting is introduced late in the program, step 7.

State Deer Reports.

Illinois: Using telecheck and internet for deer harvest registration, different contractors handle each part and there has been difficulties getting them to work together. CWD was detected in LaSalle County, 30 miles south of previously known distribution. Added LaSalle and Grundy counties to the January CWD season. They had 11 fatalities in deer-vehicle accidents in 2005, 8 were motorcycle riders. They are experimenting with eye-nose measurements and antler beam circumference for biological data collection with telecheck to separate fawns, yearlings, and adults. There have been a few scattered

reports of EHD. Extending the youth firearm season statewide for any deer. Legislation is awaiting governor's signature to allow all hunters 62 years old or older to use crossbows in archery season.

Indiana: Total harvest was 126,000, 2nd highest; bucks down 3% and record antlerless kill. Youth season was antlerless only, 1,100 deer harvested. Had a significant EHD outbreak in west-central counties last year, antlerless harvest was down 11-36%. Some reports of EHD in southwest corner of state this year. This was the 5th year of the 1 buck rule experiment. It was extended for another 5 years. Yearling buck percent is down to 46%. The 1 buck rule may be resulting in some loss of bow hunters. They are putting more emphasis on roadkilled deer for CWD sampling and less on hunter sampling. The deer-vehicle accident situation is getting worst, 16,000 accidents reported in 2006.

Kansas: Monitors deer population trend primarily via reported deer-vehicle accidents adjusted for vehicle mileage but also conducting distance sampling surveys with spotlights. Indices suggest the population was increasing through the late 1990s when harvest permits issued were substantially increased. Trend data suggest the population has stabilized or declined. Total deer harvest in 2006-07 was 79,000 animals (76,400 white-tailed deer and 2,700 mule deer). In 2005 the legislature requested the agency to review deer management regulations with the aim of simplification and improvement. A 10 member task force of agency personnel conducted extensive surveys of hunters, landowners, and non-hunters, developed draft regulations based on survey data, held public hearings and discussed recommendations on a blog. A key issue was elimination of transferable non-resident permits. The legislature rejected the department's initial recommendations because they felt they gave too much authority to the department. A bill was developed and passed that contained the essential elements of the deer task force recommendations. No transferable permits will be issued in 2008. A total of 2,970 deer was tested for CWD in 2006, no additional positives were detected.

Kentucky: Harvest was depressed in the 2005 season due to a bumper mast crop and many deer were saved. The 2006 mast crop in 2006 was normal. As a result buck kill was up and antlerless kill was down. Total harvest was 122,000. They have a 1 buck limit and no pressure to change. They have successfully resisted pressure for antler point restrictions, 48% yearlings in buck harvest. They have a baiting and feeding ban during March 1 – July 31 due to turkey season and concerns about aflatoxin. Efforts to extend the ban beyond August 1 have been blocked due to hunter's desire to use bait for deer cameras. The state has ~80 captive cervid facilities; they are all out of compliance with regulations, primarily related to fencing issues. There is a growing concern with loss of hunting access with increased leasing. Public lands are heavily hunted, 2 areas have switched to bow and youth only hunting to reduce harvest pressure. They are having an EHD outbreak in the west-central part of the state near Tennessee. It has been 10-12 years since previous outbreak. They are predicting a record harvest due to widespread mast failure resulting from frost in April. The elk population is estimated at 6,500. They have had ~30,000 applications for 300 elk harvest permits. Brain worm is major cause of mortality.

Michigan: Weather during the 2005 hunting season was poor and many deer survived. Hunters in 2006 saw lots of deer, buck harvest was up 22% but antlerless harvest was down 5%. The December antlerless season will be expanded to all of southern Michigan. Michigan is in the early stages of updating their deer strategic plan. The second fawn survival study in southern Michigan is finding lower fawn survival than the first study.

Minnesota: Have revised population goals in all DMUs after a multi-year consensus-based stakeholder process, resulting in reduced goals in the transition zone and increased goals in the southwest farmland region. They are adding a 2-day mid-October antlerless-only season for some units that are significantly over goal. Bovine TB was detected in 7 cattle herds in 2005. Tested 600 hunter-killed deer in 2005 with 2 positives and ~1,000 deer in 2006 with 5 positives. USDA sharpshooters took 500 deer, 6 likely positives. The core area (2 miles from all positives) is ~140 sq. miles. They have created a special DMU open to any valid license, will hold an early antlerless season. Low-cost permits (\$2.50) are available for this area. Deer feeding has been banned in a 4,000 mi² area surrounding the TB zone. Regulations were changed to allow crossbows in the firearm season for everyone, limited to disabled hunters in the archery season. The venison donation program established in 2007 is funded by 1) a \$160K general fund appropriation, 2) a \$5 increase in the non-resident deer license, and 3) voluntary contributions from deer hunters at the time of license purchase. The estimated prefawning population in 2007 is 934,000 deer and the prehunt 2007 estimate is 1.36 million. Total deer harvest in 2006 was approximately 271,000 deer.

Missouri: 2005 harvest was depressed due to large mast crop, 2006 harvest was higher. 2007 was the 4th year of antler point restrictions. Antlerless harvest has not increased in the north but increased 11% in the Central region. Point restrictions are increasing the age of bucks. Regulation is popular among hunters. They are looking at other ways to shift pressure from bucks to does, considering pushing back the opening date of the gun season to the weekend before Thanksgivings to miss the peak of the rut. Considering the use of trail cam photos to assess effects of point restrictions on population genetics.

Nebraska: Mule deer harvest is increasing, 12,000-13,000 killed, 23% antlerless. White-tailed deer population increasing due to limited antlerless harvest, 38% of kill is antlerless. 35% herd growth in last 3 years. They suspect coyote predation is down due to widespread mange. They sampled 5,800 deer for CWD with 15 positives, still in NW and west. They will reduce sampling effort, 3,600 samples planned for 2007, with no sampling in eastern 1/3 of the state. 59% of deer tested for EHD/Blue Tongue had antibodies indicating widespread exposure. Reconstruction of the I-80 bridge over the Platte River will include high fences and wildlife underpasses to reduce deer-vehicle collisions. They are looking to use telecheck outside of the 9-day firearm season, want to maintain access to biological data. They have experimented with e-mail surveys of turkey hunters, significant reduction in costs and similar results to post card survey. They plan to use for deer hunter surveys.

Ohio: Ohio eliminated in-season free permits issued to landowners with crop damage because it was felt that these permits were not effective. They are reaching the limit of

the ability of increasing antlerless harvest through bag limit changes. They added a 2-day December antlerless season with harvest of 25,000 deer and are planning an October antlerless-only muzzleloader hunt for 2007. They are evaluating FLIR technology for counting deer with surveys of an island in the Ohio River that was also surveyed with drive counts and a fenced NASA facility.

South Dakota: Deer harvest continues to increase with a total harvest of 87,000 (71,000 white-tailed deer and 16,000 mule deer). Antlerless harvest has increase. They have dropped antler point restrictions in the Black Hills, using limits on license numbers instead. Hunter success is increasing. Offered \$30 coupons to partially offset cost of processing for donated deer, interest was limited, only 1,000 coupons issued last year. Will increase value to \$50 and hope to kill more deer. The legislature tried to pass transferable tags but this was defeated. Legislature also tried to revoke warden's right to go onto private land. They have had a total of 58 CWD positive deer and elk, primarily in the Black Hills. Outside of Black Hills they are only sampling suspect animals. They have been aging deer from incisors that hunters mail in, classified a fawn, yearling, and adult. They may have to abandon this due to changes in postal regulations on mailing biological material.