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Subj: FYI-Notes of Great Lakes Deer Group Meeting

The Great Lakes Deer Group met during September 16-18, 1996 near Grand Rapids, Minnesota. States represented were Minnesota, Michigan, and Wisconsin. Ontario usually attends but was unable to this year.

Michigan

Currently Michigan ear-marks \$1.50/license for deer range improvements. Wildlife managers consult on timber harvest prescriptions, operational work is completed by commercial timber harvesters. Michigan is proposing a license fee increase. Hope to be able to develop GIS operational inventories of forests along with habitat suitability models for deer, grouse, etc. for use in forest planning.

Michigan estimated their herd at 2 million in 1989 with a goal of 1.3 million, reduced it to about 1.5 million by 1992 (at goal in lower peninsula, well over goal in UP), backed off and herd jumped to 2 million in 1995. Winter 95-96 was 7th worst in past 25 years. Estimate lost 200,000 deer in UP, ~1/3 of herd, 60,000 lost in northern lower peninsula. 64% of dead deer were fawns, significant numbers of adult does also died. Despite winter losses plan to issue large number of antlerless permits to reduce herd to goal.

November ballot referendum to prohibit bear hunting with dogs or bait is expected to pass. There is also a 2nd referendum to require that bears be scientifically managed by Natural Resource Commission. If both pass, Michigan will likely end up in court to resolve conflicts between them.

Minnesota

Statewide the population peaked during the early 1990's. Last year's harvest was the 3rd highest ever, ~215,000. In the farmland region, deer entered winter in excellent condition, reducing mortality of adults. May have lost up to 30% of fawns in the northwest region. In the northeast forest region, winter started in early November, resulting in the worst winter since the late 1930's. Assumed overwinter mortality rates were 2-3 time normal for both fawns and adults. No antlerless permits will be issued throughout the majority of the NE forest region this year. Also archery and muzzleloader hunts will be bucks-only in this region.

Minnesota's Emergency Deer Feeding

Evaluations of deer feeding in prior years concluded that feeding was effective in the NW agricultural region where deer were reachable by road, but not in the NE forest region where access is limited. There is a \$0.50/license surcharge designated for deer feeding which generates \$250,000/yr.

Snow depths exceeded 12" by Nov. 30, 15" by Dec. 7, WSI score > 100 by Jan. 28, Jan. 30 bill introduced to provide emergency appropriation for deer feeding, Feb. 10 DNR began distribution feed in NW agricultural area in accordance to previous

guidelines, Feb. 27 Bill passed appropriating \$750,000 for deer feeding, signed Mar. 1, Mar. 9 DNR begins distributing feed in NE forest areas, Mar. 31 WSI exceeds 200 at several monitoring stations, Apr. 6 final DNR feed shipments distributed. DNR provided feed to volunteers who were responsible for distribution. DNR operated 36 food distribution depots.

Preliminary analysis of feeding activities indicate that 90% of people picking up feed were already feeding, ~9,000 sites received food, ~94% of feeding sites were within 1 mile of a road, 90% of sites were on private land, people claimed to feed 1/4 million deer, but 12-20% of sections received feed, feed went where the people were, not necessarily where the deer were, may have only subsidized already occurring private feeding activities.

Documented substantial surplus killing by wolves, and more bobcat predation on deer than ever before. Their Winter Severity Index accounted for 69% of the variation in overwinter mortality of radio-collared adult does during 6 years.

Minnesota surveyed bow hunters to determine whether hunting decisions related to shot selection and followup could be related to hunter characteristics such as years hunted, training, demographics, etc.

Two court challenges to urban deer control programs in Minnesota were described. TROs were requested to halt a sharpshooting program and a livetrapping and kill program. Statutory arguments were that the public review process was invalid, failed to properly value the environmental impact on deer, and citizens were being denied their equal rights to enjoy deer. In one case the TRO was granted but the case was dismissed after a hearing, in the other the TRO was not granted and a summary judgement was issued in the department's favor. Important factors cited by the court was the quality of the Department's data (helicopter counts, car-kill statistics, etc.) and the balance of resource* benefits and costs in the environmental review.

"Balance of interests"
"Reasonable and appropriate Acton"

Minnesota has relied on hunter provided information on sex and age (fawn or adult) of deer harvested. Research has determined that many fawns are being reported as adult does.

The Minnesota Deer Hunter Association is planning to build a \$2.5-3 million Whitetail Deer Resource Center near Grand Rapids. The Center will serve as a site for education and research on deer, as a repository for deer research information, and as the administrative headquarters for the Association.

Michigan provided an update on their TB outbreak. Bovine TB was identified in 1 deer from the northern lower peninsula in 1994. Collected 354 heads from hunter killed deer in a 4 county area during 1995, 18 were positive for TB. Plan to reduce the herd by 1/2 in the area. Believe private feeding and baiting facilitates transmission. Vet recommended a ban on feeding and baiting. Although DNR can regulate bait as a method of take, has no authority to regulate feeding. DNR decided to ask for voluntary no feed/bait in area, compliance was limited. Expect to collect 3,000-8,000 deer heads from across the state this year to

document extent of outbreak. Already cost DNR \$500,000.

Minnesota is seeing increased demand for harvest of conifers leading to concern for loss of winter thermal cover for deer in NE forest region. About 1/2 way through 12+ year study to assess effect of reduced thermal cover on winter deer habitat use, food habitat, movements, physiological condition, survival, etc. 4 study areas, 2 control, 2 experimental, 5 years pretreatment evaluation, 2-3 years to conduct timber harvests, and 5 year post treatment evaluation. Plan to convert treatment sites from >70% thermal cover to <40% cover. Radio ~20 does/site/year. 8-10 interns/winter receive room and board. Overwinter mortality of radioed deer <10% during first 5 winters, 35% during winter 95-96. Median age of hunter killed deer was 2.5 years compared to 6.5 years for wolf killed deer.

Minnesota has developed a program to match willing bowhunters with communities looking for bowhunters for urban deer control.

Michigan described their experience with implementing a point-of-sale licensing system. EDS was low bid. 1,700 terminals print licenses, harvest registration tags, etc. Tied to drivers license number. System is off-line with nightly uploads to mainframe. Major problems with mis-keyed drivers license numbers, and out-of-date address information on drivers license records. Lots of antlerless permits could not be delivered. Took 9 months to issue bear license refund checks. On the plus side, system reduces time needed for permit drawings, and will be a better source for survey samples. Minnesota is just starting the process of developing an electronic licensing system. Hope to use an on-line system so central database can be queried from each of 3,500 terminals, can check name and address of license buyer at vendor and update records.

Minnesota has 2 field extension positions who provide technical assistance to landowners with crop damage problems. Will provide \$3,000 for fencing materials to protect specialty crops. Many growers need direct staff assistance to properly erect fencing.

Univ. of Minnesota research is assessing effect of summer deer grazing on native plant communities in small (5-30 ha) maple/basswood forest fragments. Species in lily and orchid families are highly preferred. High deer density sites have much reduced flowering rate species are long-lived (~25 years) so may be able to tolerate being grazed in most years.

Moose numbers on Isle Royale declined in the late 1980's and subsequently recovered, peaking in 1995. The rate of change in the moose population was negatively correlated with the percentage of snow urine samples indicative of severe nutritional restriction. Additionally, ~30% of moose in 1989 had significant hair loss due to winter ticks. 20-30,000 ticks/animal were common.

GREAT LAKES DEER GROUP 1996

MICHIGAN

Concluded bonus muleless tags - no hunters choice.
Want more CO's. High-deer hunt still prevails in U.P.
Despite severe winter, going for high permits.
Prohibit Feeding on public land, but C.O.s won't prosecute.

MINNESOTA

215000 harvest 1995: 3^d highest 450000 gun
Repro survey is most important survey in Farmland 1969 → ?
Goals in SW are 2-4 deer (gross area). 20-25 in SE,
7-10 elsewhere. I Pop until 50K data. Roadkill data
is not available in timely fashion. 40 small area
hunts plus 20 city hunts.
83000 deer from NF (40% of kill)
223 WSI @ Red Lake (15" threshold not a factor).
Assumed 2-3x normal mortality (worse-case scenario)
No permits in main forest north of Duluth. "Unprecedented" 1997.
Habitat: Little project work, more coordination. GIS big!
Feeding: \$250000 annual allocation from \$/lic^{0.50} surcharge.
Used for other purposes after normal winters. Legi.
passed \$750000 additional for NF. Also permanently
dedicated \$250000 for annual feeding. Dept. hole!
'39% of budget' and 12% of time went into feeding
is one area. "Public" may be increased that ONLY
this much resource was mobilized. Wolf predation
supposedly exacerbated in Ely area. Surplus Killing.

GLIFWC

110 day season. No personal bag.
FDL 327 off 99 on res. 9-deer max/person
Use lottery as incentive for harvest registration.

MIKE CATERBERG

JAY: Protect and maintain deer (even in cities); balance
interests. Reasonable and appropriate action.

WANDY-SAK: Registration is by the hunter. High from erre-

T-Zone: 15(90%) 20(75%) 25(60%) 30(50%); ≥ 1.4 Bonus/yr/pli;
units w/ over-the-counter BP in 95; unsold units. $\geq 75/mi$
damage; $\geq \$10000/unit$; ≥ 20 damage deer shot/unit.
16 selected units.

"Data digesters"

MDHA: 20000 members (Joe Wood, Director)

Forl Hom Camps @ \$300 for 12-16 yr-old.

\$ 2 1/2 - 3 million development - W-T Deer Resource Center

~~ANA~~ TB

Arian, Bovine, and Human. Cognitive ungulates occasionally.

Single animals in wild at wide intervals. 18 pentas / 380 heads.

FEEDING (MIN)

3000 depots for food distribution.

90% of feed requests what to people already feeding.

9000 Feeding locations, vast majority on private land.

< 20% of sections received feed. Deer come 1/4 mi to feed.

250,000 deer fed (self-reported).

WSI Monitoring:

THERMAL COVER 20% cover @ present

$\geq -7C$ threshold temp at or below which energetic loss occurs, $\approx 19.4F$ for adult does 20+ for fawns

(daily maximum temp.)

GPS: FM tracking will improve accuracy to < 1m for \$4,000 gizmo
and < 4.5 m for handheld Cabela's.

METRO-BOWHUNTER RESOURCE BASE: 20 yr urban deer mgt experience.

40 hunters (91% compound bows) 167 hunters.

Lebanon Hills - Earn-it-back.

1214 "days" 44 deer (2.2 Hr day)

Kelly's has reports.

Point-of-sale: Driver's License or "Sports Card" (TAI) for identification.

\$ 1/2 million to key all old licenses, so discontinued. Also issued

55000 permits over-counter 1 permit/hunter/day. ADVICE:

Don't use driver's license if you can afford "Sports Card." - F

driver's license gets metallic strip, best yet. Add stuff to

administer retail sales. \$ 2-3 million gross cost.

90 line to check application success.

"I would agree with you if you were right." ^{Robert Casillans}

P id Augustines: Deer browsing in Fragmented Forests. 5-30 ha patches.
latitude $< 45^\circ$. Profound dispersal from most woodlots
in spring. Liliaceae was preferred over most others.
Trillium Flowering rate strongly related to deer density.
80% Flowering rate in protected spots: 3% in unprotected.
 $> 20 \text{ deer km}^2$ over winter = markedly increased grazing.
High = 30/km². Most herbs live long: Trillium = 25 yr.

80% of wildlife studies are 3 years or less, mostly 2 yrs.

NELSON: Fawns tend to migrate w/ their mother for up to 3 yr
yearling buck dispersal through June (early)
Migratory interruptions did not appear to be WSI-related.
Deer are not genetically programmed to migrate in a
specific pattern. Memory (bearing & distance), seems
important as is "teaching".