

GREAT LAKES DEER GROUP

17-19 SEPTEMBER 1985

ALBERTA, MI

(NOTES)

1984 DEER SEASONS

ONTARIO: 23% success and increasing. "Selective harvest" began in 1980. 25 HD/Kill. Sex and age composition (%): 9DF 13BF 25AD 54AB. 60% of harvest from Central Range. 11,000 applicants, 8000 hunt in south Ontario controlled hunt. Killed 2600 deer. Virtually all deer in principal range are "migratory" (move from summer range to yards in winter).

MANITOBA: Fed 15-20,000 deer. Will feed only in damage prevention situations during severe winters. (Letter read in absence of Herb Goulden).

MINNESOTA: Gun lic. 400,000; Archers 62,000; Gun kill 132,000 (33% success). Bow kill 6,300. H.C. permits experienced 50% success. Deer pops. monitored by model after established relationships with PGS and aerial survey. Bonus lic. is available in undersubscribed zones. Likely only 5,000 bonus lic. will be sold. Registra. compliance about 90% based on post-season polls.

MICHIGAN: Regional pop. goals but not District or unit goals yet. Winter food shortage, crop damage, roadkills, bio. data, PGS, intuition are inputs to deer harvest regulations. Menomonee Co. has highest density in the state. MI State Police recorded 26,000 roadkills.

HABITAT REPORTS

ONT. HABITAT: Cut up to 20 ha of browse plots per yard. Large question of benefit. Managers are shifting to feeding: corn-oat-grain, 450 tons in C. Region. Reach 10-60% of deer in yard. Controversial.

MN HBT: 795,000 Ac of habitat evaluation completed. Corn food plots in south for Pheas/deer based on history of deer concentrations and opportunity. \$600,000-800,000/yr spent on habitat (\$2/lic. allocation). No evaluation yet. \$150,000 spent on "buying standing corn". Up to \$100/Ac. Hbt. managers' salaries come out of hbt. \$ allocation.

RESEARCH REPORTS

Cusino (John Ozoga): @ 100 dpsm, YD breed about 7 days later. @ 160 (23AB+ 21YB), 2½ D breed later. Doe fawns don't breed at any density. Higher proportion of male fetuses at higher densities. Up to 22% sublegals on YB @ high densities. 63% of fawns died (to 2½ D) due to territorial doe behavior. Herd went from 22-159 during study. Matriarch has permanent fawning territory. 2½ daughter sets up adjacent. 3½ daughter disperses as potential matriarch. In extreme density, 3½ returns to displace 2½ = low survival of 2½ D fawns. "Isolated" 2½ does bred more than a week earlier due to lack of competition (food/stress).

Bucks are herm^aphrodites, part of female social structure, until 1½, whereupon they disperse. Made only 15% as many scrapes and 50% as many rubs but fought each other throughout rut. Peak scrapes precede breeding by 2 weeks. Prime bucks bred later.

YB is subordinate in his own "family". In next territory he takes on dominance. No observations of YB breeding within family. Must seek male unit to winter with and will accompany dominant AB to next summer range.

Openings play a psychological role in prerut displays.

Alpha breeder may tie up to 3/4(?) of ADs, but he only gets priority. If he is courting, a subordinate buck jumps in as opportunist. Peak of Cusino breeding is 18 Nov. Few (3%) in late October. Tail extends through Dec. Houghten penned deer peaked at 9 Nov. 30% bred in October. Armstrong curves are biased on both ends: over ages small fetuses and under ages large fetuses (Verme). Yearling does typically breed 4-7 days later. Fawns bred nearly a month later. AD-YD-DF.

Behavioral Differences Impact Repro. Factors

	<u>Successful 2½</u>	<u>Unsuccessful 2½</u>
At 1.5 yr (Mar)	121 lb.	126 lb.
Bred (x)	22 Nov. ^{MS 3¼} (Dispersed this year)	23 Nov. (Did not disperse when fawn lost.)
F/D	1.5 (63% MF)	1.3 (75% MF)
At 2½ yr.	135 lb.	144 lb.
Bred	17 Nov.	25 Nov.
F/D	1.8 (39% MF) ^{AS 3½}	1.8 (65% MF)

Social ties of females "prevents" ~~dispersal of~~ mobs of does from dispersing from ancestral range to understocked range.

"Inherent" vegetative K for Cusino may be 12 dpsm. Sociological K seems to be about 100 dpsm.

Does become 27X more active when in estrus (24-36 hours, Range 15-96). Time of breeding affects sex of progeny.

Hours Into Estrous

	<u>13-24</u>	<u>25-36</u>	<u>37-48</u>	<u>49+</u>
%BF	14	39	63	81

Good nutrition usually results in earlier breeding which usually results in more female fawns.

BEAR PRED. (Cusino) Fawn mortality (%) of supplementally fed does:

	<u>Maternal Age</u>			
	<u>2</u>	<u>3</u>	<u>4+</u>	<u>X</u>
No bear	13%	4%	11%	10%
Bears (1 bear/year, 3 yrs.)	32%	58%	17%	32%

Predation, abandonment, accidents were main mortalities.

Twin fawns are separated for a sedentary 25 days. Each day of grooming, doe moves fawns. This moving teaches fawns the "territory". Fawn "territory" is about 6-10 ha, doe's territory during these 1st 84 days is about 11-18 ha. "Orphaned" fawns are readily assimilated by the "family". 4-6 hours is spent at the birthsite. Doe's bond to fawns is established during this grooming time. Fawns "imprint" over a longer time.

Young mothers spaced fawns @ 76m. Older does @ 155m. Daily moves YD(2½) 70m; AD, 105m. Night time 135 and Farther. Human disturbance, young does moved 113m vs. 225 older does.

LANGENAU: 68% of deer in MI are taken on pvt. land. (see 4 handouts)

HEMLOCK: In scarified areas, bare soil had the highest rate of hemlock germination, but highest survival occurred where mineral soil and duff were mixed. *Scarification with a Flail delimeter provided best seed bed.*

MICHIGAN QUESTIONNAIRE: 500-600 hunter questionnaires on "crippling". Of deer believed hit, 81% gun, 43% archer retrieval rates. Archers affected by previous experience. Broadside hits less recovered, close range better. J. Liesure Sci. (1986).

ONT. COOP. DEER STUDY (Dennis Voigt): Feeding is quite widespread; don't know really how it started. Have resigned themselves to making it as efficient as possible. Three study areas: Loring, Huronia, Wingham.

Thyroxine (T₃, T₄) indicates metabolic level. Want to determine whether feeding keeps met. high in mid-winter.

Browse provides 5-7% protein, grain 9-11, pellets 12-14%. Metabolic requirements exceed environ. foods during winter.

Feeders "caused" alot of aggression. Studying optimal number and feeder spacing, quant. eaten/deer, freq. of visits.

Fawn hooves show up in wolf scats long before fawns are being observed. Don't know if it is predation or scavenging. Tried marking fawns. Cost \$5000/fawn radioed. Difficult to do in forested zones. *Abandoned effort.*

Simmon M-5 dart-rifle was found most consistent. Include dart radio to aid in recovery of drugged deer. Have radioed 120 does, plan 40 add. each year. Use cryptic collars so shot sample won't be too biased. Antidote to Ketamine is proven aphrodisiac. Superior drug for deer and bear. (Yoheimbine).

Mar 25-15 Apr 84 vs. 15 Apr-10 May 85 out-migration from yards depending on snow depths. Mean dist. dispersed in Huronia 10 Km; Loring 20-30 Km.

Some deer did not come to yard until 19 Feb. Some do not come back to same portion of yard. But does go back to exact summer territory. Feeding has begun @ the beginning of winter.

BAITING: (Langenau Survey) MI hunters are spending more for bait than licenses. Oct. 1 archery season. Can't use salt or "chemicals" for bait. Baiting has been a traditional means of taking deer in some areas. Now, it has become widespread and is open to questions. What should be the agencies' response? Deer hunters placed 3.3 million bushels of bait in 1984 with an estimated purchase value of \$13 million!

Ontario: 70% of bears killed by non-res. by bait. Only 29% of residents. Non-res. w/dogs are most successful; 36 vs. 29 on bait only.

Huge number of "hunter-days" may be accruing prior to the season with baiting and scouting, anticipating, camaraderie.

"Fair chase" appears to be at the "edge" of what it takes to kill game at a reasonable success rate. Methods that greatly exceed this rate are perceived as unethical. Exception (economics)! When a man's family becomes hungry, he may think about robbing the neighborhood bank!

PENNED DEER STUDIES: Early 50's = Cusino and Jackson Corners. Now 55 pens, 85 deer at Porter Ranch. Aspen woody browse was found to have inadequate starch. Conversion of food to fat is 8X as great in fall as at other times.

ROADKILLS: Early spring kill in southern Ontario is predominantly does and fawns. High YD in June. High yearling bucks in October. 1298 injuries in MI and 5 fatalities. Mean cost = \$1,150 = \$37MM statewide.

ONTARIO BEARS: 10,500 Res., 15,000 NR licenses. 1710 Res. kill, 4810 NR kill. Succ. 16/52%. NR Bait 70% vs. 29%. Dog use requires free permits which are restricted in time and period. Can sell meat of muskrat, beaver, raccoon and bear under auth. of your license. Can't sell bear "parts"!

MICH BEARS: Don't know status - stable (?) 10 Sep-31 Oct. Short dog season in L.P. Archer only for a period after dogs. NR as guides are frowned upon by Res. NR licenses limited to 3-4% increase over 1984 sales to control immigration from Wis.

MICH. ELK: Dec. 11-16, 84 hunt first in 20 years. 477 killed in 1964 and 65. 1975 Pop = 200, 1980 = 500, 1984 = 1000. Obliterating BT Aspen and Agric. First season for 50 elk (10 bulls). 49,600 applications. Largest bull is 632 lb.

STING: 120 arrests focused on specially furs. MESABI Fur Co.-Duluth.

FISHER: Early season take, preponderance of juveniles (equal. val. as females). MN takes 900-1000 fisher. Coord. seasons state-to-state.

NEXT MEETING: Wisconsin in late August or early September. Northeast Deer Group wants a joint meeting in the future.