

TO: Great Lakes Deer Group

Enclosed are the notes from the 1971 Great Lakes Deer Group meeting. They appear as recorded by secretary, Joe Vogt. Joe extends his apologies to those authors he may have misquoted or misinterpreted. I hope to see you at our next meeting at Rhinelander, Wisconsin in September.

Sincerely,


John Byelich,
Chairman

GREAT LAKES DEER GROUP MEETING NOTES

Oct. 4-7, 1971

Higgins Lake Training School

Recent Investigations and Analysis of the George Reserve Herd, Dale McCullough, U of M

Studies past 5 years have built on Chase and Jenkins work studying total aboveground ecosystem. Standing biomass.

Six deer in 6 years grew to 166 in 2 square mile enclosure. Average of 3 deer/year, lost to poaching. 11' high fence encloses.

Have completed a population model. Vary single features to study effect. One major problem is estimating the number of fawns produced.

Make embryo counts. In utero average is fairly constant.

Recruitment defined as fall fawns.

Drive counts, using 140 counters, used to estimate herd. Drive in January. Checked by infra-red photograph 1 year; checked-out well with drive.

Harvest techniques: First used drivers with shooters, - ineffective, wasteful. Now use spotlight, 2 men. Average 6 deer/night. Shoot 3 hours predawn. Meat is sold for \$2000.00/year. Funds used for graduate research.

Populations: Recently holding at 60 deer. Earlier at 100 deer. Model indicates maximum recruitment is 45. This is annual harvest. Population will grow to meet removal in this static situation. Breeding fawns account for increased production. Probably 50% of fawns breed. Best management is to carry the fewest deer. Should harvest at optimal level. Can carry more deer at subsistence level. In George Reserve herd, the heavier the harvest, the greater the recruitment. Graphs were used to demonstrate population model characteristics.

Sex ratio is insignificant unless it is wildly distorted. As you recruit more females, population drops faster. You might better harvest females heavier, to increase recruitment.

(Male fawns less smart. Female fawns more apt to be close to doe.) Percent of female fawns varies from 30-60%.

The model demonstrates a food response.

George Reserve ground cover unchanged since 1925. About 35% open.

Plant studies: Oak-hickories suppressed @ 120 deer.
Only hickory, not oaks, suppressed @ 100 deer - leaf removal.
Greatest weight removed in summer.
Red cedar - eaten at first snowfall - very digestible.
They do a complete browse survey - still raw data, only not analyzed.

Implications for Northern Michigan management:

With winter variables, herd crash inevitable. Herd will increase with mild winters, crash with severe winters. Up-down. Heavy harvest will stabilize herd. This should be objective of management.

Deer food production on George Reserve - 15 gms. per sq. ft./year.

Deer consume only 1-2% of total food production. Forbs heavily consumed, grasses very little but grasses important. Probably <.0001% of grass consumed.

Impossibilities of constructing a model in northern wilds.

1. Rapid change in predation or poaching.
2. Rapid succession.
3. Widely varying annual kill - e.g., bad weather, hunter response.

Various mortalities not cumulative because they are all density-dependent.

Also studying weather effects. Without snow, deer in George Reserve still seek swamp cover in cold.

Deer close to optimal numbers are very resistant to environmental "blips".

✓ Carbohydrate more important than protein in the winter diet.

Winter diet is at subsistence level.

At George Reserve, the greater the harvest, the greater the recruitment.

10-5-71

Chairman - Ralph Blouch

Deer Research programs, problems, opportunities and desires of each state and province, past and upcoming or lack of. Problems, biological and otherwise.

Michigan

Carl Bennet. Management goal - 1 million deer in spring herd or 100/sq. mile.

Region I	350,000
" II	550,000
" III	100,000
State	1,000,000

Will measure response by deer in 4 sq. mile blocks, with varying percentages of disturbance. In conjunction with above, will run attitude study. What do people want? Also running ration studies - alternate strategies - see or shoot mgt.

Working towards a state model of the deer herd.

" " " systems analysis.

" " " private land system - stimulate production.

This research aimed towards the year 2000.

Minnesota

Pat Karns

Problems with wolf-coyote. Radio tracking of coyote.

Stomach analysis

Estimated population of coyotes.

Deer Research.

Selection of habitats by deer - Jack Woode

Radio telemetry

Bi-weekly sampling of food plants

Demonstration of optimum production of deer on 1 twp. \$150,000 budget.

Winter stress on deer - weather.

Collection of deer thru winter - at Agassiz National Refuge.

2½ year study of weight deer blood parameters.
Try to measure habitat levels thru blood sampling.
Different protein levels - 12%; @ 8% most of fawns lost.
Will run @ 12 and 5% this winter.
Monitoring parasites
Trying radio monitor to activate at animals death.
Find that female coyotes have small home range, males rather large home range.

Ontario

Bruce Stevenson - Research at Maple
Hepburn - 20 year study on hunter as mortality factor.
Effect of snow on deer mobility.
Radio telemetry to study movements.
Snow quality - re: deer movements
Density penetrometer - snow as lbs/sq. inch.
15 year study of effect of deer on forest regeneration.
New research - team approach
1st priority - deer
 Wolf-deer Kolenovsky
 Nutritional
 Ethology
 Hab. Asses.
 Environments
Innovation: Tony Dubenick Czech biologist
 European big game management
 Social implications of deer management
 Effect of environment on deer society
 Carrying capacity has social factors
 Different behaviors related to differing environments.

Wisconsin

Bill Creed - Forest-Game Research
Deer inventory - management unit system - have 80 management units.
Have a declining herd - from extremely tough winters.
Pellet survey this spring showed most dead deer in 7 years.
Habitat research - forest openings - type management - aspen important
Studying pine conversion - effects on deer population.
Sandhill Farm (14 sq. mi.) Handgun season for deer: 357, 41 and 44 mags only.
 To kill a deer twice as many shots (14) than rifles (7)
Season very successful. 38% success. Rifle hunters 67% success.
Population of approximately 60 deer/sq. mile
21% waste with handguns, 5% with rifles.
Helicopter used for census on Sandhill area, 14 sq. miles, excellent count.
Experimental hunt. Closed season 1971. Want to increase from 60 deer/sq. mile to 70/sq. mile.
Then want to remove all in 44 day season - 150 hunters/day.
Duplicates
Danish exp. which exterminated roe deer, 1950 - resultant different age structures.
How successful at different populations?
Monitor increase - physical condition.

Wisconsin (Cont'd)

Keith McCaffery

- (1) Food Habits: 76 rumens - from good habitats
During 4 seasons - heavy use of grass in spring and fall.
- (2) Trail count - population estimate.
¼ mile transects @ random
50 courses/unit
Count number deer trails on ¼ mile strips.
15 man days to complete pellet survey, per unit
3 man days for trail counts, per unit.
- (3) Vegetational composition objectives, by ¼ township
5% grass
25% aspen
15% conifer
10% alder
10% oak
- (4) Road kill. Traffic increases 5%/year. Road kill a better indicator of population than buck kill.
- (5) Tordon - used with some success. Shows promise in creation of openings.

LAST YEAR'S SEASON, ETC.

Michigan - Byelich

Overwinter losses - Region I 25,000 dead
9,000 starved

Northern lower peninsula had minimal losses

High fawn mortality - high road kill.

		<u>Proposed</u>		
1971 Season Proposals:	Reg. I	6120	Antlerless	32,920 permits
	Reg. II - area reduced 34%	8760	"	37,340 "
	Reg. III - permits reduced 48%	4140	"	19,240 "
	Down 32% from 1970	19,020		89,500 "

1970 Harvest:

	<u>Male</u>	<u>Female</u>	<u>Total</u>	
Reg. I	12,500		12,500	
Reg. II	27,500	13,000	40,500	
Reg. III	12,310	3,400	15,700	
	52,110	16,590	68,700	643,000 Gun Hunters
Archery kill			4,000	60,000 Archers
Total deer kill			72,700	703,000 Deer Hunters

Prospects: Reg. I 33,000 permits
II 37,000 "
III 19,000 "
89,500

Populations as per pellet survey

Reg. I	Spr. '70	198,000	12/sec.
	Fall '69	227,000	14/sec.
Reg. II	Spr. '70	169,000	9.8/sec.
	Fall '69	248,000	14.4/sec.
	Spr. '71		9.3/sec.
	Fall '70		13.0/sec.

Expected Kill: 19,000 Antlerless
55,000 Bucks
74,000 Total deer

Minnesota - Pat Karns

1971 - No deer season

1970 - 185,000 hunters 50,000 deer killed in 2 days

Designed to give 10% increase - wanted 40,000 kill

"Tough" winter - 6 of last 7 tough.

Want to stay with any-deer.

Legislature threatened to close for 2 years - "beat them to the punch".

Made political trade-off of closed season for (1) 4 yr. authority to have 45 days of hunting; (2) authority to limit hunters; (3) authority to hold moose season.

Habitat problems: Spent \$600,000 in 2 years in habitat improvement.

Future: 1972 deer season - will offer 1 of 3 alternatives:

During Nov. 1-30 -

(1) Hunter chooses any of 3 consec. days to hunt.

(2) Choose 3 days Nov. 1-15, or 5 days November 15-30.

(3) Choose bucks only November 1-30.

Have hunter concentration of 20-30 hunters/sq. mile.

Have deer concentration of 10/sq. mile.

Survey showed < 2% of Minnesotans want "bucks only".

Ultimate objective is 30 day season.

Want to reduce success by reducing hunter-deer contacts.

Ontario - Dennis King

N. Ont: Little regulatory management

2½ month season traditional

15,000 sq. miles of range

15,000 hunters

4-5,000 deer killed annually

Hunting has no effect - winter severity and logging controlling herd.

S. Ont: 15,000 sq. miles of range

125,000 - 75,000 hunters

20,000 kill - province wide. 80% in SE range and NW

Had mail survey last 3 years.

Same range problems - N. Hdws. problem.

Population estimates: Started 1970

Extensive pellet survey - E range 20,000 sq. miles

Population avg. over S shield is 5 deer/sq.mile.

Harvest rate low - hunter success data showed decline in past 15 years.

Soo-Sudbury-N. Bay - avg. 1 deer/sq. mile.

Yard density - 50-70/sq. mi.

Pockets of deer - 20-30 years ago many more deer.

Best population in E. Ontario - 10-15 deer/section now.

Last winter severe - last 3 very severe.

Have 100,000 deer - overwinter mortality 12,000 or 12%

Expect 10% overwinter mortality over avg. winter.

In north, traditional 2 weeks season starts 1st Monday in November.

S. Ont - local control by county and township councils

Future: Usually 3 day seasons, shotguns

May use limited entry any-deer hunt.

Prediction - NW Ontario had mild winter and expect continued increase in herd.

S Ontario - kill will continue to drop as has in last 3 years.

Wisconsin History

1943 - 1st antlerless season - split; antlerless following buck season.
 1949 - Antlerless
 1950 - Any deer.
 1951 - " "
 1952 - Bucks only
 1957-60 - Party permit. No limitations.
 1961-62 - 2-yr. moratorium.
 1963-now Variable party system by unit. Have killed 50,000 bucks each year.
 1967 - Peak kill
 1968 - Drop in kill. Public reaction.
 1969 - Took 11,000 fewer antlerless than in 1968.
 1970 - 1 year moratorium in party permit proposed in legislature. Failed.
 Congress - cut quota 50%
 Commission - " " "
 13,162 antlerless 72,844 total kill.
 1971 - Proposed 40,000 antlerless, a total 100,000 deer.
 Congress opposed - winter came up bad.
 Withdrew liberal proposal.
 NRC Bd. cut to 23,000 proposed antlerless harvest
 Congress removed N. antlerless quota.
 Now a quota of 17,500 antlerless
 N.R. Bd. reduced to 14,000 antlerless.
 Now an expected total kill of 65-70,000 deer.
 Strive to stabilize the harvest and a stable winter herd.
 Herd objective - 500,000 overwintering herd.
 Central state - 30 deer/sq. mile population
 Northern " - 20-25 deer/sq.mi.
 Southern " - 10 deer/sq.mi.
 & northernmost units

In 1970 - $\frac{1}{2}$ of state produced just 18,000 of the 72,000 harvested.

Timber harvest fairly good in N $\frac{1}{2}$ state compared to most of Great Lake states, but aspen market softening.

Ontario (Continued in evening)

Matawa River area is closed to all hunting. Have just 1 deer/sq.mile.
 Is a demonstration area to demonstrate the hypothesis that hunting is insignificant in the decline of the herd in this area.

SOUTH FOX ISLAND DEER STORY

So. Fox Island - 1 of Beaver Island chain

Area - 5 sq. miles - 17 miles offshore.

1/3 state-owned, 2/3 owned by 1 man

Early history - lighthouse 1867 - Indian use.

Deer there about 1900, but disappeared.

1962 - 17 deer introduced by DNR; 6 male, 11 female. 15 lived, 2 lost.

Hardwood type, with dense ground hemlock.

Impressive sand dunes up to 500' on NW edge of island

Timber harvest: Cut mid-1950. 30 years to comm. cutting possibility.

15 deer spring of 1963 - herd increased.

1968 - deer kill checked. 16 examined.

3-69 - 112 deer counted via helicopter.

Herd was exploding.

So. Fox Island (Cont'd)

Census: 1. Pellet survey - working on computer model.
2. Plant inventory - amount consumed estimated.

Legal kill before 1969: 1965 - 1 M
1966 - 3 M 3 F
1967 - 13 M 2 F
1968 - 25 M 2 F 1 Fawn

Fall 1969 - herd estimated at 500. Model showed 650.

Commission approved any deer - November 15 - January 15 - could take 2 deer.
188 deer taken or 37/sq. mile harvested.

May 1970 - Pellet-dead deer search; 20 cripples found. $262 \pm 19\%$ deer population.
Fall estimate - 400 deer

Amount hemlock consumed would have fed 450-800 deer.

Model indicated 600+ deer.

Ground hemlock disappearing. Hardwood sufficient to feed 10/sq. mile.

Objective: 25 deer/sq. mile

October 1970

Liberal season - 2 or 3 deer. 2 in November, 3 in December.

Objective to kill 400 deer.

Issued 612 permits; 250 hunters on first day.

1970 season: killed 382 deer, 62% successful

282 killed 1 or more deer (40%)

6 killed 3 deer

54% unsuccessful (330 permittees)

250 killed 77 deer on opening day. 51% of harvest in first week.

203 sealed first week (40/section)

105 of 304 skunked in first week with more than 100 deer/sq.mi. present.

During last week, 44 hunters killed 18 deer.

5% hunters arrived by helicopter.

1/3 hunters stayed at private camp; 50 at a time at cost of \$300 each.

Hunters over 100/sq.mile - no gun accidents.

Public land hunters unhappy.

In 1970 attempted to

Take 100/sq.mi.; achieved 76/sq.mile. Object: To reduce to 25 deer/sq.mi.

Need cut of 300 acres to provide browse for herd.

1971 pellet survey

Herd of $194 \pm 20\%$ Expect fawns to increase herd to 400.

Proposed season - 2 deer November 15 - December 20.

N. Michigan range capable of producing great numbers of deer.

Multiple use forestry not working.

Model herd for S. Fox Island -

Population must have been 700 in 1970. 15 to 700 deer in 7 years.

Annual recruitment rate - maximum of 3 ff/adult doe

Total drain 12-15 to archers

Est. 50 crippling loss

Physical condition: Slightly better than average.

Weights: Down from earlier years.

Winter Conditions: Mild - tempered by lake.

Deer use conifers at N end, but little confined.

Private landowner charged \$300 for 5 days of hunting.

1970 Total Drain:	147 Ad. M	Ages of Harvested Deer:			
	130 Ad. F	106 Fawns	6	4½ yr. olds	1 10 yr. old
	277 Adults	79 1½ yr. olds	14	5½ " "	1 11 " "
	106 Fawns	41 2½ " "	9	6 " "	
	383 Deer	11 3½ " "	9	7 " "	

How to Autopsy an Elephant - Dale Fay

Spent 2 years in Kenya - Food & Agr. Org.

Studied diseases of wild and domestic animals - public health problems.

Kenya - E. coast of Africa.

224,000 sq. miles - four times Michigan's size in area.

Population of 9 million, $\frac{1}{2}$ of 1% white

Three classes - 1, Africans

2, Asians

3, Europeans - incl. Americans, Australians, etc.

Equatorial climate modified by elevation.

Vegetation varies by elevation - low brush, semi-arid; higher, more rain, forests.

1963 Kenya achieved independence.

An agricultural - tourism economy, little manufacturing industry.

Export coffee, tea, sisal, some meat.

Tourism 2nd greatest income; 16 million pounds, or \$45 million in 1968-69.

Agric. Dvlp - 20% suitable for cultivation is greatest threat to wildlife.

Wildlife on mostly tribal lands. Masai Pastoral tribes. Livestock production, disease & problem.

Increased accent on livestock production will conflict with wildlife - competition.

Sale of game meat prohibited.

Showed excellent slides of African animals and collection methods.

How to Feed a Deer - Dr. Duane Ullrey - MSU

Directions of Research - coop. with Houghton Lake, Rose Lake and MSU

1. Study of deer nutrition and physiology

2. Study of deer's natural food.

Feeding Exp.

1 - 8% protein 2 - 13% protein 3 - 20% protein

Male fawns required more protein to achieve optimum growth.

Blood work done.

Found serum protein levels increased by higher protein diet.

Calcium requirement - determined lower level requirement.

Need 7% calcium for fawns.

Phosphorus - varied from .2, .3, and .4% phosphorus. Also introduced cobalt traces.

Req. - Tent. Recommendations

Calcium 0.40%

Phosphorus 0.32%

Stock Diet - pelletized

Studied digestible energy.

An adult doe (120 lbs.) in February has a caloric req. of 3200 kilocalories/day

Must consume 5 lbs. of cedar/day.

Analyzed browse and digestibility.

Aspen and jackpine not readily taken - very low intake.

Aspen 6.2% crude protein, cedar 3.8%

Food supplements studied.

Fistula - implanted for rumen studies.

Review of Land Management

Michigan - John Lyelich

Priorities determined by

1. Kill

2. Public land ownership

13,000 acres in red and blue twps., (1 & 2 priorities)

75% of kill occurs here.

Postcard poll 1961-65 used to determine avg. kill/
twp.

Review of Land Mgt. (Cont'd)

Cover types summarized and analyzed -

1. Acres of open - not < 12-15% At least 6% in all forest lands.
2. " " aspen - " < 35%
3. Size classes - " < 25% in seeds/saps.
4. Preferred types - " < 65% intolerant species

Will receive \$620,000 for deer habitat improvement for 1971-72.

Minnesota - Pat Karns

1970 \$600,000.00 for deer habitat management.

1971 \$100,000.00 for all habitat management, including fisheries

Sportsmen pushing for \$1.50 earmarking of \$7.50 license.

Activities - D-8 with KG blade

Crusher - rolling-chopper

Fire - unsuccessful, too many restrictions

Road construction for removal of wood products.

Costs - \$30/acres (could say \$3, if affected 10 acres adjacent).

Worked mostly in aspen-birch types - very little in yards.

Deer Food - Dr. Duane Ullrey

Introduced by Herb Johnson

Male fawns needed higher protein levels to achieve growth.

20% needed by males, females OK at 13%.

Tentative recommendation of 16% protein for adult females.

Balsam = negative digestibility.

Good digestibility of jackpine, almost equal to cedar.

Ullrey ready to give-up on aspen as a winter browse.

Re: Corn-feeding deer: Many must learn to eat it.

Deer Range Management (Cont'd)Ontario

1958-59 and 1959-60 winters unusually severe.

Result a heavy over-winter loss - est. 50% of herd lost.

First range improvement efforts in 1962. From timber branch,

2-300 acres per year. Cut in vicinity of deeryards.

Continued to 1966-67 winter. Deer didn't recover from 1960 winter loss.

Public clamored for wolf control, bucks only season.

\$250,000 provided for deer range improvement. Continued deeryard cuttings.

Continued thru 1970 at level of 3000 acres cut per year.

This affected 250,000 acres.

More effort directed towards winter shelter preservation.

Maintaining key shelter areas by releasing conifers - cut over-topping maple encouraged conifers by site preparation, seeding, planting.

Hemlock a preferred species. Only 40,000 seedlings available in 1972.

Winter of 1970-71 a severe one - 40" of snow.

More snow and it lasted longer than any time in previous 17 years.

Range improvement assisted greatly in carrying-over deer.

Wintering deer assisted by people making trails with snowmobiles, bulldozers, etc. - able to move deer 1/4 mile at times, other times only 100 yards.

Mid-February thaw produced crusts assisting deer.

Spring surveysshowed about 12% mortality - about same as average year.

Major cause for limited losses because of range improvements in past 3 years.

Worked a little with fire, but northern hardwoods difficult to burn.

U.S.F.S. - Bill Irvine Wildlife budget of \$18,000.00 (His salary and expenses).
Drawing plans on Ranger districts. 5 major areas planned.

Area 1: Define winter deer range, i.e., coniferous swamp + $\frac{1}{2}$ mi, periphery
Shorten rotations - aspen 40 years, jackpine 50 years.
Clear-cut to reproduce aspen.
Maintain coniferous swamps on 120 year rotation.
Maintain existing openings.

Area 2: Uplands adjacent to deeryards, turkey, deer, squirrels.
Make 5-7000 acre management units.
Have a balance of species and age classes.
50% in 50 years and older, 50% in younger
8-10% in sod openings.

Area 3: General wildlife zone.
Make 5-7000 acre management units.
Make trade-offs for good distribution of age classes.
Maintain 5-7% in openings.

Area 4: Manage some units under Gullion method for RG.
40-60 acre units with 10-15 clear-cuts in checkerboard fashion.

Area 5: Manage wetland units for marsh wildlife.

Objective 25 deer/sq. mile. Past spring only 9 deer/sq. mi. on USFS lands, Cadillac area

Wisconsin - Frank Haberland

I. Accomplishments:

1969-70 Treated 8000 acres at cost of \$180,000.00
1970-71 " 19,674 " " " " \$356,000.00

A summer range program, primarily.

Aspen maintenance and opening maintenance.

Accent maintenance rather than improvement or development.

Of \$356,000.00, spent av. \$16/Acre

18,955 acres of aspen maintained

537 " " jackpine site preparation

105 " " oak maintained

77 " " browse production

191 openings maintained

15 miles trail work

Treated over 12,000 acres on county forests.

Costs \$17 avg. on Federal lands.

Costs \$13 avg. on state lands

Use mostly shearing blades: KG and Vee blades.

17,945 acres (91%) by heavy equipment

1,599 " manual cuttings - chainsaws

149 " burned, prescribed fire.

II. Problems -

Committee appointed - Game Manager, forester and researcher to evaluate.

this program has outgrown personnel. A push to spend funds.

Lack of plans of where to spend.

Source of funds: P-R, O.R.A.P., Dept. funds.

Have \$619,000.00 encumbered this past year.

Problem with data available to plan well.

Need accurate up-to-date inventory.

Popple market at low ebb.

Treatment consists mostly of post-sale residual treatment.

Wisconsin (Cont'd) Frank HaberlandII. Problems "

Soon, will have to rotate aspen off-the-stump, uncut stands.
Field people have not "carried ball" on opening maintenance.
Should divert more efforts towards openings.
Jobs running too long, over deadlines.
1971-72 budget allotted \$622,000.
Have inadequate planning for such a program.
Should plan on additional winter yard work.
Aim to maintain ecological diversity in vegetative composition.
Wisconsin has reorganized - a shuffling of personnel.
Game Bureau has lost personnel. Have 5 vacancies.

Minnesota's Moose Season - Pat Karns Steve Judd

After 10 years of trying and 5 sessions of Legislature, got moose season.
1922 last season - bulls only then.
Legislature allowed season between October 1 - December 31, and option to split season.
20% of permits in NW part of state must go to landowners.
Authority for 1 year. Passed in May, little time for planning.
License cost \$100 for party of 4. They need not hunt together.
400 permits issued - 9,121 parties applied (36,000+ people).
Blaze orange backtag and license. Applications hand stamped. Post cards.
A separate mailing of blood sample bottles.
Moose must be registered within 48 hours. 7 stations available to register.
Six zones, 3 NW, 3 NE. Hunters marked road site where loaded with blue ribbon. Back-tracked to gut pile.
Collected biol. data: Kid. wgts, blood samples, brains, and incisor for age.
description of shooting site, internal parasites, hearts and livers; reproductive tracts-thyroids, lung inspection; check for lepto.-brucellosis. Rumen samples - G.I. - Pellet sample.
Brain worms (finding in 33%).

Hunter asked to take blood sample - good compliance.

On opening weekend, had killed 150 - got 43% of quota in NW corner.

In NE, 41 killed or 27% of quota.

October 1 opener fell during rutting period.

Kill favoring bulls.

NW	13% success
Aggasis	52% "
Other NW	57% "
NE boundary	27% "
NE	34% success
S	20% "

Hunters and public accepting the season well.

Estimated population is a stable 5-7000 - aerial moose survey conducted annually.

Season: Oct. 2-17 Dec. 4-19 Appear to have 75-80% hunters afield opening day.
Residents only.

Originally had planned a deer season between.

No reports on caribou. Do not have large enough blocks of habitat to support caribou.

Discussion re: Merger with Grouse Group

Minnesota favors separate meetings.

Ontario also.

Vote taken to remain separate - only 2 opposed.

Time and Place

1972 - NW Wisconsin

Discussion re: Reporting of Cost:Benefits

Should prorate costs over several years and acres affected.

How to spread costs? Each state will have 1 man study this problem.

Minn-Karns; Wisc-Bill Creed; Ontario-Alek Matiece; USFS-Bill Irvine; Mich-J.Byelich

Wisconsin spent much money on snow plowing; plowed many miles roads last winter.

250 miles of roads plowed.

Irvine-USFS. How many deer could be carried with no habitat improvements? 9.

If closely coordinated approach used? 25

Bennet. Costs of Deer management.

An economist will be on S. Fox Island to determine how much people will be willing to pay for such an experience.

Attitude Survey: Reg. II and III 52% support DNR Reg. I 37%

Goals in Composition of the Forest Byelich.

Compositional objectives for veg. cover on all lands should be for ecological diversity.

Suggest in-house seminars. Invite experts, scholars, philosophers.

Dominant social demands will determine land use.

DNR needs a land management administrator.

Basic conflicts in land use.

Administrator is now tied to forestry resource - biased.

What can land do for us?

We should disturb - observe - measure.

Do something intensively so that results are apparent.

Don't dilute.

Subsidize woodcutter rather than post-sale treatment.

Governor's Environmental committee should perhaps decide conflicts.

What About Anti-Hunting Viewpoint Growth?

Wildlife Society position statement.

Join groups such as Audubon to combat.

Court Case - Larry Ryel and Dave Arnold

Described the court case

Wenzel's testimony - 3 jobbers testified.

Attempted to prove winter range good and could support more deer.

Forester for Goodman Lumber showed pix of aspen in poor deeryard.

Peterson and Karsten testified for DNR - area foresters.

Verme did fantastic job.

Ryel outlined surveys, put in evidence recent reports.

Ryel submitted new evidence pertinent to Dickinson county deer.

Attempted to introduce as evidence Res. Tri. Inst. report.

Denied as hearsay evidence.

Described checking station records.

Extracted age evidence for Dickinson county and survival rates, introduced same.

Arnold summarized the case.

Judges now considering the case.

NOTE: On 10-7-71, the judges decided in favor of the D.N.R.

All errors and mistakes in the above are attributable to amateur recording secretary Joseph Vogt.