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MICHIGAN DEPARTMENT OF CONSERVATION
Game Division

MEETING OF THE GREAT LAKES DEER GROUP
HIGGINS LAKE TRAINING SCHOOL
MICHIGAN
FEBRUARY 12-14, 1957

Report No. 2116
March 27, 1957

During the afternoon of February 12, the members and guests of the Great Lakes Deer Group gathered at the Higgins Lake Training School. A list of those who attended is attached.

In addition to renewing acquaintance with the deer management specialists from Ontario, Minnesota, Wisconsin, and Michigan, we had the pleasure of hearing D. I. Rassmussen, United States Forest Service, Ogden, Utah, as the guest speaker.

THE EVENING MEETING

Chairman Bartlett called the meeting to order at 8:20 P.M. and introduced Edward M. Ray, superintendent of the training school who welcomed the group and gave a brief history of the training school, its scope and purpose.

Discussion of 1956 hunting seasons

Minnesota - Milt Stenlund

Minnesota has about 80,000 square miles of land area of which 38 per cent is deer range. The deer range is one-third aspen, 18 per cent spruce-fir; 4 per cent cedar, and 20 per cent grass and brush.

Management areas for deer season purposes are as follows:

Northeast zone	- 23,000 square miles - 9 day season
Central Transition zone	- 4,500 square miles - 3 day season
Southeast Transition zone	- 580 square miles - 2 day season
Agricultural zone	- 1,400 square miles - 1 day season

Stenlund estimated they had about 60,000 deer hunters and a hunting success of 30 to 35 per cent which was down slightly from the 38 per cent enjoyed in the 1955 deer season. Any-deer type of season prevails in Minnesota.

Hunting conditions were considered good, but considerable starvation occurred the previous winter and this fact plus losses in fawn production could easily account for the slight reduction in kill.

Minnesota had an October archery season with about 3,000 hunters and a kill of 200 to 300 deer.

Ontario - Harry Lumsden

Ontario has roughly 68,000 square miles of deer range exclusive of Algonquin Park. This is made up of two separate deer ranges. The 12,000 square mile western range lies west of Lake Superior. The eastern range totaling about 56,000 square miles may be divided almost equally in area into the primary range lying north and east of Sault Ste. Marie and the secondary range in the farm lands to the south and east.

There were about 113,000 licenses including 874 special \$26.00 licenses for either a deer or a moose. This is a sort of camp license under which at least 320 moose were taken.

Hunters success was down to about 50 per cent in the western range last fall from 77 per cent success in 1955. In the eastern range generally the success was about as good as in 1955, perhaps down slightly.

The total kill has not been calculated as yet but this is being obtained by a 10 per cent sampling by mail. They are also getting some economic data along with the kill figures.

Robin Hepburn reported on a 46 square mile study area called the South Canonto Deer Study Area (complete with moat and drawbridge) where hunters could be interviewed regarding their hunting experience therein.

There were a total of 225 hunters, 182 deer sighted, 52 deer killed, 9 deer wounded, and one wounded deer recovered. About as many deer were shot at and missed as were killed. A census is being planned for the area. Under pressure, Hepburn came up with a pre-census estimate of 6 deer per square mile.

Wisconsin - Jim Hale

Wisconsin's deer range has about 25,630 square miles. The estimated license sales was about 275,000. The total deer harvest was 36,829 for a success per cent of 13.

Hale said the starvation losses in the north part of the state were the worst since the winter of 1950-51. This fact was demonstrated by the ratios among yearling legal buck in the gun kill. In the central and south areas 68 per cent of the kill was yearlings as compared to only 44 per cent in the north. He also pointed out that the lowest kill per square mile was in the two northern areas where they should be harvesting the most. A concise one page map and summary giving all the essential information on the various hunting seasons was distributed.

Michigan - I. H. Bartlett

There are 57,000 square miles of deer range in Michigan; Upper Peninsula - 16,000; Northern Lower Peninsula - 18,000; and Southern Lower Peninsula - 23,000. The deer population is probably 600,000 or more. License sales usually run over 400,000 and the deer kill in 1954 and 1955 was 67,200 and 73,650 respectively.

Bartlett discussed the dead deer survey of last spring, which revealed 74,000 dead deer in the Upper Peninsula and 42,000 in the Lower Peninsula. Starvation was the cause of death of 19,000 in the Upper Peninsula and 16,000 in the Lower Peninsula. Fawn production showed a definite drop following the prolonged deeryarding season.

The area and quota system of deer hunting in the special season December 1 and 2, 1956 resulted in a lighter kill than expected chiefly because of the rigorous weather conditions both days. In the Upper

Peninsula much area was inaccessible because of deep snow. Some 430,000 gun hunters killed 70,300 deer including 1,000 deer in the Upper Peninsula and 11,000 in the Lower Peninsula special seasons. These are preliminary figures.

The concurrent season in two areas of the 22 special areas totaling 9,000 square miles taken during the buck season by those with permits was discussed with interest by the group. Herman Olson suggested it might be the only way we could get an adequate harvest in the Upper Peninsula.

In reference to the problem of determining time of death of deer found in the spring, Laramie asked whether we had used the length of the hoof (or nail) beyond the quick. This is something we may want to study.

Deer and Aspen - Casey E. Westell

Casey Westell who is probably the first wildlife biologist to be hired by a forest industry talked to the group on his work with the American Box Board Company.

He talked mostly about their operations with the Turtle Lake Club and the Mid-Forest Lodge. I feel sure the group got the idea that the American Box Board Company was performing a habitat management service to the hunting clubs that no public agency could provide and that the clubs in the aggregate represent a future source of material needed by the Company.

Field Trip - Wednesday A.M., February 13

Stop No. 1 - Mid-Forest Lodge

Casey Westell and Nels Johnson conducted the group to their aspen cutting operations on the Mid-Forest Lodge. Mr. Fauth, Mr. Campbell and Mr. Nicholi, members of the Lodge, aided in the discussions.

The best large-toothed aspen stands produce 15 to 20 cords per acre. They are not inclined to cut thrifty stands with an annual growth rate of one cord per acre until the growth rate begins to decrease.

Aspen should be cut as clear as possible to remove shade which would discourage successful regeneration of sprouts. We saw both good and bad examples.

Stop No. 2 - Deer Pens

We visited the deer pens where the Houghton Lake Wildlife Experiment Station is conducting deer feeding tests. Arlow Boyce conducted the group and explained the various tests and answered questions.

Stop No. 3 - Oak Cutting

Jerry Duvendeck explained the experimental cutting as an attempt to demonstrate the basic formula for managing oak for game. This formula was developed after a three year study at the experiment station.

Discussion of Field Trip

The afternoon session opened with a brief discussion of the field trip. Boyce told of some of the tests at the deer pens with arsenic compounds. They have found that 7-9 millegrams of arsenic is enough to kill a deer. Hale asked whether pesticides had been tested. Malathion killed three fawns.

At this time G. E. Eddy, Director and J. W. Leonard, Deputy Director, of the Michigan Department of Conservation visited the meeting and were introduced.

The Effect of Snow on Deer - Hepburn

Hepburn gave an account of their efforts to determine what constitutes a hard winter. In 1952-53 they established a network of snow stations. These are located in "bush" hardwood (no conifers), on a relatively flat area, at least 5 chains from an open area. A row of 10 stakes graduated in inches and half inches is established with the stakes one chain apart.

Readings made at each stake and the average of the readings is reported each Monday. In addition to snow depth crust is classified as zero, light, and strong (snowshoe strong).

More detailed weather studies are under way at Algonquin Park. A feature is track counts along a six mile snowshoe trail traversing the major cover types. Periodic counts of deer tracks within six feet of the trail is related with snow depth. As snow depth increases the number of trails decreases. Over 20 inches of snow appears to be a real deterrent to deer. In general the zone having 20 inches of snow during the third week of March conforms to the northern limit of huntable deer populations in the province.

Age Class Structures in Deer Management - Jim Hale

In his discussion Hale referred to the age ratio tables at the bottom of the one page summary which he distributed to the group. He pointed out that very few deer over $4\frac{1}{2}$ years of age appeared in the kill. Last fall not more than 5 per cent were classified in this older group.

During any-one-deer seasons there seems to be some selection of older (and larger) deer - antlered bucks and larger does. This is a factor that may need some consideration in deer management. He reminded the group of the tendency of biologists to under age older deer and to over age younger deer.

Soils and Forests - Deer Populations and Yields - Norm Ordal

Ordal and Gunvalson refusing to be stampeded by the above topic decided to give us some information on deer nutrition. After all it is dependent upon the soils and forests and certainly effects populations and yields.

Ordal did the talking and gave an account of the meager information in the literature on the nutritive value of deer foods. They believe it is important to learn more about the nutrition requirements of deer the year around; to test browse species on the animal itself as well as laboratory analysis; to try chemical fertilization of the range as a means of increasing nutritive content and production of browse.

Ways and Means of Getting Adequate Deer Harvests - Rassmussen

D. I. Rassmussen, Regional Biologist, U.S. Forest Service, Ogden, Utah, was the guest speaker. He was introduced by Herman Olson.

The deer problem in the west was high-lighted in the 1920's by the well-publicized Kiabab deer starvation which resulted from a "no hunting" regulation on a 1,000,000 acres.

All of the states except Idaho have gone through the trials and tribulations of the buck law. Idaho never had one. The progress from a buck law to "antlerless" to "any deer" seems to have been smoother and faster in the western states than in the eastern part of the United States.

Rassmussen indicated that to get an adequate harvest of deer was a problem of hunter management by unit areas. Of course, you need to know the trend in deer population and have a good idea of range conditions, whether up or down. But this can be done by pellet type surveys and browse measurement to determine the trends. Total population figures are unnecessary. Good kill figures, however, are important.

Hunters can be managed in many ways. But it is difficult to get them into remote areas. This can be helped by timing of the open seasons or in some cases by lengthening the season.

The unit area system is a natural development based upon topography which is so marked that a deer herd in one valley or area is completely segregated from the next by a high mountain range.

Rassmussen gave so much information about each state that I will not attempt to repeat it here. It is anticipated that much of this information will be furnished members of the group as Olson suggested at the meeting.

Eastern States - Marston (Regional Office, U.S.F.W.S., Boston)

Marston gave us a brief account of the deer situation in several eastern states.

Rhode Island had their first deer season last fall - an archery season. Deer are not considered a game animal in Connecticut. Land owners may shoot them. Vermont still trying to get "out-from-under" the buck law and have ceased any attempts at habitat management until they get rid of it. New York has the problem of the large Adirondack State Park in which no cutting is allowed. Starvation also occurring in the Chenango Valley on the south slopes. Pennsylvania, after many years experience with antlerless seasons is in better shape, harvesting

more deer but is still having troubles. No special season last fall. Delaware began any deer seasons three years ago. New Jersey has a one buck law and hunt one week.

New Hampshire - Henry Laramie

Laramie gave an interesting account of their deer problems in New Hampshire. They have a split any-deer season. The legislature sets the season during November in the north part and December 1 to 21 in the south. A bill is in the legislature this year to have a buck law every other year. Laramie says they are not removing all surplus deer now. They harvest 9 to 10,000 deer each year.

The acute problem is limited area of winter range which is confined to narrow valley bottoms of spruce-fir timber with browse species of yew and hobblebush (mostly gone now) and Mountain Maple.

Laramie has had some success in persuading a large lumber company to leave uncut areas when logging in the valley deeryards. The company receives no compensation. It is the extreme snow depth (4 to 6 feet) that makes the conifer shelter essential to the deers' survival in that part of the range.

Maine - Chester Banasiak

Maine has never had a one buck law and when asked if there was any pressure for it, Banasiak said whenever it is mentioned the native hunters think it's something new and don't want anything to do with it.

They have about 150,000 deer hunters including some 25,000 non-residents. The annual kill is 35 to 40,000 deer with a buck to doe ratio of about 125 to 100. Practically all of the deer range is privately owned and the remote northern part is a problem of hunter distribution. The increasing use of hardwood pulp is improving this situation.

West Virginia - John Gill (now of Maine)

John Gill who used to be in West Virginia told us about the deer situation in that state. They have 150,000 acres of state land and 1,000,000 million acres of national forest land.

Since World War II they have been going through the transition from a buck law, to special seasons because of crop damage, to any deer in herd unit areas. The Game Commission got authority to manage deer in 1951. The kill is 18,000 to 21,000 deer.

A Deer Range Management Program - John Keener

John Keener gave a well-organized talk on the above topic as it applies to Wisconsin. He distributed copies of his report written in considerable detail.

Keener emphasized the acute need and considerable pressure for doing something (habitat management) in deeryards or winter range

especially in the northern reaches of the Lake States. Primary winter deer range (475,000 acres in Wisconsin) consists of the deeryards themselves. Secondary winter deer range is the half-mile border around the deeryards. It is in this secondary winter range that habitat management will be most productive.

Management plans are made on a unit area basis which vary from 150,000 to 400,000 acres in size. In addition to timber sales (considered the best tool) timber stand improvement, slash disposal, and conifer planting, Keener emphasized access construction. This is of double barreled interest to the hunter, access to hunt and access to timber cutting which makes for better hunting.

Business Meeting - Bartlett, Chairman

The next meeting will be in Wisconsin, perhaps at Wisconsin Rapids, the second week in February 1958. B. L. Dahlberg was selected as chairman with the understanding that he would choose the secretary. There was a suggestion that the host state bring in an outside speaker.

L. W. Krefting was designated as chairman of a research committee to be selected by him that will review the deer research work already done, that going on now, and that recommended for the future -- the next 15 or 20 years or so.

Bartlett and Jenkins were asked to make up a mailing list to accompany this report. (Mailing list attached.)

Herman Olson to distribute material relative to D. I. Rasmussen's talk.

There was discussion of attendance pointing to 15 from the host state and up to 4 or 5 from other states and Ontario. The group felt this guide could be loosely interpreted.

Meeting adjourned before noon Thursday, February 14, 1957.

BCJ:bjm

B. C. Jenkins

ATTENDANCE

Harry A. Lumsden	Department Lands and Forests	Maple, Ontario
Robin L. Hepburn	" " "	Maple, Ontario
William A. Morris	" " "	Sudbury, Ontario
Lytle H. Blankenship	Minnesota Conservation Dept.	St. Paul, Minnesota
Vern Gunvalson	" " "	Bemidji, Minnesota
Norman J. Ordal	" " "	Fergus Falls, Minnesota
Milt Stenlund	" " "	Ely, Minnesota
James B. Hale	Wisconsin Conservation Dept.	Madison, Wisconsin
John M. Keener	" " "	Madison, Wisconsin
Ilo H. Bartlett	Michigan Conservation Dept.	Lansing, Michigan
B. C. Jenkins	" " "	Lansing, Michigan
Ralph I. Blouch	" " "	Houghton Lake, Michigan
Robert Huff	" " "	Cadillac, Michigan
Edward J. Mikula	" " "	Evart, Michigan
Duaine Wenzel	" " "	Escanaba, Michigan
Laurence A. Ryel	" " "	St. Helen, Michigan
Jim Foote	" " "	Atlanta, Michigan
Donald McBeath	" " "	Roscommon, Michigan
O. DeWaard	" " "	Newberry, Michigan
Jules H. Pann	" " "	Baraga, Michigan
W. E. Laycock	" " "	Marquette, Michigan
L. J. Verme	" " "	Shingleton, Michigan
Jack Hood	" " "	Roscommon, Michigan
Edward M. Ray	" " "	Roscommon, Michigan
Herman F. Olson	U. S. Forest Service	Milwaukee, Wisconsin
D. I. Rassmussen	" " "	Ogden, Utah
W. H. Livens	" " "	Cadillac, Michigan
Luther B. Burkett	" " "	Ironwood, Michigan
L. W. Krefting	U.S. Fish and Wildlife Service	St. Paul, Minnesota
Jack Berryman	" " " "	Minneapolis, Minnesota
M. A. Marston	" " " "	Boston, Massachusetts
Warren Chase	University of Michigan	Ann Arbor, Michigan
Peter Tack	Michigan State University	East Lansing, Michigan
John Campbell	Mid-Forest Lodge	Lathrup Village, Michigan
Kenneth Fauth	" " "	Owosso, Michigan
H. D. Nicholi	" " "	Pontiac, Michigan
Casey E. Westell	American Box Board Company	Manistee, Michigan
Nels Johnson	" " " "	Mio, Michigan
John Gill	Dept. Inland Fish and Game	Orono, Maine
Chester F. Banasiak	" " " "	Orono, Maine
Henry A. Laramie, Jr.	Fish and Game Department	Concord, New Hampshire
Dean Allen	4-H Club, Michigan State	East Lansing, Michigan
E. G. Olstrom	" " "	East Lansing, Michigan

BCJ:bjm