

NOTES ON THE MEETING OF WHITE-TAILED DEER MANAGEMENT  
SPECIALISTS OF THE UPPER GREAT LAKES AREA IN MADISON, WISCONSIN.

Date and Attendance of Meeting

This informal meeting was held on December 14th, 1949 in the Department of Wildlife Management of the University of Wisconsin.

- Present were:
- Mr. L. W. Krefting, Regional Biologist, U.S. Fish and Wildlife Service, was asked to be Chairman.
  - Mr. A. de Vos, Biologist, Dept. of Lands and Forests, Ontario, was asked to be Secretary.
  - Mr. A. B. Erickson, Biologist, Minnesota Conservation Department.
  - Mr. V. Gunwalson, Biologist, Minnesota Conservation Department.
  - Mr. M. H. Stenlund, Biologist, Minnesota Conservation Department.
  - Mr. Walter Scott, Biologist, Wisconsin Conservation Department.
  - Mr. B. L. Dahlberg, Biologist, Wisconsin Conservation Department.
  - Mr. Gettinger, Deer Manager, Wisconsin Conservation Department.
  - Mr. Germain, Deer Manager, Wisconsin Conservation Department.
  - Mr. Robert Rutherford, Biologist, U.S. Fish and Wildlife Service.
  - Mr. I. H. Bartlett, Biologist, Michigan Conservation Department.
  - Mr. L. A. Davenport, Biologist, Michigan Conservation Department.
  - Mr. C. D. Fowle, Biologist, Dept. of Lands and Forests, Ontario.
  - Mr. Dick Passmore, Biologist, Dept. of Lands and Forests, Ontario.

Topics Discussed at the Meetings

Census Methods

Mr. Erickson stated that no censuses were held in Minnesota since last winter's meeting. Dahlberg reported a census flight in Wisconsin in Polk County. No deer were seen during this flight. The deer abundance in the area censused was judged by the number of tracks noticed. Ground checks were made subsequently in the same area. Gunwalson said that track counting is difficult where there are many tracks. He noticed that, when counting deer tracks on the ground over

a stretch of 1 mile, the number of tracks was quite high compared with the number of deer seen during such a count. No experiments have been held so far with helicopters for deer census work. Davenport reported that in Michigan track counts were used during the 1930's. Such counts are useful to show population trends. Fire-lines were used for census purposes. Unless track counts are taken steadily week after week, one cannot depend on them. Krefting stated that aeroplane counts should be repeated often in one winter to be of use as a census tool. Bartlett gave information about census drives in Michigan. Censuses of half sections can be made by about 50 people; of full section by about 70 people. Distance between observers: 5 chains. Best time to hold such a census, July until October. Good leaders of census drives are an essential requirement. 4H Clubs, Sportsmen's Clubs and Conservation Departments should co-operate to organize these drives. Gunwalson suggested the use of students for deer counts. Dahlberg indicated the educational value of deer drives, if made as a joint effort. Davenport made a remark concerning deer repellants. None of these seem to last for a long time after application. They therefore have to be applied at frequent intervals and are as a result expensive in application. Dahlberg said that there is often a correlation between the amount of forest damage and the number of deer pellets. Scott suggested that electric eyes be tried as counters along runways and trails of deer. de Vos mentioned that in Ontario moose were censused by air during last summer along some lake shores and that pictures were taken of the moose seen for recording purpose and to get some information about sex ratios. Dahlberg suggested that it should be tried to get information about the correlation between the number of tracks observed from the air and the number of deer present.

### Summary

1. Track counts along roads do not seem to be useful as a census method. Track counts throughout a number of years may indicate trends. Pellet group counts also seem to be useless; they are usually high where there is extensive forest damage.
2. Census drives appear to be the most useful census tool so far.
3. The value of aerial census is doubtful as far as actual observations of deer are concerned, records of track densities may be a useful tool to spot deer concentrations.

### Range Management

Mr. Gunwalson read part of a manuscript of Paul Rudolf, St. Paul Experimental Station, concerning white cedar. He also stressed that information concerning work done on cedar management should be collected and distributed. Michigan has the largest acreage of cedar of the 3 Great Lake States. Gunwalson mentioned that certain species of willows might be more palatable than others and that it might be useful to run an analysis on them. Planting and cutting of cedar are useless where there are heavy deer concentration, and only practicable where the deer population is low. In Minnesota a start will be made towards cedar management in a co-operative project of the Conservation Department and the U.S. Fish and Wildlife Service.

#### Advantages of Cutting Practices:

1. They will provide winter food.
2. They will open up stands.
3. They sometimes result in adequate reproduction.
4. Cuttings cause deer to move over short distances, which may result in relief of congested deer yards. Davenport stated that he doubted whether plantings were worth while the effort. Gunwalson said

that he had specific areas in mind, where plantings are made to speed up reproduction. Dahlberg stated that cutting should be warranted from an economic point of view and that otherwise it will not be feasible. Davenport said that cuttings on or adjacent to publicly owned winter deer range have to be approved by his Conservation Department. Bartlett commented that the initiative to cutting can be taken by either the Forestry or the Game Division of his Department. Rutherford mentioned that in Virginia management of forests for game purposes is the prime consideration. Work done on cedar management: Mr. T. Nelson of Michigan is writing a PhD thesis on cedar management. Bob Montgomery is working on this in Maine. Bartlett suggested a P.R. project on the study of cedar regeneration over a period of at least 10 years.

#### Summary

1. More information concerning cedar management is badly needed. Co-operation regarding research might speed things up.
2. The value of reforestation in congested deer ranges is doubtful as well from a forestry as a game point of view.

#### Herd Degeneration

Mr. Dahlberg reported on a study of deer weights undertaken by him on seized deer. He plotted overbrowsed ranges of the localities where the deer came from on a map. He found that there is a difference in weight between the deer of the overbrowsed ranges and deer of good range. Weights of adult and yearlings does of poor range were 99 lbs. on the average and of good range 104 lbs. on the average. Weights in Central Wisconsin were considerably lower than in the northern area. The weights of deer from Chambers Island, which is the worst deer range in Wisconsin, were much lower than those of Central Wisconsin. He has a study under way on reproductive tracts to show a possible correlation

between poor reproduction and poor range. In this study the rate of ovulation is checked (see paper of Dr. Cheetham, Journal of Vet. Science, July, 1949).

### Range Appraisal

Mr. de Vos made some introductory remarks concerning this subject. He stated that the different systems now in use all have their advantages and that each of them may be most useful where now applied. However, there is a definite need for a universal range appraisal method which is comparable between areas. Such a method would make exchange of ideas between areas possible. Stenlund stated that Minnesota uses the Aldous system and the Michigan one at the same time, the latter for quick appraisals. Surnd Devorkintz's method (published in the Wisconsin Conservation Bulletin) was brought to the attention. Dahlberg said that palatability lists differ between different regions. Wisconsin has changed its yard report form. It just lists "key" species. Passmore asked whether there are any standard methods available in which the evaluation can be standardized as well. Bartlett said that it is difficult to train good appraisers. It is best that one man trains all observers to get some unity in observations. de Vos thought that the appraisal estimates of observers shift with experience. Bartlett said that appraisal is really a relative quality in Michigan. Krefting suggested to use the Aldous method for definite checking areas. Bartlett suggested that Ontario uses aeroplanes to map concentration areas and that after the general picture is clear, certain checking areas be appraised.

### Summary

The need for a standardized appraisal method which can be used in checking areas is obvious. The Aldous method is possibly closest to it, especially because it can be statistically evaluated.

### Declining Deer Herds

Mr. Bartlett referred to the paper he gave in the last North American Wildlife Conference. He is not sure whether deer herds are really declining in so far as their total number is concerned. Michigan probably reached a peak 10 years ago. However, he cannot definitely state that the deer herd on the Upper Peninsula is declining. Indications point to a smaller herd in heavily populated areas. There are likely decreases in the heaviest populated and critical areas. The same general picture is true for Minnesota. In Wisconsin the increase on peripheral ranges seems to keep up with decrease in overpopulated areas. According to Bartlett a drop off in Michigan started possibly in 1946. Passmore stated that in old Ontario there seems to be a slight decline in deer numbers in heavily hunted areas. The peak in Minnesota occurred at approximately the same time as in Michigan. Bartlett suggested that possibly the more deer one removes, the more one is going to get also.

### Summary

No definite statement could be made as to whether deer herds are declining on the whole or not.

### Deer Herd Management

Mr. Davenport said that in Michigan there is a buck law in existence since 1921. In 1941 farmers in Elgin County complained about deer damage, and a system of controlled hunting was started in damaged areas. There was a long archery season and an antlerless deer season. This system has been continued. Last year a mandate was given to the Conservation Department to control deer in fruit growing areas. No special licence is involved for farmers. In some areas the problem has been relieved, in other areas the result is insignificant. The authority of control by the Department is still limited to certain areas. Bartlett

stated that the number of licences has to be limited in areas which are opened after having been closed for a number of years. Mr. Thomson (Wisconsin) suggested that big-game hunters should pass an examination on handling rifles before licences are issued to them. Mr. Scott said that in New York hunters are getting some instruction from Game Wardens. Erickson said that the Minnesota Conservation Department recommended a 9 day open season. The season was open for 5 days in the northwestern part and 3 days in the southern part.

#### Predator - Prey Relationships

Mr. Thomson reported on a study he made on this relationship in northern Wisconsin. This study, which was made on a few wolves in a limited area, still has to be published. He found that the timber wolf's diet consists of 97% deer. He checked on the effect of buffer species such as snowshoe hares and Microtus spp. There was a striking increase of Microtus during 1946. However, wolves did not seem to take many mice then. In the period 1946 - 48 hares were present in moderate numbers. Coyotes are eating quite a few hares. He concluded that timber wolves either favour deer or that such is just a matter of availability. During his study period wolves persisted practically throughout the year on deer. Wolves seem to have some effect on keeping the deer population down when the numbers of the latter are low. When the deer population is high, however, the effect of wolves seems to be negligible. de Vos reported that in Ontario high deer and high wolf population occur at the same localities and referred to the paper he was going to give during the Conference. Stenlund also commented on high wolf and deer populations existing together. He said that his records show that there is a reverse sex ratio in case wolves are taken by snare, than in case they are taken by plane. In Minnesota the timber wolf population was

low in 1910 and reached a peak in the early '40's. The population is apparently declining with the deer population. A cause of the decrease in wolves may be the heavy take by aeroplanes. He analyzed 50 stomachs, 37 of them contained 89% deer remains. Snowshoe hare: 98% by volume and 8% by occurrence. Porcupine remains were found in 2 stomachs. Of 75 deer carcasses he checked 42 were definitely killed by wolves. The timber wolf cannot be blamed for the decrease in deer populations. There was approximately 1 wolf per 10 square miles in the country he worked in. He stated that a wolf can kill any kind of a deer at any time.

#### Summary

The timber wolf removes such a relatively small number of deer from high populations that there is no appreciable effect on the harvest or upon the herd in general. The utilization of deer is very high in Wisconsin during the entire year. Wolves may keep deer populations down when they are low, but not when they are high.

#### Deer Situation in Wisconsin

Mr. Dahlberg gave a report on the different seasons which have existed and about the present season.