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SPECIAL REPORT

THE LAKE REGION OF NORTHERN MINNESOTA

BY

W. B. McDOUGALL

WILDLIFE TECHNICIAN

REGION III

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September 21, 1937

The Director
National Park Service
Washington, D. C.

Subject: Special Report - The Lake
Region of Northern Minnesota

ATTENTION: WILDLIFE DIVISION

Sir:

We are enclosing herewith three copies of a
Special Report on The Lake Region of Northern
Minnesota, prepared by Wildlife Technician W. B.
McDougall. One copy should be forwarded to the
Branch of Planning, attention of M. P. Butterfield.

Yours very truly

MILTON J. McCLIM
ACTING REGIONAL DIRECTOR

Enclosure 3
cc - original
Region II
McDougall

SPECIAL REPORT

THE LAKE REGION OF NORTHERN MINNESOTA

Submitted September 20, 1937

W. B. McDOUGALL
WILDLIFE TECHNICIAN

THE LAKE REGION OF NORTHERN MINNESOTA

The period from August 25 to September 10 was spent investigating this area in company with N. A. Butterfield, Assistant Planner, Charles Shevlin, Associate Forester, Edward Hummel, Associate Historian, Edward Lacey, Inspector, all of the National Park Service, and B. S. Grosbeck of the Milwaukee Regional Office of the Forest Service, and Ray U. Harmon, Supervisor of Superior National Forest. I cannot speak too highly of the splendid cooperation received from the officials of the Forest Service throughout this investigation and especially the help received from Mr. Harmon. Without his efficient guidance and informing leadership it would have been impossible to acquire anything like the amount of information we have concerning the area in so short a time.

The area studied lies along the Canadian boundary in the extreme northeastern part of Minnesota and is approximately 100 miles long by 25 to 30 miles wide. Practically all of it is within boundaries of the Superior National Forest, although not all of it is owned by the government. We took a four-day canoe trip from Ely through Moose, Ensign, Ima, Thomas, Alice, and Insula Lakes and Lakes 4, 3, 2, and 1 to Fernberg and Ely; a five day combined automobile, motor boat and canoe trip from Ely over the Echo Trail and through Crane, Loon, La Croix, Iron, and Crooked Lakes, Basswood River and Basswood Lake to Ely; an automobile trip from Ely over Stony Road to Sawbill, Grand Marais, Gunflint Trail, Seagull Lake, and Big Saganaga Lake; and a half-day trip on a "speeder" on the Cloquet Railroad from Sawbill Ranger Station.

The lakes constitute the main asset of the region from a recreational viewpoint. Canoeing and fishing are to be had here in one of the wildest and least frequented parts of the United States. The region should never be opened by roads any more than it is opened up today because the principal charm of the place lies in its very wildness and inaccessibility. The season is short. Weather conditions are favorable to tourist travel from the latter part of May to the middle of September but in spring and until about the middle of July the mosquitoes are so bad that it is practically unbearable. The thoroughly enjoyable season, therefore, extends for two months - from the middle of July to the middle of September.

Scientific Features:

Plant Life:

The climatic climax in this region is the black spruce (Picea mariana) - balsam fir (Abies balsamea) association. However, most of the area had not yet reached this stage when white man first came into the region except in the eastern portion, in the vicinity of Sawbill and farther east, where there is a considerable amount of spruce at present. A large percentage of the region was in the white pine (Pinus strobus) - Norway pine (P. Resinosa) stage. In all but some of the more inaccessible places, however, these two valuable species have been largely logged out. The most abundant coniferous species throughout most of the region today is the jack pine (P. banksiana). There are thousands of acres of almost pure stands of this species. The jack pine is used as a pulpwood and is being logged for that purpose in some places at present. There are also thousands of acres of aspen (Populus tremuloides) or of white birch (Betula papyrifera) or the two together.

All three of the above species, jack pine, aspen and white birch, owe their abundance to fire. The jack pine occupies about the same position in these forests as the lodge-pole pine does in the Rocky Mountain forests. Like the lodge-pole pine it may retain its cones with viable seeds in them for years. When there is a fire that is not too hot the cones are opened up, the seeds germinate and the jack pine comes back rather quickly. If the fire is too hot, however, the viability of the seeds is destroyed and the first trees to appear will be the aspen and white birch, both of whose seeds are wind-borne. Evidences of fire are present everywhere. With the exception of some small islands and a few other isolated areas, the entire region has been burned since it was logged. The burn of 1929 devastated 25,000 acres and left a veritable cemetery of dead stubs.

Some of the other plants observed in the region are as follows: White spruce (Picea canadensis); white cedar (Thuja occidentalis); Canadian dogwood (Cornus canadensis); several species of Aster; balsam fir (Abies balsamea); pearly everlasting (Anaphalis margaritacea); wild rose (Rosa sp.); goldenrod (Solidago sp.); common brake (Rteris aquilina); mountain ash (Sorbus americana); striped maple (Acer pennsylvanicum); touch-me-not (Impatiens biflora); and beaked hazel (Corylus rostrata) which is one of the most abundant shrubs throughout the entire region. The most conspicuous plants in the bogs are the tamarac (Larix laricina) trees, leather leaf (Chamaedaphne calyculata) shrubs, and bog moss (Sphagnum sp.). Club-moss (Lycopodium sp.) and the lichen commonly called

reindeer moss (Cladonia rangiferina) are very common. Many of the larger fungi, such as species of Clavaria, Russula, Amanita, PolyPorus, etc., were seen but lack of time prohibited any study or even listing of them.

Diseased and dying trees are very common nearly everywhere. The spruce bud-worm is taking the balsam firs by the thousands, aided, probably, by bark beetles and the drought of last year. Bark beetles are also taking heavy toll among the jack pines in some places. In some areas bag worms have completely denuded the aspens of foliage. Between fires and insects, therefore, the outlook for the forests of the region is not bright. The Forest Service is doing all it can to protect these forests, but the problem is too big for any human agency.

The forests in Canada adjacent to this area, which are all included in the Quetico National Park, look very much the same as those of the United States. The Canadian government permits logging in this park the same as anywhere else, the only concession being that according to a recent law no cutting is permitted within 200 feet of any shore line.

Animal Life:

Animal life, for the most part, is abundant. Practically the entire region is, and has been for years, included within a state game refuge. All hunting is illegal except that a bounty of \$15 a head is paid on wolves and some of these animals are killed every year. There is undoubtedly some illegal hunting and there is believed to be a considerable amount of illegal trapping of beaver and other fur-bearing animals, although not nearly so much as in earlier years. The folly of paying a bounty on wolves is evidenced by the fact that deer are so abundant that large numbers die of starvation every winter. There is an abundance of summer food for deer. The area would support several times the number that are there but winter food is very scarce. White fir is one of the most preferred winter foods and all seedlings and branches within reach of the deer have been almost entirely consumed.

Our modes of travel were not conducive to seeing many animals but we did see some. We saw a total of 6 whitetail deer, mostly one at a time. There are known to be moose in the region but we did not see any. We saw

one black she-bear with two cubs near a CCC camp northwest of Ely and another large black adult some 20 miles north of Grand Marais. The most thrilling thing we saw on the entire trip was a pack of four timber wolves, evidently a female and three partly grown pups, that came out onto the road and ran ahead of us as we were driving toward Sawbill Lodge. We clocked them at 18 miles per hour for some distance when they disappeared into the brush. Several ~~beaver~~ porcupines were seen and also much evidence of their work, though they are not abundant enough to be very destructive. Several beaver houses and dams were noted though none of the animals were seen. This is an ideal country for beaver excepting that most of the lakes vary a great deal in water level. There is plenty of water and plenty of aspen bark for food. In the early days beaver must have been very plentiful here but they were trapped nearly to extermination. In recent years, however they have been increasing, under protection, although as stated above, there is still some illegal trapping.

Loons were common on most of the lakes and we saw ducks on various occasions but never in large numbers. Ruffed grouse appear to be quite common. I saw them frequently while crossing portages and on several other occasions while out in the woods alone. Song birds did not seem to me to be very abundant but we spent so large a percentage of our time on the water that we did not necessarily get a fair check on life in the woods.

Educational Possibilities:

This is not a region that should ever be visited by large numbers of students or any other people. It should be visited, for the most part, only by those who are capable of enjoying life in a wilderness, without the conveniences of modern urban life. If adequately protected, however, the region could be extremely valuable to all biologists and other students of outdoor life. If all cutting were to be stopped for all time and nature allowed to take its own course in the re-establishment of the forests it would provide an extremely interesting and valuable place for the study of plant succession and, unless fires and insects continued to take too great a toll, a couple of centuries hence there would probably be some excellent forests here.

This is the only region in which I have ever seen a living timber wolf and it is the only place I know of where one might be likely to see one. That alone is a very worthwhile educational value.

Need for Conservation:

As has been said, the lakes constitute the chief asset of this region and no conservation action is needed for the lakes except to leave them alone. So far as wildlife is concerned, I believe the only beneficial things that could be done, that are not already being done by the Forest Service, are to stop all cutting of trees except those that are diseased and to stop the killing of wolves. If these things were done nature would, in time, produce a well-balanced biotic community.

Conclusions and Recommendations:

1. The forests of this region have already been despoiled by man, by fire, and by insects.
2. Animal life in the region is abundant and is receiving quite adequate protection with the exception of timber wolves and perhaps some other predators.
3. If the area is acquired by the National Park Service all cutting of trees for commercial purposes should be stopped and every effort be made to protect the forests from fire and from destructive insects.
4. All killing of wolves or any other animals should be stopped.
5. The lakes constitute the chief asset of the region and the future value of the region as a recreational area depends upon leaving it undeveloped and relatively inaccessible.
6. No roads, other than those already existing, should ever be constructed in this area.
7. Motor boats of all kinds should be prohibited on all but the larger lakes since they destroy the psychological atmosphere of the wilderness. Transportation on the smaller lakes should be by canoe and row-boat only.
8. This is undoubtedly the best lake region for canoe trips in a wilderness setting in the United States. As such it is worthy of a place in the National Park System.

NOTE: It is expected that the substance of this report will be incorporated in a much more comprehensive report to be prepared by Neil A. Butterfield.



Figure 1.
Ensign Lake.



Figure 2.
Looking north down the Sioux River Valley
from the Sioux River Ranger Station.



Figure 3.
White Birch near
Thomas Lake.

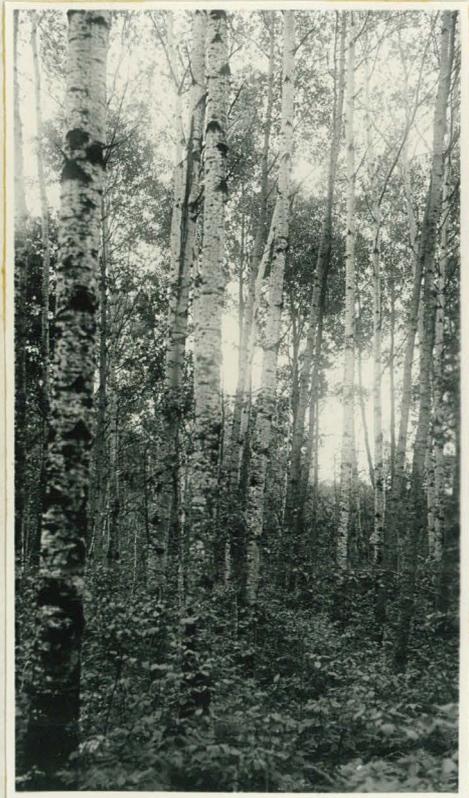


Figure 4.
Aspen near Lac La
Croix Ranger Station.



Figure 5.
Cascades in Sioux River near Sioux River
Ranger Station.



Figure 6.
Reindeer Moss (Cladonia) and other
lichens with Wheat Moss (Polytrichum).



Figure 7.
Looking toward Lac La Croix from the Lac
La Croix Ranger Station. Forest Service
boat at left.



Figure 8.
Cascade at west end of Crooked Lake.
Historian Hummel and Forester Shevlin
in middle foreground.



Figure 9.
Looking east from the north end of
Basswood Lake.



Figure 10.
Rapids at outlet of Basswood Lake
into Basswood River.



Figure 11.
A noon conference on the shore of
Basswood Lake.



Figure 12.
Brule Lake and the burn of 1929. This
burn covered about 25,000 acres.

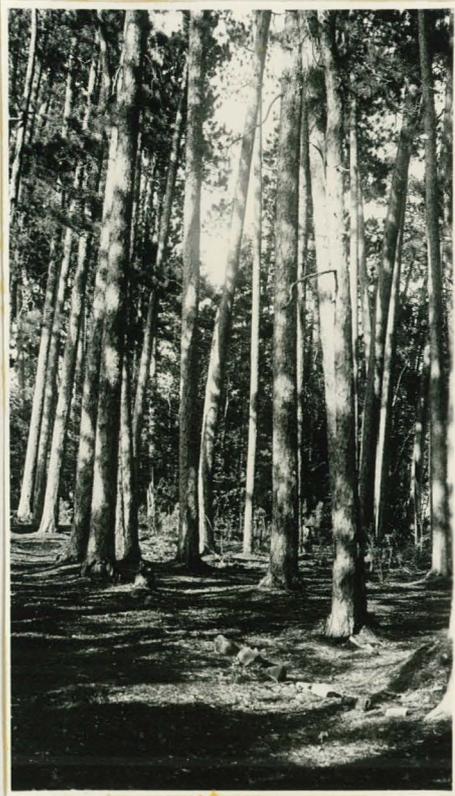


Figure 13.
Norway Pine (Pinus resinosa) near the
Lac La Croix Ranger
Station.



Figure 14.
White pine and black
spruce side by side
near Sawbill Lodge.



Figure 15.
A nearly pure stand
of Black spruce near
Sawbill Lodge.



Figure 16.
Two large white
pines near Devil's
Track Lake.



Figure 17.
Clearwater Lake.



Figure 18.
Red Rock Lake.