



RESOURCE MANAGEMENT REPORT

(Formerly Fish and Wildlife Management Report)

Fish and Wildlife Branch

**(These Reports are for Intra-Departmental Information
and Not for Publication)**

DEPARTMENT OF LANDS AND FORESTS

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T A B L E O F C O N T E N T S
No. 63 May, 1962

	<u>Page</u>
The Oneida Community and Ontario. - by C. H. D. Clarke	1
Pheasant Distribution and Harvest Report, Lake Simcoe District, 1961. - by J. S. Dorland	23
Ruffed Grouse Report - North Bay District, 1961. - by J. F. Gage	30
Kenora District Grouse Hunt - 1961. - by Wm. H. Charlton	41
Browse Survey, Gogama District, 1961. - by G. E. Vozeh	48
Creel Census 1961, Kapuskasing District, - by P. A. Kwaterowsky	61
Use of Cooper-Tox #6 as a Fish Poison, Gogama District. - by R. C. Johanson	66

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THE ONEIDA COMMUNITY AND ONTARIO

by
C. H. D. Clarke

Abstract

This paper concerns the Oneida Community and its connection with Ontario. The Oneida Community, a social group led by John H. Noyes flourished in upper New York State in the late mid-1800's. Noyes, a well-educated ex-clergyman was very inventive. He and other members of the Community developed such things as the Newhouse and Oneida steel traps and silver-plating of tableware. Much of the material for this paper was taken from a book, "The Trapper's Guide" written by Sewall Newhouse. Members of the Community made a trapping excursion into the Hastings Road area of Ontario in 1865 and considerable first-hand information is contained in the account of the expedition. Excerpts from the book are chosen to give Ontario information.

The steel-spring trap in some form or other known as "gin" (short for "engine") was made by blacksmiths for years. In the middle of the last century, however, a vastly improved model was made by the Oneida Community, at Oneida, N. Y., and is the basis of traps now in use.

The Oneida Community was a social group on the "share the wealth" principle, of which there were several in the early United States. It was founded by an ex-clergyman, John H. Noyes, who was very inventive, and developed silver-plating of tableware. Other members were skilled craftsmen, educationalists, printers, and able business men, as was Noyes. They started a factory, in which Oneida, or Community Plate ware, and a number of other original inventions were manufactured. The plant employed many non-community workers. The Community was famous (or infamous) because, besides sharing wealth, they also practiced a wife-sharing arrangement which Noyes called "stirpicultural marriage". For all that, the members, in and around town, were models of decorum and propriety, did their bit in the Civil War, tried to avoid offending their neighbours, and were very wealthy to boot. However, their arrangements were too much for upper New York in the later mid-1800's and, under pressure, they broke up and became simply a manufacturing corporation.

Noyes and others were very well educated, and it is hard to associate them with trapping, yet the fact remains that a veteran and inventive trapper, Sewall Newhouse, was a member, and one of the best-paying parts of the Community enterprise was the manufacture of his Newhouse and Oneida traps. Also Mr. John P. Hutchins, son of John Hutchins, an old trapper and hunter, himself a trapper, was a member, and his father was a close associate of the Community.

The first part of the report discusses the general situation in the country and the progress made in various fields. It mentions the government's efforts to improve the economy and the social services. The second part of the report deals with the specific measures taken to address the current challenges. It highlights the importance of maintaining stability and promoting growth. The report concludes with a summary of the key findings and recommendations for the future.

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The Hutchins family made trapping excursions into the Hastings Road area, north of Madoc, and were closely associated with two Canadian trappers, one Holland "one of the most accomplished deer-hunters in Canada", and Peter M. Gunter.

Newhouse published a "Trappers Guide" of which I am fortunate to own a copy that once belonged to the artist, Arthur Heming, and is full of annotations based on his winter at Lac la Biche, many years ago.

Newhouse's Guide has a hodge-podge of natural history from all over the world, that looks as if it might have been copied, along with the illustrations from published "Natural Histories". With it, however, is much first-hand material, from his own experiences and those of his associates, among them Holland and Gunter, and there are several contributed chapters. It is mostly from these that we learn of the activities of Community members in Canada at the height of its life, 100 years ago. Excerpts are chosen to give Ontario information.

Pages 131-135.

"An Evening With An Old Trapper" by W. A. Hinds.

It would be difficult to find, at least in the Eastern and Middle States, a better representative of this class than Mr. John Hutchins, now a resident of Manlius, N. Y.

Born in Portland, Somerset County, Maine, November 16, 1801, he is consequently now (1865) nearly sixty-four years of age; but he is still "eager for the chase," and is planning a trapping expedition into Canada for the coming autumn. For more than half a century, he has spent a portion of each year in trapping and hunting. In his tenth year he caught and shot seventy-three squirrels, six blue jays, one mink, one weasel, and six partridges. When fourteen years of age he caught a bear which had killed a cow in the neighborhood where he lived in Maine; and he estimates the number of animals which he has caught in traps, or otherwise destroyed, as follows: 100 moose; 1000 deer; 10 caribou; 100 bears; 50 wolves; 500 foxes; 100 raccoons; 25 wild cats; 100 lynx; 150 otter; 600 beaver; 400 fishers; mink and marten by the thousands; muskrats by the ten thousands.

After reading the above list, no one will doubt his skill and wisdom in wood-craft, or question the probability of the adventures he relates. He is always ready to communicate to others what he has learned in his long life in the woods; and he takes the same pleasure in recounting his adventures that the scar-worn soldier takes in telling of battles, sieges, and marches. On meeting Mr. Hutchins a short time since, in company with his son, I interrogated him in true Yankee style, as follows: -

"In what part of the country have you trapped and hunted?"

"Mostly in Maine, Lower Canada, New Brunswick, and New York, but some in Vermont and in Michigan."

"At what seasons of the year do you generally trap?"

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"I generally commence about the first of November, and trap till the first of April. There is no certainty of securing prime fur before the first of November, and but few kinds are good after the first of April. The three kinds - beaver, otter, and muskrat - are, however, good till the first of May; and the fur of the otter is good even as late in the season as June."

"Do you generally go alone, or with companions?"

"I have trapped alone about one fourth of the time. It is generally more pleasant, but less profitable, to have companions. When game is plenty, it answers well to have partners; but I would recommend never to have more than two, and think it nearly always better to have only one companion."

"How many animals have you generally taken on a winter's trip?"

"That depends, or course, entirely upon my fortune in securing good trapping ground. My son Samuel and I trapped one season in Upper Canada, and caught forty-seven beaver; and the furs of other animals which we caught at the same time, would bring as much money as that of the beaver. The best specimen of luck I ever had was in setting twenty-seven traps, and finding a mink, fisher, or marten in twenty-five of them. That was on my second trip to Canada."

"How much money did you generally make?"

"That is another difficult question. I have made from \$5 to \$75 a month."

"Well, then how much did you make in your best trip?"

"The best trip I ever made was forty years ago. I went out on Dead River, in the State of Maine. I was absent from home just one month (started December 3d, and returned January 3d); sold my fur for ninety-seven dollars, and fur was then very cheap. The same fur would now bring several hundred dollars. Two of us have often made \$100 a month, or \$50 apiece."

"What do you take for an outfit?"

"A double-barrel gun; a hatchet (I used to carry an axe, but now prefer the hatchet); a butcher-knife; a pocket-knife; a camp-kettle holding about six quarts; a frying-pan; a pint dipper or cup, and a spoon. I go lightly clad, never taking an overcoat, and only a single woolen blanket. For a winter's campaign, I take 40 lbs. flour, 10 lbs. pork, 6 qts. beans, 5 lbs. sugar, and 1 lb. of tea. The two last items might be dispensed with. I have lived a week at a time in the woods, eating nothing but moose meat; and Reuben Howard a trapper from Connecticut, says he has lived two months at a time on deer's meat alone."

"If you were starting now, wouldn't you take some little conveniences for cooking and camping, beside those you have mentioned?"

"No; the longer one lives the life of a hunter and trapper, the better he learns to get along with few conveniences, and the more desirous he becomes of avoiding luggage."

"How many traps do you take along?"

"When I first went trapping, I thought six or eight traps enough; but steel-traps are so much better, and more easily tended than wooden traps and dead-falls, that I now take one hundred muskrat or mink traps -- sometimes even one hundred and fifty -- besides a few otter traps, and, if I am going into a beaver country, a dozen beaver traps."

"But you can't take all these into the woods at once?"

"No; I first select my trapping ground, and then 'make a line,' as trappers say; i.e., carry into the woods three or four back-loads of traps, and deposit them in safe places along the line on which I intend to trap, which sometimes extends from twenty to forty miles, from one stream to another, or from one lake to another."

"How many traps can one man tend?"

"That depends, of course, upon circumstances. Where game is plenty, fifty traps will keep you skinning and stretching; but in other places you might tend one hundred and fifty or even two hundred traps."

"How did you camp at night?"

"There is a good deal to be learned about camping out. When I go into the woods to trap for any length of time, I generally build a home-shanty of logs or bark. If I want to build one which will last three or four years, I make it of logs, notching or dovetailing the ends, and laying them up in blockhouse style, filling the cracks with moss, and making a roof of split cedar or bark. Sometimes I make a shanty by simply driving down two crotched sticks, placing a pole on them, and sticking down poles all around excepting in front, and covering them all over with spruce bark. When near the homeshanty I sleep there of course, but at other times I have no covering excepting a single blanket. I find a big log, and make my bed of boughs on that side of it least exposed to the wind. If the snow is deep, I select my camping-place on the hill-side, digging down to the ground to make a fire, and sleeping myself on the snow below, so that the blaze of the fire will shine directly upon me. When travelling by water, I draw the boat on to the bank at night, partly turn it up, and sleep under it, building a fire a few feet distant in front. I generally have slept very soundly in the woods."

Pages 143-145.

"The Deer Hunt" from Samuel S. Hutchins' Journal.

Oct. 21, 1860. -- We caught a deer to-day, and I am going to tell you all about it; for we had a lively time, I assure you.

It was one of those still, cloudy mornings you see so often at this time of year. We rose early, got our breakfast, did up our chores, and then started for the lake to hunt deer. We found the lake as calm and smooth as glass. Father took the large boat and went up to the head of the lake to start the dog, and I took the small boat and started down the lake for the "point," to watch for the deer. After getting there I climbed up into a tree, so that I could have a good view of the lake, and listened for the dog. After staying there some time, the wind began to rise, and I was cold, and began to think that we should hardly get a deer that day. So I came down out of the tree and begun stirring about to get warm, when I heard the dog away off on the hills. I stopped for a moment to see which way the chase was going, and came to the conclusion that they were coming around the head of the lake, and so on down to where I was. I then got up into the tree again, to await the result. I waited about an hour, I should think, watching the upper part of the lake most of the time, thinking the deer would be most likely to come in there. On looking, however, in the other direction, behold there was the deer, swimming for life. It was a buck, and a large one too. He was about half-way across the lake, and half a mile from where I was. I did not stand there and look at him long, I reckon. Down I came, twenty feet at two jumps, hurting my shins most wofully on the limbs, and my nose on the stones where I landed; but I picked myself up and got into my boat. Then commenced the chase. But let me describe the boat in which I was, so that you can better appreciate the fun. It is just eleven feet long, and sixteen inches wide, and scarcely heavier than an egg-shell, (poetic license,) and wil' upset a great deal easier. It was made from a bass-wood log, and well made too, and is what is commonly called a "dugout." I had to stand on my knees in the middle, and had a double paddle, which is just like a common one, only it has a blade on each end. Thus equipped I started the chase, with the wind in my favor, and with the firm intention of catching the buck if I possibly could. He was a good half mile ahead of me, and had not so far as that to go to get to shore; and I could see that he swam furiously. I had no weapons to slay him with. My duty was to get around him, and drive him up the lake to father, who, when he saw me start out, I expected, would come and meet me and help kill him. So away I went, exerting every nerve and muscle; shot around the point, and was out at sea in "no time;" kept my eye on the deer, and took a course that would cut him off from the shore that he was swimming for. For a long while I went thus, with the wind in my favor, sometimes thinking that I should overhaul him, and then again that I should not. Finally I saw that I was gaining on him a little; but I knew that I must do more than that, if I wanted to catch him; so I re-doubled my efforts. "Pull, Sam!" I muttered, "you must overhaul him, anyhow;" and so I did. After a long and hard pull I came up to him. When he saw me he turned square off from me, and swam almost as fast again as he did before. When I came about, side to the wind, to follow him, my little boat dipped water at every wave.

But I stopped not for that. I wanted to run in beside him once more, and turn him toward the opposite shore; but I found that it was somewhat harder to do so than I expected. I laid out all my strength. You could have heard me puff half a mile off, if you had been within that distance. I could see that I gained on him, but very slowly. He sees that I am coming too near him, and he makes a short turn and swims for the middle of the lake-- just where I wanted him to go, exactly! When I found he was safe, I dropped my paddle and shouted lustily for joy. Father came in a few minutes, and dispatched him, but not without a desperate battle. He fired three charges of buck-shot into his head, struck him more than forty blows with a hatchet, and only succeeded in killing him by getting hold of his legs separately and hamstringing him, after which he could raise his head sufficiently to cut his throat. He was an old buck of the toughest kind, and weighed three hundred pounds.

Pages 181-205.

"An Expedition to the Laurentian Hills" by Theodore L. Pitt.

Several miles north of the village of Madoc, in Canada West, a traveller, journeying northward, enters upon a section of country to which geologists have given the name of Laurentian Hills. These hills stretch from the Ottawa River to Georgian Bay, and from the neighborhood of Madoc to the region of the Madawaska. This portion of Canada is supposed by geologists to be the oldest land in the world. Here was the primeval continent -- the first "dry land" that "appeared" above the all-enveloping ocean, that, in those far-off days of creation, rolled unbroken round the globe. The rocks of this region are the oldest in kind with which man anywhere comes in contact. They are azoic rocks -- rocks in which no indications of animal life can be traced. They have no fossils, and if any living creatures existed in the ancient ages in which these rocks were formed, all evidences of their existence have utterly passed away in the geologic revolutions. The country is emphatically a land of hills. They seldom if ever rise to the dignity of mountains, but below this they are of all sizes and shapes. Generally their longer axis is from northeast to southwest. The land appears as if it had once been a vast sea of molten rock lashed into fury by a northwest gale, or the boiling of Plutonic fires, and then in a moment congealed. The region is all underlaid with rock at the depth of a few feet, and it crops out continually. There are visible ledges, vast beds, and boulders innumerable. Perpendicular cliffs hundreds of feet high are found, sometimes overhanging the clear waters of a lake; at others, the lofty tops of a pine forest. There are great walls of rock piled up, which look as if the Titans of old mythology had worked there in the unknown ages. If one wishes to study rockwork on the largest scale, let him go to the Laurentian Hills and see the backbone of the world. He will see more. He will see the workshop where the continents were made. All the rocks that are now to be seen are but the remnants of what existed in the old ages, hundreds of millions of years ago. They are all ground down and smoothed and rounded by untold cycles of abrasion and disintegration.

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I can hardly imagine scenery more impressive and suggestive of the mighty power that has worked upon the world in the long, long past.

The Laurentian Hills and valleys are covered with forests of pine, hemlock, hard-wood, cedar, tamarack, &c., and form a paradise for the lumbermen, large companies of whom carry on their operations there. The Canadian government has opened roads running northerly into the forests at intervals of twenty or thirty miles. Settlers have penetrated along these roads and made clearings and erected log-cabins, far into the back country. But it is not a favorable country for farming: the summers are frosty, the winters long and severe, the soil is rocky and shallow. Many deserted cabins are seen, and clearings growing up with forests again. Here and there a section is found where the soil produced fair crops of grain. The greater portion, however, will always remain in woodland, and continue to be one of the best trapping grounds in Canada for years to come. The head waters of several river systems are in this region, and thousands of small streams and lakes abound. The rocks which underlie the country are mostly impervious to water, and the creeks which wind among the hills, wherever they find a basin, fill it and form a lake. These lakes are one of the most interesting characteristics of the country. Their waters are pure and soft. Encircled as they are with woods, the arrangement of the trees around them is a noticeable feature of the landscape. Next to the water is a belt of evergreens, broken rarely in low, marshy places by sections of black ash, or on low, sandy beaches by white birch. Nearest the waters is a fringe of cedars, whose branches droop, and, when the waters are high, touch the waves. Back of the cedars are the hemlocks and pines, and beyond these, on the uplands, the hard-wood timber. In autumn, when the tints are changing, this arrangement forms beautiful pictures. The dark-green of the pines and hemlocks mingles far up the hills, in all picturesque ways, with the splendors of birches, beeches, and maples. The waters of the lake and the cedar fringe form a base to the scene. Over all comes the play of sunshine and shadow.

To this region, in the autumn of 1865, several members of the Oneida Community went on a trapping excursion, under the lead of the old trapper and hunter, Mr. John Hutchins, whose character and adventures have been sketched on previous pages. Their departure from home was announced by the editor of the "Circular" in the following terms: -

"On Monday next, September 25th, an expedition will set out from the Oneida Community for the backwoods of Upper Canada. The object is trapping, and the company go prepared for a six months' campaign in the woods. The expedition consists of --

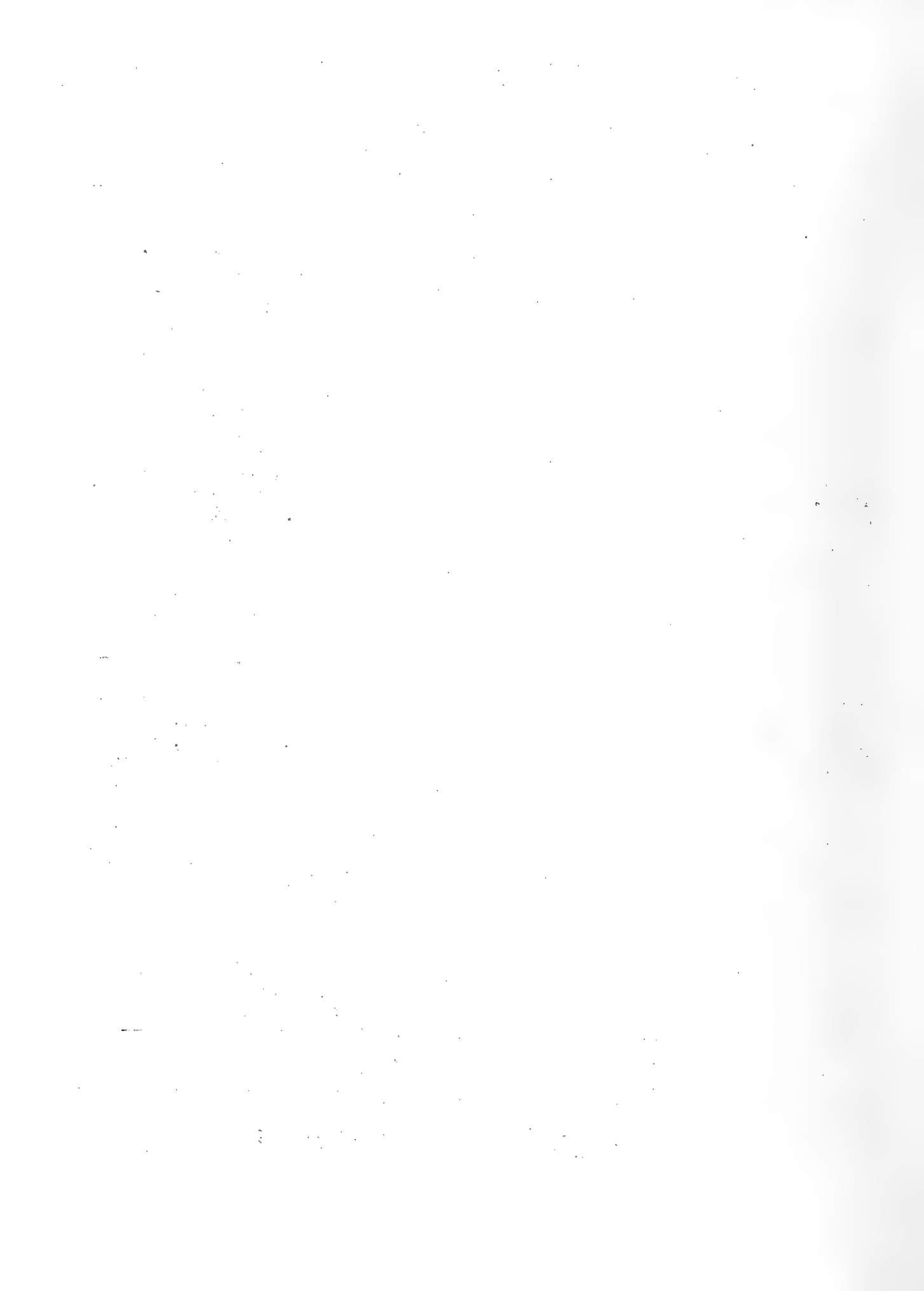
"John H. Noyes, Author and Inventor;

"John Hutchins, old Maine trapper and hunter;

"John P. Hutchins, son of the latter, and member of the Oneida Community;

"Theodore L. Pitt, ex-Editor of the 'Circular';

"George Campbell, ex-Financier of the Oneida Community."



The objects of our expedition, more fully stated, were as follows: 1. A practical acquaintance with life in the woods, and its healthful influences; 2. Trapping and acquaintance with trappers; 3. Fur-buying and study of the fur-trade. The programme included within its possibilities a winter campaign in the woods, and an outfit was prepared accordingly. As this outfit was made under the supervision of Messrs. Hutchins and Newhouse, and was the result of their combined wisdom, it is perhaps worth copying, for the benefit of others planning similar expeditions. It was as follows: --

Outfit

Guns; ammunition; fishing tackle; two good salmon spears; two light axes; two butcher-knives, and one howel or round adze. One hatchet, one pocket-compass, one stout pocket-knife, one double-case watch, a shoulder-basket and a haversack for each man. Provisions taken from home: One bushel of beans, two dozen cans of preserved fruits and vegetables, and a few cans of condensed milk. Clothing, &c.: One good blanket, one stout suit, two woolen shirts, two pairs of woolen drawers, six pairs of woolen stockings, one pair of camp shoes, one pair of boots, and two pairs of woolen mittens, for each man; scissors, needles, thread, thimbles, wax, patches, &c., in abundance; matches in abundance, in tin safes or bottles, air or water tight; one pocket match-safe for each man. Cooking utensils: Two six-quart camp-kettles, two frying-pans, one baking-kettle; tin plates, spoons, knives, forks, basins, coffee-pot and pails. Miscellaneous: One draw-shave, one hand-saw, one hammer, one inch auger, four gimlets, two lamps and a globe lantern; files, nails, and tacks; pillow-sack and night-cap for each man; sacks for hammock-beds; snow-shoes for each man; fish-oil for bait; ink-stands, pens, and pencils; writing-paper; one dog.

Additional provisions to be taken into the woods were bought at the last village on our route. These consisted of flour, oat-meal, sugar, butter, salt, pepper, &c.


The destination of the party, according to programme, was a point on the Hastings Road, near the head waters of the Trent River. On arrival there, we were to reconnoitre, and if prospects were unfavorable, go on further north. Mr. Hutchins had trapped in that region several seasons before, and considered it a favorable locality for accomplishing our purposes.

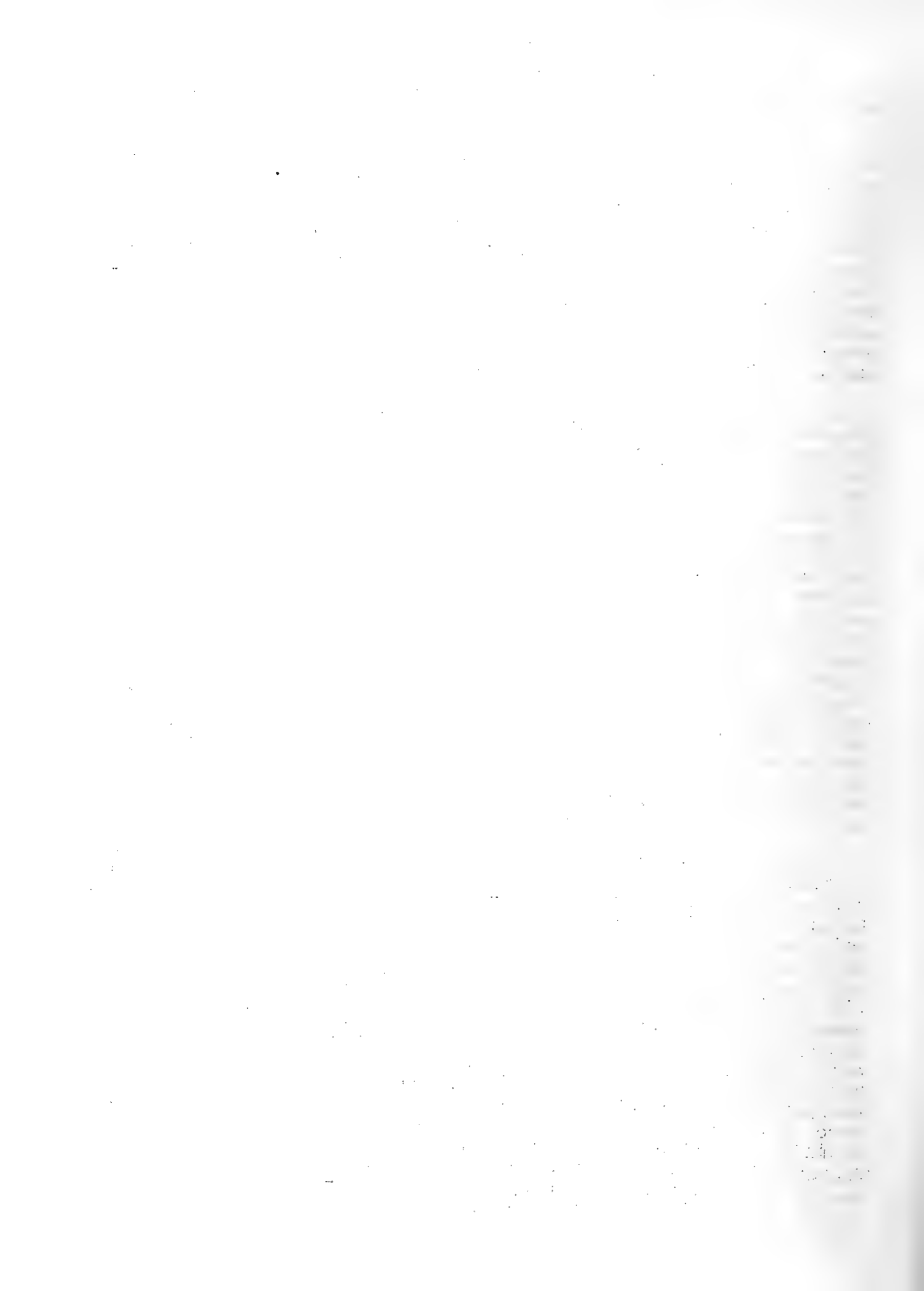
We started from Oneida about noon on the 25th of September, and arrived at McKillican's, sixty miles north of Belleville, on the Hastings Road, the third day after, at midnight. It is sufficient to say of the journey, that we had descended in regular order of travel from the railroad to the steamboat, from the steamboat to the stage-coach, and from the stage-coach to the lumber wagon. The next step was pedestrianism: We had enough of that afterwards. I will say, however, that the traveller on the Hastings Road, after reaching Jordan, sixteen miles beyond Madoc, if he consults his personal comfort, will eschew all other modes of conveyance except those with which nature has furnished him, -- his own legs, or perhaps horseback-riding. Even the latter is

not the safest operation a man can perform. Hastings Road from Jordan to the York River is truly a "hard road to travel."

McKillican's is the clearing and habitation of Benjamin McKillican, a worthy Scottish Highlander, who, with his family, emigrated from Inverness to Canada many years ago. Nine or ten years since, he settled on the Hastings Road, took up government land and began improvements. He is now seventy years of age; a friendly, hospitable, honest man, and a fine representative of the Scottish faith and earnestness in religion. His family, at the time we were there, consisted of himself and wife; two handsome daughters, who in health, refinement, and industrious activity, were noble specimens of backwoods life; and two younger sons. Our acquaintance and sojourns with this family, first and last, are among the pleasant memories of our expedition.

Seven miles west of McK.'s was Mr. Hutchins' old trapping ground. Four years before, he had left it at sixty years of age, and gone to the war. Those years had made as great changes in the backwoods as in the Southern Confederacy. Other trappers had come in and "occupied the land." Settlers were penetrating the wilds on either hand. Fires had swept through vast tracts of forest. Mink, beaver, and fisher had become less numerous. If we would find good trapping grounds we must go on towards the North Pole, or penetrate many miles into the wilderness, east or west from the Hastings Road. The next morning after our arrival at McK.'s, the question of location was fairly before us. We made inquiries, we sent out scouts, we studied the maps of the country. The result was, the selection of Salmon Lake and the adjacent region, seven miles northeast from McK.'s, as our "camping ground." The locality seemed attractive on the map, being full of lakes and streams. It was said to be out of the range of settlements; was unoccupied by trappers. The choice was between this locality and going on forty or fifty miles to the Madawaska region. The latter was far beyond the range of the white trappers, and occupied by Indians who were unfriendly to intruders. We decided for Salmon Lake.

How to get to Salmon Lake was the next question. There were no roads; at least we could hear of none. There was no navigable river. We shouldered our pack-baskets and rifles, and explored. An old winter lumber-road, which was said to run nearly to the point we wished to reach, was first tried. We followed it two miles and a half, most of the way over burnt and fallen timber, and through a swamp half-leg deep in water, the rain in the mean time coming down in a steady drizzle on our heads. At last we came to an old lumber shanty, and camped for the night. As this shanty was a fair specimen of the lumberman's usual habitation, I will briefly describe it. It was about twenty feet square, seven and a half feet high at the sides, and nine and a half feet at the peak of the roof. Each side was built of five great logs, some of which were two feet in diameter. The roof was made of split logs hollowed into troughs, and placed in this position:
 All the cracks and holes were compactly filled with moss. The chimney was merely a crib of six-inch sticks laid up log-house fashion from the roof, and placed directly over the centre of the building. It was four or five feet square at the



base, and served the double purpose of carrying off the smoke and lighting the shanty. The fire-place was an altar of soil and stones surrounded with timbers, raised a foot or more from the floor, directly under the chimney. There were no windows. Around the sides were two tiers of sleeping-bunks. All through the Canada woods, wherever there is good pine timber, these shanties may be found. They are occupied in winter by twenty or thirty lumbermen, and after the timber is all culled, and transported from the vicinity, are abandoned.

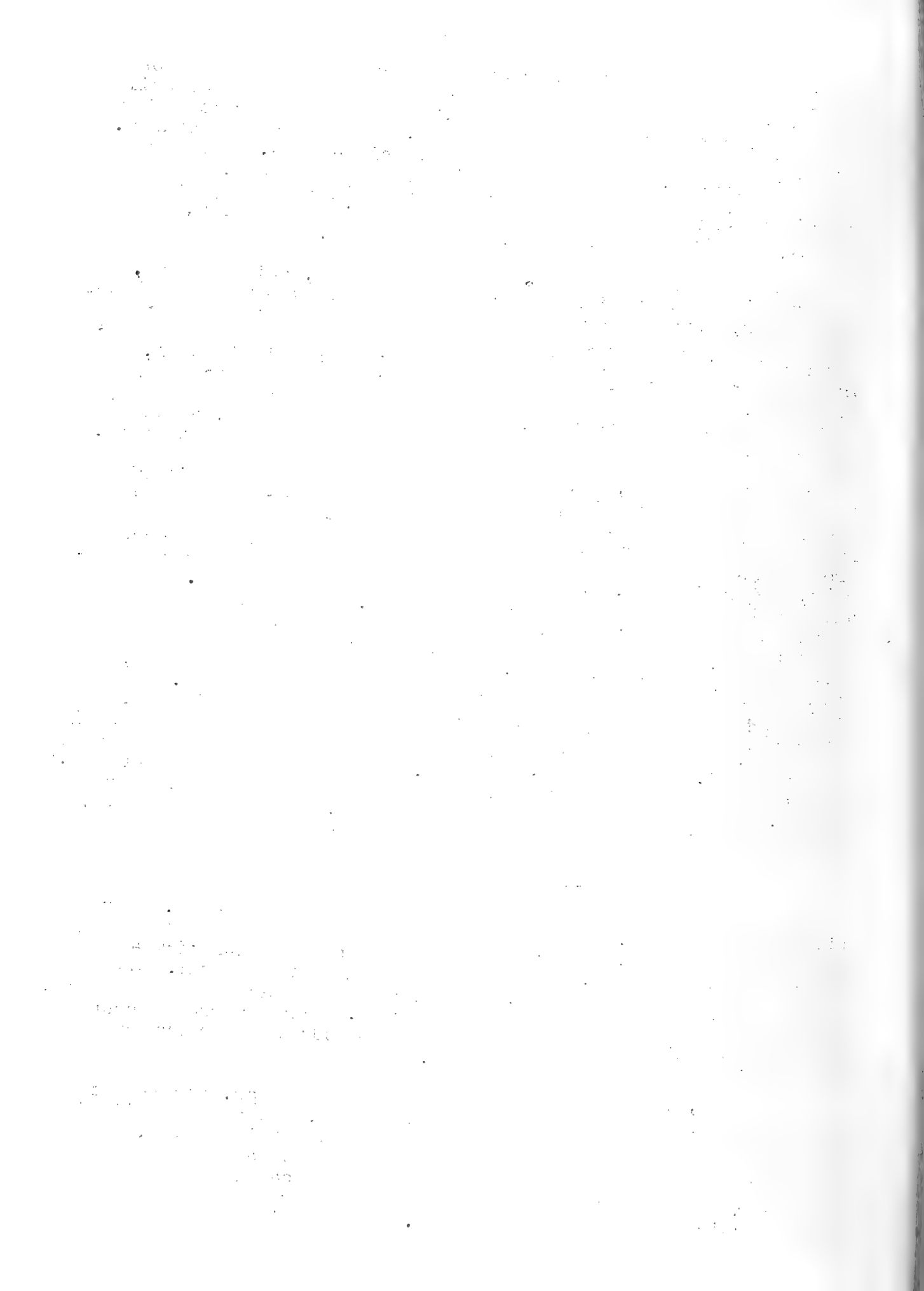
We cleared out the rubbish from the shanty, built a fire, gathered in great armfuls of balsam and hemlock boughs for beds, ate supper, wrapped our blankets about us, and slept our first night in the Canada woods. Already we had begun to feel a fresh vigor pulsating in our veins as we tramped the virgin soil, drank the pure water, and breathed the perfumed atmosphere of the woods. How new and rich the sensation of tramping all day in the rain and swamp-water, through unknown forests, and lying down at night on evergreen boughs to dream of friends far away!

The next morning, Mr. Hutchins, who had been reconnoitering in a different direction, came up with us and reported he had found a better route. As there was no prospect of reaching the lake short of several days' travel, by this route, and as our provisions were nearly exhausted, we cooked a meal of red squirrels, and retreated. A definite plan was now arranged. A mile and a half east from McK.'s was Bass Lake. From Bass Lake to Salmon Lake there was an outlet five miles long. This outlet was reported navigable with canoes, but no one had voyaged through it for several years. P——, who lived on Bass Lake, said the thing was practicable. We concluded to try it. On an island in Bass Lake grew lofty pines suitable for canoes. P——, was an experienced builder of that kind of craft. We would go to Bass Lake, build canoes, transport our baggage to the shore of that lake, and set sail — paddle, rather — down the "Outlet." We worked cheerfully, happily, and hard for a week; built three canoes, got our baggage across from McK.'s, loaded our vessels, and started.

Voyage Down the Outlet

It was morning; perhaps we should get to Salmon Lake, four or five miles distant, by nightfall. The mouth of the outlet was shallow and narrow, so that we had to deepen it with pick and shovel the day before. No matter; it would grow deeper. One canoe was fifteen feet long, and thirty inches across the gunwale, carrying three hundred pounds of baggage. Three persons occupied and managed it. The other canoes were small; would carry one man each, and considerable freight.

Gradually, very gradually, the water grew deeper, and the big canoe would occasionally float a rod or two, without much lifting or tugging at the paddle. But it would soon strike a log. If the log was seven or eight inches below the surface of the water, the canoe could be pushed over, by using the paddles as poles, without much difficulty. If the log was nearer the surface, other tactics had to be resorted to. How we finally learned

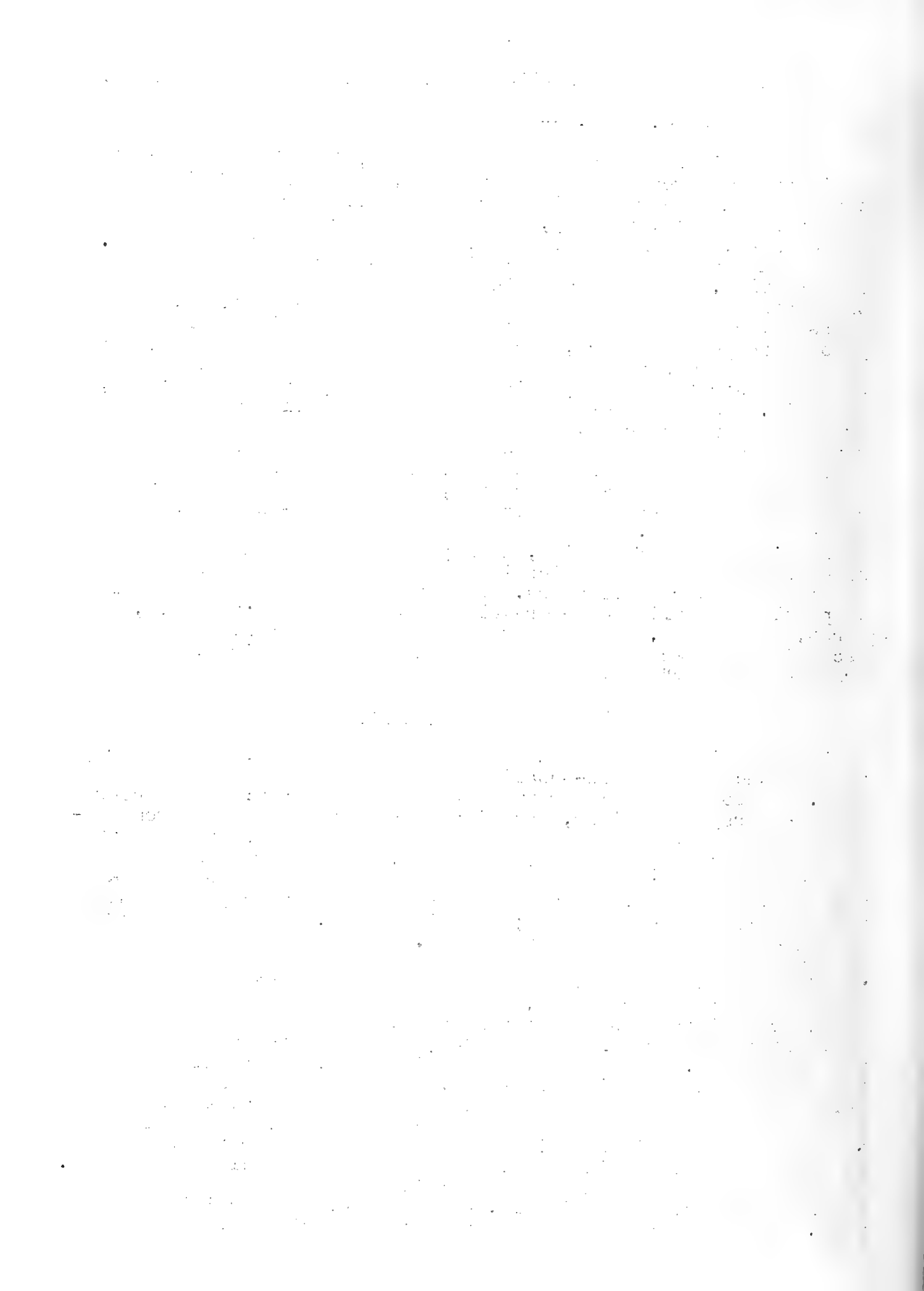


TO NAVIGATE A BOAT IN A SHALLOW STREAM FULL OF STONES AND LOGS,
is thus told by J. H. N.: —

"It sometimes happens that the trapper, in following his line, or in passing from one lake to another, finds himself with his boat in a small stream, with rocks and fallen trees obstructing his way. The Oneida party, in descending from Bass Lake to Salmon Lake, encountered five miles of this kind of navigation. The creek that connects the two lakes was reduced by drouth to a mere rivulet, with only occasional puddles large enough to float the boats; and though somebody had forced a way through, some years before, by sawing and chopping away logs with incredible heroism and perseverance, much of his labor was lost to us, first, because the low state of the water brought out into bold relief the lower strata of logs, which he had easily sailed over; and, secondly, because hundreds of new trees had fallen across the creek since his descent. Moreover, the beaver dams had all been repaired and we had to work our way over twelve of them. We estimated by rough guess that the logs we cut through or dragged over numbered about twelve hundred, and the rough rocks (far worse than logs) that we polished with our boat-bottoms were about as many more. In the course of nearly three days' work on these five miles of boating, it may be believed that we learned some practical lessons which it will be useful to record for the benefit of future navigators. We tried two ways of getting along, as people generally do in travelling "Jordan roads;" namely, first, the dainty, conservative way, and afterwards, when stern necessity had lectured us into an accommodating spirit, the "rough-and-ready" way.

"The Conservative Way

"October in the Canada wilderness means November in New York, as we found by the snow-squalls we encountered in those three days. Of course the water was far from being warm; and of course the ex-clergyman, editor, and financier shrank a little from wetting their feet! We were willing from the start to wade in water of moderate depth, say up to the ankle, or anywhere below the tops of our boots; and with only this reservation we worked hard and heroically, and, to say the truth, conquered many obstructions and got along tolerably well; that is to say, at the rate perhaps of a quarter of a mile in half a day. Three of us novices had in charge the big boat, with its load of three or four hundred pounds; and our way was, when we came to a log that could be surmounted without chopping, first to run the bow on as far as we could by a vigorous shove of all hands. Then the man at the bow would step out carefully on the log, so as not to take water into his boots, and, the bow being thus lightened, the remainder of the crew could shove it further on. The man on the log could not help much, as his footing was not secure, and he had as much as he could do to look out against wetting his feet, and to find a safe way back to his seat in the boat at the proper time. When we had worked along till the log was under the middle of the boat, the bow man would get in, and the 'midship man would get out, on the log of course; and finally, when the balancing crisis was past, and the stern came to be the point of friction, the 'midship

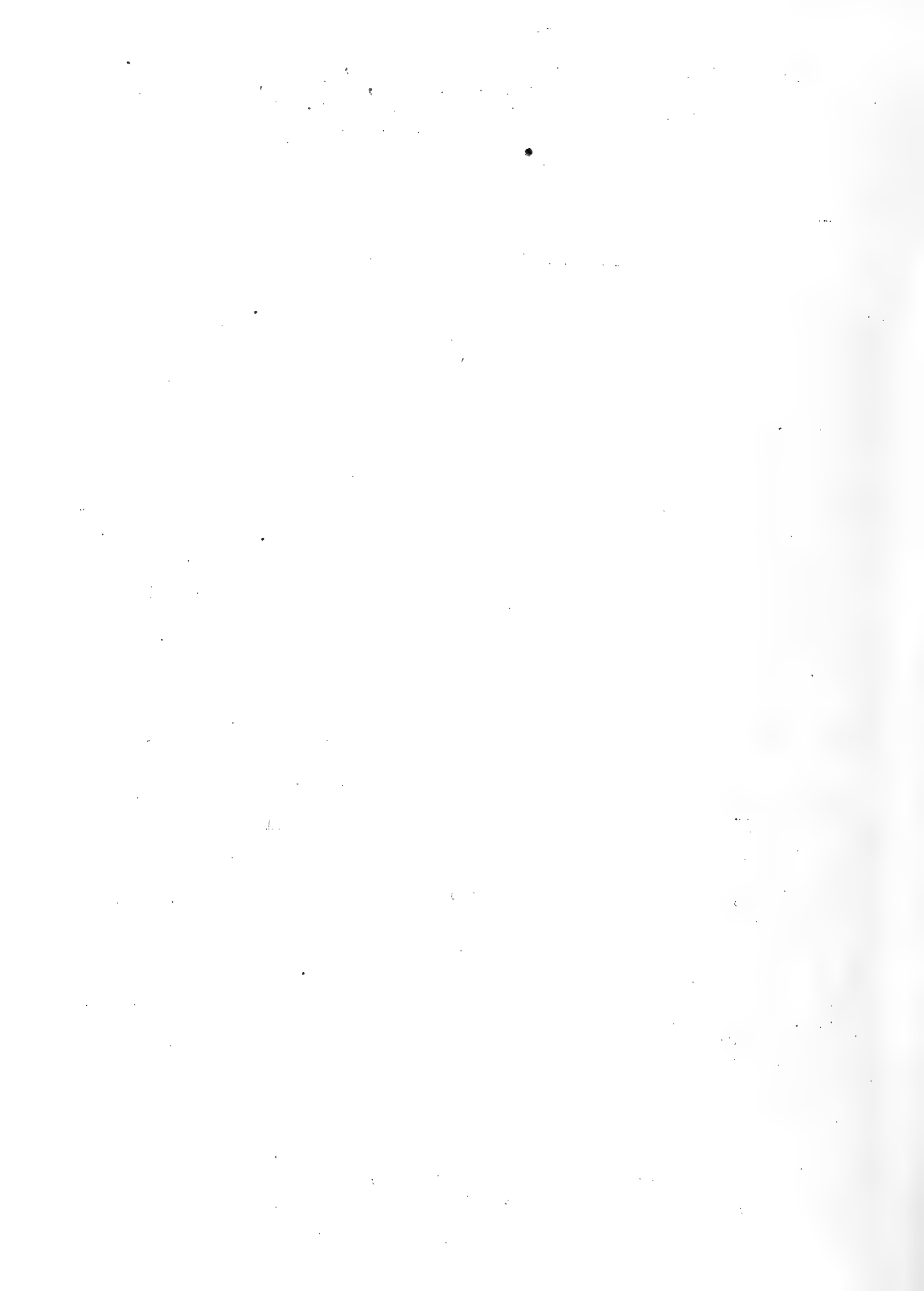


man would get in, and the man behind get out, still on the log. In this way we kept our feet partially dry, that is, dry as they could be with water soaking through the leather, and running in at cracks; but our progress was very slow. Night overtook us before we had accomplished a quarter of what we had undertaken as a mere afternoon's job; and Heaven only knows whether we should have ever reached Salmon Lake if we had not at last concluded to try —

"The Rough-and-ready Way

"John P. had charge of one of the small boats, and at the same time kept within hailing distance of the large boat, so as to assist the three civilians at the worst pinches. He had seen service of this kind in other days, and knew that the best way was to "take the bull by the horns." He laughed at our policy of keeping the water out of our boots by balancing and teetering on the logs, and set us an example of working on firm footing at the bottom of the creek, without regard to the depth of water. He reasoned and exhorted and scolded; and slowly his radicalism began to prevail over our timidity. The ex-clergyman (otherwise called the inventor) first gave in and went to work in John P.'s fashion, without the fear of wet feet before his eyes. The financier soon followed suit, and the ex-editor, slowly, reluctantly, but finally with a faithful willfulness that beat us all, adopted the simple policy of considering cold water a harmless medium to travel and work in, favorable probably to health by causing reaction. Thenceforth we worked at boat-shoving with free hands and firm feet, and a strenuous heartiness that changed toil into sport, and carried us triumphantly through the most tremendous job of uncivil engineering that three civilians ever undertook. The difference between our first policy and our last was, that we began with trying to keep the water out of our boots, and ended with being contented to keep it out of our breeches pockets!

After our first conversion to the "rough-and-ready" policy, we had still to learn an important subordinate lesson in regard to the best way of economizing vital heat in dealing with the water in our boots. At first we imagined it was best to get rid of the cold and incumbrance of each bootful we took in as soon as possible; and, for this purpose, at every opportunity we would sit down and lift first one foot and then the other to a position about as high as the head, and let the water run out at the top of the boots, taking care of course to keep the pantaloons out of the reach of the torrent; as, otherwise, what left the boots would run down in the cloth tube to the central and posterior regions of the body. But reflection convinced us that this practice of constantly changing the water in our boots was not wise. A bootful that has been worked in for some time becomes partially warm, and soon ceases to be uncomfortable so far as temperature is concerned. In fact it may be conceived of as a kind of stocking protecting the feet from the colder water outside, and not easily displaced by what flows in at the top. To turn out this warm water, therefore, at every opportunity, and immediately take a charge of cold water in its place, was a great waste of vital heat, which we finally learned to avoid. Thus we came at last to work right along without paying any special attention to our feet and found in pursuing this policy the true economy of force



every way, and no ultimate damage to health or comfort."

The party also learned some other things on this voyage, which the same writer reports as follows: -

"Beaver Dams

"Having opportunity for actual inspection of a great number of beaver dams, we got some new ideas about them. Beavers do literally cut down trees and cut off logs. Their lower front teeth are really chisels. We found one that had dropped out, probably, from the jaw of a superannuated beaver. It was a curved tusk, two or three inches long, and instead of being pointed, was beveled off at the end as accurately as any chisel, and had a true-cutting edge of a quarter of an inch in breadth. We saw many specimens of their work which, at a little distance, could hardly be distinguished from axe-cuttings. Boys' hatchet-work would not compare with them for smoothness.

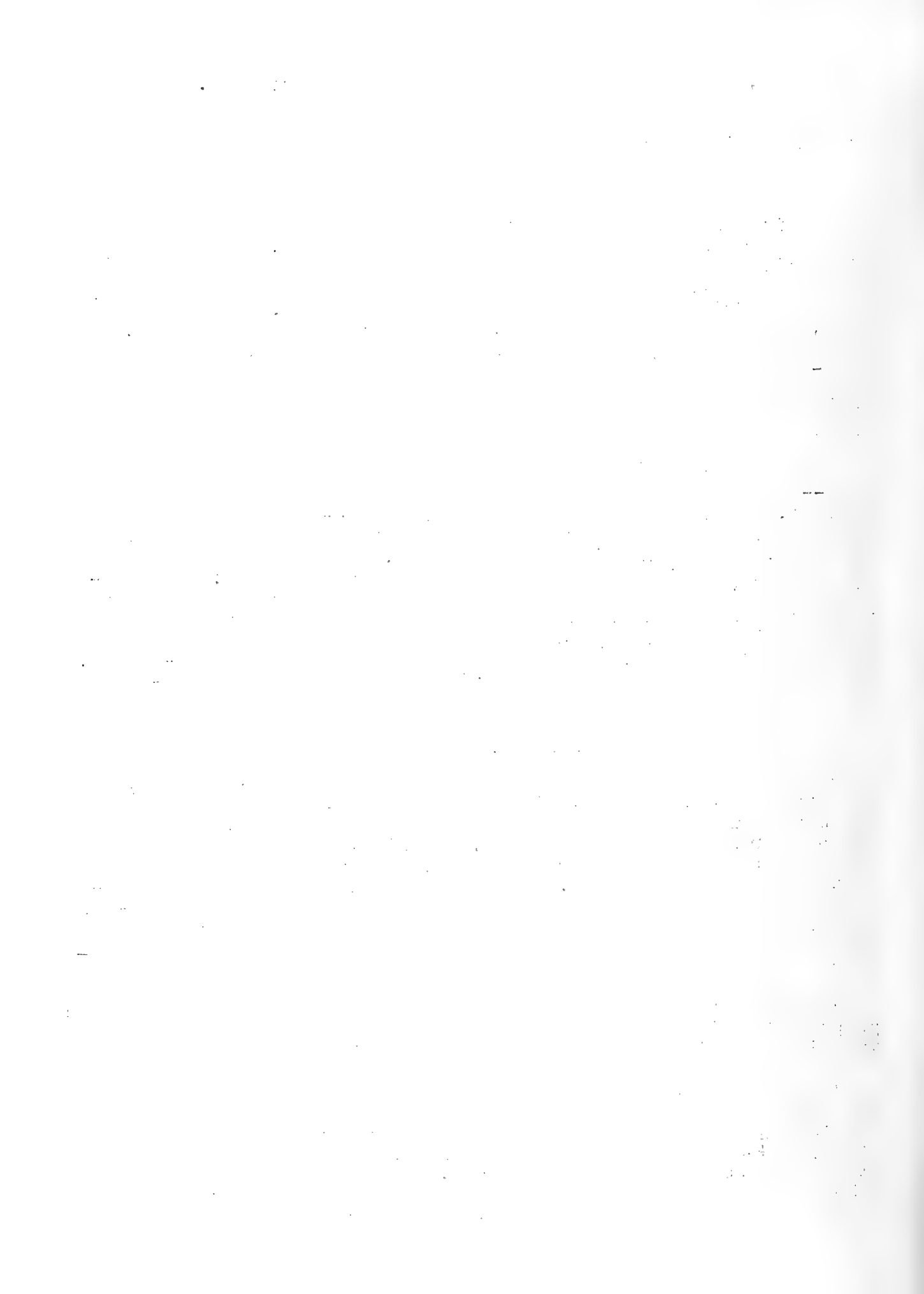
"But the idea that beavers build any thing like a common human dam -- namely, a regular log structure or stockade, rising with a steep, definite slope against the stream -- is a mistake. Their dams are simply huge deposits of sticks and mud, mixed, and laid, apparently without much order, across the stream. We saw none that raised the water more than about a foot; and sometimes the first notice we had of a dam was from running our boat aground in what had appeared to be deep and smooth water. Neither did we find any confirmation of the popular statement that beavers strengthen their dams by a curve or angle up-stream. Some of the dams we saw were straight, and some curve down-stream, but not one curved or cornered up-stream.

"How to 'Shanty.'

"When night overtook us in the midst of our boat-dragging, the old trapper would say, 'It is time to shanty.' By this he did not mean that it was time for us to go into a shanty, for there was no shanty within miles of us. He simply meant that it was time for us to prepare for the night. The approved method of 'shantying' in this sense, as we learned it from several experiments under Mr. Hutchins's instruction, shall be minutely described; and ought to be carefully studied by all who are liable to be caught out in the woods in cold weather, with no lodging-place but the ground under the stars.

"A party at work or on the march in the woods ought to stop and prepare for night at least an hour before dark; as the work to be done is not trifling, nor can it be done without light.

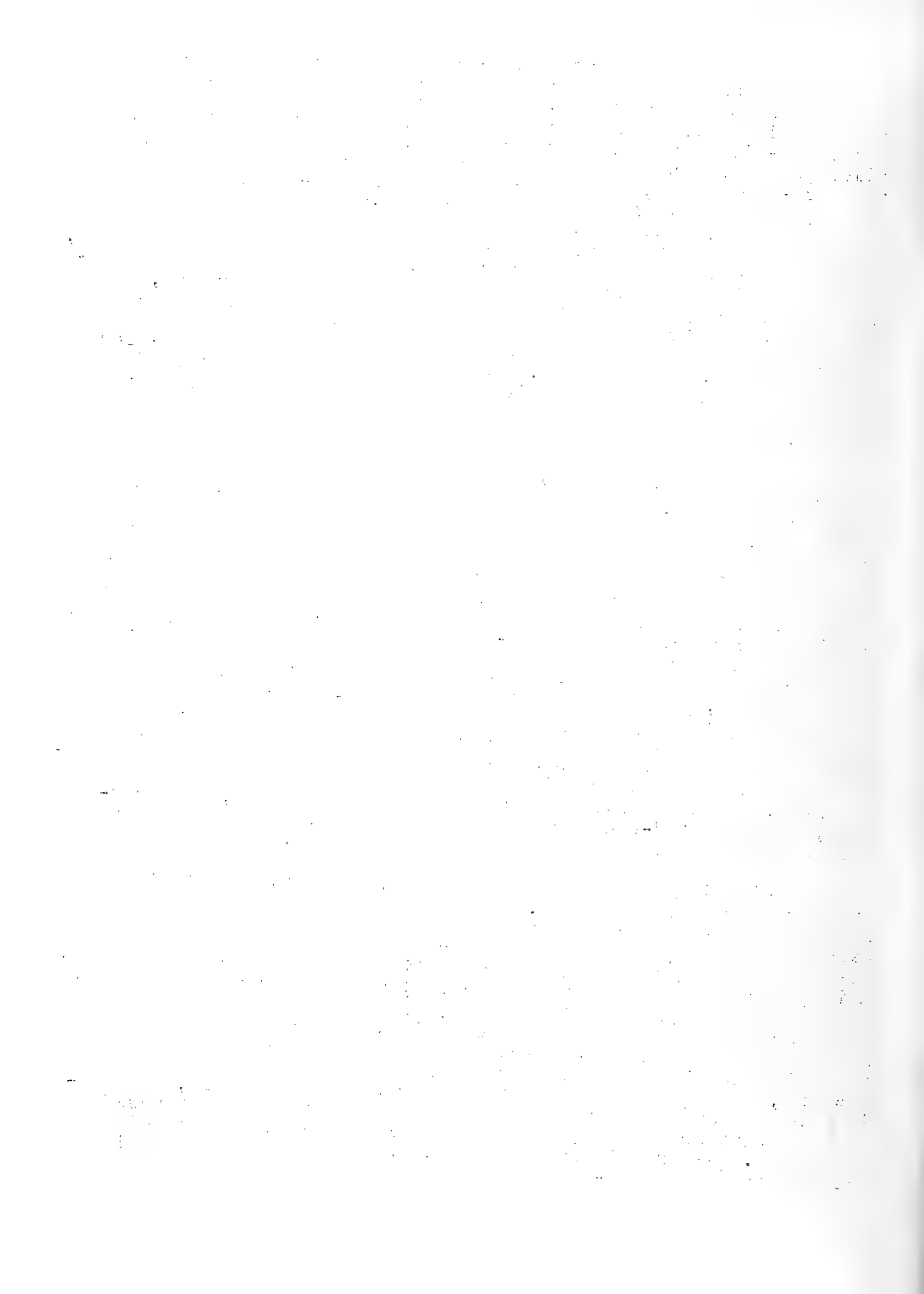
"The first matter to be attended to is the selection of a suitable place. Any smooth spot under the trees near your line of march might seem to be good enough; especially if you are tired, and shivering with wet feet and wet clothes, and want fire and supper as soon as possible. But, if you choose thus in a hurry, you may repent. You have a big load of substantial wood to prepare for your night's fire, and you must have reference to



this in locating your camp. Soft-wood trees, such as hemlock and cedar, are good for nothing; and you must not think of trusting to dead limbs and brushwood. A fire made of these may boil a pot and give a momentary comfort; but what you want is a huge, solid log-fire that will take care of you for hours together, and allow you to sleep in peace. You must find a spot where there are hard-wood trees, such as maple, beech, iron-wood, or birch, which you can fell right beside your fire-place. Otherwise you will have to conclude your day's work with some of the hardest lugging that you ever tried. This matter of a good supply of hard, green fire-wood is first in importance. Next to this it is desirable to keep within moderate distance of a stream or spring, as you have the food to cook and the dishes to wash for supper and breakfast, and will need a good deal of water. Lastly, for a good place to sleep on, you must have in front of your fire-place a smooth space, nearly level, sloping perhaps a little toward the fire, and if possible a little lower than the fire, so that the blaze will shine fairly over you and cover you as with a blanket.

"Having chosen your spot, one of the party fells a tree as tall as can be found, and ten inches or a foot through; cuts the trunk into logs eight or ten feet long, and works up the top for small wood. In the mean time another man prepares and drives two stout stakes into the ground at the back of the fire-place, about six feet apart, and four feet high, bracing them from behind with other stakes sloping into notches near their tops. Three of the biggest logs are now placed, one upon another, against the stakes, forming a great wooden chimney-back, three or four feet high. For andirons you find, if possible, two large stones; but, if stones are scarce, you cut a ten-inch hemlock, and taking two short logs from the butt, place them against your back-logs at right angles to them. On these you lay the fourth of your great hard-wood logs; and thus you have the foundation of your night's fire. While some are making these preparations, others ought to be gathering hemlock bark and dry limbs in great quantities to start the fire, and to enliven it from time to time. Also, if necessary, another hard-wood tree should be felled, that you may have one or two extra logs to put on towards morning.

"The kindling of a fire in the woods, especially in a hard rain, requires some science. A good way is to find a dead cedar or other soft-wood tree that leans to the south. The wood and bark on the sunny side of such a tree is sure to be dry. Split off some strips, and reduce them to fine whittlings with your jack-knife, under your coat or other cover; and with careful manipulation of matches and kindling stuff, you will soon have a roaring fire under and over the great forestick, that will defy the rain. Hemlock or pine bark, taken from dead trees, is excellent fuel for an incipient fire. But it must be laid on carefully in cob-house fashion, with the outside next the fire. After a while, the furious blaze you have started with light material will get possession of the great green logs, and then the fire will take care of itself for hours. Almost literally it shall be to you a 'wall of fire' through the long cold-night.



"Now hang on the kettle for supper. This is easily done by cutting a pole ten or fifteen feet long, sharpening the large end, and thrusting it obliquely into the ground back of your fireplace, so that the small part will rest on the top back-stick, and the end will project over the fire. A twig left at the proper place will prevent the kettle from slipping.

"All that remains, to make ready for sleep, is to prepare your bed. For this, hemlock or cedar boughs will do; but balsam boughs are the best. The handiest way is to cut down a good-sized balsam-tree near your camp, and strip off its top brush either with your jack-knife or hatchet. This bed-material must not be tumbled into the sleeping-place pell-mell; but must be carefully packed, bough by bough, by thrusting the stick-ends into and under the mass, and leaving the brush-ends to shingle over each other, like the feathers of a bird. If you neglect this, you must expect to roll and groan on hard sticks, instead of sleeping quietly on tree feathers. You sleep, of course, in your blanket, with your boots for your pillow, and with your feet to the fire. If 'the stars look kindly down upon you, no matter how cold the weather is, you can sleep within the magic circle of that Cyclopean fire, though the water freezes hard in your water-pail at a little distance.

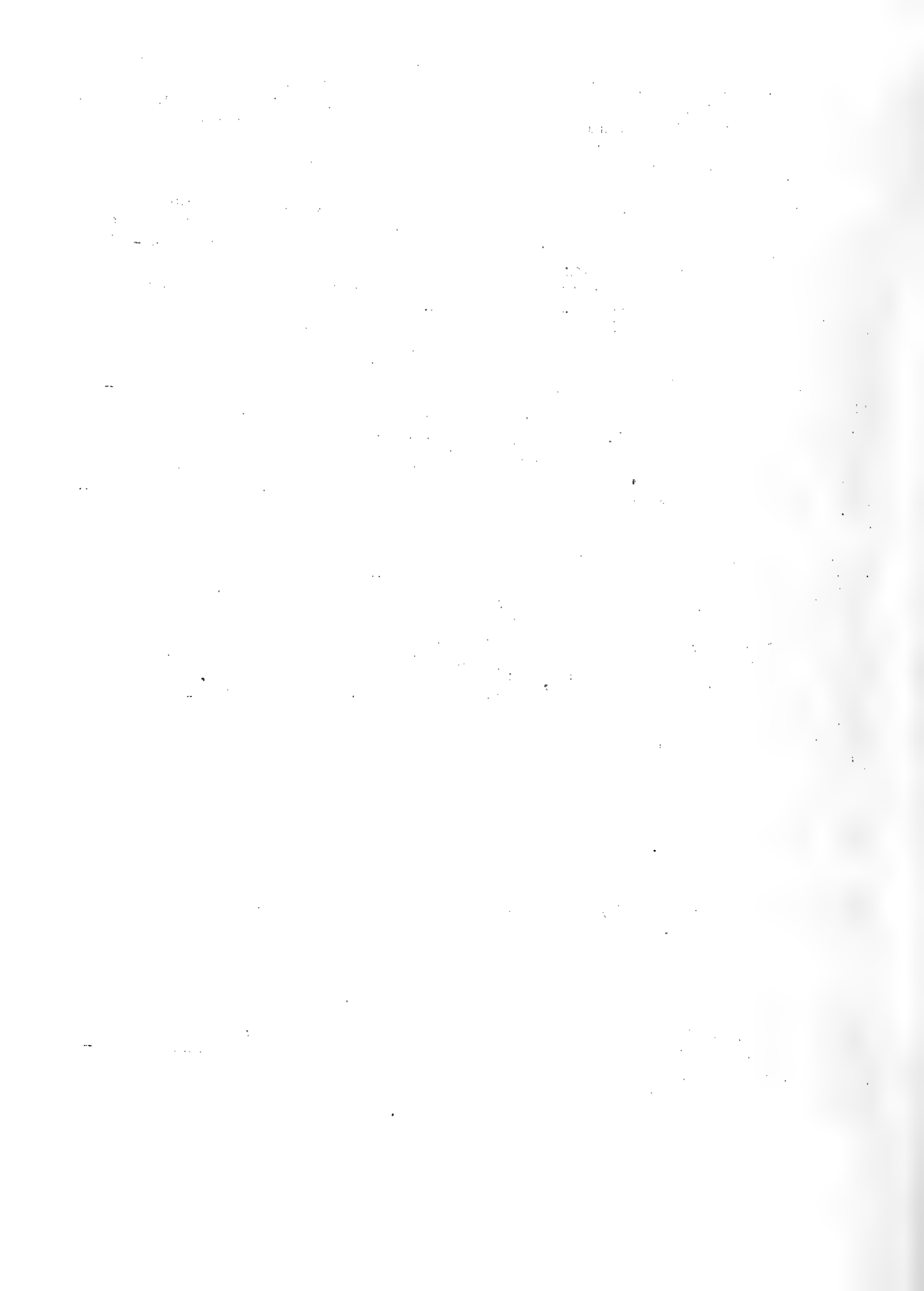
"But what if it rains? Then the party must put their blankets into common stock, extemporize a shelter-tent with one or two of them, and sleep as well as they can under the rest, spread bed-fashion. For the frame-work of the tent you can cut five or six fish-poles, and thrust their large ends obliquely into the ground at the head of your bed, so that they slope up over the place where you are to lie, like the rafters of a roof. You fasten the upper ends with strings to a transverse fish-pole; and then you spread the blankets on the rafters, and fasten them by pinning them to the transverse pole and to each other at the middle edges.

"N. B.— Beware of exposing cotton fixings of any kind to the contingencies of a great open fire, with the winds busy and the sparks flying."

The third day of the voyage, about noon, we reached the open waters of Salmon Lake, and never was a sight more welcome to tired travellers.

Salmon Lake

Is a beautiful sheet of water, six or eight miles long and from one to two miles wide. So far as we explored, we found it surrounded by an unbroken wilderness, excepting two small clearings formerly made by trappers and two deserted shanties. Two miles from where we located, there was a lumber shanty and a company engaged in the lumber business.



How We Lived at Salmon Lake

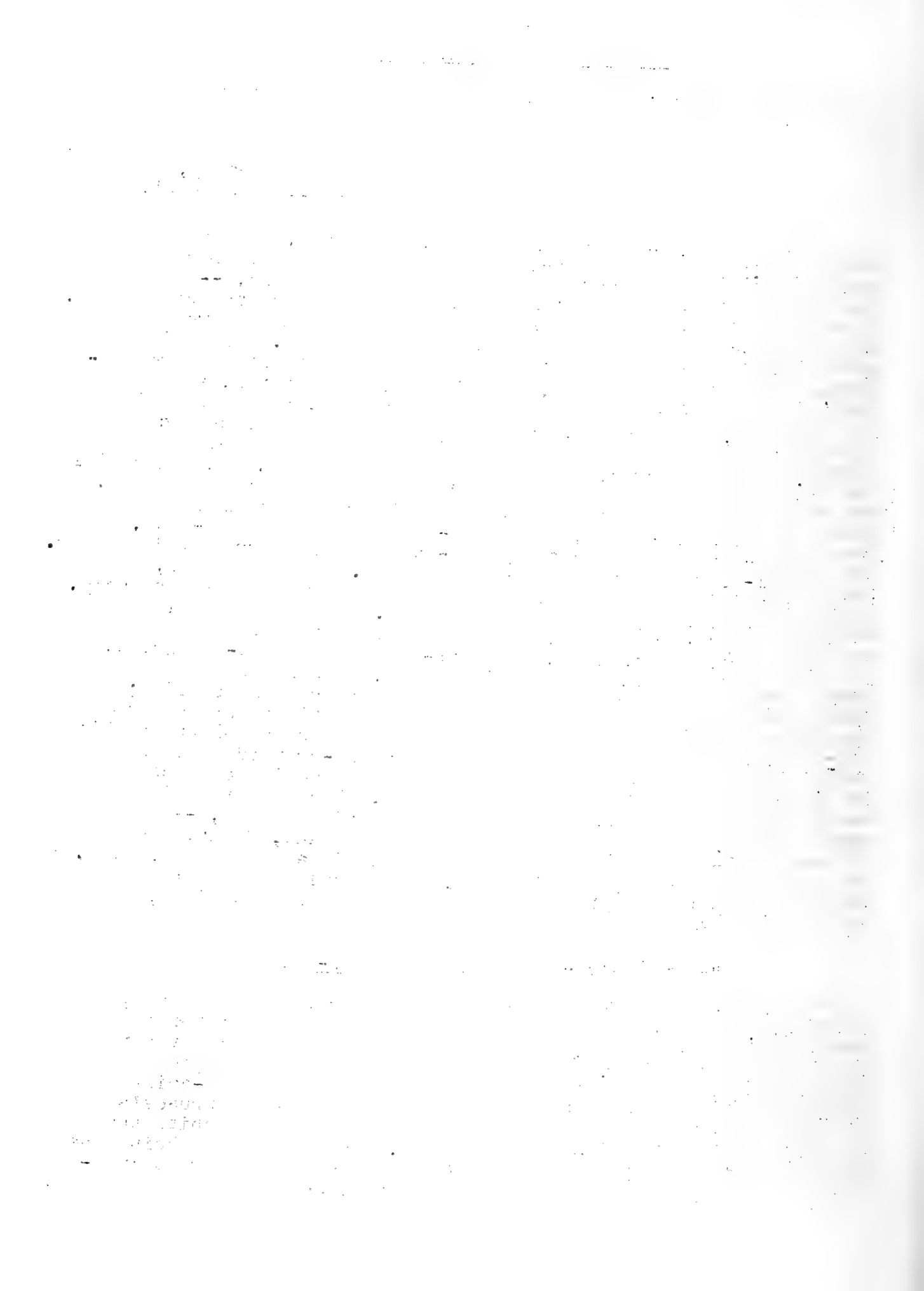
This is told in a letter written by one of the party, as follows:-

"At Bob Holland's Old Shanty,
"Salmon Lake, C. W., October 21, 1865.)

"Dear Friends, -- Human society is, after all, but a great human body. The head and trunk and vital organs may be represented by the civilized and enlightened portions of mankind, -- those portions where intercommunication is the most close and continuous, where the moving forces are generated, and the highest workings of thought and feeling are developed and educated. But this great human body stretches its hands and feet out into the wilderness, where only the Indian, the pioneer, the trapper, and the lumberman are to be found; and where hardihood, and battle with the elements, the forests, and the animals are the required and the prominent facts of life. Here the circulating fluids move slowly, the lines of communication are far between, and the cuticle is thick and tough. The pulsations of the great heart are felt, but they are minute and feeble. The railroad has afar off given place to the stage-route, the stage-route to the lumber-road, the lumber-route to the blazed foot-path of the trapper and pioneer. The school-house is far beyond the horizon. The newspaper, that indispensability of the interior and superior regions of the body, reaches here only by accident and rarely. The sun here rises over the forest-crowned hills of the east, looks all day long on vast tracts of woodland, on clear-blue lakes wood-encircled, on solitary shanties, where solitary men, or perhaps a man and a woman and some children, try to solve their problems of life; looks through forest branches perhaps on the dingy form of some solitary trapper, who wanders by shaded streams and sleeps by his log-fire; and then it sets beyond the forest-crowned hills of the west. Here is where the hands and feet of humanity are found as it comes to take possession of the earth. Those extremities are worth coming to see, -- worth getting acquainted with, -- worth appreciating. 'The eye cannot say unto the hand, "I have no need of thee;" nor again the head to the feet, "I have no need of you."' 'We are all members one of another,' and should 'remember those in bonds,' or in the wilderness and extremities of society, 'as bound with them.'

"Beyond Cock-Crowing and the Cow-Bells

"An Oneida correspondent raises the query whether we have, after all, got beyond hearing the 'crowing of the rooster or the tinkle of the cow-bells.' Our friends need give themselves no anxiety on this point. The rocks and hills of this region (Salmon Lake) are as free from the sound of the church-going and cow-going bells as the valleys and rocks of Robinson Crusoe's island; and the cry of no fowl more domestic in its habits than the loon ever echoed from these shores. Solitary human beings have sojourned here in former years. The old shanty which we temporarily occupy was once occupied by a trapper noted in these regions.



This shanty is eight feet by ten, with an average height of five feet. There is an unfinished shanty of more ambitious proportions a few feet in the rear. On the opposite shore is an unoccupied log-hut. At the other end of the lake there is a new lumber shanty, which is now occupied by twenty or thirty lumbermen. The sound of the great trees falling on the distant hill-sides, reminding one of the reports of far-off cannon, and the occasional appearance of one of the shantymen's red canoes passing under the shadows of the cedars on the eastern shores, are the principal evidences that other human beings are near us.

"Eleven Days on Salmon Lake

"We have now been at Salmon Lake about eleven days. They have been days of active campaigning. We have had to secure means and routes of regular communication with the outside world, bring up our baggage, select ground for our home-shanty, and commence the building of that structure; had to do what we could in the way of securing a supply of fish, and attend to the daily duties of the camp-kitchen and quartermaster's department. I do not know that the details of any of these operations can be given in a way to make them specially interesting to you. Still there are some things that I will note. First, as to the

"Quartermaster's Department

"I judge that it has been seldom that five men (three of them six-footers, or thereabouts) have occupied more limited quarters than have we for the last week. The old shanty which we inhabit measures eight feet by ten on the floor, and is five high under the middle of its shed roof. In one corner is a stone fire-place, which discharges its smoke through a square hole in the roof. Between the fire-place and the door is a space about two feet and a half by three, sunk a little lower than the average of the shanty floor, in which the cook can stand to prepare the meals, and in which our shortest man, Mr. Campbell, can stand upright. The remainder of the floor is covered with balsam-boughs for a common bed. We can just crowd on to this bed (five of us) at night, by stretching ourselves spoon-fashion, with our heads on a log-pillow and our feet to the fire. It is rather a difficult matter for one to turn over with a simultaneous movement of the whole corps. By 'moving careful,' however, and with military precision, the thing can be done. To lie out straight on one's back, between the heels and knees, and other protuberances of the sleepers on either side, is an equally difficult operation. Notwithstanding the smallness of our quarters, we are not troubled with the ventilation question. Our door is an old coat, which swings freely in the breeze, and rather assists the draught of the chimney; besides which, there are various crevices in the walls and roof, where the moss and chinking have tumbled out, that give unimpeded entrance to the air, and exit to the surplus smoke. Across the shanty, just in front of the fire and over the foot of the bed, Mr. N. has placed a seat, which we call the 'deacon's seat.' In front of this, we erect a table at meal-time by placing a single leg under one end of a short hemlock slab, and inserting the other end between the logs of the shanty. It is crowding work

to get round at evening and morning, or on rainy days, when baking and cooking are going on, and the table is being set. Yet we manage to keep good-natured, and enjoy it. Even such limited quarters are preferable, in the cool nights and days of late October, to the open camp in the woods and we have been thankful for their temporary use."

By this time we had our home-shanty about half built, and were contemplating a vigorous trapping campaign. We were looking the long Canada winter in the face, and rejoicing in the prospect of a battle with it. John P. had begun to set traps, and in the course of two nights had caught a fine mink and ten muskrats. We had selected a beautiful location on the north shore of the lake for a winter home. Rowing, spearing fish, felling trees, and shanty building had succeeded to the arduous toils of the voyage through the terrible "Out-let." The signs of game were rather scarce in the immediate vicinity of the lake, but our plans were to run lines of traps far back into the northern woods, where mink, marten, and beaver were supposed to exist in abundance. At this juncture it became evident that the health of our captain was not equal to the execution of the campaign he had planned. For most of the time since reaching McK.'s he had been partially disabled. Now, just as we were building our shanty and preparing for effective trapping, and were relying on him for leadership, he was prostrated for nearly two days, and unable to do any thing. A due consideration of his condition of the fact that we were all novices in trapping except John P., and of the unfavorable indications of the region as to fur, led us to resolve on a retreat and a "change of base." J. H. N. tells the story of his

Last Day in Camp,

as follows: -

"I was left alone in camp three or four days on account of a sore hand. In the first place I blistered it by chopping and paddling, and finally it became so bad that I could do neither with any comfort. So I stayed at home to be cook and maid of all work. I had remained there two or three days, leading very much such a life as Robinson Crusoe is reported to have done. The other men were off about two miles, and I had the whole shanty to myself, which was not a very great domain. It was generally perfectly still, -- not a sound to be heard. The slightest crackle was a startling event. I would jump up and look out to see what was coming, and perhaps it would prove to be a red squirrel, which would peer in through some hole in the shanty, and watch my movements. Several times a great bird flew over which I was unacquainted with. I learned afterwards that it was a raven. They are very much like crows, only larger, and with a voice somewhat different from that of the crow. In order to get along comfortably I had to talk to myself a great deal. On the last day of my stay, J. P. Hutchins left in my charge certain tasks to be performed. For one thing, having caught ten muskrats, he wanted me to put the skins on stretchers. Then John Hutchins the elder, in the dawn of the morning, when you could hardly distinguish one thing from another, shot an animal which proved

to be a skunk. It was a large one, covered with fat; and they left it in my charge to get the fat off and try it out for domestic purposes. We had been troubled for the want of light, and on killing the skunk it occurred to them that it was a fine opportunity to get some oil for our lamps. I commenced my day's work by washing up the dishes. By 'dishes' I do not mean such as are found at crockery stores. We had just got our tin plates. (Previously we had eaten off cedar shingles, with wooden spoons.) Then I mended my pantaloons, which had sustained a damage one night before, while I was lying near the fire in one of the Canton-flannel bags that Mr. Newhouse recommended. Just as I was going to sleep I felt something biting or stinging my legs, and on looking, found that I was on fire. With some difficulty we put it out, after a large hole was burned in the bag and two small ones in my pantaloons. So, as I said, I proceeded to patch these holes. After that I took hold of the business of making a bag of my blanket. I like the idea of a bag to sleep in, but it ought not be made of cotton. Mr. Pitt hung up his overalls one night before the fire to dry, and when he got up the next morning only a few little pieces and the buttons were left. We found that cotton clothing about a camp-fire is too liable to get burned up. So I took my woolen blanket and sewed it up into a regular sack, which I liked very much. After that I went through the work of putting the muskrat-skins on the stretchers. Then I went and got the fat off the skunk, and tried it out in one of our spiders or sauce-pans, and made a little tin tunnel and put the oil into a bottle. Then I put the sauce-pan into the fire and heated it red-hot, to take out the odor of the skunk. That was my last work. By this time it was pretty well along in the afternoon. I sat down and began to study.

"It was evident from the failing health of John Hutchins, on whom we had relied as the captain of the expedition, but whose advanced age and former hardships in the army and the woods, by flood and field, now told on him, and from the comparative scarcity of game both for food and fur in the district where we were, that the trapping part of the enterprise would not be made to pay. We had had the advantage of a month's "roughing it" in the woods, and had established communication with frontiersmen on their own ground; and it appeared clear that our true course now was to get out of the woods and fall back upon the second object of the expedition, namely, the buying of furs. I accordingly advised a retreat of the party towards the settlements on the Hastings Road, and the next day left myself for the 'States.'"

The Retreat

Two days were spent in repacking our baggage, transporting it across Salmon Lake, and down through Gull Lake to the foot of the latter, and then we were ready to return to McKillican's. We had discovered a new route to Salmon Lake, one by which a greater part of the labor and trouble of the Bass Lake passage might have been avoided. Four miles from our shanty, at the foot of Gull Lake, were Canniff's Mills,; and from thence a tolerable road connected with the Hastings Road five miles below McKillican's.

We had been unable to learn any thing satisfactory about this route till after we had got to the lake. Our provisions and baggage had been brought round to Canniff's by wagon. They were to go back by the same conveyance. Our baggage being all safely stored in Canniff's mill, we packed our shoulder baskets, shouldered our rifles, and started on a seven-mile tramp through the woods to McKillican's. On arriving at the Hastings Road, we at once began to organize for the fur-buying campaign. Mr. Noyes had gone home. Mr. Hutchins and John P. left soon after for the same destination. Messrs. Campbell and Pitt remained to buy furs. They were soon after joined by Mr. Newhouse, and two months were spent very pleasantly tramping over the rough roads and through the snows. Of this kind of travel the writer performed about four hundred miles. We formed an extensive and pleasant acquaintance with all the leading trappers of the region, who are a class of interesting men. We bought nearly a thousand dollars' worth of furs, the profits on which were not quite sufficient to cover the expenses of the whole campaign. We returned to our Oneida home the last week in December, hearty and strong. In its health-producing results the expedition had paid many fold for all it had otherwise cost. In looking back upon it, in view of all its benefits in this respect, the physical and spiritual heroism which it developed, three of our number at least -- the inventor, the ex-financier and the ex-editor -- will always remember it with thankfulness. It will conclude my history of the expedition with a dissertation by J. H. N. on the

"Mirages of the Sporting World

"The visions of far-off cities, palaces, gardens, fountains and lakes that beguile the tired and thirsty pilgrims of the desert are probably but tame and rare illusions compared with those that lure hunters, fishermen and trappers, or the myriads of men and boys all over the world that would be such, on and on, year after year, in the pursuit of boundless successes that are always looming in the distance, but are never reached. For one, I confess that ever since I was ten years old I have been seeking from time to time, in all directions and by many wearisome excursions, for that paradise of sportsmen where one can bag the nicest game in any quantities "as fast as he can load and fire," or where he can catch bass or trout of any desirable size "as fast as he can put in his hook;" but I have never found it! The exact spot has been pointed out again and again by very credible informants; but always, when I have reached it, there has been some mistake about it. Either I had come a few days too soon, or a few days too late; or the desired region was a few miles further on, or off to the right or left, or even back of where I started; or somebody had got in before me, and had just disappeared with the load of luck that I expected; or the weather was wrong; or the time of day was wrong; or I had not the right kind of tools and tackle. Thus in one way or another, as a sportsman, I have never got much beyond moderate luck, with hard work and hard fare; and I have come to the conclusion that the sporting world is full of mirages, that ought to be exposed and expounded for the benefit of rising generations.

"I do not believe that my indifferent success is owing altogether to individual bad luck or bad management, but that it is an average sample of general experience. I hear the same story from multitudes of amateurs (told of course in their lucid intervals), and even from old Nimrods. John P. Hutchins said that he "never got through a trapping campaign without wondering at himself that he should be such a fool as to leave a good home and a civilized business to plunge himself into a purgatory of unspeakable hardships for small profits and little sport." And even his father, tough as he is in muscle and story-telling, said nearly the same thing.

"The illusions that cover the sporting world come mostly from the inveterate bragging and exaggerations of sportsmen themselves. The old hunter tells all he can, and more than he can truthfully, of his exploits; and says as little as possible of his failures, and the miseries which his successes cost him. Thus the mirage rises, and they who are deceived by it, in their turn, learn to brag of their exploits and conceal their failures; and so the deception passes on from man to man, and from generation to generation.

"I mean to step out of this practice, and tell some things about our Canada expedition that will tend to sober the expectations of novices, and put them on their guard against inflated reports and promises of sport.

"We went to Canada in full expectation of being able to get plenty of venison and fish for our winter supplies. When we came away, all hopes of getting these provisions had vanished, and we had found it necessary to borrow meat of our neighbors, the lumberers, and were about to send to Montreal for a barrel of mess-pork!

"Our illusions vanished one after another in this fashion. We were told that at Bass Lake we could catch fine, large bass in any quantities, either by drop-line or trolling. We fished patiently with drop-lines at various times for hours together, and got one nibble! We trolled the lake up and down with two boats, and caught one bass of perhaps a pound weight!

"We were told that at Salmon Lake, during a week or ten days after the 8th of October, we should find myriads of salmon-trout on their spawning beds every evening, and could spear boat-loads of them and salt them down for winter use. We had prepared two excellent spears and a jack; and we worked hard to gather "fat pine;" and we laid in a store of salt. But we had no success in finding fish, except on one night, and then only in moderate numbers. All we caught were ten trout, averaging perhaps two pounds apiece, and one fine one of over twelve pounds. We had no occasion to salt them, as five of us easily disposed of them otherwise in the course of a week.

"We were told that we could kill all the deer that we should want for the winter. The understanding was that, just before freezing time, we should lay in our stock. I asked how many deer would probably be a fair supply for the party. The answer was, 'About twenty.' Such were our expectations. The reality

was this: Our party had the opportunity of seeing at a distance the chase and killing of two deer in Bass Lake, by resident hunters. These were all the deer that were taken in Bass Lake or in Salmon Lake within our sight and hearing, or within our knowledge by rumor, during the whole of our twenty days on the hunting grounds. The dogs were baying frequently, and hunters did their best, but no more deer were taken. We had not the slightest chance of killing any in the usual way by running them into the lakes, as our dog was only a puppy that was more likely to lose himself than to find deer. As to the chance of getting venison by the 'still hunt,' that is by shooting deer in the woods, there was little encouragement, as our party only saw one on land during all our journeyings.

" 'But how about bears? You didn't kill any, of course, but did you see or hear of any?' Well, I will tell you all about bears. We expected to have something to do with them, and provided ourselves with a couple of Newhouse's famous bear-traps; but we did not set them, and of course did not catch any. We saw scratches on a stump, which Mr. Hutchins pronounced to be the work of a bear's claws made for sport, as a cat airs her hooks sometimes by scratching. One night, when we were camping out, Mr. Pitt heard a terrible noise that he thought bad enough to be a bear's growl; but it proved to be the complaint of an owl. And, to conclude, we had a view -- in fact, rather too near a view -- of a grisly skeleton of a bear, lying by the side of the path leading from our Crusoe shanty to the lake, -- a relic left us by some previous hunter and the ravens. That was the nearest we came to seeing a bear.

" 'To cut the matter short, What did you shoot?' I killed a partridge and a pigeon. Mr. Pitt killed several red squirrels (which, cooked with some dried beef for want of salt, made an excellent stew). John P. killed some squirrels and a partridge. Mr. Hutchins killed a skunk. Besides these, we hit several paper marks, and some we did not hit. This is a true account of our hunting and fishing down to the time of our 'change of base' and my departure for the States.

" A tender conscience and compassion for the inexperienced prompts these confessions. Of course the veterans can do better. They have had their say, and will get more credit than we greenhorns any way. All ears are open to them. As a counterpoise to their exciting stories, we feel bound to leave it as our last word to amateur hunters and trappers, that they should not set their hearts on external success and pleasure, but rather on the benefits to be derived from hard discipline. In that case, we can assure them that they will not be disappointed."

PHEASANT DISTRIBUTION AND HARVEST
REPORT, LAKE SIMCOE DISTRICT, 1961

by
J. S. Dorland

Abstract

Some 14,845 pheasants made up of 7,100 chicks, 7,375 poults and 370 adults were distributed in Lake Simcoe District during 1961. Residents purchased 2,736 township pheasant licences while 4,142 licences were sold to non-residents. This was a 10% decrease from the previous year. A field check by officers in 10 Regulated Townships over the entire season (Oct. 11-28) showed that 1139 pheasants had been harvested by 2,195 hunters for an average of .52 birds per hunter. The total kill in the area was estimated at 3500 pheasants.

Distribution

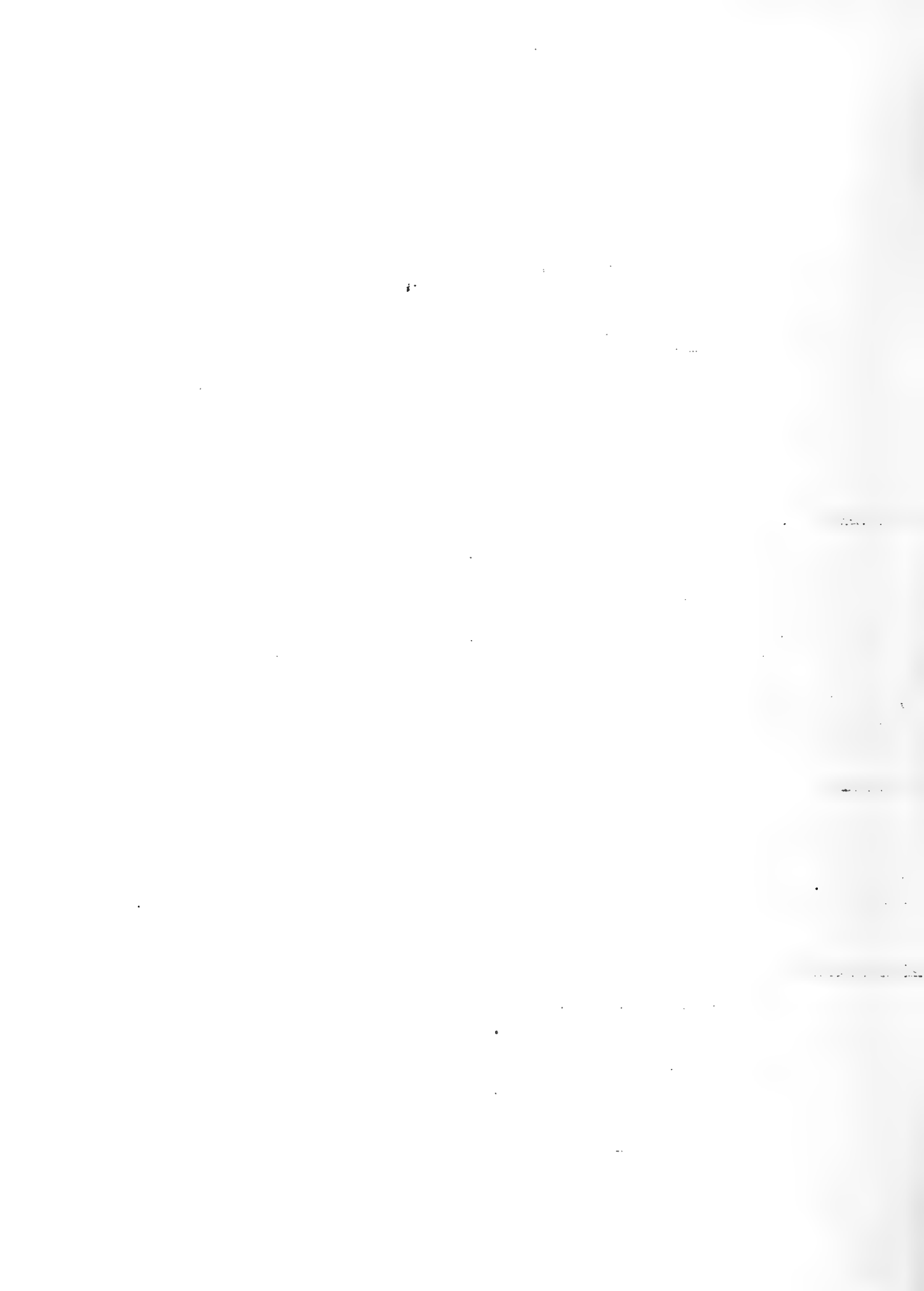
A total of 14,845 day-olds, poults and adults pheasants were received from the Provincial Hatchery at Codrington this year for distribution among the sixteen Regulated Townships of the district and a few interested sportsmen's associations. These birds arrived in the district as 7,100 day-olds, 7,375 poults and 370 adults. See table (1) for distribution. Approximately 5,000 day-olds were raised to eight weeks and released with the remainder of the chicks some 2,300 raised to adult stage and released just prior to the open season. The 7,375 poults and 370 adults were released shortly after receiving them in the district.

Licences

A total of 6,878 township licences were sold up to the close of the pheasant season in the district, October 28th. This number was made up of 2,736 resident and 4,142 non-resident township licences. A decrease of some 10% from the previous year with the largest percentage of decrease showing in the resident licences. See table (2) for complete coverage by townships.

Open Seasons

- October 7-28 - Non-regulated areas of Ontario & York Counties.
- October 11-28 - Non-regulated area of Simcoe & Dufferin Counties. Regulated Townships of Peel County.
- October 18-28 - Regulated Townships of York and Ontario Counties.



The weather throughout the open seasons was a mixture of sunny, warm, cloudy, wet, and on October 11 in Peel, the opening day, hunters were greeted with a very heavy fog which blanketed the county until around 11:00 a.m. making hunting quite unsafe.

Harvest

Hunting of pheasants took place in all sixteen Regulated Townships and a few outside areas such as Camp Borden, Stayner, Barrie and Reach and Uxbridge Townships, with reports showing that fair to good success was obtained by the hunter.

Hunter Statistics for 10 Regulated Townships

	<u>Opening Day</u>	<u>Entire Season</u>
No. of parties checked	302	848
% of Parties using dogs		42%
No. of hunters checked	779	2195
Total hunter hours	2731	7802
Total pheasants bagged	565	1139
Per hunter bagged	.72	.52
Hours to bag a bird	4.8	6.8
Approximate kill in area	500	3500

See Table (3) for complete summary.

Remarks

Opening day results in some townships show excellent hunting with many parties getting their quota of pheasants. Many of these pheasants were birds from either a natural hatch or wintered over from the previous year. It is felt, however, that most of these were natural wild hatch as few banded birds of previous years were killed.

The number of parties hunting with dogs has remained practically the same for the past three years within the district, but the advantage of using good dogs is clearly shown in the field officer's records of harvest. Although statistical figures this year are taken from one less township than the previous year, all figures such as number of parties, hunters checked and harvest, bird per hunter, have all increased slightly with the man-hour per bird decreasing approximately one-half hour over the previous year.

PHEASANT DISTRIBUTION
LAKE SIMCOE DISTRICT 1961

TABLE I

<u>Place</u>	<u>Chicks</u>	<u>Poults</u>	<u>Adults</u>	<u>Total</u>
Whitby	700	200	50	950
E. Whitby	800	200	50	1050
Pickering	1000	1000		2000
Markham	500	1000		1500
Whitchurch	800	900		1700
Vaughan	700	800		1500
King	500	900		1400
E. Gwillimbury		50	20	70
Peel County	1250	1925	100	3275
Adjala		100	30	130
Tecumseth		100	30	130
W. Gwillimbury	200	100	40	340
<u>Miscellaneous</u>				
Barrie Club	200		25	225
Stayner Club	200			200
Camp Borden	200	100	25	325
Orangeville School	50			50
Total	<u>7100</u>	<u>7375</u>	<u>370</u>	<u>14845</u>

TABLE II

LAKE SIMCOE DISTRICT

REGULATED TOWNSHIP LICENCES SOLD UP TO OCTOBER 28, 1961.

<u>Township</u>	<u>Resident</u>	<u>Non-Resident</u>	<u>Total</u>
Whitby	223	320	543
E. Whitby	99	154	253
Pickering	330	400	730
Markham	350	775	1125
Whitchurch	180	500	680
Vaughan	250	236	486
King	161	489	650
E. Gwillimbury	116	99	215
Toronto	536	150	686
Chingaucousy	190	100	290
Toronto Gore	6	100	106
Caledon	95	200	295
Albion	40	100	140
Adjala	15	226	241
Tecumseth	60	147	207
W. Gwillimbury	<u>85</u>	<u>146</u>	<u>231</u>
Total	2,736	4,142	6,878

TABLE III

HUNTING STATISTICS - PHEASANTS

LAKE SIMCOE DISTRICT

OPENING DAY AND ENTIRE SEASON 1961

O N T A R I O

	WHITBY		E. WHITBY		PICKERING	
	Opening Day	Entire Season	Opening Day	Entire Season	Opening Day	Entire Season
No. of Parties	16	52	17	17	38	68
Parties Using Dogs	68%	65%	12%	12%	58%	41%
No. of Hunters	36	132	37	37	103	209
Total Hunter Hours	108	444	178	178	325	717
Cocks Bagged	9	32	3	3	45	83
Hens Bagged	6	20	6	6	29	57
Total Bagged	15	52	9	9	74	140
Per Hunter Cock	.25	.24	.8	.8	.43	.40
" " Hen	.17	.15	.16	.16	.28	.27
" " Total	.42	.39	.24	.24	.71	.67
Hr. to Bag a Bird	7.2	8.5	19.7	19.7	4.4	5.1
Birds Seen (not shot) Cock	24	52	10	10	55	121
" " " Hen	12	37	13	13	28	109
" " " Total	36	89	23	23	83	230
Sex Ratio C/H Shot	1.5-1	1.6-1	1-2	1-2	1.6-1	1.5-1
Seen	2.0-1	1.4-1	1-1.3	1-1.3	1.9-1	1.2-1



TABLE III (Continued)

HUNTING STATISTICS - PHEASANTS
LAKE SIMCOE DISTRICT
OPENING DAY AND ENTIRE SEASON 1961

Y O R K

	MARKHAM		WHITCHURCH		KING		VAUGHAN	
	Opening Day	Entire Season	Opening Day	Entire Season	Opening Day	Entire Season	Opening Day	Entire Season
No. of Parties	59	199	44	100	31	66	22	43
Parties Using Dogs	73%	92%	50%	47%	42%	40%	55%	46
No. of Hunters	220	607	102	242	56	151	62	121
Total Hunter Hours	960	2369	231	663	211	541	211	429
Cocks Bagged	88	160	25	48	25	53	42	51
Hens Bagged	72	124	17	33	17	34	21	23
Total Bagged	160	284	42	81	42	87	63	74
Per Hunter Cock	.40	.26	.24	.20	.45	.35	.68	.42
" " Hen	.33	.21	.17	.14	.30	.22	.32	.19
" " Total	.73	.47	.41	.34	.75	.57	1.00	.61
Hr. to Bag a Bird	6.0	8.3	5.5	8.2	5.0	6.2	3.4	5.8
Birds Seen (not shot) Cock	221	356	92	134	34	86	51	67
" " " Hen	216	330	65	87	40	96	40	50
" " " Total	437	686	157	221	74	182	90	117
Sex Ratio C/H Shot	1.2-1	1.3-1	1.5-1	1.5-1	1.5-1	1.6-1		
Seen	1.0-1	1.0-1	1.4-1	1.5-1	1-1.2	1-1.1	2.0-1	2.2-1

TABLE III (Continued)

HUNTING STATISTICS - PHEASANTS

P E E L

	CALEDON			CHINGAUCOUSY			TORONTO			DISTRICT TOTALS		
	Opening Day	Entire Season	Opening Day	Entire Season	Opening Day	Entire Season	Opening Day	Entire Season	Opening Day	Entire Season	Opening Day	Entire Season
No. of Parties	12	73	22	82	58	148	302	848				
Parties Using Dogs		23%	36%	21%	50%	70%		42%				
No. of Hunters	26	165	60	192	114	339	779	2195				
Total Hunter Hours	139	594	227	748	319	1119	2731	7802				
Cocks Bagged	22	51	41	90	57	135	354	706				
Hens Bagged	11	34	16	33	22	69	211	433				
Total Bagged	33	85	57	123	79	204	565	1139				
Per Hunter Cocks	.85	.31	.68	.47	.50	.40	.45	.32				
" " Hens	.42	.21	.27	.17	.19	.20	.27	.19				
" " Total	1.3	.52	.95	.64	.69	.60	.72	.52				
Hours to bag a bird	4.2	6.9	4.0	6.0	4.0	5.4	4.8	6.8				
Birds seen (not shot) Cocks	3	43	38	123	84	202	602	1194				
" " " Hens	13	53	47	84	51	112	512	971				
" " " Total	26	99	85	207	135	314	1114	2165				
Sex Ratio C/H Shot	2.0-1	1.5-1	2.5-1	2.7-1	2.6-1	1.9-1	1.7-1	1.6-1				
Seen	1-4.3	1-1.2	1-1.3	2.6-1	1.7-1	1.8-1	1.2-1	1.2-1				

STATISTICS BASED ON FIELD CHECK ON TEN REGULATED TOWNSHIPS.



RUFFED GROUSE REPORT - NORTH BAY DISTRICT - 1961

by
J. F. Gage

Abstract

Spring drum count courses were established for the first time. Continuance of these counts should provide future population trend information. The brood counts indicated a similar population of young birds as experienced in 1960 with an average of 6.05 chicks per brood for the entire summer period. Hunter success was collected through the use of seasonal records (Form H-50). Hunting methods, on foot and by automobile road hunting, were considered separately. Hunters on foot shot an average of 39 birds for every 100 hours of hunting effort. Those using dogs shot fewer birds than hunters without dogs. Hunters hunting along the roads exclusively shot one bird for every 27.4 miles of driving effort. Temporal distribution of the kill indicated October as providing the highest kill period. Collection of wings and tails compared favourably to 1960 with 600 birds contributing to the sex and age data. Sex ratios were again in reasonable limits. An increase in age ratios was experienced in 1961 with 5.5 juvenile birds to each adult female.

Introduction

This report considers four different phases of grouse study conducted in the North Bay District in 1961. The spring drum counts, a new innovation in this District, were conducted by Conservation Officers. They will provide in the future an early index in the trend of the breeding male population. The brood counts have been carried out for several years and provide a good index to the post shoot population. The third study involves the use of seasonal records of selected grouse hunters to provide an index to hunting success for hunting on foot compared to road hunting. The fourth phase is the collection of wings and tails which provides information on sex and age ratios. It also reveals temporal and kill distribution throughout the District.

Drum Counts

Seven Conservation Officers submitted data on drum counts for approximately seven weeks from April to June. Counts were made on pre-designed courses containing ten listening stations approximately one mile apart. Range of "audibility" was considered at one-eighth of a mile. Counts were made in the early morning usually before 8 A. M. A total of 150 drum counts were recorded



(see Table I). Since many of these birds were undoubtedly recorded repeatedly on different occasions, the maximum number of birds recorded on any single occasion is assumed to be the breeding population of males present. These maximums of peak activity were recorded as 50 birds. The seven courses represent a total audibility area of 13.65 square miles providing a population of 3.66 drumming males per square mile. High winds, affecting the audibility range, prevented the completion of the required number of sample counts in the Mattawa area. Since this is the first year that drum counts have been made, comparative data, as an index to trends in the spring breeding population, are not yet possible.

Brood Counts

Brood counts were recorded from June until September (see Table II). A separate report was submitted to Toronto in September. A total of 36 broods was recorded containing 218 chicks for a seasonal average of 6.05 chicks per brood. This figure compares well with the 1960 brood count average of 6.2 chicks per brood. While these figures provide an index to the population of young birds produced, consideration should be given to average brood sizes in late August and early September in predicting the availability of birds immediately prior to the open season. Insufficient brood counts in August and September, 1961, prevents an analysis of the mortality which occurred between June and September 15th. It is interesting to note that no broods were observed by the Conservation Officer in the Temagami Patrol but a sample of 141 wings and tails was collected during the season for the same area, providing the highest sample for the District. Observations on grouse broods are recorded during other routine activities and no special routes or time periods are laid on for this study. It may be possible to miss broods which are presently recorded more or less by accident rather than intent.

Hunter Success

Ruffed Grouse Hunting Study Cards, Form H-50, were used for the second year. The results are shown in Table III. Our main goal was to collect at least 400 hours of hunting on foot. Road hunting is the most popular method of hunting grouse and difficulty was encountered in locating some keen grouse hunters who hunt off the roads. Fifty per cent of our Conservation Officers were unable to get individual hunters to co-operate. The remainder were able to collect cards embracing some 190 hours of hunting on foot along with 439 miles of road hunting.

It is difficult to analyse such meagre data. The temporal distribution of grouse shot by those who co-operated indicates the highest kill (65.7%) in October. This does not agree with the data collected along with the wings and tails (see Table V). Comparing the hunting off the road with that along the roads the return per hunter was 1.12 birds for the walkers and .59 birds per hunter for the riders. One of the most unexpected results is the comparison between hunters using dogs and those hunting without dogs. Hunters without dogs saw more birds and shot more birds.

The only explanation we can offer is that a few hunting parties encountered complete broods which they were able to shoot on the ground while hunters with dogs might knock down only a bird or two from the initial flush. The number of birds seen by those with dogs, however, was less which leads us to suspect that there is a better explanation. When data are as small as those provided here, a few such instances of covey encounters can introduce an extreme bias in the results.

These data show that a combined hunting effort on foot and by automobile produced a hunting success in the order of one bird per hunter. This is better than the hunting success in both 1960 and 1959. While some areas produced as well or better most officers and hunters felt the birds were less plentiful in 1961.

Sex Ratios

The information on sex ratios was taken from the sample of 600 birds. A total of sixteen were classed as unknown and could not be used for this summary. The sex ratios were in reasonable limits and compared well with the 1960 data (adults 1:0.79) (juveniles 1:1.44) (see Table IV). The reversal of sex ratios in adult females and juvenile females reported in 1959 and 1960 is again evident in 1961. This is apparently a normal condition and the current sex ratios provided by the 1961 data indicate the usual ratio pattern between males and females.

Age Ratios

The age ratio for the 1961 kill sample described in terms of juveniles per adult female is 1:5.5. This is an increase from the 1960 age ratio which was 1:3.8 (see Table IV).

The favourite method of hunting, by driving the back roads and logging trails, is complimentary to the killing of juvenile birds. If we were able to relate the type of weather experienced by the 1961 grouse hunters we might find that excessive rain and wet weather encouraged road hunting or discouraged hunting in the bush. In either case, a disproportionate number of juvenile birds would appear in the sample. This merely accentuates the need for more data on birds shot off the roads and a record of local weather conditions.

Temporal Distribution of Kill

The temporal distribution of the kill is shown in graph form in Table V. These data have been taken from the 600 bird sample because it reflects a better distribution over the entire District than the sample provided on the hunter success cards and the sample is larger. If the graph in Table V is compared with similar graphs in the 1959 and 1960 reports an obvious difference is immediately evident. There is a change in the 1961 kill in that the highest percentage of birds was shot in the last week of September. Similar peaks were experienced in the second and third weeks of October but this latter condition is expected.

No explanation is provided for this unusual kill in September.

While the collection of the sample for age and sex determination cannot be used in terms of hunter success it does reflect to some extent on the availability of the birds. It should be noted that the annual sample is down 120 birds when compared to 1960. This reduction is not significant since one officer was transferred about mid September and his collections always numbered well over 100 birds. We are confident that the collection would have very closely approximated the 1960 sample or even exceeded it by a few dozen birds if the transfer had occurred later in the year.

Distribution of Grouse Killed

Comparison of the 1961 distribution map with maps in the 1959 and 1960 reports reveals a similar pattern except for the western section of Lake Nipissing and the western boundary of the District. This is the area mentioned before regarding the transfer of an officer with only a few voluntary samples being submitted. The distribution of the kill again reflects the road systems rather than good grouse habitat. (see Figure 1).

The method of indicating the number of grouse collected in the sample for each township is entered on the map as a straight line. The average township size is six miles by six miles. A line drawn either parallel or vertical from one boundary to another indicates five birds in the sample. The line is maintained the same length regardless of township size. The line is reduced in length to indicate 4, 3, 2, or 1 birds.

The Township of Sisk, near Martin River, consistently contributes each year the highest sample of wings and tails (57).

Summary and Conclusions

(1) The drum counts produced a new and interesting method of assessing the spring breeding population of male birds (3.66 per square mile). Continuance of these permanent drum count courses will provide future trend information.

(2) Brood counts still provide the most reliable indices to predict the current post shoot population but more data are needed, particularly in August and September. The 1961 brood count average of 6.05 agrees with the 1960 count and the availability of the sample collection in both years.

(3) The study of hunter success requires more co-operation from staff and the grouse hunters. The material submitted is much too meagre to provide proper analysis. Plans to begin an immediate search for co-operating hunters is recommended. It is felt that keen grouse hunters may be easier to locate now than just before the season when all hunters fancy that they fit this category only to let us down at the end of the season.

It is suggested that we take the Form H-50 one step further and ask these co-operators to collect and submit at the end of the season the wings and tails from the grouse they have shot while hunting off the roads. This will enable us to measure the susceptibility of young birds to road hunting and provide a correction factor in dealing with our age ratios in the general collection of wings and tails.

(4) The sex and age ratios compare well with previous years' data. The age ratio shows some increase in juvenile birds but because of the apparent selection of young birds by our district method of hunting along roads we suggest that this is not particularly significant. The temporal distribution is changed from the two previous years. The higher kill in the last week of September is not understood at present. The collection of material for age and sex ratios as well as temporal and district distribution of the kill was reduced by 120 birds, but is not considered significant under the circumstances involving a problem in the mechanics of the collection.

(5) There is no indication, in the material collected at least, that the North Bay District experienced the extreme lows in bird availability reported by neighbouring districts. We did have areas of low availability but we also had other areas where grouse appeared as plentiful as in 1960. The general opinion of officers and hunters was to the effect that birds were harder to find and that more birds were encountered in the early part of the season.

Recommendations

There is no evidence to support the closure or shortening of the grouse season. On the other hand there appears to be no reason why the season could not be extended until the end of the moose season. Very few birds would be shot. In fact insignificant numbers are taken now once the big game seasons open and snow covers the ground. It is unlikely that local Fish and Game Associations within the District would support a longer season on the ruffed grouse. They would have little difficulty in securing public support in opposing such a recommendation due to the fact that hunting success for this game bird is not what it used to be in this District. It seems to be a general practice to compare hunting and fishing now with the "good old days" without giving serious thought to the great increase in demand and consequent lowering of standards of success.



TABLE I:

Drum Count

April 27th - June 8th

Course Locations	Count	Count	Count	Count	Count	Count	Count	Total
	1	2	3	4	5	6	7	Drum Counts
Haileybury	1	5	4	*9	8	1	1	29
Temagami	Not completed in 1961							
Martin River	0	3	1	5	4	*6	4	23
McLaren's Bay	2	1	0	4	*5	5	0	17
Sturgeon Falls	0	1	4	*6	4	3		18
Monetville	3	9	4	*10	5	1		32
North Bay	0	1	0	2	3	3	*4	13
Mattawa	6	*10						16
								148

* - Maximum drumming for all courses = 50

Each course of 10 stations = 1.95 square miles of "audibility"

Seven courses = 7 X 1.95 = 13.65 square miles

Population Trend of Drumming Males $\frac{13.65}{50} = 3.66$ male grouse per square mile



TABLE II:

Brood Counts 1961 June - September

Patrol #	General Area	# of Broods	Total Chicks	Av. Chicks per Brood	Wing & Tail Collections	
					<u>1961</u>	<u>1960</u>
1	Haileybury	3	20	6.6	70	61
2	Temagami	0	0	0.0	141	122
3	Martin River	1	5	5.0	72	115
4	McLaren's Bay	14	89	6.3	76	69
5	Sturgeon Falls	2	10	5.0	37	94
6	Monetville	6	46	7.6	57	148
7	North Bay	9	38	4.2	62	14
8	Mattawa	1	10	10.0	85	78
		36	218	Av. 6.05	600	701

TABLE III:

Hunter Success - Form H-50

Hunting on Foot

No. of hunters	65	No. of parties using dogs	21
No. of birds shot	73	No. of parties not using dogs	17
No. of birds flushed	124	Total hunting trips	38
No. of man-hours	190		

Hunter success	1.12 birds per hunter
Hunting effort	2.6 hours per bird
Birds flushed	1.53 hours per bird
% of parties using dogs	55.2%

Birds shot by hunters with dogs	29
Birds shot by hunters without dogs	44

Temporal distribution of kill	September	20.5%
	October	65.7%
	November	13.7%

Birds flushed by hunters with dogs	60
Birds flushed by hunters without dogs	64

Road Hunting from Automobile

No. of hunters	27
No. of birds shot	16
No. of birds seen	27
No. of miles travelled	439

Hunter success	.59 birds per hunter
Miles driven per bird	27.4
Miles driven per bird seen	16.2
Average number of hunters per car	1.5

Temporal distribution of kill	September	50%
	October	50%
	November	0%

No. of co-operators submitting more than one return card	9
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No. of co-operators submitting less than two cards	1
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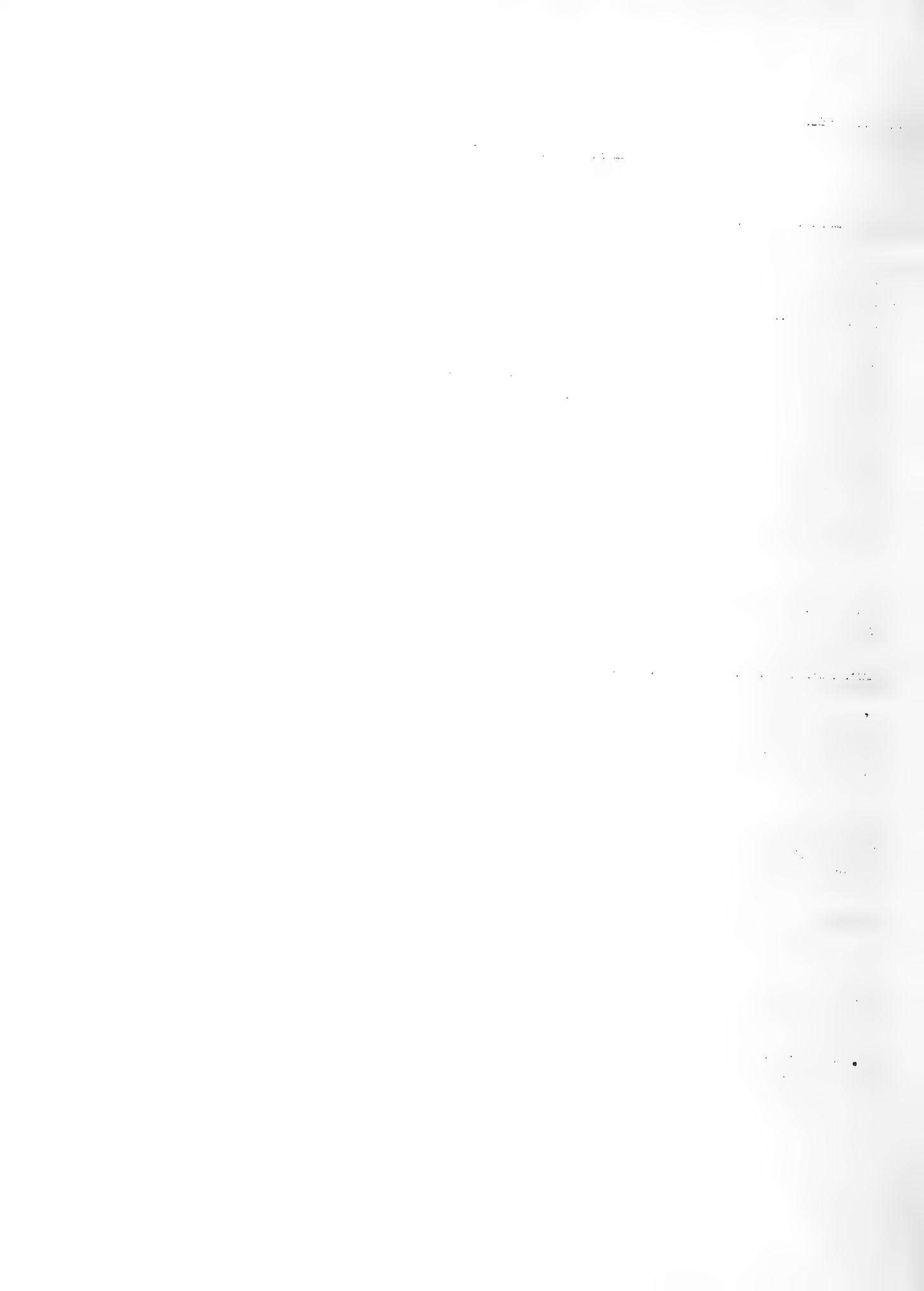


TABLE IV:

Sex and Age Ratios 1961

Adult Males	93		
Adult Females	<u>73</u>		
Total Adults	166		166
Juvenile Males	188		
Juvenile Females	<u>219</u>		
Total Juveniles	407		407
Unknown Sex	16		
Unknown Age	<u>11</u>		
Total	27		<u>27</u>
Grand Total			600 birds in sample

Age Ratio

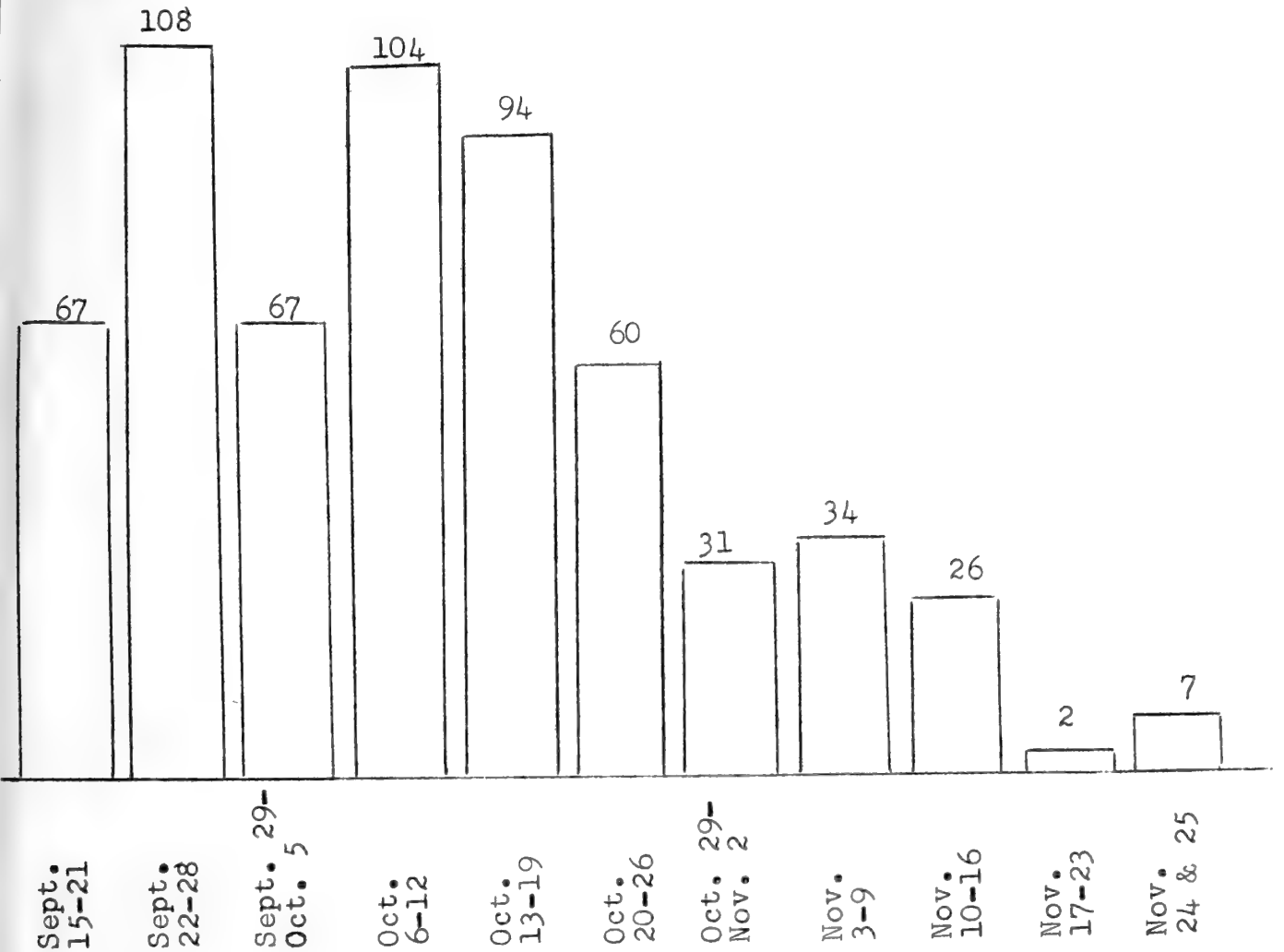
	<u>Adults</u>	<u>Juveniles</u>
Both Sexes	166	407
1961 Age ratio per adult female	73	407 = 1:5.5
1960 Age ratio per adult female	114	444 = 1:3.8
1959 Age ratio per adult female	78	673 = 1:8.6
1958 Age ratio per adult female	26	97 = 1:3.7

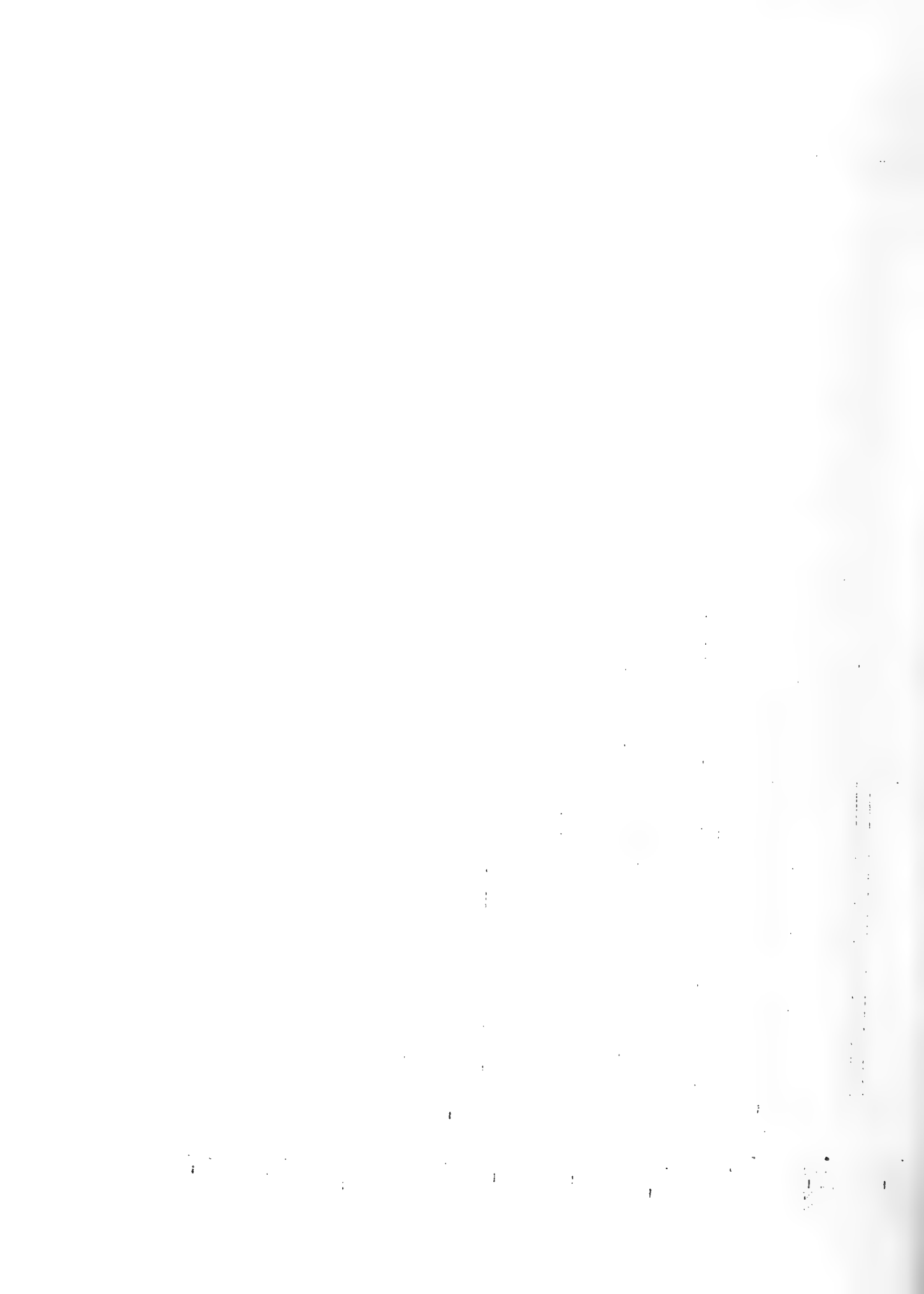
Sex Ratio

	<u>Male</u>	<u>Female</u>	<u>Ratio</u>	<u>1960</u>
Sex ratio of Adults	93	73	1:0.78	1:0.79
Sex ratio of Juveniles	188	219	1:1.16	1:1.44

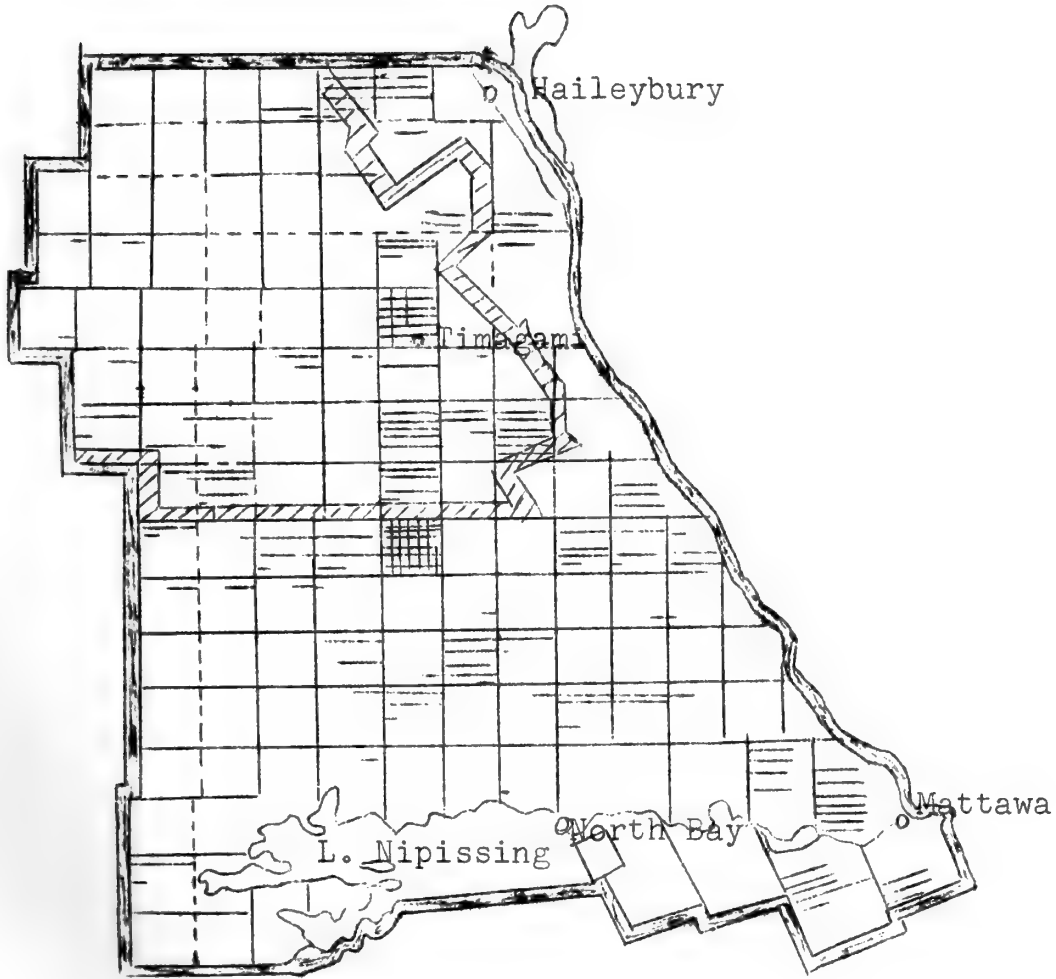
TABLE V:

Temporal Distribution Ruffed
Grouse Kill
North Bay District
1961
(600 Birds)





NORTH BAY DISTRICT



MILES



Figure 1 -

1961 Grouse Season Kill
Distribution

— = 5 birds

Total 600 Grouse



KENORA DISTRICT GROUSE HUNT - 1961

by
Wm. H. Charlton
District Biologist

Abstract

Grouse survey kits were again used to collect information on the district hunt. Returns fell off considerably from the two previous years with only 52 parties reporting. Hunter success was high with 1.7 Ruffed Grouse being shot per trip or 1.2 birds per hour of hunting. In addition to those turned in by hunters, grouse wings and tails were collected from district locker plants. A total of 418 usable sets of wings and tails indicated a 1:1 sex ratio. The adult sex ratio was 1.3♂ : 1♀ while the juvenile sex ratio was 0.9♂ : 1♀. The ratio of juveniles to adults in the kill was 1.7 : 1 while the juvenile to hen ratio was 3.8 : 1. The number of Sharp-tailed Grouse wings and tails collected from locker plants increased to 39 this year over the single set collected in 1960.

Review of Spring Brood Counts

Information on brood size collected by officers during the spring and early summer revealed a good survival of young birds. This information when compared to previous years indicated that the ruffed grouse hunting would be as good or better than in 1960.

	<u># Broods</u>	<u>Av. Brood Size</u>
1959	15	6.1
1960	19	5.3
1961	49	6.0

Although hunter returns were down considerably, hunter success figures (Table II) support these data.

Grouse Survey Kits

Grouse survey kits were first used in the District by Schenk (1959). These kits consisted of five hunter success forms, three envelopes for wings and tails and an explanatory letter. These kits were to be distributed to all grouse hunters by licence issuers when the individual purchased his licence. Unfortunately very few kits were distributed to the issuers and less reached the hands of the hunters. A maximum of 365 kits were distributed with only 52 reports being received by district office. Of these 52 individual reports, 31 were from department personnel within the district. One department man contributed 16 returns. The remaining 21 returns from outside the department were from nine individuals.

The vastness of the district renders it impracticable for conservation officers to make enough hunter contacts to obtain an adequate amount of information on the hunt. Looking back to 1959 we see that grouse kits can provide the information if they are given the proper promotion. It is planned to use the kits again in 1962 along with a rejuvenated promotional program.

The decline in returns is indicated in Table I.

Table I

	<u>No. of Parties</u>	<u>Hunter - hours</u>
1959	* 121	835
1960	149	409
1961	52	76

* In 1959 a party consisted of one or more hunters whereas in 1960 and 1961 a party was an individual hunter.

Sample

1961 Grouse Hunter Success Form Kenora District

(fill out one form for each grouse hunt)

Date _____ Name _____

Address _____

Area Hunted? _____

No. of Hours Hunted? _____ No. of Ruffed Grouse Shot? _____

No. of Ruffed Grouse Seen
but not shot? _____

Was dog used? _____

Were you Hunting with Rifles or Shotguns? _____

Did you hunt along roads, on lake islands or walking in
bush country? _____

Please place wing and tail feathers from each grouse shot in the envelopes provided.

Your co-operation in this project is greatly appreciated.

1.

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Weather

The weather throughout the fall was conducive to good grouse hunting. Clear days and a lack of lasting snow created ideal conditions. A six inch snowfall occurred on November 2nd but only patches remained on the ground by the end of grouse season on November 25th. Cold weather early in the season brought on an early leaf-fall, with the majority of the leaves being off the trees by October 10th.

Hunter Success

Fifty-two parties hunting a total of 76 hours were successful in shooting 88 grouse. In addition, 94 birds were seen but not shot by these hunters. This gives a success figure of 1.7 grouse per trip or 1.2 grouse shot per hour of hunting. Additional birds were sighted at a rate of 1.2 per hour.

Table II

	<u>Birds shot / 100 hrs.</u>	<u>Birds seen but not shot/ 100 hrs.</u>
1959	40.0	74.9
1960	62.3	83.1
1961	115.8	123.7

Comparison of hunter success before and after leaf-fall - Oct. 10th

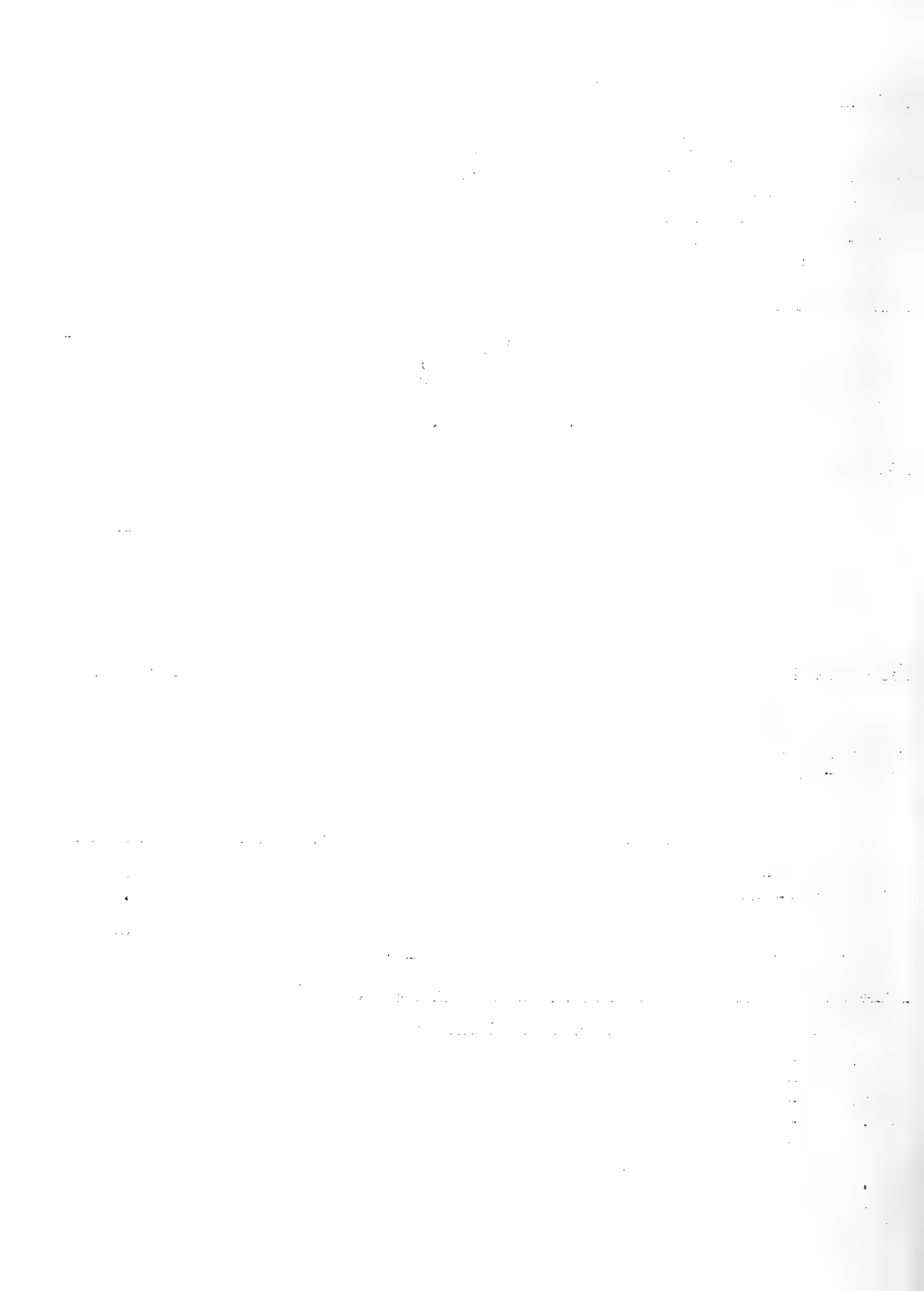
Before leaf-fall 30 parties hunted a total of 47.5 hours and shot 50 grouse. They saw 56 grouse in addition to those shot. After leaf-fall 22 parties hunted for 29 hours and shot 38 grouse. Thirty-eight grouse were also seen but not shot.

	<u>No. of Parties</u>	<u>Hours Hunted</u>	<u>Grouse Shot</u>	<u>Grouse Shot/hr.</u>	<u>Grouse Seen</u>	<u>Grouse Seen/hr.</u>
Before leaf-fall	30	47.5	50	1.1	56	1.2
After leaf-fall	22	29.0	38	1.3	38	1.3

This information, although limited, supports the theory that hunter success increases after leaf-fall.

Table III Temporal Distribution of Kill (88 birds)

<u>Period</u>	<u>No. of Birds Shot</u>
Sept. 15 - 21	13
" 22 - 28	8
Sept. 29 - Oct. 5	15
Oct. 6 - 12	19
" 13 - 19	18
" 20 - 26	3
Oct. 27 - Nov. 2	6
Nov. 3 - 9	2
" 10 - 16	4
" 17 - 23	0
" 24 - 25	0



Type of Hunting

No information was received from individuals hunting roads with automobiles. Thirty parties reported hunting in the bush while 18 parties hunted walking along roads. In addition three parties hunted islands on Lake of the Woods and one party failed to indicate the type of hunting.

A .22 calibre rifle was used by 27 parties while 24 parties hunted with shot-guns. Sixteen of the 52 reporting parties indicated they used a dog while hunting.

In addition to wings and tails submitted by hunters, sets were collected by conservation officers, and received from locker plants. Several questionable sets were discarded, leaving 418 grouse that were sexed and aged successfully.

Adult Males	86	Juvenile Males	123
Adult Females	<u>69</u>	Juvenile Females	<u>140</u>
Total Adults	155	Total Juveniles	263

Total Birds 418

Sex Ratios

	♂♂	♀♀	
Sex ratio of all birds	209	: 209	or 1.0 : 1
Sex ratio of adults	86	: 69	1.2 : 1
Sex ratio of juveniles	123	: 140	0.9 : 1

Age Ratios

Age ratio juveniles to adults	263	: 155	or 1.7:1
Age ratio juveniles to hen	263	: 69	or 3.8:1

A comparison of sex ratios for the past three years indicates they have remained relatively constant. There has been a decrease in the ratio of adult males to adult females, but the significance is not clearly understood. A constant reversal of sex ratios exists between juveniles and adults. For the three years shown there is a predominance of male over female adults, whereas the opposite is true among juveniles. This is true of other parts of the province but appears to differ with information obtained in New York (Gage, 1960). Similar reversals of sex ratios were observed in Gogama, Parry Sound, Fort Frances and Kenora in 1958. (F & W Mgt. Report # 45).

Sex Ratios (Number of males compared to one female)

	<u>All Birds</u>	<u>Adults</u>	<u>Juveniles</u>
1959	0.9 : 1	1.9 : 1	0.7 : 1
1960	1.1 : 1	1.6 : 1	0.9 : 1
1961	1.0 : 1	1.2 : 1	0.9 : 1

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for a systematic approach to data collection and the importance of using reliable sources of information.

3. The third part of the document focuses on the analysis of the collected data. It discusses the various techniques used to identify trends, patterns, and anomalies in the data, and how these insights can be used to inform decision-making.

4. The fourth part of the document discusses the importance of communication and reporting. It emphasizes that the results of the data analysis must be clearly and effectively communicated to the relevant stakeholders in order to ensure that they can take appropriate action.

5. The fifth part of the document discusses the importance of ongoing monitoring and evaluation. It emphasizes that the data analysis process is not a one-time activity, but rather an ongoing process that must be regularly updated and refined as new information becomes available.

6. The sixth part of the document discusses the importance of data security and privacy. It emphasizes that the collection, storage, and use of data must be done in a way that protects the confidentiality and integrity of the information, and that complies with applicable laws and regulations.

7. The seventh part of the document discusses the importance of data quality. It emphasizes that the accuracy and reliability of the data are critical to the success of the data analysis process, and that steps must be taken to ensure that the data is of high quality.

8. The eighth part of the document discusses the importance of data integration. It emphasizes that the data from different sources must be integrated in a way that allows for a comprehensive and holistic view of the organization's operations.

9. The ninth part of the document discusses the importance of data visualization. It emphasizes that the use of charts, graphs, and other visual tools can help to make the data more accessible and understandable, and can facilitate the identification of key insights.

10. The tenth part of the document discusses the importance of data-driven decision-making. It emphasizes that the use of data analysis can help to inform and improve decision-making, and can lead to more effective and efficient operations.

11. The eleventh part of the document discusses the importance of data literacy. It emphasizes that all employees must have a basic understanding of data analysis and be able to interpret and use data effectively in their work.

12. The twelfth part of the document discusses the importance of data governance. It emphasizes that there must be clear policies and procedures in place to govern the use of data, and to ensure that the data is used in a responsible and ethical manner.

A steady decrease in age ratios from 1959 to 1961 indicates the grouse population may be on the decline. This contradicts the hunter success data but hunter returns were too few to form a valid sample.

Age Ratios

	<u>Juvenile : Adults</u>	<u>Juvenile : Hen</u>
1959	3.1 : 1	9.1 : 1
1960	2.1 : 1	5.3 : 1
1961	1.7 : 1	3.8 : 1

Sharp-tailed Grouse

The Kenora District generally is poor range for Sharp-tailed Grouse. There are, however, isolated populations of these birds particularly in the eastern portion of the district. (Olsen, 1960). No information was turned in by hunters, but 39 sets of wings and tails were received from locker plants. Only a single set was received in 1960. The majority of the wings and tails received were from Nestor Falls Locker Plant, located at the Kenora - Fort Frances border. It was impossible to check back and determine what percentage of these wings and tails were from birds shot in Kenora District and what percentage from Fort Frances. This discrepancy, and the limited number of sharp-tail observations reported by officers leads us to believe that the increase in wings and tails received is not indicative of a marked increase in population.

Sex and Age Composition of Sharp-tailed Grouse (39 birds)

Adult Male	19	Juvenile Male	6	
Adult Female	<u>9</u>	Juvenile Female	<u>5</u>	
	28		11	Total 39

Spruce Grouse

Spruce grouse are occasionally shot by hunters in quest of ruffed grouse. Eighteen sets of spruce grouse wings and tails were received along with the material on ruffed and sharp-tail grouse.

Sex and Age Composition of Spruce Grouse (18)

Adult Male	4	Juvenile Male	4	
Adult Female	<u>3</u>	Juvenile Female	<u>7</u>	
	7		11	Total 18

Conclusion

Although hunter success was higher this year than in the previous two, it was the opinion of most grouse hunters that ruffed grouse are on the decline. A comparison of age ratios since 1959 indicates that this prediction is justified. The hunter success figures would tend to be high considering the small size of the sample received and the experience of the hunters contributing information.

Recommendations

1. It is recommended that the Grouse Survey Kit be used again in 1962. An all out promotional program will be required if sufficient returns are to be obtained.
2. The grouse hunter success forms included in the kit should be altered to obtain information on hunters driving the roads in search of grouse. No information was obtained from hunters using automobiles in 1961, although it is realized that considerable hunting of this nature is carried on.
3. Excellent co-operation has been received from the district Locker Plants in collecting wings and tails. The remaining plants should be contacted and requested to retain grouse wings and tails also.
4. In addition to spring brood counts, a recognized sampling program should be innovated to obtain population estimates of ruffed grouse.
5. An attempt should be made to determine the location of kill. This is particularly important for sharp-tailed grouse received from the southern portion of the district. It is believed that some sharp-tails from Fort Frances have been received through the locker plant at Nestor Falls.

Acknowledgments

We wish to extend our thanks to licence issuers throughout the district who co-operated in the distribution of grouse survey kits. We are also indebted to locker plant operators who collected the majority of the grouse wings and tails used for population analysis. Conservation Officers T. Humberstone, R. McGillivray and D. Moon assisted with the sexing and aging of the collected material.

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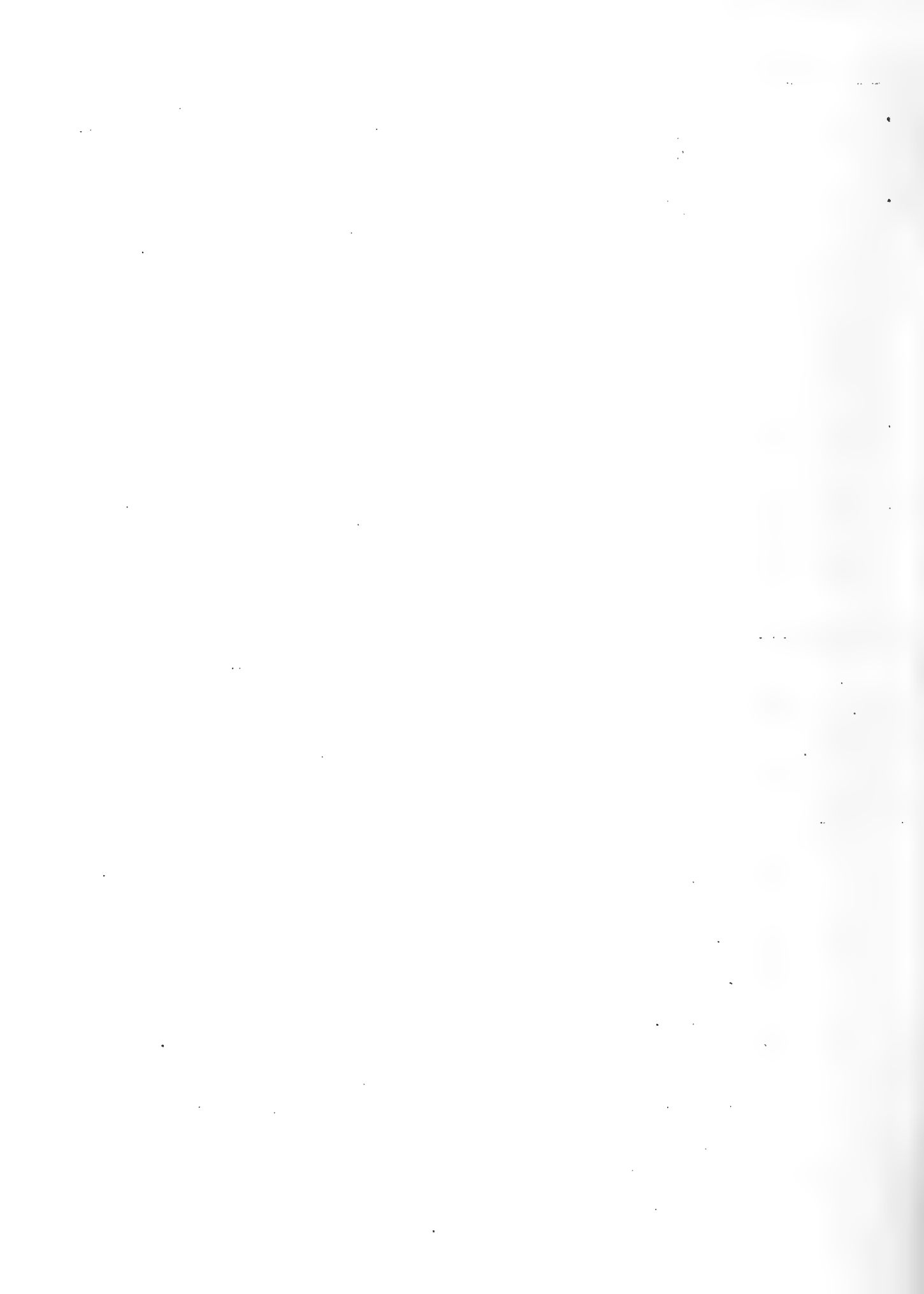
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Collins, V. B. Grouse Hunting in the Kenora District,
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Charlton, W. H. Kenora District Ruffed Grouse Brood Count
1961. District Office Files.

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2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent data collection practices and the use of advanced analytical techniques to derive meaningful insights from the data.

BROWSE SURVEY, GOGAMA DISTRICT, 1961

by
G. E. Vozeh
Conservation Officer

Abstract

A combination moose browse survey, pellet group count and a snowshoe hare browse survey was taken in the southwestern part of the Nabakwasi census plot, Gogama District in May, 1961. Hazel, pin cherry, mountain maple and speckled alder were the most abundant species on the plot. Dogwood, willow, hazel and mountain ash provided most browse units for moose. Snowshoe hares favoured hazel, mountain maple and pin cherry. Browse units taken by hares during the winter of 1960-61 were about half of those taken the previous winter indicating that the winter of 1959-60 was the peak in the snowshoe hare population cycle. By using 95% confidence limits, the population estimate of moose from pellet group counts was 5.8 moose with a range of 4.7 to 7.0 moose per square mile. The mean count of 4.5 moose from 15 flights during the previous winter is outside the lower confidence limit.

Introduction

A browse survey was made in the Gogama District from May 12th to May 16th, 1961. A one mile square area was selected in the south west part of the Nabakwasi census plot. The survey plot was favoured by large numbers of moose during the early part of winter 1960-61.

The objectives of the survey were: -

- (1) to compare numbers of moose observed during the winter with the pellet group count
- (2) to record information on distribution of tree and shrub species on the plot
- (3) to evaluate the effect of moose on their range
- (4) to study food habits of snowshoe hares

Plot Description

The northeast corner of the plot is located fifty chains west of the junction of the Nabakwasi and Donnegana Rivers. The main part of the plot is covered by mixed regeneration of the 1961 burn. A T-shaped swamp is situated in about the middle of the plot. A slow moving creek flows through the swamp from the south and the valley of the creek is protected from the north and west winds by a low range of hills. The topography of the plot is mainly gently rolling.

Moisture is normal in the mixed growth. Soil is sand and sandy loam of average estimated depth of over two feet. Crown density is medium to open and brush and shrub growth is abundant. The area of the mixed type is 532 acres.

The coniferous swamp was flooded from the spring run-off and proved a hindrance to travel. Most of it was partially burned. An over abundant growth of speckled alder followed the burn. The coniferous types occupied 108 acres.

Methods

The area was sampled by a series of unevenly spaced transects because of the topography and the central location of the coniferous swamp. The approximate location of these lines was indicated on a map. 54 sample plots were allocated in the mixed type, 10 plots sampled the conifers. In several instances it was impossible to keep within the compass course without wading hip-deep in the water in the conifers. Therefore, an error would be possible in this timber type.

(a) Pellet group count

A count of moose pellet groups deposited previous winter was recorded on plots 1/10 acre in size (13.2 feet wide x 5 chains long).

(b) Moose browse survey

The Passmore-Hepburn method with browsing limits altered for moose (from 2' to 10') was used on the 1961 browse survey plot. Plots were two feet wide and one chain long (1/330 acres). A count of stems browsed was recorded in addition to the tally of living, mutilated and killed stems. Another change was made in recording the percentage of browsing on the individual plots. Browsing was appraised in per cent of browsed stems instead of living stems.

Example

On one browse plot 23 living stems of willow were found of which 17 were browsed by moose. The total browse units removed were 1300.

Using the Passmore-Hepburn method, browsing would be recorded as $\frac{1300}{23} = 56.5$ for which the nearest midpoint of range is 50.

Using the total stems browsed, browsing was recorded as $\frac{1300}{17} = 76.5$ for which the nearest midpoint of ranges is 70.

In the summary of tally, using Passmore-Hepburn method, browse units would be recorded as $50 \times 23 = 1150$ BU.

By using the stems browsed, browse units were compiled as $70 \times 17 = 1190$ BU.

1885
1886
1887

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1891
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1930
1931
1932

The advantage of recording browsed stems is to obtain subjective information which was lacking previously. This can be done with little extra effort by the survey crew.

(c) Snowshoe hare browse survey

Snowshoe hare browsing was recorded on separate tally sheets. Information on hare browsing was collected on same browse plots and stems as for moose. A tally was made of stems browsed, stems browsed and barked, and stems barked, with respective browse units for the three categories. Stems mutilated and killed by hares were also recorded. Browsing by hares was assessed in a similar way as for moose. Barking was estimated in per cent of the circumference of the stem. When browsing and barking took place on the same stem the higher value was recorded. If both were equal, next higher percentage was used.

Results

Pellet Group Count and a Comparison with the Aerial Count

The moose deposited 122 pellet groups on 54 plots in the mixed type. In the coniferous types, 38 pellet groups were found on 10 plots. The deposition period of 213 days was calculated from the time of leaf fall (October 13th, 1960) to half way through the survey (May 14th, 1961). The daily deposition rate of 13 pellet groups was obtained from Edwards (1956).

Using 95% confidence limits (Appendix 2), the moose population on the one square mile plot was estimated as 5.8 moose, ranging from 4.7 moose to 7.0 moose.

The mean count for 15 flights (Appendix 1) was 4.5 moose, ranging from nil to 15 moose. The mean count per flight is outside the lower confidence limit.

Until about the middle of January the plot was heavily used (average 11.2 moose). In the later part of the winter only a few moose were seen (average 1.2 moose). If we assume that such was the actual situation, we will get a much closer answer to the one obtained from the pellet group count (5.6 moose).

Distribution of Tree and Shrub Species on the Browse Survey Plot

Tables 1 (a) and (b) show the composition and distribution of species in the two main timber types. Twenty-two tree and brush species were found in the mixed type. Fifty-four sample plots show a total of 1692 living stems. The stocking of the mixed type is, therefore, 10340 living stems per acre. Pin cherry, white birch, hazel and poplar show the widest distribution. Hazel, pin cherry and mountain maple were most abundant.

Thirteen species were identified in the conifers. Stocking of plots was much denser due to abundant growth of speckled alder (14388 stems per acre).

Utilization of species by Moose

Moose browsing occurred on 13 species in the mixed timber type. Six species show mutilation and three species had stems killed.



Willow, hazel, mountain ash and juneberry provided most browse units. Willow, balsam, mountain ash and juneberry had the highest percentage of stems browsed. Browsed stems of balsam, mountain ash, juneberry and poplar were browsed most intensively. Seven species were browsed in the coniferous types. Stems of four species were mutilated and one stem was killed by previous use. Dogwood, willow and balsam were most important browse suppliers.

It appears that because of the continued use of the area by moose, some of the less desirable browse species, such as hazel, alder and the cherries are beginning to play an important role in the moose diet. The result of the moose browse survey are shown in Tables 2(a) and (b).

Utilization of Species by Snowshoe Hares

The diet of the snowshoe hares consisted of about the same number of species. Their preferences, however, differed from moose. Hazel, mountain maple and pin cherry accounted for most browse units. White pine, mountain ash, mountain maple and black spruce had the highest percentage of stems affected by hares. Browsed stems of mountain ash, mountain maple, pin cherry and hazel were browsed most intensively. A total of 13305 browse units was taken by snowshoe hares. Cutting (browsing) occurred on 188 stems, 14 stems were barked and on 13 stems both cutting and barking took place in the mixed type. Respective browse units were 11963, 860 and 482. The latter two were combined for tabulation. The coniferous types were of secondary importance to snowshoe hares.

Only about half as many browse units were taken by snowshoe hares last winter compared to winter 1959-60. This is a good indication that the winter 1959-60 was the peak in the snowshoe hare population cycle.

Acknowledgments

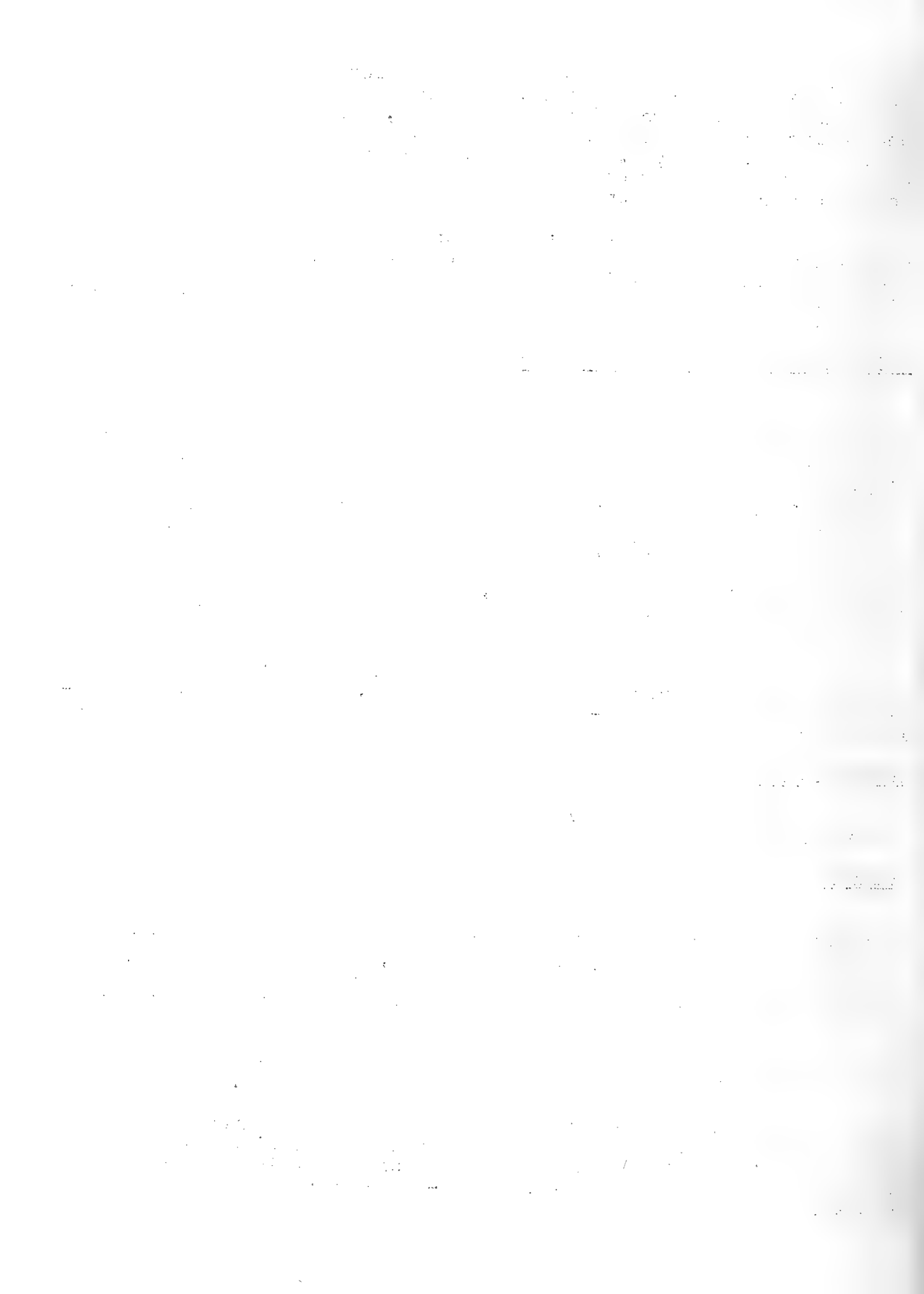
We wish to thank Ranger Frank Valiquette for his assistance on the browse survey.

Summary

A combination moose browse survey, pellet group count and a snowshoe hare browse survey was taken in the southwestern part of the Nabakwasi census plot, Gogama District, May, 1961. Hazel, pin cherry, mountain maple and speckled alder were the most abundant species on the survey plot. Dogwood, willow, hazel and mountain ash provided most browse units for moose.

Due to previous heavy use of favoured species, more of the less desirable species were taken by moose last winter.

Hazel, mountain maple and pin cherry were favoured by the snowshoe hare. Browse units taken by hares during winter 1960-61 were about half of those taken the previous winter in the same general area. This indicates that winter 1959-60 had a peak snowshoe hare population in Gogama.



By using 95% confidence limits, the population estimate of moose from pellet group count was 5.8 moose. The range was from 4.7 to 7.0 moose per square mile. The mean count of 4.5 moose from fifteen flights during the previous winter is below the lower confidence limit.

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APPENDIX 1

Aerial Observations of Moose on the 1961 Browse Survey Plot

<u>Date</u>	<u>Moose Seen</u>
December 16th, 1960	7
December 20th, 1960	11
December 27th, 1960	15
January 4th, 1961	7
January 9th, 1961	16
January 19th, 1961	2
January 25th, 1961	Nil
February 2nd, 1961	2
February 9th, 1961	Nil
February 15th, 1961	3
February 21st, 1961	2
February 27th, 1961	1
March 8th, 1961	2
March 14th, 1961	Nil
March 24th, 1961	Nil
<hr/>	
Total for 15 flights	68
Average per flight	4.5

APPENDIX 2

Frequency distribution of pellet groups on the 1961 plot

Pellet Groups	Number of Plots		Total
	Mixed	Coniferous	
0	8		8
1	16		16
2	15	3	18
3	4	3	7
4	2	2	4
5	4		4
6	2		2
7	1	1	2
8	1	1	2
9	1		1
Total Plots	54	10	64
Total Pellet Groups	122	38	160
Mean Pellet Groups per plot	2.26	3.8	2.5
Area in Acres	532	108	640

Calculations from Pellet Group Counts

$$\text{Weighted mean} = \frac{2.26 \times 532 + 3.8 \times 108}{532 + 108} = 2.52$$

$$S^2_{\text{mixed}} = \frac{\sum x^2 - \frac{(\sum x)^2}{N}}{N-1} = \frac{510 - \frac{122^2}{54}}{53} = 4.42$$

$$S^2_{\text{conifer}} = \frac{168 - \frac{38^2}{10}}{9} = 2.62$$

$$\text{Weighted } S^2 = \frac{4.4 \times 532}{532} + \frac{2.6 \times 108}{108} = 4.07$$

$$S = \sqrt{4.07} = 2.02$$

$$S_m = \frac{2.02}{\sqrt{64}} = 0.25$$

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial matters. This section also touches upon the legal implications of failing to maintain such records, which can lead to severe consequences for individuals and organizations alike.

2. The second part of the document delves into the specific requirements for record-keeping, including the types of documents that must be retained and the duration for which they should be kept. It provides a detailed overview of the various categories of records, such as financial statements, contracts, and correspondence, and outlines the best practices for organizing and storing these documents to ensure they are easily accessible and secure.

3. The third part of the document addresses the challenges associated with record-keeping, particularly in the context of digital information. It discusses the risks of data loss, corruption, and unauthorized access, and offers strategies to mitigate these risks. This includes the use of secure storage solutions, regular backups, and the implementation of robust access controls to protect sensitive information.

4. The fourth part of the document provides a comprehensive overview of the legal and regulatory framework governing record-keeping. It examines the various laws and regulations that apply to different types of records and industries, and highlights the key provisions that organizations must be aware of. This section also discusses the role of government agencies in enforcing these regulations and the potential for legal action in the event of non-compliance.

5. The fifth part of the document offers practical advice and guidance for organizations looking to improve their record-keeping practices. It provides a checklist of key areas to focus on, such as developing a clear record-keeping policy, training staff on proper procedures, and regularly reviewing and updating records. This section also includes a list of resources and tools that can be used to streamline the record-keeping process and reduce the risk of errors.

6. The sixth part of the document discusses the benefits of effective record-keeping, including improved decision-making, enhanced operational efficiency, and increased compliance with legal and regulatory requirements. It also highlights the role of records in dispute resolution and the potential for records to be used as evidence in legal proceedings. This section emphasizes that maintaining accurate records is not just a legal obligation, but also a strategic advantage for any organization.

7. The seventh part of the document provides a summary of the key points discussed throughout the document and offers a final set of recommendations for organizations. It reiterates the importance of record-keeping and encourages organizations to take a proactive approach to managing their records. This section also includes a list of key takeaways and a call to action for organizations to review their current record-keeping practices and make any necessary improvements.

$$95\% \text{ confidence limits} = 0.25 \times 1.96 = 0.49$$

$$m = 2.52 \pm 0.49$$

$$\text{Upper limit} = 3.01$$

$$\text{Lower limit} = 2.03$$

$$1. \text{ Pellet groups per acre} = \text{mean count per plot} \times 10 = 25.2$$

$$\text{upper limit} = 30.1$$

$$\text{lower limit} = 20.3$$

$$2. \text{ Moose days per square mile} = \frac{\text{Pellet Groups per acre} \times \text{Acres in square mile}}{\text{Deposition rate}}$$

$$= \frac{25.2 \times 640}{13} = 1241$$

$$\text{Upper limit} = 1482$$

$$\text{Lower limit} = 999$$

$$3. \text{ Moose per square mile} = \frac{\text{Moose days per square mile}}{\text{Deposition time}}$$

$$= \frac{1241}{213} = 5.83$$

$$\text{Upper limit} = 6.96$$

$$\text{Lower limit} = 4.69$$

1. The first part of the document is a list of names and addresses of the members of the committee.

2. The second part is a list of the names of the members of the committee.

3. The third part is a list of the names of the members of the committee.

TABLE I(a)

Species Composition and Distribution of the Mixed Timber Type
(54 sample plots)

Species	Living stems on Plots	Living stems per acre	Per cent of available stems	No. of plots of which species occurs	Frequency Index
Balsam	12	73	0.7	7	0.130
White Pine	8	49	0.5	7	0.130
Red Pine	1	6	0.1	1	0.019
Jack Pine	59	361	3.5	18	0.333
White Spruce	11	67	0.6	7	0.130
Black Spruce	18	110	1.1	9	0.167
Poplar	116	709	6.9	27	0.500
White Birch	126	770	7.4	30	0.556
Willow	43	263	2.5	11	0.204
Hazel	569	3477	33.6	29	0.537
Mt. Alder	81	495	4.8	8	0.148
Speckled Alder	83	507	4.9	14	0.259
Mt. Ash	55	336	3.2	12	0.222
Juneberry	59	361	3.5	17	0.315
Pin Cherry	182	1112	10.8	47	0.870
Choke Cherry	64	391	3.8	4	0.074
Mt. Maple	169	1033	10.0	22	0.407
Red Maple	32	196	1.9	9	0.167
Elder	4	24	0.2	2	0.037
TOTAL	1692	10340	100.0		
Average				14.8	0.274

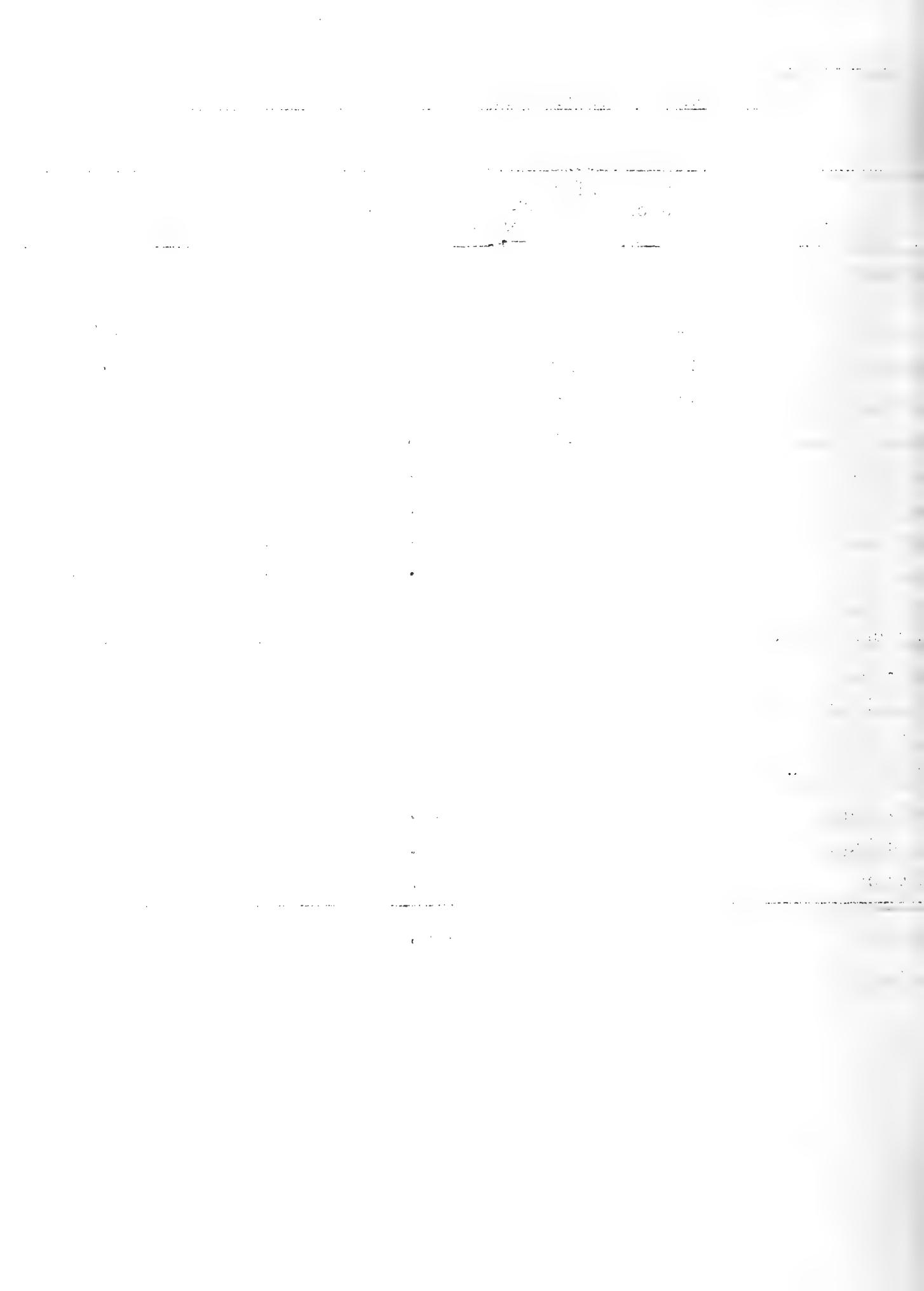


TABLE I(b)

Species Composition and Distribution of the Coniferous Timber Types
(10 Sample Plots)

Species	Living stems on Plots	Living stems per acre	Per cent of available stems	No. of plots on which species occurs	Frequency Index
Ground Hemlock	1	33	0.2	1	0.1
Balsam	25	825	5.7	6	0.6
White Cedar	15	495	3.5	2	0.2
White Spruce	4	132	0.9	2	0.2
Black Spruce	7	231	1.6	4	0.4
White Birch	2	66	0.5	2	0.2
Willow	12	396	2.8	4	0.4
Hazel	1	33	0.2	1	0.1
Mt. Ash	7	231	1.6	4	0.4
Mt. Alder	1	33	0.2	1	0.1
Speckled Alder	300	9900	68.8	9	0.9
Juneberry	7	231	1.6	3	0.3
Dogwood	54	1782	12.4	2	0.2
TOTAL	436	14388	100.0		
Average				3.1	0.3

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TABLE II (a)

Utilization of tree and shrub species by moose in the mixed timber type

The effect of Moose on the species in mixed timber type

Species	Killed Stems		Mutilated S.		Browsed Stems		Browse Units	Browse on living/on browsed stems	Browsing Intensity	Per Cent of Browse Units Supplied
	No.	%	No.	%	No.	%				
Balsam			5	41.7	6	50.0	540	45.0	90.0	5.6
White Pine										
Red Pine										
Jack Pine										
White Spruce										
Black Spruce										
Poplar	3	2.6	6	5.2	7	6.0	415	3.6	59.3	4.3
White Birch			5	4.0	17	13.5	906	7.2	53.3	9.4
Willow			25	58.1	37	86.0	2010	46.7	54.3	20.8
Hazel					52	9.1	1901	3.4	36.6	19.6
Mt. Alder					9	11.1	470	5.8	52.2	4.9
Speckled Alder					1	1.2	30	0.4	30.0	0.3
Mt. Ash	6	10.9	7	12.7	17	30.9	1210	22.0	71.2	12.5
Juneberry					16	27.1	980	16.6	61.2	10.1
Pin Cherry			1	0.5	13	7.1	730	4.0	56.1	7.5
Choke Cherry					3	4.7	170	2.7	56.7	1.7
Mt. Maple	1	0.6			3	1.8	106	0.6	35.3	1.1
Red Maple					6	18.8	216	6.8	33.6	2.2
Elder										
TOTAL	10		49		187		9684			100.0
Average		0.6		2.9		11.1		5.7	51.8	

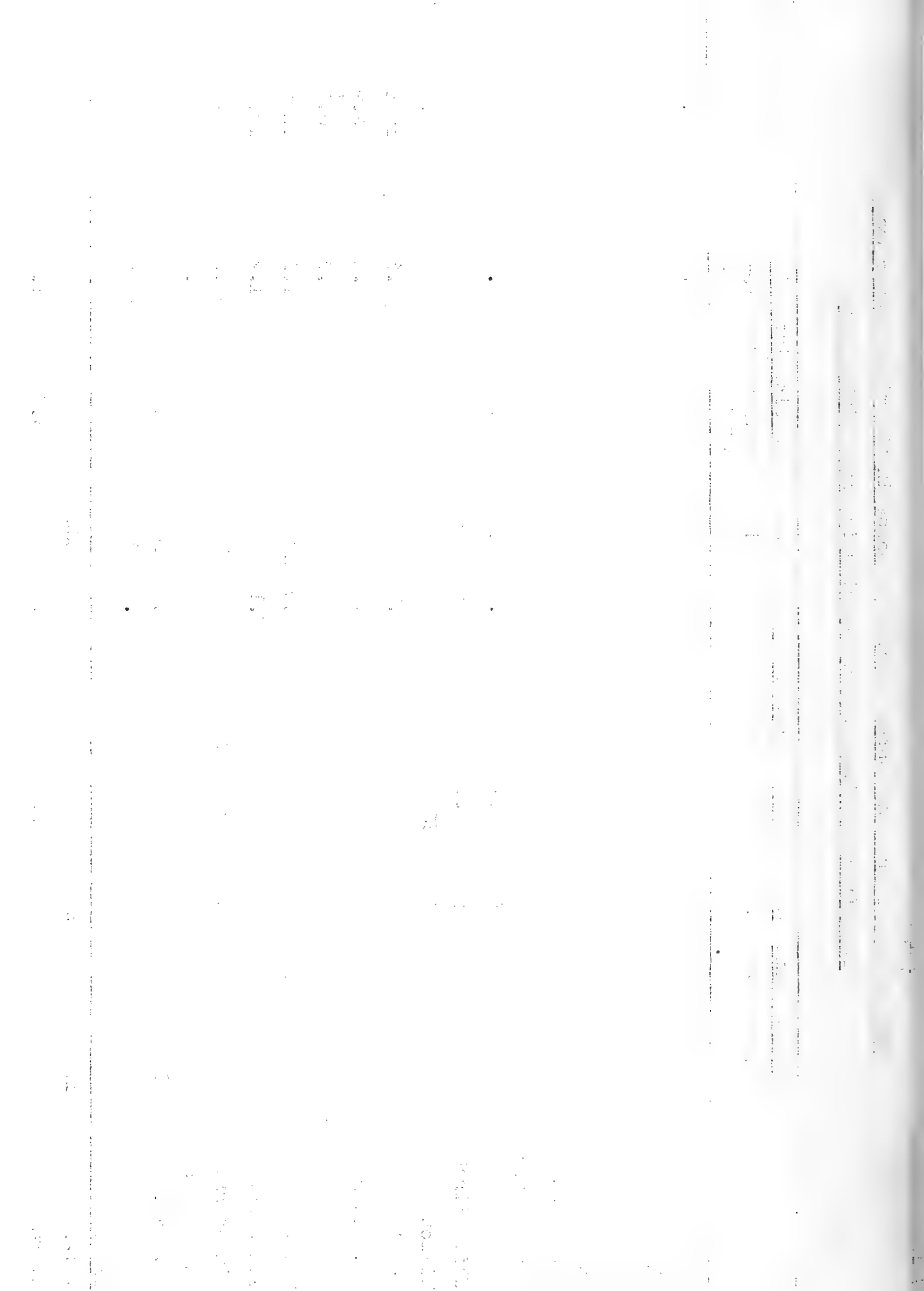
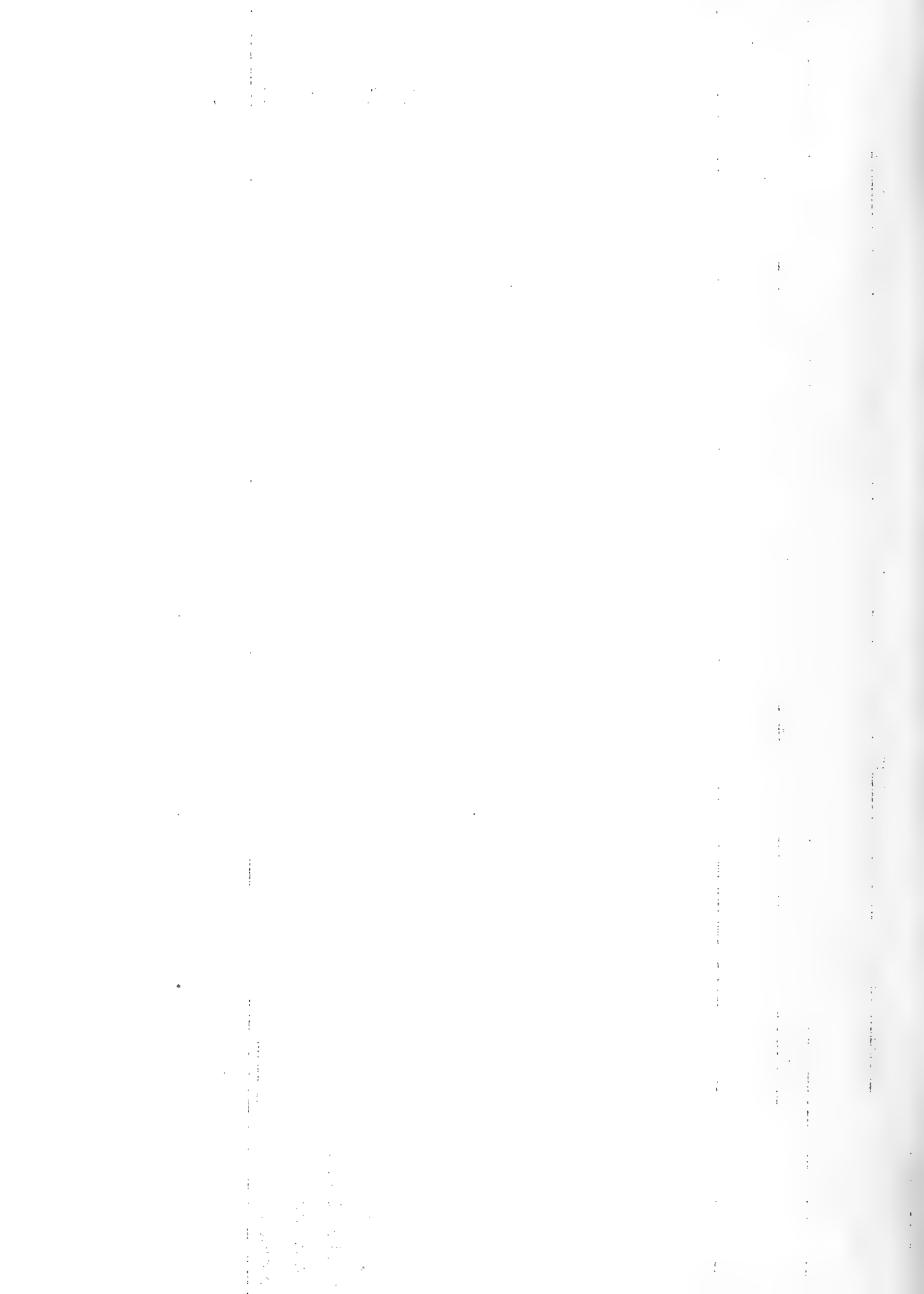


TABLE II (b)

Utilization of tree and shrub species by moose in the coniferous timber types

Species	<u>Killed Stems</u>		<u>Mutilated S.</u>		<u>Browsed Stems</u>		Browse Units	<u>Browsing Intensity</u> on living/on browsed stems	Per Cent of Browse Units Supplied	
	No.	%	No.	%	No.	%				
Ground Hemlock										
Balsam			2	8.0	10	40.0	555	22.2	55.5	14.1
White Cedar										
White Spruce										
Black Spruce										
White Birch					1	50.0	30	15.0	30.0	0.8
Willow			2	16.7	8	66.7	560	46.7	70.0	14.2
Hazel										
Mt. Ash	1	14.3	1	14.3	4	57.1	320	45.7	80.0	8.1
Mt. Alder					1	100.0	90	90.0	90.0	2.3
Speckled Alder										
Juneberry					4	57.1	240	34.3	60.0	6.1
Dogwood			3	5.6	26	48.9	2140	39.6	82.3	54.4
TOTAL	1		8		54		3935			100.0
Average		0.2		1.8		12.4		9.0	72.9	



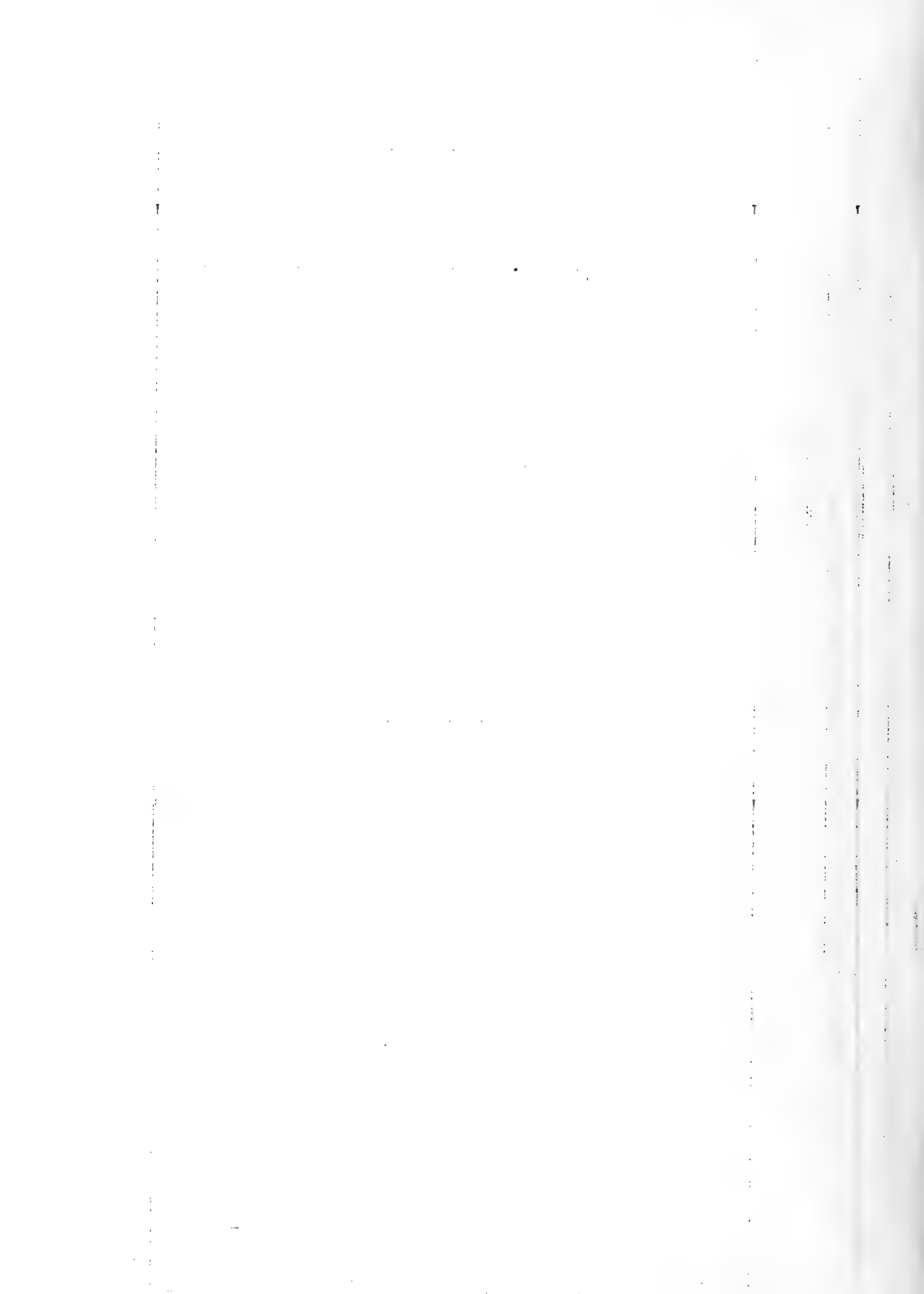
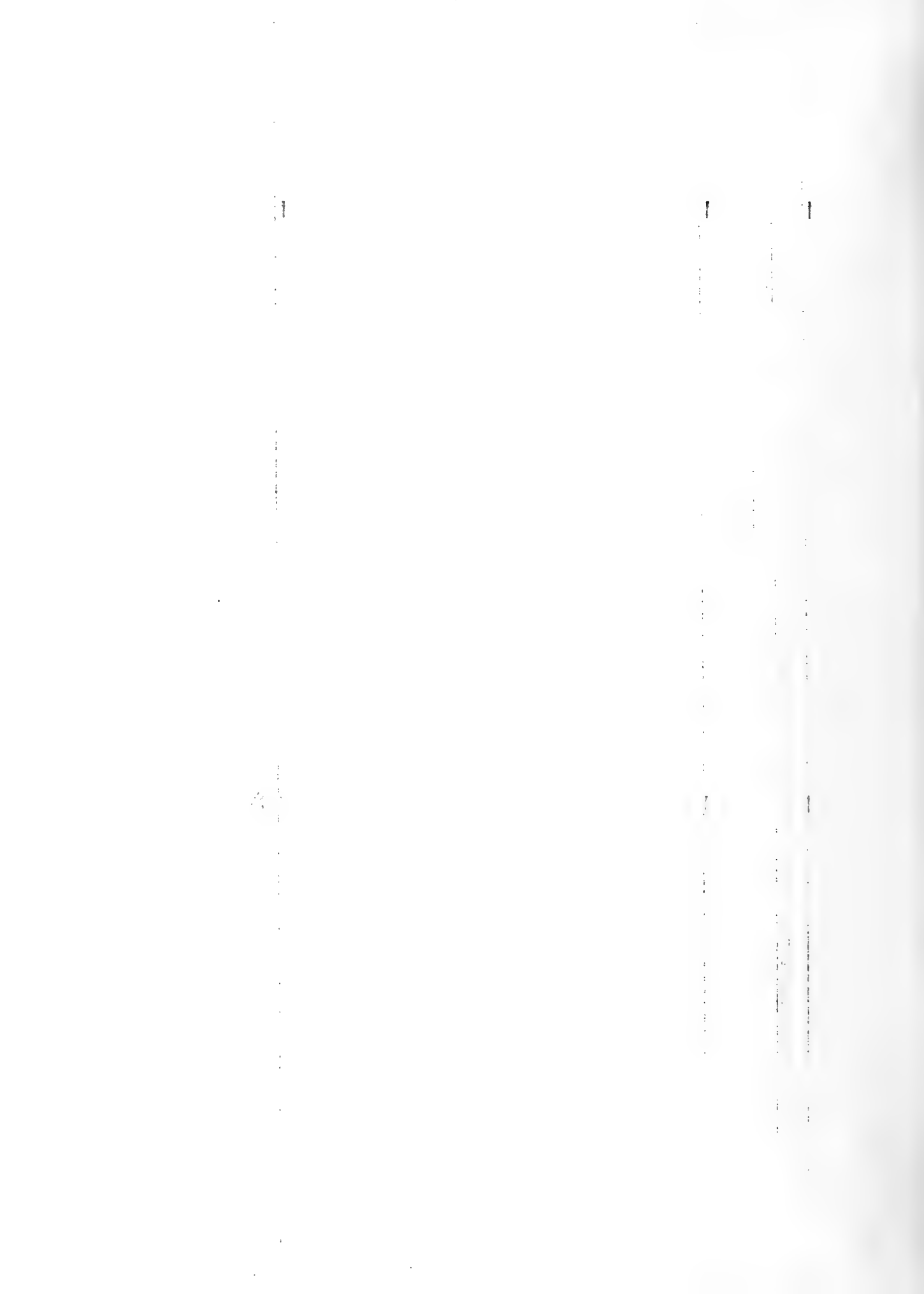


TABLE III (b)

Species	<u>Killed Stems</u>		<u>Mutilated Stems</u>		<u>Browsed Stems</u>		<u>Barked Stems</u>		<u>Browsed or Barked Stems</u>		<u>Browse Intensity of Browsing</u>		% of Browse Units Supplied
	No.	%	No.	%	No.	%	No.	%	No.	%	stems	stems	
Ground Hemlock													
Balsam													
White Cedar													
White Spruce			3	75.0	1	25.0	4	100.0	300	75.0	75.0	34.5	
Black Spruce													
White Birch													
Willow			1	8.3			1	8.3	90	7.5	90.0	10.3	
Hazel													
Mt. Ash	1	14.3	3	42.9			3	42.9	210	30.0	70.0	24.1	
Mt. Alder													
Speckled Alder			1	0.3			1	0.3	90	0.3	90.0	10.3	
Juneberry													
Dogwood			4	7.4			4	7.4	180	3.3	45.0	20.7	
TOTAL			12		1		13		870			99.9	
Average				2.8		0.2		3.0		2.0	67.0		



CREEL CENSUS 1961
KAPUSKASING DISTRICT

by
P. A. Kwaterowsky

Abstract

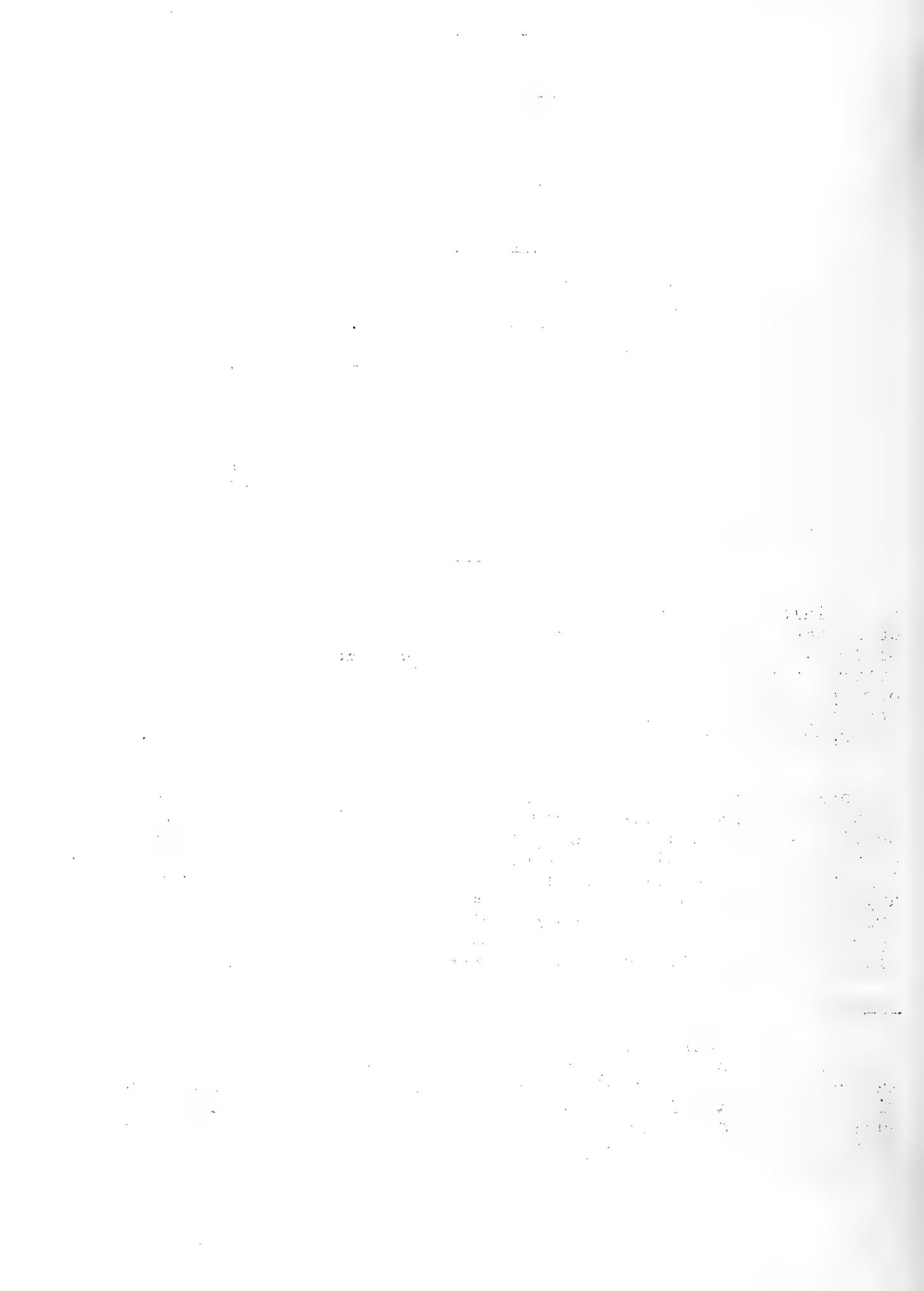
A creel census program was initiated in the District during the summer of 1961 to obtain information on which to base future management plans. Logbooks were issued to Conservation Officers, Park attendants and tourist outfitters enlisting their co-operation. Data obtained show that 454 or 71 per cent of the anglers fished a total of 2565 hours to catch 813 speckled trout or each angler caught 1.7 fish. The remaining 182 anglers spent a total of 784 hours to catch 236 pike and 431 pickerel for a combined average of 3.6 fish per angler. Tables giving detailed angling returns for speckled trout, pike and pickerel are presented.

In order to obtain basic information on the sport fishing potentials of the Kapuskasing District and on the status of individual game fish species a creel census was initiated in the summer of 1961. The need for creel census data as an essential part of our future management plans is evident. This holds especially true for our speckled trout waters in the Hearst-Hornepayne area where during recent years approximately 40 lakes were surveyed, found suitable for speckled trout and subsequently planted with this species.

The introduction of speckled trout was a complete success not only as far as the survival rates are concerned, but also in regard to their excellent growth rates as indicated by specimens scaling seven pounds and more, two and three years after introduction. An annually increasing number of fishermen are utilizing these fishing waters and detailed creel census information is necessary for any management programmes we may have to establish for our speckled trout lakes. Because of the restricted number of lakes containing speckled trout, creel census data as a basis for detailed stocking plans are doubly important to the Kapuskasing District.

Method

Log books were issued to each Conservation Officer as it was felt that officers by recording the information from each fisherman checked could participate in the collection of creel census data without any undue interference with his regular activities. In addition, logbooks were issued to tourist outfitters' camps for use by their guests; creel census cards were distributed to our Park attendants who were encouraged to participate in this work.



Results

Data from 636 anglers fishing a total of 3349 hours were obtained in this manner. It is evident that this is not a spectacular achievement. However, it may be considered satisfactory when we realize that this is our first venture into the field of creel census work, that only one tourist operator co-operated this year in providing data and that we were working under very adverse conditions in regard to the availability of our Fish and Wildlife staff due to illness and a position vacancy.

Analysis

From the total of 636 anglers, 454 or 71.4 per cent fished 2565 hours or 76 per cent of all rod-hours for speckled trout. The remaining 182 anglers (28.6 per cent) spent a total of 784 hours (24 per cent) for the capture of pike and pickerel.

Each angler spent on the average a total of 5.3 hours (5.6 hours for speckled trout and 4.2 hours for pike and pickerel) on the different fishing waters.

Tables No. 1 and No. 2 represent the fishing intensity, effort and success for the individual waters and species.

Discussion

It is evident that we cannot draw definite conclusions from this limited creel census. For example, the rate of capture for speckled trout as represented in Table No. 1 does not reflect a true average picture, as data were collected from the later part of June through August, at a time when speckled trout fishing is very poor. This explains the rather unfavourable rate of capture in most of our lakes. Sider Lake represents the only exception but this is explained by the fact that data were obtained on May 18th, just after the break up when speckled trout fishing was at its very best. If we calculate the rate of capture by including the allegedly released 50 trout (av. 14") in the total fishing effort we arrive at the extraordinary capture rate of 3.18 fish per hour.

Unfortunately sufficient information was not provided for stream fishing to draw any conclusions. The limited data for Jew Creek suggest that the reproductive potential of that stream must be very good, however, the small average size of seven inches needs some further studies in order to explain this phenomenon.

Table No. 1 clearly indicates that in more accessible lakes (Arnott, Hart, Little Hart) the introduced speckled trout did not have an opportunity to grow to respectable sizes because of more intensive fishing pressure due to the favourable accessibility.

Despite the limited information obtained during the summer of 1961, we are already in a position to partially adjust our planting programme.

Table No. 2 reveals an interesting fact; in Kabinakagami, the average length of pike and pickerel retained exceeds those from the other listed lakes. Commercial fishing operations had been carried out in this lake and it can be assumed that this resulted in the more favourable average sizes of these two species. Further studies in this regard, however, are needed to voice definite conclusions.

No attempt was made in this report to calculate the average weight of fish per angler as it is felt that we have at first to standardize a weight of length relation for our northern waters. This relationship seems to differ considerably if compared with that for the same species in southern Ontario. Our lake survey data collected during last summer will be used to establish the age-weight relationship as applicable for our area. As soon as a scale reader (Leitz Trichinoscope) becomes available, we will embark on this project for which a separate report will be written.

Recommendation

It is strongly recommended that during the ensuing years a concerted effort be made to obtain more fishing data for specific lakes and areas to lay the foundation for appropriate fish management plans.

It is believed that the introduction of fin clipped speckled trout into certain waters will facilitate our work in studying the survival rates, utilization and preference of particular trout waters.

TABLE 1:

SPECKLED TROUT

Name of Water	No. of Anglers	Rod Hours	Fish Released	Fish Retained	Average Length	Hours Per Fish	Fish Per Angler
Red Pine Lake	7	48	-	7	18"	6.8	1
Skunk Lake	42	114	2	46	17"	2.5	1.1
Myrtle Lake	26	78	-	47	14"	1.7	1.8
Slim Lake	165	1025	8	249	16.5"	4.1	1.5
Arnott Lake	28	159	-	109	13"	1.5	3.9
Trodd Lake	38	128	-	27	18"	4.7	0.7
Jaw Lake	72	420	-	90	16"	4.7	1.2
Young Lake	11	25	-	6	17"	4.1	0.6
Insect Lake	15	53	8	46	15"	1.2	3.
Hart Lake	23	289	-	35	10"	8.2	1.5
Sider Lake	4	22	50	20	16.5"	1.1	5.
Little Hart L.	8	126	-	29	10"	4.3	3.6
Gagnon Lake	3	18		2	16"	9	0.7
Leaf Lake	4	30		17	13"	1.8	4.3
Jew Creek	8	30		83	7"	0.36	10.4
TOTAL	454	2565	68	813	15.5"	3.2	1.7

TABLE 2:

Name of Water	Anglers	Rod Hours	PIKE			PICKEREL				
			Rel- eased	Ret- ained	Aver. Length	Rel- eased	Ret- ained	Aver. Length	Hours per fish	Fish per Angler
Cameron	23	126	6	25	27"	24	92	14"	1.1	5
Hanlan	47	83	-	16	18"	-	90	14"	0.8	23
Nagagamis	38	243	131	74	28"	12	75	14.5"	1.6	3.9
Kabinakagami	32	193	35	45	31"	133	129	15.5"	1.1	5.4
Remi	42	139	67	76	24"	10	45	15"	1.1	3
TOTAL.....	182	784	119	236	28"	179	431	14.5"	1.2	3.6



USE OF COOPER-TOX #6 AS A FISH POISON
GOGAMA DISTRICT

by
R. C. Johanson
Senior Conservation Officer

Abstract

Taylor and Docks Lakes, Wigle Township, District of Sudbury were poisoned with Cooper-Tox #6 on July 27, 1960. This preparation was applied at the rate of 10 P.P.B. or .0054 Imperial gals. per acre foot. On Taylor Lake containing 309 acre feet of water, three gals. of Cooper-Tox #6 were used. On Docks Lake containing 107 acre feet of water, one gal. was used. Two men maintained a close check on the two lakes for nine days, July 30th to August 7th, 1960. A complete kill was estimated on both lakes August 4th-7th. The lakes were tested for fish survival in May, 1961, with three complete gangs of gill nets in each lake, mesh sizes $1\frac{1}{2}$ " - 4". A toxicity test was made in May and June 1961, and the results indicated the lakes were still toxic. It is planned to carry out further toxicity tests later in the year.

Objective

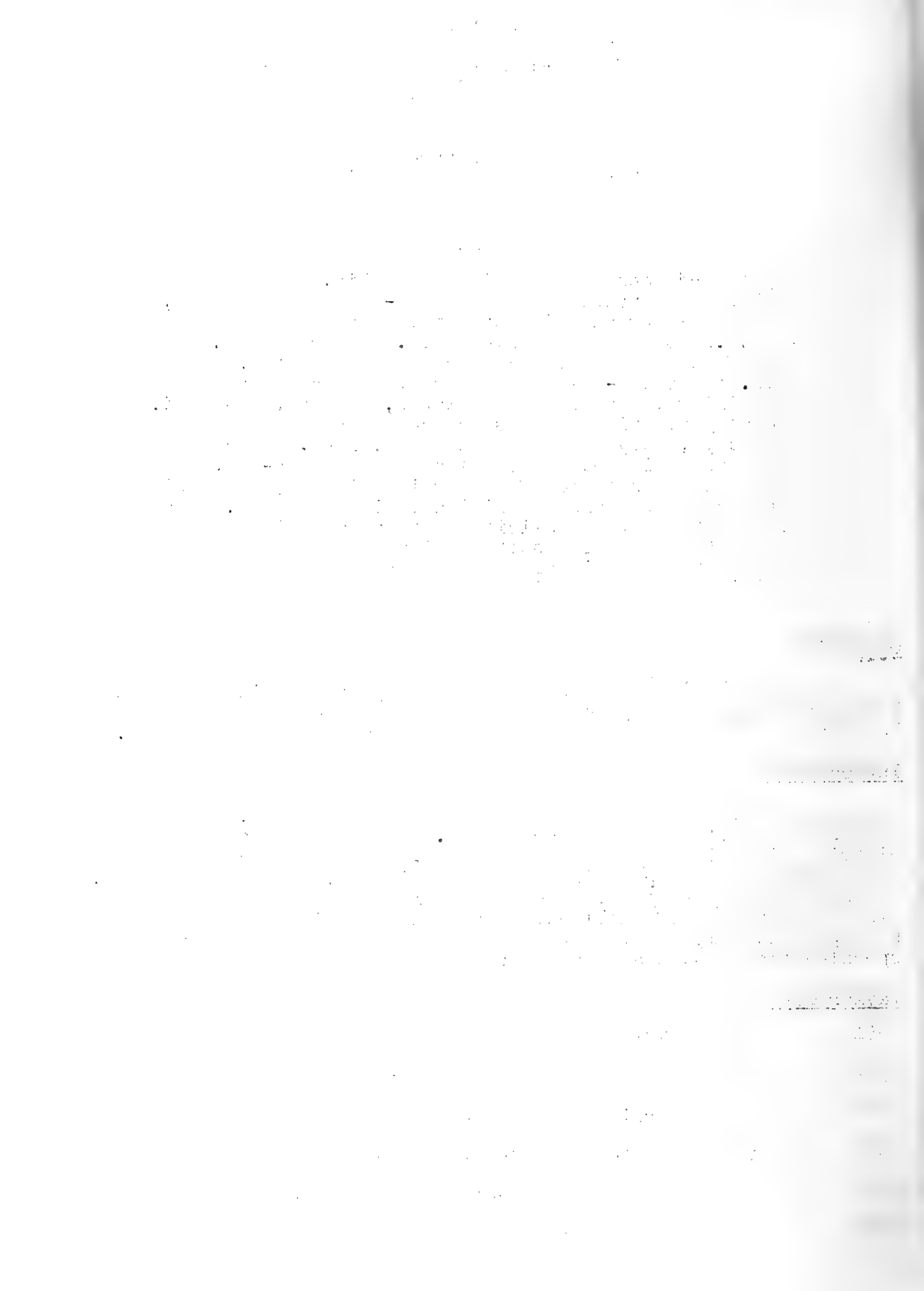
To eliminate the present fish populations in Docks and Taylor Lakes in Wigle Township for the purpose of introducing Speckled and Kamloops trout and retain only one species of fish in each lake.

Introduction

Taylor and Docks Lakes were surveyed in May, 1959 by Conservation Officers B. Turner and A. Zimmerman as part of Gogama District Fisheries Management Programme. The survey crew found the lakes contained a population of perch, pike, pickerel and suckers. Speckled trout were planted for a number of years in Taylor Lake, also one planting of smallmouth black bass. While Docks Lake has been planted only once. Our records show the following plantings of speckled trout and black bass in:

Taylor Lake

1951	1000 Yearling	Speckled Trout
1952	1000 Yearling	Speckled Trout
1953	1000 Yearling	Speckled Trout
1954	2000 Yearling	Speckled Trout
1956	500 Fry	Smallmouth Black Bass
1960	6 cans Yearling	Speckled Trout



Docks Lake

1956 2000 Yearling Speckled Trout

The speckled trout planted in both lakes apparently did not survive due to the presence of pike and pickerel in the lakes.

A local resident of Taylor and Docks Lake area informed us that, a trapper, now deceased, caught adult pike and pickerel in Ketchini Lake and transplanted them in Taylor and Docks Lakes in the late 1940's.

A tourist outfitter in the vicinity of Taylor and Docks Lakes made a recommendation to the Department of Lands and Forests to consider poisoning the lakes, as the past speckled trout plantings had been fruitless. This recommendation was approved after the lakes had been surveyed. Plans were made to poison the lakes with cooper-tox #6 as part of the summer's work programme for 1960.

Netting

Method

An extensive netting programme was carried out on both lakes oneweek before applying the toxicant. Three complete gangs of nets, mesh sizes $1\frac{1}{2}$ " - 4" were used in each lake. The nets were in operation from July 19th - 21st, 1960 during this period the catch was as follows:

Docks Lake

12 pickerel - $16\frac{1}{2}$ " - 20" in length - $1\frac{1}{2}$ to 3 pounds

1 speckled trout - $16\frac{1}{2}$ " in length - 1 pound

9 suckers - Average length - 2 pounds

2 perch - 2" to 4" in length

Taylor Lake

17 pike - $12\frac{1}{4}$ " - $24\frac{1}{4}$ " in length - $\frac{1}{2}$ to 1 pound

4 pickerel - $19\frac{1}{2}$ " - 26" in length - 2 to 6 pounds

Poisoning

The lakes were sounded by Conservation Officers B. Turner and A. Zimmerman, a contour map was prepared for each lake, and the area calculated.

The volume of water in acre feet was calculated by Conservation Officer Geo. Vozeh, (using Mr. N. D. Patrick's method of calculating the volume of water in acre feet).

On July 27th, 1960 Conservation Officers R. C. Johanson and B. Turner applied cooper-tox #6 to both Taylor and Dock's Lakes. A 3 H.P. outboard motor was used on a small boat supplied by Mr. J. Redhead, Tourist Outfitter, Ketchini Lake. Cooper-Tox #6 was mixed in a galvanized wash tub at the rate of one pint to a tub full of water. An automatic bilge pump was attached to the leg of the motor above the propeller, a hose from the bilge pump, to the tub was used, to apply the toxicant into the slip stream, a gate valve on the hose controls the flow of the mixture. The valve is regulated to increase or decrease the flow of toxicants dependent upon the speed travelled.

Observations

Arrangements were made for two Forest Rangers to keep a close check on the results of the poisoning project carried out on the lakes. These men started work on the 3rd day after the toxicant was applied. The following results were recorded:

<u>Taylor Lake</u>	<u>Docks Lake</u>
July 30/60 - 15 pike - $\frac{1}{2}$ - 1 lb.	2 pickerel - 3 and 4 lbs.
July 31/60 - 5 pike - $\frac{1}{2}$ - 1 lb.	Nothing
Aug. 1/60 - Nothing	Nothing
Aug. 2/60 - Nothing	(4 suckers - 2" Av. (4 perch - 4" Av.
Aug. 3/60 - 1 pike - 1 pound 2 perch - 4" Av.	1 pickerel - 3 pounds 1 sucker - 2 pounds
Aug. 4/60 - Nothing	Nothing
Aug. 5/60 - Nothing	Nothing
Aug. 6/60 - Nothing	Nothing
Aug. 7/60 - Nothing	Nothing

Testing for Survival

Three complete gangs of gill nets were set in each lake, May 18th, 1961 by B. Turner. The nets were lifted May 26th, 1961, no fish were caught in the nets.

Testing For Toxicity

On May 19th, 1961, 144 mud minnows were caught in a small pond at Mileage 101 C.N.R. and transported to Taylor and Docks lakes in minnow buckets. Three wire minnow traps with the tunnels closed were set in each lake, at the various depths, 5' - 15' - 25'. Twenty-four minnows were placed in each trap.

Observations

On May 26th, 1961 B. Turner and Geo. Richards checked the traps and found one dead minnow in the trap set in five feet of water in Docks Lake and two minnows were dead in the trap set in ten feet of water in Taylor Lake. On May 30th, 1961 Conservation Officer Geo. Richards checked the traps at Taylor Lake and found two dead minnows in each trap. The minnows in the traps set in 10' and 25' were removed and 12 yearling speckled trout were put on each trap. The traps were checked and picked up June 16th, 1961 by R. C. Johanson. All speckled trout were dead as well as all the minnows. The minnows had been dead for some time as they were in a high state of decomposition.

Twenty-five speckled trout were retained in a minnow bucket, in the lake at Gogama (Minisinakwa Lake) for comparison purposes - the speckled trout retained at Minisinakwa lake, were all alive June 16th, 1961.

"Fall" Toxicity Test

A second toxicity test was made September 27th to October 21, 1961 in Taylor Lake, Wagle Township; sixty-five speckled trout (year and half olds) were used for this test. The fish were again placed, in three minnow traps 22 speckled trout at 5', 22 at 10' and 21 at 25' (bottom) depths. Upon checking the traps October 21st, only three speckled trout were found alive at the 5' level and two at the 10', all fish were dead in the 25' depth.

We are not satisfied with this test due to the fact the fish placed in the traps were 6 - 8" in length and we feel they were overcrowded, and this would certainly have a bearing on the high mortality experienced in the last toxicity test.

Acknowledgments

The writer wishes to acknowledge contributions made by various members of the staff, and particular the work carried out by Assistant Senior Conservation Officer B. Turner.

