Journal of the Minnesota Academy of Science

Volume 2 | Number 3 Article 7

1881

The Fauna of Northern Minnesota: Its Traverses and Routes of Migration

Charles Hallock

Follow this and additional works at: https://digitalcommons.morris.umn.edu/jmas

Part of the Animal Sciences Commons

Recommended Citation

Hallock, C. (1881). The Fauna of Northern Minnesota: Its Traverses and Routes of Migration. *Journal of the Minnesota Academy of Science, Vol. 2 No.3*, 102-110.
Retrieved from https://digitalcommons.morris.umn.edu/jmas/vol2/iss3/7

This Article is brought to you for free and open access by the Journals at University of Minnesota Morris Digital Well. It has been accepted for inclusion in Journal of the Minnesota Academy of Science by an authorized editor of University of Minnesota Morris Digital Well. For more information, please contact skulann@morris.umn.edu.

second person if he can avoid the necessity, he is always quite willing to mention his "family mark" or totem. The latter trait is prominently exhibited at the government school, where the pupils are prompt to exchange geneological confidence with their friends, and to assert the ties of clanship as well as consanguinity.

THE FAUNA OF NORTHERN MINNESOTA.

ITS TRAVERSES AND ROUTES OF MIGRATION.

BY CHARLES HALLOCK, OF HALLOCK, MINN. LATE EDITOR OF "FOREST AND STREAM."

The address of Prof. N. H. Winchell, of the Minnesota Academy of Sciences, at its last annual meeting, refers to "an almost unexplored region lying west of Lake Superior, within the borders of Minnesota, whose precincts are filled with undisturbed and unknown species of animal life, and sprinkled with beautiful lakes which have not yet been ruffled by the footfall of either the hunter or explorer."

Two years ago I became associated with others in a farming and sporting location near the western border of this same wilderness tract, just where the prairie meets the timber and the outlook becomes illimitable. A beautiful river, vocal with the gossip of the woods, emerges from the forest into the open plain, and winds lovingly among the stately oaks and elms which adorn its banks. Aimlessly following this sylvan avenue of exit, strange creatures are often tempted out from the sombre forest, to peer with timid and inquisitive look into the unobstructed sunlight; and if an observing naturalist were handy to the spot, he would readily discover creatures unfa-

Google

TO VIMU AMBOHLIAO

miliar, if not actually unknown, as denizens there. Stimulated by the ardor of a new-born quest to pursue their retreat into the cover, he can discern no taint or trace of civilized man, and seldom the print of a moccasin. All is new, primitive, primeval. If timber is down, it is the wrack of the storm, or the work of the beaver, and not of the axe. There are open glades, but they are not the clearings of the settler; meadows of hay, never shorn by the scythe; paths by the river side, beaten hard by the daily tramp of the red deer; great furrows ploughed deep into the steep banks where moose and elk have plunged down to drink, or crossed to the opposite shore; slides worn smooth by the otter; oblong beds in the willow-fringe, flattened by the noon-day siestas of huge beasts. There are sounds of busy industry, but not of man, the mechanic; they are only the ringing thud of the "stake-driver" in the bog, or the hammer of the great red-headed woodpecker, aloft in some rampike.

This unexplored wilderness is vast — approximately defined and bounded on the north by that dismal swamp region along the British line, known as the Rainy Lake country; on the east by Lake Superior; on the south by the line of the Northern Pacific Railroad; and on the west by the fertile Red River Valley. Following to its source any one of the numerous rivers which penetrate it, no matter in what direction it flows, one will find himself upon a watershed or divide of table land, which turns the rivers to the four points of the compass and empties them into the Rainy Lake River, Lake Superior, the Mississippi, and the Red River, respectively. This divide is semi-circular in its contour—at its eastern end impinging close on Lake Superior at a point nearly opposite Isle Royal, and then sweeping with an irregular curve to its terminus in the northwest corner of Minnesota. It is, in fact, the continuation and extreme terminus of that stupendous ridge which begins in latitude 62 degrees, at the northeast point of Labrador, and extends southwest in a gigantic sweep of over three

Google

thousand miles. In Canada it is known as the Laurentian Chain. It separates the waters which flow into the Arctic zone, from those which empty into the St. Lawrence, the Great Lakes, and the Mississippi Valley. In its general trend and direction it has a singular correspondence with the great Alleghany chain which begins in New Hampshire and extends southwest into northern Alabama.

Throughout its entire length this mighty ridge is clothed with timber. Its eastern end, which traverses the inhospitable country of Labrador, is rugged and mountainous, clad chiefly with spruce. It is the home of the caribou, both the woodland and barren ground varieties; but none others of the Cervidæ exist there. Westward in Quebec, the chain is less mountainous, and the spruce gives place to the marvelous pine forests which feed the mammoth mills of the St. Maurice, the Gatineau, and the Ottawa. There the moose is found in lordly perfection, the red deer in droves, and the caribou also. Extending along the northern boundary of the Province of Ontario, it still yields a goodly supply of pine timber and big game, but trivial in comparison with Quebec. Near the Sault Ste. Marie it approaches the north shore of Lake Superior, and thence follows it in a course nearly parallel, but sweeping to the north of the great lake Nipegon, and then dips suddenly south through three degrees of latitude into the state of Minnesota. Along this north Superior thoroughfare caribou are found in considerable numbers; but red deer do not appear. In Minnesota moose, caribou, elk, and red deer are all found, with sometimes a specimen of the black-tail variety.

Timber is always best at the headwaters of streams; and since all streams flow from water sheds, animals naturally take to the ridge for shelter as well as food, so that the "divide" becomes not only a natural resort, but a chosen highway for migratory species. Moose are not strictly migratory, but there being a continuous highway across the continent from

Google

Quebec to Minnesota, it is reasonable to find their habitat extending throughout the entire distance, although their range may not be continuous and uninterrupted. The moose of northern Minnesota are probably local to that district and a portion of the adjacent Province of Kewatin. There seems to be an intermediate vacant tract eastward to Ontario. It is not at all probable that they are found west of the Red River until we reach the far distant country west of the Rocky Mountains, lying north of Wyoming; for the intervening country is not adapted to their requirements, nor would they be likely to cross the Red River, if it were. As for the elk of Minnesota, which find their principal food among the swamp willows and poplars which fringe the streams, alternating to the prairie grass for change of diet, they would naturally range to the southward along the divide which separates the headwaters of the Mississippi and the Red River of the North, and thus find their way acress the plains to the Rocky Mountains, without attempting to swim wide rivers, which neither instinct nor inducement would impel them to do. Caribou are essentially a northern species, corresponding to the Reindeer of Europe. Their range extends from Labrador to Athabasca, their traverse being the well wooded ridge which forms a part of the great chain across the continent, and which is conspicuous on the north of Lake Superior, back of Nipegon.

Favored thus by the great line of east and west transit, we find Minnesota to be the home of animal species which do not at present exist in other Western States. In like manner we explain the presence of the myriads of faunæ within our borders. From north to south there is a continuous line of water communication, extending from the Arctic seas to the Gulf of Mexico; for, the Red River flowing north complements the Mississippi flowing south, and across the water shed between these great valleys, as Prof. Winchell has already observed, pass the migrations of birds, which though not per-

Google

manently belonging to us, diversify our fauna by occasional halts, or sometimes make longer stays within our limits.

Minnesota, in fact, affords the shortest line of transit from water to water. Besides, the timber belt of the north is more continuous with that of the south across our eastern and central counties than at any other point west of the great lakes, and the birds naturally follow this for shelter.

Thus we are not only on the line of east and west but north and south transit.

This entire region is peculiarly adapted to the requirements of all these forms of animal life. A recent statistical report describes the vast pine area tributary to the Mississippi as a belt of contry forming a semi-circle from southeast to northwest, 100 miles wide and nearly 500 miles long, four-fifths of which lies wholly upon the east bank of the river, and the remaining one-fifth, which is near the head of the stream, about equally on both sides. The general direction of the belt is an approximation to that of the isothermal line and to the contour of great lakes lying to the northeast. That portion of the upper one-fifth part which lies on the west bank of the Mississippi, begins in township 128, near Osakis Lake, and and runs north around the head of Crow Wing River, and along the divide between the waters of the Mississippi and Red Lake rivers, in range 37 west of the fifth meridian, thence north and northeast, keeping to the west of Lake Itaska to town 151, and thence east and southeast to the divide between the Mississippi and St. Louis rivers, which flows eastwardly toward Lake Superior. It is asserted that 2500 lumbermen are employed in that district at present.

But it is to an unexplored and unoccupied wilderness projection lying still further north, to which this paper especially refers—a region entirely independent of the Mississippi, and belonging to an altogether distinct and separate fluvial system. It extends north from Red Lake River, in township 150, to the British border in township 164; and from range 44 eastward

Google

to range 27, defining an area of about 85 by 100 miles. The numerous streams which penetrate it are no longer tributary to the Father of Waters; and it is for this very reason that this region has been left unscathed by the lumberman's axe. Until recently it was not easily accessible. There were no contiguous settlements to create a local demand for lumber; nor had civilization occupied it with mills by which the cut logs could be converted if driven down the outflowing streams. All these streams either flow east and northeast from the central divide to the Rainy Lake and River, or west and northwest to the Red River of the North. They are generally uniform in character, being clear and rapid, with sand and gravel bottoms, and strewn with boulders in many places. Those numerous lakes which characterize the main area to the south are not found here, but are replaced by vast swamps or sloughs, locally known as "muskegs," which constitute the breeding places of many varieties of wild fowl and fur-bearing animals, and harbor deer, bears, etc., in large numbers. Ten years ago the first lumber operations were begun on a small scale in this section by a Mr. Scribner, and two years afterwards were considerably extended by E. W. Gadis, a Canadian, who constructed a logging road in 1873, from what is now known as the town of Hallock, on the St. Paul, Minneapolis & Manitoba Railroad, some seventy miles to Roseau Lake, whose waters are emptied by the Roseau river into the Red River near Winnipeg. The past summer this road was extended some forty miles further, to the Lake of the Woods, by Frank Palcher, a trader, who has a large store on the American side close to the line. This is at present the only overland route of access into this new wilderness. It affords the means of investigating both the physical geography and the natural history of the country, as well as a thoroughfare for sportsmen in quest of game.

Roseau Lake occupies the very crown of the dividing ridge. In spring it is eight miles wide; in summer only a half mile

Google

wide, with marsh all around it. This feature is peculiar to all the lakes of this region. To the south and west are sand bluffs covered with poplar; to the east, north and northwest lies the heavy timber. Statistics recently published describe the country as generally flat and sandy, rather than broken and hilly, the heaviest pine district being generally a dead level. The land is covered with a mixed growth of white pine, Norway or yellow pine, white and red cedar. The Norway is seldom mixed with anything except the stunted black pine. The white pine has usually a dense undergrowth of elm, soft and sugar maple, black ash, white and yellow birch, butternut, white and burr oak, American aspen or poplar, blue beech, black alder, thornapple, hazel, and occasionally, black spruce and hemlock, with a perfect tangle of brier bushes and weeds. The largest white pine frequently grows in such low places that the land would be unfit for cultivation, and for this reason only, as it is a rich, black loam. The swamps, which occupy about one-third of the whole area, are generally covered with a dense growth of tamarack, which is utilized for railroad ties and fence posts. There is also an occasional swamp of white cedar, spruce and balsam. Hemlock is confined mostly to the upper St. Croix, Chippewa and Wisconsin river valleys. "The average quality of the pine on the Mississippi is fully up to that of any other other pine region in the country. The timber is about equal in quality to that in the upper Saginaw valley, in Michigan, the smaller trees being found in the lower portions of the valleys above mentioned, and on the Black and Wisconsin rivers. The whole pine belt is covered with a perfect supply of small fruits, and the forests are alive with game of all kinds. Blackberries, raspberries, dewberries, strawberries, blueberries, cranberries (both low and hig' bush), black and red haws, plums, wintergreenberries, sand cherries, and many other kinds grow in wonderful profusion. The lakes in the northern portion of the belt supply an unlimited quantity of white-

Google

fish and trout. Bass, pike, pickerel, perch and sunfish are found in profusion throughout the whole district. Over the whole area are scattered fields of wild rice, which, with the fruit, fish and game, constitute it an Indian paradise. The section is also supplied with almost unlimited quantities of wild hay, principally blue-joint and red-top, and which is as nutritious and palatable as the ordinary tame hay of other sections, and yields from two to three tons per acre. The acreage in hay is immense on each of the several streams."

I have quoted from an exhaustive article recently published in the St. Paul Pioneer-Press, on the lumber resources of the Northwest. It corroborates what I have already published in several journals from my own observations.

The features of the country thus minutely outlined sufficiently explain why Minnesota is the chosen line of transit for migratory species moving north and south. The headwaters of the two great fluvial thoroughfares, which together almost span the continent, lie in close proximity to each other, in the midst of a lacustrine region of most seductive attractions to the birds and waterfowl which pass, tempting them to tarry on their flight. From the vast breeding grounds in the marshes which enclose the great delta of Nelson river, at Hudson's Bay, and from all the sub-arctic nesting places thereabouts, periodically come the immense congregations of snow geese, canvas-backs, brant, and the common wild geese, which annually delight the sportsman. About the 15th of May and the 1st of October the snow geese often appear in countless numbers on their migratory flights, often supplemented by the variety *anser albatus*, known as the lesser snow goose. Mallards and teal breed in northern Minnesota in large numbers, as do also the jack snipe and the three varieties of curlew. Seventeen varieties of plover have been collected in a single season, including the white arctic plover; and the family of Limocoles are well represented.

While wild fowl in their migrations hold closely to the

Google

water-courses, from which they chiefly derive their food, they invariably discriminate in favor of those channels which are adjacent to the shelter and warmth which timber affords. Hence ducks and geese which start from Hudson's Bay will follow the Nelson river to Lake Winnipeg, and then, instead of flying due south via the Red River, will veer to the Lake of the Woods, and then follow the divide down through the timber belt of Minnesota, whence, after a brief halt, they separate into two principal divisions, one of which takes the air-line route due south down the valley of the Mississippi, while the other heads directly for the succulent celery of the Chespeake and Currituck, crossing the centre of Wisconsin, the northern portions of Illinois and Indiana, the centre of Ohio and the Virginias, and over the Blue Ridge to their winter feeding grounds. The immense rafts of ducks which are frequently found in Florida, gather chiefly from localities along the sea coast when the weather becomes severe, but they are generally of inferior class, very few of the choicer varieties being represented. In like manner, other principal routes of migration may be illustrated, one of which is down the valley of the Missouri; another via Sault Ste. Marie across the State of Michigan and the St. Clair Flats; a third down the St. Lawrence river; and a fourth along the East Atlantic coast. Of the five grand thoroughfares, the choicest is that through Minnesota. By no other route do such preferred varieties of wild-fowl come.

In time civilization will much affect the flights; for the multiplying fields of stubble which follow the development of agriculture cannot fail to check or divert the career of wild fowl migrant, though their preference will always continue for the wild rice, which in many localities thrives so luxuriantly in their favorite element, water. Already we see geese and ducks congregating in great numbers upon the breaks and stubble-fields of our prairies, and it becomes a serious consideration to the gunner whether he shall stick to his favorite

Google

passes, or take his chances in the exposed and open fields.

The migrations of wild fowl are often deflected from long-used thoroughfares by reasons not immediately apparent; but unless effectually debarred and broken up by permanent obstacles or radical changes, produced by natural or artificial causes, they will seldom be found erratic, but will adhere persistently to uniform, established routes of travel.

This subject, so cursorily and imperfectly treated, is new and fruitful. Interesting discoveries hereafter will certainly reward critical and incisive investigation. If I have added an iota of information worth considering respecting a region little known, my efforts will not prove barren of good results. The field is open for others better qualified to pursue this study.

IS THE DAKOTA RELATED TO THE INDO EUROPEAN LANGUAGES?

BY A. W. WILLIAMSON, ADJ'T PROF. MATHEMATICS, OF AUGUSTAN COLLEGE, ROCK ISLAND, ILLINOIS.

When we hear the Dakota say *mi* for *me*, *ya* for *you*, *papa* for *papa*, *mama* for *mamma*, *wakta* for *watch*, etc., we are almost surprised to learn that these are genuine Dakota words. In Omaha *thi* means *thee* and *adi*, also *dadi*, *daddy*. Like resemblances are found in all Dakotan dialects, especially to the Scandinavian. I have heard Highlanders speaking the Gælic, and living on the frontier, claiming that in ancient times some of their own shipwrecked ancestors must have joined the Dakotas and taught them Gælic words. Catlin for a time created a great sensation by his theory that the Mandans, another allied tribe, were partly of Welsh origin. It is a little singular that several of the few words given in sup-

Google