

1881

Inaugural Address of the President

P. L. Hatch

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

Recommended Citation

Hatch, P. L. (1881). Inaugural Address of the President. *Journal of the Minnesota Academy of Science*, Vol. 2 No.2, 9-20.

Retrieved from <https://digitalcommons.morris.umn.edu/jmas/vol2/iss2/1>

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.

BY MAIL
MAY 21 1914



BULLETIN

OF THE

MINNESOTA ACADEMY

OF

NATURAL SCIENCES.

[FOR 1880]

VOL. II. MINNEAPOLIS, APRIL, 1881. No. 2.

INAUGURAL ADDRESS OF THE PRESIDENT.

BY P. L. HATCH, M. D.

(READ JANUARY, 1880.)

Ladies and Gentlemen of the Minnesota Academy of Natural Sciences: In accepting the office of President of the Academy, I must be allowed to protest that I have not sought it, while I acknowledge my sense of the honor you have so unanimously conferred upon me. Nothing but a conviction of duty under the special circumstances of the case induced me to undertake its burdens, in addition to the exacting claims of an active professional life. For this flattering expression of your preference I can only promise you my best endeavors to promote the ends for which our organization has been created and thus far so successfully maintained. I shall rely upon your fullest co-operation. Without it no executive

The following names of members were accidentally omitted in the last Bulletin: E. S. Williams, Eugene Wilson, Chas. F. Wheeler, W. L. Wolford, Geo. B. Wright, A. G. Wilcox.

officer can possibly succeed, be his ambitions or his sacrifices what they may. With it the humblest member can not fail. It affords me gratification to be able to say that the Academy has already found its way through the uncertain twilight of its morning, and looks out upon its future, not as a doubting, distrustful mendicant, but hopefully and confidently. In short, to-night the Minnesota Academy of Natural Sciences is an accomplished fact. And it is such because and only because of your untiring perseverance and devotion to the purposes it represents. Its future depends upon the magnitude of your ambitions to make it what it may be made, and its recognition by the patrons of science by whom it is surrounded. The harmony, hopefulness and good feeling manifested at the recent annual meeting are auguries upon which we may confidently rely. These it has never been without.

The stirring words of our retiring president can not fail to inspire us with new zeal and high resolves. With him, I look back to what has been accomplished under so many disadvantages with undisguised satisfaction. And I believe the day of greater achievements dawns upon us. The first faint ripples of the approaching tide of popular sympathy already stir the sands at our feet. Whispers of inquiry about the Academy's purposes and prospects begin to come over to us in answering voices of encouragement. The highest possibilities before us demand the sympathy and co-operation of the intelligence and wealth of the surrounding community. I am persuaded that the time is not distant when awakened interest will become materialized to such a degree as to assure to the Academy the widest range of possible usefulness. Let us take courage. There is nothing nobler in a good cause, or more infectious, than enthusiasm.

It has occurred to me that a partial review of some of the more prominent objects contemplated in the organization of the Academy may be appropriate for this occasion, and es-

pecially so as there was good reason to expect there would be present those who are either decided to become members or are contemplating doing so in the near future.

The name, Minnesota Academy of Natural Sciences, chosen by its founders, carries with it a general idea of its ends—an association for the promotion of a knowledge of nature. Science is tersely defined to be knowledge systematized. In its amplest sense the name, therefore, declares it to be an association for acquiring and systematizing a knowledge of nature as revealed more especially within the State of Minnesota. Necessarily local somewhere, for obvious reasons, accident places it in this city, but its objects are limited to “no pent-up Utica.” It belongs to, and aims to represent, the whole state. It undertakes, through the working membership, to observe and investigate natural phenomena in all of its departments; make collections of specimens illustrating them; name, classify and preserve the same, and discuss all such questions as must naturally arise within its legitimate province of inquiry.

At the top of the list of objects of investigation, alphabetically and appropriately, comes Anthropology, or the science of Man. It has long ago been said that “the greatest study of mankind is man”—his origin, whether in unity or in diversity; his history, especially that portion which antedates the written record, and for convenience called pre-historic. Perhaps no department of modern investigation has awakened so much interest as this, and upon none is at this time more genuine brain-power being expended. His overshadowing relationship to the rest of the animal kingdom, as revealed in his comprehensive typical structure, his intellectual and moral distinctiveness—everything that can possibly throw light upon his pre-historic record—is sought after with ever increasing interest, especially that which pertains to the different races into which as a species he has been divided. In common with the other states, ours has been inhabited by a

race or races which have left no written records. We find within our borders numerous mounds supposed to contain osteological remains, associated with fragments of pottery, stone hammers, personal ornaments, weapons of warfare, &c., &c. These require extensive investigation to aid in settling questions of the greatest moment to the science of Anthropology. Much reliable knowledge remains to be gathered from the existing tribes in their traditions, customs, language, &c., and no time should be lost in occupying this rich but imperfectly explored field of archeological investigation. It is a matter of congratulation that so many members of the Academy take an interest in this department of research. The plowshare of civilization is rapidly obliterating much that is of surpassing value to science. Commerce, to every interest but her own blinder than the mythical goddess of liberty, overturns, buries under, or sweeps away relentlessly, every relic of pre-historic man which lies in her pathway, unless rescued in advance of her approach. The beautiful and picturesque shores of many of our lakes and streams, embracing the great rivers that traverse the State, abound with tumuli that invite the pick and shovel of the archæologist; and there waits an unreaped harvest for him in the imperfectly explored copper regions of Lake Superior. A series of valuable papers from this section of the Academy ought to be expected at an early day. Shall we not have them in time to anticipate the August meeting of the American Association for the Advancement of Science?

Another prominent object of the Academy is the exploration of the Botany of this province. Something has been done in this direction by individual amateurs, as we hear, but almost nothing has been authoritatively or responsibly reported, to my knowledge, except in an instance or two, one of which has contributed more to science than all others, namely: Dr. A. E. Johnson's report of the Mycological Flora of Minnesota, published in the *Bulletins of the Acade-*

my.* Why may not other divisions of this section gather laurels equally flattering and alike honorable to our institution? Isolated instances of individual observations foreshadow some startling facts to be gathered in by an exhaustive survey of the flora in this comparatively new region, and why shall not our labors secure them for publication in the annual *Bulletins*, and for preservation in our own archives? We are well equipped with young and earnest botanists, and our city is said to abound with amateurs in this field of natural history, some of whom are understood to be experts in portions of this important and refining science. Let one work in one field and another in another, and thus sweep the State from north to south and east to west. All there is wanting to do this is enthusiasm—an enthusiasm born of an intelligent apprehension of the value of such work to the age in which we live.

Geology is represented by a leading section in the division of objects of investigation by the Academy. No State can afford to be behind in a knowledge of the structure and mineral constitution of its domain, and the probable causes of its physical features; and ours is not, for we have such a survey in progress, and we are delighted with its advancement, but it can not do it all, neither is it supposed to be at work in the special interests of the museum of the Academy. If there were no practical advantages to be derived from such knowledge of the physical constitution of the State, there would still be overwhelming considerations for its promotion on purely scientific grounds; but there are, and they have come to be so universally recognized in both aspects that most governments in this and all other civilized lands have liberally provided for the geological exploration of their several districts. It is an interesting circumstance that nature has opened the rocky volume of her geologic history so near

*It is gratifying to know that the Geological and Natural History Survey of the State, under Prof. N. H. Winchell, is doing so much as it is in this direction, but unless more liberally provided for, it can not do all there is to be done.

the title-page right here where we are. The fossils which number those pages tell us this. The record begins with the early morning, if not the very dawn, of paleozoic time, in the lower silurian rocks which underlie our city. The first elevation of the earth's solid crust above the shoreless ocean, geologists tell us, embraced a narrow strip of land extending a little west of us, and eastwardly to claim the Laurentian Hills of Canada. This primeval volume bears the hand-writing of several glacial epochs in the distinctive abrasions on the rocks about us and the drift that overlies them. Its numerous and faithful illustrations consist of casts of the shells of the abundant mollusca ascertained to belong to the groups which first appeared in time. What a sublime study! What a noble employment to translate such records! Our State Geologist can do little more than open the book and turn down here and there a leaf or mark the chapters, as he is doing, that we may read the stories contained in the mighty book. How many of our number will do this, and give the Academy a list of the fossils of the silurian system within the State? Who will explain the sand-stones? who the lime-stones? who the granite, the trap, the drift, &c., to the end of the chapter?

Next in order comes Invertebrate Zoology. No other department offers greater results for the measure of its sacrifices. The state abounds with invertebrate life. It is scarcely excelled, if equaled, outside of the tropics, either in numbers or variety of terrestrial forms at least. A single family in almost any order will afford enough different species and varieties of species to employ the leisure hours of an industrious collector for years, and yet he will not grow weary of his task. But there are high ends involved in this work. It is one of real benevolence and philanthropy. It appeals to the best impulses of our moral nature. The relations of entomology to the interests of agriculture and horticulture, and to the numbers and habits of individuals that belong to other classes of fauna, constitute an object of investigation, the practical re-

sults of which in other countries, and some of the older portions of our own, are too familiar to need re-statement now.

It is said that the individual labors of the late Dr. Harris have saved to Massachusetts alone, five hundred thousand dollars annually for many years. One of our members, after years of careful and persistent observation and study of the history and habits of species obnoxious to agriculture and horticulture, has warned those important interests (with facts that can not be controverted) so faithfully, that if he should do no more, he can take to himself the consolation that he has not lived in vain. But he deserves better things from those growing interests. The State ought to salary him as has been done in others, and keep him at work in this all-important field for years to come.

There is scarcely a production of this latitude that has not its special entomological foe, the habits of which should be constantly under the critical observation of a competent entomologist. The practical results of the labor of such specialists in other commonwealths are too well known to require restatement here. And when these immense interests have nothing left for him to do for them, there remains the more exalted motive, considered from an esthetic point of view, of acquiring and disseminating a thorough knowledge of the history of this largest of the sub-kingdoms of animated nature for its own sake.

Questions of the profoundest interest are almost constantly arising which relate to other departments of histology, that depend upon the revelations of entomology for their solution. But the lower class of the Invertebrates of our province offers quite as promising a field of research as the other.

The Crustaceans are but now receiving their first recognition as a portion of the local fauna.

The Mollusca only a little earlier, at the hands of a member of the Academy have received such attention as their presence demands. A small but beautiful collection of river

shells prepared by a resident lady and exhibited at the recent Exposition in this city, gives an earnest of what might be done for science in general and this institution in particular, if commensurate efforts were put forth.

But we must not stop here—we must descend the scale still lower for the observation of some of the most exalted manifestations of animated nature about us, as descending into a deep well will enable us to see the most beautiful stars of the sidereal heavens at mid-day. If the more appreciable and ostentatious radiates of the great seas are wanting here, those equally beautiful and vieing with them for numbers, teem all around us, amongst which are often to be found forms new to science to immortalize the finder. It may take the objectives of the wonderful modern microscope to see them, but they are surely here, and waiting careful painstaking identification.

The section of Vertebrate Zoology most naturally follows for consideration.

Mammology, remarkable as may seem the fact, has thus far had no definite representation with us. The first Bulletin issued, contained a brief list of the larger species of mammals known to exist here, under their common names, but the smaller and more numerous species are unknown, and therefore undescribed.

Beside the intrinsic interest they afford to the naturalist, their presence affects many material interests which will look to us in some measure for their protection. And how hungry our Museum looks for them!

How long shall these walls and shelves remain unsupplied with mounted representations of the many species *known*, (to say nothing of those *unknown*) to be resident here? The members of the Academy can answer only a part of this question. The community where we are must answer the rest for it requires money.

Shall we speak of Ornithology? No part of our objective field has been so extensively worked as this. Although the

results of explorations in this sub-section fall short of representing the entire list of birds of Minnesota in the collections of the Academy, it is nevertheless true that about eleven-twelfths of the probable species have been identified and collected by the different members of the Academy. But the greater and equally delightful investigation of their local habits and distribution still lies before us.

Many open questions in modern speculation are appealing to a fuller knowledge of the birds for the data upon which to settle them. And there are a great many persons in the different countries and the different sections of our State, engaged in extending their investigations to every circumstance connected with their history. The numbers of such have increased more rapidly in the last five years than in any other department of natural history. Long since my own earlier investigations in ornithology began, those alike employed in the United States and Canada,—indeed, I might almost say, in North and South America—could be counted on the fingers of the two hands. Now there are hundreds in the same territory. So far as the Museum of the Academy is concerned, the members of this sub-section will regard their mission unfulfilled, until they have placed a complete representation of the birds of the state upon the shelves, and skins enough in the drawers, with which to settle all questions connected with this department of the local fauna over the same territory.

To accomplish all that we have laid out for this branch of investigation, will require more observers than have yet engaged in it.

Who will look after the oology of the state, and superintend the acquisition of the largest collection of nests and eggs of the birds ever yet made in any one state? Could ambition, or a love for nature, in one of the most beautiful revelations ask for or accept a more fascinating field to stimulate the highest faculties of observation in natural science?

Enough Reptiles, in some mysterious way, have found their way into our collections, to remind us that nothing has yet been done for Herpetology as a special object of investigation. For some reason it has been given a wide berth. Yet, when regarded from a scientific view, it is really no less interesting, and indeed fascinating, than any other.

The reptiles belong to the fauna of the state, and a report of its zoology will be sadly incomplete without them. Who says "put me down for Herpetology?" To the naturalist whose point of observation is sufficiently elevated to give it breadth, the study of the reptiles will possess all the attractions of any other branch of the animal kingdom. He who follows the footsteps of natural history, from their first imprints upon the world, across the successive epochs of paleozoic time, will traverse a period when Reptiles as a class, were not the comparatively abject, degraded, and despised creatures seen at the present time. Once they held undisputed sway. How are the mighty fallen!

Ichthyology is another sub-section of the vertebrates of which I take pleasure in saying that no other is more enthusiastically represented. Those gentlemen having it in charge need no words of encouragement. They have severally tested the merits of original research in other departments of natural history. They know full well the delightful experience of discovering species new to science or the province in which they are at work. And when we see them evince no signs of weariness after "two years of patient toil to name one species of fish," we can banish all solicitude for the welfare of ichthyology in Minnesota in the near or remote future, if they live long enough. And what a field has this section before it! Thirteen thousand lakes and ponds, besides the largest rivers and inland fresh-water sea on the continent, all swarming with fishes. It is not beyond the domain of the imaginable that these gentlemen may have abundant aid in catching the specimens, but for one, I am ready to admit that

I have greater misgivings as to the assistance they may get in the work of identification of those species. Time only will tell.

Now, turning from the phenomena of living organisms and their relations to the land and water, we have a section of Physics, to look at the more subtle phenomena of light, heats electricity, magnetism, &c., as related to this section of the continent. Geographically and topographically, Minnesota is so situated as to make meteorological observations exceptionally interesting and important, whether economically or scientifically considered. She occupies the table or divide between the great water systems of the continent north and south and east and west. This readily accounts for some of the more obvious incidents of winds and storms, yet there are problems of exceeding difficulty in the temperature, moisture, ozone, electricity, &c., which demand for their solution extensive data, obtainable only by concerted, prolonged observations over the entire section. And meteorology has so many practical relations to human interests that all contributions to it become common blessings to the race. It touches agriculture on all sides, from the seed-germ to the fruitage. It casts its beneficent shadow over commerce to its widest extent, and distils its benedictions upon the sanitarial welfare of mankind.

Gentlemen of this subsection shall we not hear from you this year? The problems within your special sphere are many of them becoming so popularized that the community and the world will be disappointed if they do not hear something of value from you pertaining to them. There are some of you on this section who have long been known to be original investigators in magnetism, electricity, light and heat. Had the results of your researches been made the property of the Academy heretofore, the world at large would have known you better.

Comparative Anatomy is still another of the subsections of

this great sub-kingdom, but I am sorry to say it is a silent one. Has the shadow of Darwin fallen upon it? Has the ghost of a tail-less made it speechless? Or has a three-toed horse galloped across the vista of its sleeping dreams and left it in a state of catalepsy from which there is no such thing as waking it? Asleep with the din of the rattling bones of geologic epochs and glacial cataclysms filling the air! Sleeping while the grandest problems within the domain of human thought are being solved with thine own keen scalpel! Then awake thou regal sleeper and come forth to thy neglected task! The mighty task to which thou hast been called is not yet but half complete. In the anatomic chain of bones and muscles and sinews and teeth there are yet many missing links for thee to fill. I charge thee then awake!

This closes the list by the mandate of time. Briefly and unsatisfactorily as I have hastened over the enumeration, what a curriculum does it present! What a scope for the employment of the powers of the human mind, whose outreachings after knowledge embrace all natural phenomena from the revelations of the ideal molecule to the cosmos of the universe.

Let us call this knowledge a divine pathway through creation which leads us ever upward toward the Creator, each successive step of which reveals more and more the infinitude of His power and the beneficence of His wisdom.