## THE·C?ND?R A·MAGAZINE·OF WESTERN·ORNIGKOLOGY·



Volume XX

March-April, 1918

Number 2

IN MEMORIAM: LYMAN BELDING

By WALTER K. FISHER

## WITH PORTRAIT

YMAN BELDING, the last of the Pioneer ornithologists of California, and an Honorary Member of the Cooper Ornithological Club, died at Stockton, California, November 22, 1917, at the age of eighty-eight years and five months. For a considerable period his strength had been gradually failing, and his death was due to the infirmities of his advanced age. He was the oldest American ornithologist.

Although for more than twenty years Mr. Belding took a leading part in the ornithological work of the state, it is much to be regretted that he was personally known to so few of the younger ornithologists who have now taken his place. This was partly due to his active work having ended before the present generation's began, and partly to his having lived in retirement away from centers of ornithological activity. Although he seemed somewhat diffident he was nevertheless very genial and was not averse to making new friends. To those who had won his confidence he was greatly attached. His home in Stockton was the rendezvous of the Old Friends Club, a small coterie of prominent pioneer men who used to gather for a sociable game of whist, of which Mr. Belding was very fond. So far as I am aware he attended but one meeting of the Cooper Club, although he was always greatly interested in its welfare. In the "downy" stage of The Condor he helped its growth by encouragement and by contributions of manuscript and money.

Mr. Belding was a naturalist of the old school. He was a born sportsman and his love of nature revealed itself in early childhood. It is not clear whether his more serious interest in natural history was the outcome of his devotion to

gun and rod or whether it was of independent growth, simply another manifestation of those boyhood traits which made the autumn woods an irresistible allurement and the quest of partridge eggs a treasured adventure. I am much inclined to the latter view. Of the deeper nature of the man, certainly a prominent characteristic was independence, and a love of the freedom which is associated with life in the open. At bottom I believe it was largely the aesthetic sense—an esteem for the beautiful—which drew him afield. Something there was of the artist in him, much of the musician, certainly a touch of the poet. He confided to me once that it would have given him intense pleasure to be able to write the poems he felt. He enjoyed music and pictures. With it all he owned a vein of quiet, somewhat whimsical humor.

Here was a man of finer fibre, simple in tastes, appreciative, and gentle. He was keenly sensitive, almost "temperamental", and strongly reacted upon by environment, yet seemingly unaware of the fact: no wonder that he sought the hills, and a refuge in his gun and rod. Such a man would find unlimited zest in matching his wits against a wary trout, or in waiting and watching in the brooding quiet of a dark fir forest. Amid such scenes his happiest days were spent, and in such pursuits the real Belding found expression.

At odd moments during the last few years of his life, Mr. Belding jotted down reminiscent notes of his earlier days. Originally written for relatives, and for the friends who suggested the work as a pastime, this autobiography contains much that is of general interest. In the following pages I have let Mr. Belding tell his own story as fully as the limitations of space would permit, but it has been possible to reproduce only a relatively small part of the manuscript.

"I was born June 12th, 1829, at a locality known as West Farms [Massachusetts], on the west side of the Connecticut River, opposite Amherst College. My memory does not go back quite so far, but I have seen it recorded in the old family Bible. \* \* \* When I was four years old I was sent to school which was near our home. Not long afterward I got my ears boxed for whispering to another small boy.

"Amherst College, Mount Tom, Mount Holyoke, and other interesting points were in plain view of our home. I often admired Amherst College when the sun shone on its windows. There was an extensive forest on the west border of our farm, in which I often wandered when I was five or six years old. An uncle and his family lived on the other side of it, a mile or two from our home. One day I went alone, unknown to my parents, following a narrow path to my uncle's, often wandering away from the path in search of partridge eggs. I was not allowed to stop long at my uncle's, but was hustled into a buggy and taken home, much to the relief of my parents. I was born with a sense of direction and have never been lost.

"I was naturally honest, but could not resist temptation. My first act of dishonesty was when I was five or six years of age and found a handful of chestnuts in the drawer of one of my father's workmen, ate two or three of them, and went out of the room they were in, not intending to eat any more. But I soon went back and ate a few more and continued these visits until I had eaten all of them, although I struggled hard to keep away.

In sending me, in 1903, the photograph which is here reproduced, he remarked with amusement on the excellent likeness of the fly which obtruded itself into the portrait. It was a certain relish for the unusual which led him to have this negative finished for his nearer friends.

"When I was about seven years old, our family moved to Kingston, Wyoming Valley, Pennsylvania. The mountains surrounding the valley were well timbered, and in autumn the frost colored the foliage rich golden and scarlet, something we never see in California, excepting a few scattered trees and plants that are tinted by the frosts of autumn in the High Sierras.

"My happiest hunting days were in autumn. The passenger pigeon was very common, and its cheerful ete-tete-tete—, as it rattled down acorns upon which it was feeding, was delicious music to me. I have seen millions of pigeons in a single day in spring, when after their usual northern migration, they were

driven back by a cold storm.

"One morning early, I was on Ross Hill near Kingston, looking for a deer, the track of which I had seen in the snow the previous day. Soon after the sun appeared, millions and millions of pigeons flew south over the valley. The flight continued into the afternoon, when patches of bare ground began to appear affording the pigeons feeding grounds. When driven south by cold spring storms, the north branch of the Susquehanna River was a favorite route. The following day I saw the deer I was looking for. It appeared to be pure white, though I was too far from it to be positive. It swam the river and landed about a mile below Wilkesbarre, and was shot by two hunters who appeared to be hunting quail.

"Before I got a gun I often wandered in the woods, sometimes getting home late in the evening and on one occasion my parents had looked in the open

well and other places for me.

"When I got a gun I was out early and late with it, neglecting school, though I worked faithfully on our farm where the crops needed me, excepting when chestnuts were ripe on the hills I would occasionally steal away and go to the hills for chestnuts.

"I must have been a very unpromising boy, but was enjoying life and gaining strength and endurance, just what I needed, being naturally frail. I was in a cobbler's shop with some boy companions and told them I intended to go west and hunt buffalo when I got big enough. The cobler said, 'You will never leave this valley as long as your head is hot.' This cobbler's partner said: 'A boy with a gun and fiddle would never amount to much.' I had both a gun and a fiddle. Fortunately I was an excellent reader and we had some good books.

"I read with great interest Rollins' Ancient History, Josephus' description of the capture of Jerusalem by the Romans under Titus and was especially interested in successful warring expeditions like those of Alexander the Great. I did not then realize the horrors of war. Later, when my sister was in Paris and wrote me of the Louvre, and also mentioned Napoleon Bonaparte, I replied that I would rather have been Shakespeare than Napoleon. I no longer admired military heroes."

When a boy, he relates that he subscribed for Alexander's Messenger, a Philadelphia weekly, and greatly admired its crude wood-cuts. He had an ambition to be an artist, and while still quite young he had a box of water-colors, and could draw horses, deer, and other animals and objects.

In the winter he caught bob-whites by falling lengthwise, on his back, upon the soft snow and packing it upon them after they had plunged into it at the end of a flight. Later, when about sixteen years old, while hunting near Harvey's Lake, a deep mountain lake surrounded by virgin forest, he narrates that he sprained his ankle chasing two gray squirrels which were rare although the black of the same species was very common. "When I was a small boy I have seen several hundred black-squirrels which had been killed in hunting matches, and only two or three gray squirrels were among them."

In the autumn of 1846 he was severely ill for a month with typhoid fever. After his recovery from this, intermittent fever kept him so debilitated that his doctor advised a sea voyage. Accordingly, after journeying first to Boston and thence to New Bedford, young Belding, in his twenty-second year, was shipped as a novice on the Arctic whaler, *Uncas*, July 5, 1851.

"The shipping master wanted to know what I was going to sea for and I told him I wanted adventures that I could tell my children, and he laughed. A smart Alec advised me to take an umbrella along. I must have looked too frail for a sailor. The most of our crew were land-lubbers, and when we got into the Gulf Stream we ran into a severe gale. During the night all hands were called to shorten sail. It was a severe trial for a lot of boys who had not yet got their sea legs, but there was no flinching. With the help of a few experienced men the work was done all right. In coming down from aloft we went cautiously from ratline to ratline, until Burns, the third mate, shouted to those below him: 'Don't squeeze all the tar out of the standing rigging.'"

This voyage lasted three and a half years. The *Uncas* visited the Azores, Cape of Good Hope, St. Paul or Amsterdam Island, New Zealand, and reached Bering Straits, July 1, 1852, touching at Guam on the way. During this first year Lyman Belding became a seasoned whaling man and gathered a goodly store of adventures. At the Cape of Good Hope the *Uncas* was mistaken for a pirate ship. Later they ran into a school of whales and killed ten or a dozen. "Nothing worthy of note," he writes, "occurred until we were at the edge of the Sea of Japan, and were struck by a typhoon. Our trypots were full of blubber and boiling oil, and no time was lost in bailing it out lest the careening of the ship cause it to slop over on the deck."

"During our cruise in the Arctic we went as far north as the 73d degree, were successful in capturing bowhead whales, several times working forty-eight or fifty hours without sleep or rest, the sun being above the horizon continuously." When the sun went below the horizon the *Uncas* turned south.

Of their stop at Petropavlovski, a Russian penal colony, he remarks: "Bear tracks were plentiful by the little brook where we got water. The bears were attracted by huckleberries. A. M. Abbot of Boston, supercargo of a ship in port, passed us on his way down the bay. He had two Russians with short scythes and two large dogs in the boat with him. He said the dogs would bring the bear to bay, and the Russians would hamstring them with their scythes, a way of hunting that would be a failure with grizzlies. I noticed that Mr. Abbot had a gun."

On their arrival at Honolulu, late in the year, they found a hundred and fifty whaling ships. Life on the *Uncas* having become well-nigh unbearable, Belding deserted, and after hiding for three weeks, got to sea on the *Julian* of Martha's Vineyard. During his enforced "seclusion" he spent a day in a trypot, or kettle, of about five barrels capacity. "I went into it," he writes, "before daylight, with the tarpaulin raised to admit air. I was very uncomfortable in my cramped position, lying on several angular pieces of wood which were thrown in to keep me above several inches of bilge water, and a tropical sun made it almost unendurable, but I remained until night, and when I got

out of the trypot I could hardly stand. Another time, when the kikos (policemen) came I went over in the head, climbed down the anchor chain, and swam to a nearby ship, where one of her crew gave me dry clothes and secreted me. During those twenty-one days I spent most of the time in ships' holds, but usually slept in forecastles.''

His voyage on the *Julian* took him to Cocos Island, and to the Galapagos Islands. They stopped at Abingdon for terrapin. "We got one that would weigh about 250 pounds, which was quartered for convenience in getting it to the beach. The only bird I saw on the island was a pretty ground dove that was so unaccustomed to men its tameness was shocking to me."

After a cruise of four or five months the *Julian* returned to Honolulu, and in the spring of 1853 Belding joined the bark *Philomela* of Portland ("an old tub"). The homeward voyage proved to be a very leaky one, it being necessary to jettison part of the cargo of guano which was loaded at the Chincha Islands. He reached home January, 1854.

"We were in the Chincha Islands during the summer of 1853 when the American clipper ship was in its glory. Several large, fine clipper ships were taking cargoes of guano. The *Defiance* was probably superior to any. In those days New England sailors were numerous and inferior to none. \* \* Excepting chilblains caused by chilly, drenching fogs of Kamchatka and the Arctic Ocean, I had not had an ailment of any sort. Probably I was benefited by sea air, a sailor's work, and plain food. I learned on the voyage the benefit of a plain life, that a struggle for wealth was folly, that a man should be his own master, but that to be so more or less money was needed."

In the spring of 1854 Belding nearly lost his life by shipwreck of *The Crisis*, while he was a passenger enroute to Baltimore from New York. When off Cape Henry a squall struck her; she sank, and the people escaped in an open boat, without oars, compass, water, or food. They picked up boards for oars, and were rescued the following day by a large ship. While they were adrift the captain and mate to keep up their spirits "told of other wrecks and how Brother James and others lost their lives."

Mr. Belding came to Stockton in March, 1856. Game was then very abundant and included elk, antelope, deer, quail, and water fowl. He says: "The elk of the State inhabited the tule marshes mainly, though I have seen many elk horns on the Marysville Buttes, probably left there by elk which came from the marshes of Butte Creek. I have seen hundreds, if not thousands, of elk horns on the border of the tule swamps north of Stockton. Antelope have entirely disappeared from the Sacramento and San Joaquin Valleys. I saw three a few miles west of Princeton in the summer of 1870. Deer were mostly in the mountains with a few along the rivers where there were extensive thickets on bottom lands. They will continue to be common with proper protection. I have seen only a few bears in the forest, probably about twenty, and only one undoubted grizzly bear. This I saw in the summer of 1875, when I was fishing on San Antonio Creek, near the Calaveras grove of sequoias.

"One of my favorite hunting localities was Summit Soda Springs on the North Fork of the American River. Game was abundant and deer came every night to drink of the iron water. There was plenty of quail and grouse shooting and an abundance of trout in the river. On the Middle Fork there was good trout fishing and numerous bears.

"Beaver and otter were plentiful in the sloughs and tule marsh about

Stockton. Beaver built houses on the marshes as the musk-rats do on the marshes on the prairies of the Middle West. There were several of these beaver houses within three miles of Stockton. They were on land that floated, as much of the peat land does in the tule swamps about Stockton. I shot seven beavers one day during the flood of 1861 and 1862. The few beaver about Marysville burrowed in the banks of the rivers."

In 1862 Mr. Belding moved to Marysville. Small game was abundant, while myriads of ducks and geese, attracted by Butte Creek, came from the north and east of the Sierras in October and November. The wood duck was very common on the Feather River, and was a constant resident. "Mountain plover appeared on the plains in October. Mountain quail came down from the mountains near Oroville and other localities on the eastern border of the valley to spend the winter. I have often hunted geese on Butte Creek and many times tried to get the Blue Goose (caerulescens) but never succeeded so far as to be satisfied with the result. Of two that I found in a Stockton market, I sent wings and feet to Mr. Ridgway, who identified the fragments as of caerulescens.

"At Marysville Buttes both species of quail are numerous in winter. It was usually above the winter fogs of the valley, when the Coast Range of mountains seemed to be the western border of a great sea. I often went there alone, and when the roads were very bad I would go on horseback, and usually at such times stayed at the country hotel a week or more. My horse would allow me to shoot from its back, or if I dismounted would follow me like a dog. Once while I was riding him through chaparral, he stopped, pointed his ears forward, and attracted my attention to a pack of quail that were running on the trail ahead of him.

"I retired from business in 1875, after which I hunted, and fished for trout, spent my summers in the Sierras, always taking a shot-gun and a trout rod with me.

"Game gradually became scarcer in the high Sierra Nevadas as sheep and hunters became more numerous. Deer avoided a range where sheep pastured. It was thought proper for anyone in the mountains, whenever they needed meat, to kill a deer, and Indians were free to kill them at any time, on the venerable theory that an Indian had the right because of his needs, forgetting that the Indian no longer used the bow and arrow, but instead of it he had the repeating gun and was often expert in its use. I have seen Washoe Indians from Nevada on their way home from a hunt in California have six deer carcasses, besides jerked venison in unknown quantity, and numerous grouse lying on the wharf at Tahoe City, and a white man was prohibited from killing it. About a hundred Washoe Indians had spent two winters in Calaveras County, and nearly exterminated the deer. A Mr. Williams told me he bought twelve hundred skins from them. Other dealers probably bought as many more. They were as destructive to trout in the small streams as they were to deer apparently, as they used soap root to stupify and kill the trout, and in so doing killed the most of the young fish. These streams contained no trout or other fish on the west slope where the altitude was over 3500 feet, until they were stocked by white men.

"Early in the spring of 1876 I got a volume of California Ornithology and began industriously to collect and identify the birds of this State. I had been an ardent sportsman ever since I was a small boy and I supposed that I knew most of the birds, but my first bird book astonished me with many I did not know and had never heard of. I had never met an ornithologist or oologist and did not know there was any in this State.' I was successful in identifying my specimens. My success was due partly to my knowing many of the species, partly to the excellence of Baird's descriptions in 'California Ornithology' and in vol. Ix of the Pacific Railroad Reports [Baird, Cassin, and Lawrence], and partly because many subspecies had not been recognized. I was sometimes materially assisted by Wilson's simple descriptions. The first eggs I collected were about on a par with my first bird skins. I picked a hole in each end with a pin, never having seen nor heard of egg-drills and blow-pipes. Eggs of Townsend's Solitaire and others quite as choice were thus punctured and sent to the Smithsonian Institution.''

In the spring of 1881, Mr. Belding visited Cerros Island, off the west coast of Lower California. His original intention had been to explore Guadalupe Island, but conditions being unfavorable there, the project was abandoned. Twenty species of birds were either collected or recorded from Cerros, one being Phalacrocorax dilophus albociliatus. In addition he secured a new lizard, Verticaria beldingi Stejneger. Ten days were spent at San Quintin Bay, where Passerculus beldingi Ridgway was taken, as well as seventeen species recorded. Seven species were noted at Santa Rosalia Bay, and three at Los Coronados Islands.

"During the winters of 1881-2 and 1882-3 I collected in the Cape region, from La Paz to Cape San Lucas, excepting the time that I was at Guaymas, which was nearly all of December, 1882, and a part of April, 1883. \* \* My collecting in the Cape region was satisfactory, notwithstanding some hardships I endured. The region is mostly a semi-desert, water is scarce and I several times suffered for the want of it.

"I found San José del Cabo the best field of the low country and the Victoria Mountains the best of the mountainous parts. I have often wondered why the sharp-eyed, indefatigable Xantus did not see Geothlypis beldingi on the San José river, where he spent a great deal of time, and also if it had rapidly changed since he was there some thirty years before. I do not think he was ever in the Victoria Mountains or he would have found the very common Junco bairdi and other common birds of these mountains, which are known to the California Academy scientists as Laguna—a decided misnomer, as the little lagoon that once existed at the lower end of a little valley, went down the mountain during a violent rainstorm which cut away a natural dam that held it.

<sup>&#</sup>x27;In THE CONDOR, vol. II, 1900, p. 1, Mr. Belding says: "I had met several persons who could mount birds and I had mummified and mounted some, but I soon found that a mummy was not a joy forever if it was a thing of beauty when first mounted. I had no difficulty in identifying my specimens, but in order to be sure my identifications were correct, I sent specimens to Washington for Mr. Ridgway's opinion.

<sup>&</sup>quot;He and Prof. Baird gave me kind encouragement and Mr. Ridgway was very patient and prompt in writing long, interesting letters concerning the specimens I had sent. I was given many valuable books from the National Library, after which Prof. Baird sent me a catalogue of the publications it contained and told me to ask for anything I wanted. I was very grateful for these kind attentions and my zeal for the work was greatly stimulated. I do not think this kind encouragement was exceptional, for I think Profs. Baird and Ridgway were always glad to assist the student of natural history."

Little mention is made in the autobiographical notes of herpetological collecting. Doctor Stejneger's dedication of the species throws light upon this matter. "I take great pleasure in naming this new species after Mr. L. Belding whose extensive and excellent herpetological collecting in Lower California as well as in Upper California has never been adequately recognized."

"The second time I was in the Cape region I took only seventy or eighty bird skins, for I did not wish to get many. I consumed about a week of this time in getting two specimens of the new rail, Rallus beldingi. I only heard of one man at La Paz who had ever seen one and several hunters were surprised when I showed them one of the birds. These birds can best be observed at low tide; when they move about in the mangrove thickets in search of food. I got my specimens by patiently waiting for them to pass comparatively open spots in the mangle. I rode sixteen consecutive days without skinning a bird, though I occasionally shot them when in doubt of the species. \* \* \* I have travelled considerably in the northern part of the peninsula, having, on one trip, been absent from San Diego sixteen days. I was at Laguna, which is about sixty miles south of Campo, in May, 1885. I secured three specimens of Sitta pygmaea leuconucha at this Laguna.

"The pleasantest days I have spent since 1876 have been in the mountains of central California. Since that time I have been in these mountains the most of each summer. I couple deer, grouse and quail hunting with bird study. At first I tried to connect botany with ornithology, but I could not look on the ground for plants and in the trees for birds at the same time. The ornithologist should, however, know the prominent plants at least. During my rambles I have noticed the hardiness of some of our mountain annual plants. I have seen the mercury down to twenty-two degrees on two successive mornings and no trace of frost afterward, except that a few of the tenderest ferns were killed. I suppose this may be owing to dry air and cool nights, the latter preventing the rapid growth and consequent tenderness of kindred plants grown where both days and nights are warm.

"My most interesting observations have been those of evenings and moonlight nights in some secluded part of the forest where large game was abundant. I have often heard the Pigmy Owl, which Mr. Ridgway correctly says is diurnal and crepuscular, and have quite as often heard the Flammulated Owl, which is strictly nocturnal and hard to get. I have only taken one specimen. The Western Barred Owl has never ceased to interest me, for it is quite familiar and seems to have a fondness for talking back! By imitating its shrieks and

dog-like barkings, I seldom fail to get a response.

"The high Sierras have been explored but little in winter. I have been in the lower edge of the fir and pine belt the most of ten or eleven winters and have several times gone as high as 5,000 feet, but these higher ascents were only when there was but little snow. About the middle of November some years ago I was at the summit of the Central Pacific Railroad, altitude 7,000 feet. The ground was mostly bare and I saw only a few birds and fewer animals, the Little Chief Hare being one of the latter. The reptiles and batrachians were sleeping their long annual sleep which covers fully two-thirds of the year at this height, and the sleep of the marmot and some of the small animals is nearly as long. A few asters and Sidalcea were in flower in protected situations.

"Summit is a good locality for making winter observations, but when the snow is from ten to twenty feet deep, as it usually is in winter, snow-shoes would be a necessary part of the observer's outfit and snow-blindness must be guarded against."

<sup>1</sup>THE CONDOR, vol. II, pp. 3-5.

"My love of adventure as well as my admiration of birds was responsible for the most of my wanderings. Bird songs always had a great attraction for me and I copied many songs that had regular intervals and could be expressed by our musical system. I think our meadow lark is more prolific of such songs than any of our species."

Belding's chief interest and pleasure in ornithology undoubtedly centered around live birds. It was the pursuit and observation of birds in their own homes that appealed especially to him. In his way, he must have been animated by much the same zeal that fired Audubon. He found writing rather tedious, and for the effort expended not so profitable to him as more congenial out-of-door occupations. For this reason his published writings are not at all commensurate with the actual amount of work that he accomplished.

His first long paper, published in 1879—"A Partial List of the Birds of Central California"—was the outcome of a very active period of collecting and observation begun in 1876. The collections were made at Stockton and Marysville, in the valley; at Murphy's on the lower edge of the pine region of the Sierras (upper edge of the Upper Sonoran zone); at Calaveras Big Trees (Transition Zone); at Summit Station on the Central Pacific Railroad, and at Soda Springs, ten miles south (Canadian and Hudsonian Zones). In this paper 220 species are listed. In a footnote Mr. Ridgway states that collections received from Mr. Belding up to that time amounted to about 180 species (not including races) and 600 specimens.

In 1883, three papers appeared as the result of his collecting trips along the west coast of Lower California and in the Cape region; and a short paper recorded the birds found at Guaymas, Mexico. In the two articles concerned with the Cape avifauna, 187 species are recorded, all but 21 being represented by specimens.

The Big Tree Thrush, *Turdus sequoiensis*, was described in 1889, from specimens taken at Big Trees. Later in the same year appeared an account of "The Small Thrushes of California," published, like the first, in the Proceedings of the California Academy of Sciences.

Mr. Belding's best known and longest work, "The Land Birds of the Pacific District", appeared in 1890 as one of the series of Occasional Papers of the California Academy of Sciences. When the American Ornithologists' Union was organized in 1883, Mr. Belding was appointed to superintend the collection of information concerning the migration and distribution of the birds of the "Pacific District," which comprised California, Oregon, Washington, and Nevada, an area of about 434,000 square miles. The "Land Birds" grew out of this work. Although data from many observers are recorded, a very substantial portion of the book is contributed by Mr. Belding himself. His own work covered principally central California, or "the part of the state between the northern parts of Stanislaus and Tuolumne counties and the northern part of Butte, southwestern Plumas and Sierra counties."

"I have made observations," he says in the preface, "at many localities in this part of the state, in the tule swamps, river bottoms, plains, foot-hills and coniferous forests of the Sierra Nevada Mountains at all altitudes, kept a record of the birds, but have not thought it necessary to burden my notes with a long list of localities. \* \* \*

"I am quite confident that few if any species have escaped my notice in Central California except a few which probably visit the high Sierra Nevada in winter, from the north, when snow is so deep as to prevent exploration." Two hundred and ninety-five species are recorded, of which about 250 are definitely accredited to California.

Mr. Belding prepared a similar report on the water birds which was never published. The manuscript was presented by him to the Cooper Ornithological Club, and was later deposited in the Bancroft Library of the University of California.

When the American Ornithologists' Union was organized in 1883, Mr. Belding was elected to Active Membership, and in 1911 was made a Retired Fellow. He was a Life Member of the California Academy of Sciences, and aided very materially in building up its ornithological collections, especially during the period when his friend Walter E. Bryant was curator, and when he was himself actively engaged in field work. These collections were wholly destroyed by the fire which followed the earthquake of 1906. I need not remind our Club that Mr. Belding was one of our own most esteemed honorary members, having been elected in 1896.

The following species have been dedicated to Lyman Belding: Cottus beldingi Eigenmann, Desert Rifflefish; Cnemidophorus hyperythrus beldingi (Stejneger), Belding Orange-throat; Oceanodroma beldingi Emerson, Belding Petrel; Rallus beldingi Ridgway, Belding Rail; Passerculus beldingi Ridgway, Belding Marsh Sparrow; Geothlypis beldingi Ridgway, Belding Yellow-throat; Aphelocoma californica obscura Anthony, Belding Jay; Citellus beldingi (Merriam), Belding Spermophile, Sierra Picket-pin.

Mr. Belding was a painstaking and accurate observer, a conscientious recorder, and had in fact the real spirit of research. He hated inaccuracy and exaggeration. What he did he did well, and his limitations were those imposed by his isolation and lack of early training in scientific pursuits. He was a gentleman of high character and fine ideals.

In the following list, contributed by Dr. Joseph Grinnell, it is believed that all of Mr. Belding's published ornithological writings are included.

## BIBLIOGRAPHY OF LYMAN BELDING

- 1878. Nesting-Habits of Parus montanus. Bull. Nutt. Orn. Club, III, April, 1878, pp. 102-103.
- 1879. A partial list of the Birds of Central California. Proc. U. S. Nat. Mus., 1, March, 1879, pp. 388-449.
- 1883. Catalogue of a Collection of Birds made at various points along the western Coast of Lower California, north of Cape St. Eugenio. Proc. U. S. Nat. Mus., v, March 21, 1883, pp. 527-532. [Edited by R. Ridgway.]
  - Catalogue of a Collection of Birds made near the Southern Extremity of the Peninsula of Lower California. Proc. U. S. Nat. Mus., v, March, 1883, pp. 532-550. [Edited by R. Ridgway.]
  - List of birds found at Guaymas, Sonora, in December, 1882, and April, 1883. Proc. U. S. Nat. Mus., vi, December, 1883, pp. 343-344.
  - Second Catalogue of a Collection of Birds made near the Southern Extremity of Lower California. Proc. U. S. Nat. Mus., vi, December, 1883, pp. 344-352. [Edited by R. Ridgway.]
- 1887. A Few Words to the Young Ornithologists of California. West Amer. Scientist, December, 1887, pp. 227-230.

- 1889. Description of a New Thrush from Calaveras County, California. Proc. Calif. Acad. Sci., 2nd ser., 11, June, 1889, pp. 18-19.
  - The Hummingbirds of the Pacific Coast North of Cape St. Lucas. West Amer. Scientist, vi, September, 1889, pp. 109-110.
  - The Small Thrushes of California. Proc. Calif. Acad. Sci., 2nd ser., II, October, 1889, pp. 57-69.
- 1890. Migrations of the Deer of the Sierra Nevada. Zoe, I, June, 1890, pp. 121-122.

  Land Birds of the Pacific District (=Occasional Papers of the California Academy of Sciences, II). San Francisco: September, 1890, 8vo, pp. 1-274.
- 1891. Notices of Some California Birds. Zoe, 11, July, 1891, pp. 97-100.
- 1892. Geese Which Occur in California. Zoe, III, July, 1892, pp. 96-101.
  Some of the Methods and Implements by which the Pacific Coast Indians Obtain Game. Zoe, III, July, 1892, pp. 120-124.
  Zonotrichia Albicollis in California. Zoe, III, July, 1892, p. 117.

Food of the Grouse and Mountain Quail of Central California. Zoe, III, October, 1892, pp. 232-234.

Relics from an Indian Burying Ground. Zoe, III, October, 1892, pp. 200-201. On Numenius Borealis in California. Zoe, III, October, 1892, p. 257.

- 1893. The Effect of Climate upon Pacific Coast Birds. Zoe, III, January, 1893, p. 331.
- 1896. Songs of the Western Meadowlark. Auk, XIII, January, 1896, pp. 29-30.
- 1898. The Song of the Western Meadow Lark. Auk, xv, January, 1898, pp. 56-57.
- 1899. Nesting of Hylocichla aonalaschkae auduboni in the Sierra Nevadas. Bull. Cooper Orn. Club, I, March, 1899, p. 21.
   Hylocichla Ustulata Oedica in the Sierra Nevadas. Bull. Cooper Orn. Club, I, March, 1899, p. 29.
- 1900. Early Migration at Stockton, Cal. Condor, II, July, 1900, p. 89.
   Tape Worm in Young Mountain Quail. Condor, II, July, 1900, p. 91.
   The White-crowned Sparrow. Condor, II, November, 1900, p. 134.
   Are Blackbirds Injurious or Beneficial? Condor, II, November, 1900, pp. 139-140.
- 1901. Chipmunks. Condor, III, January, 1901, p. 3.
  May in the High Sierras. Condor, III, March, 1901, pp. 31-32.
  April and May Bird-life at Stockton, California. Bird-Lore, III, April, 1901, p. 67.
  Summer Birds of Stockton, California. Bird-Lore, III, June, 1901, pp. 104-105.
  Parasites in Birds. Condor, III, July, 1901, pp. 104-105.
  Birds of Stockton and Vicinity. Bird-Lore, III, August, 1901, pp. 137-138.
  An Additional Specimen of Nyctale from Lake Tahoe. Condor, III, November, 1901, pp. 144-145.
- 1903. Voracity of Albatrosses. Condor, v, January, 1903, p. 17.
   The Fall Migration of Oreortyx pictus plumiferus. Condor, v, January, 1903, p. 18.
   The Snowflake and Other Unusual Birds at Marysville. Condor, v, January, 1903, p. 19.
   Curious Trait of Thick-billed Sparrow. Condor, v, May, 1903, p. 79.
- 1904. Explanatory. Condor, vi, May, 1904, pp. 74-76.
- Snow-bound. Condor, vII, May, 1905, p. 82.
   The Irrepressible Oregon Chickadee. Condor, vII, May, 1905, pp. 82-83.
   Corrections [in regard to Lanius borealis in California]. Condor, vII, May, 1905, p. 83.

Plegadis guarana at Stockton, Cal. Condor, VII, July, 1905, p. 112. Date of Arrival of Purple Martin at Stockton, Cal. Condor, VII, July, 1905, p. 113.

Palo Alto, California, February 6, 1918.