CASSINIA

PROCEEDINGS OF THE DELAWARE VALLEY ORNITHOLOGICAL CLUB

No. XXIII. PHILADELPHIA, PA. 1919.

William Loyd Baily, Sr.

By WM. L. Baily

This attempt to present a short account of the life of my uncle, whose name I bear, has been made with very limited information; but "before the dust of ages any further dims the fragments" at hand, it is thought high time that a record should be made of one whose life was not only exemplary, but who by his rare accomplishments is entitled to recognition among the eminent naturalists of his day.

William Loyd Baily, son of Joshua Baily, Jr., and Elizabeth Loyd was born May 28, 1828, and died March 25, 1861, in the thirty-third year of his age.

His father was a dry-goods merchant of the firm of Longstreth & Baily, Philadelphia, and his mother, the daughter of Thomas Loyd, a prominent merchant of the same city, and a lineal descendant of Thomas Loyd of Wales who came to this country among the early colonists of William Penn. William Baily, the youngest of seven children, was born in Church Alley west of Second, then a residential street, and under the shadow of the famous Christ Church. Soon after the death of his father in
1832, and when he was about four years old the family moved to 1309 Filbert Street (old number 139), adjoining the spacious house and flower garden of William’s uncle, Isaac Loyd.

Although I have made a careful search, I have so far been able to find only a few letters referring to his early life, and no lists or note-book data of any kind referring to birds, flowers, etc., to which so much of his attention was devoted. Most of his letters refer principally to family interests and have little value in connection with the scientific side of his life.

One of the earliest letters that I have found was written to his mother when he was thirteen years old, from Westtown, Chester Co., Pa., where he then attended school and was dated third month, 1841. The letter says: “I have succeeded in making a forcing pump which throws a continued stream, but does not throw it far, and also an engine which does not send a very good stream, but sends what it does all the way across the wash room nearly. Please send me a little cement.”

His mother and brothers lived at the time at the Filbert Street house, and although the woods and fields were not far away, no doubt William found the beautiful country around Westtown most congenial to his study of natural history, notwithstanding his mind was bent upon mechanical pursuits as well.

The account of Wm. L. Baily in the “Baily Genealogy”, edited by Gilbert Cope, reads as follows: “On leaving school he joined his brothers in the dry-goods business; at the same time he gave much attention to mechanical pursuits for which he seemed to have a predilection. Many articles elaborately constructed attested his ingenuity and skill. Among these was a power loom for weaving tapestries, an invention he did not live to perfect, but his ideas were availed of by others who carried his work to completion.

“A close student of nature from early life; trees, flowers and birds were his familiar companions. His opportunities for pursuing such studies were greatly increased in his later years, when failure of health made outdoor life more desirable. He was proficient both with pencil and brush, and he invented a process for reproducing on paper the brilliant hues, especially
of hummingbirds, an art which obtained for him much credit among ornithologists both in this country and abroad. As a taxidermist he had few amateur equals, as many of his prepared specimens show. He published a little book on 'Wild Flowers' and another entitled 'Our Own Birds', which became quite popular and went through several editions.'

His correspondence indicated that he had scarcely become of age when his health began to break down, with a gradually weakening effect, and during the last few months of his life he was confined to his bed. Even though bedridden, he was still deeply engrossed with his favorite work. He had published his book on 'Trees, Plants and Flowers', about 1857, but his bird book was still unpublished when he died. John Collins, his brother-in-law and close friend, read over to him the concluding paragraph of 'Our Own Birds' on March ninth, 1861, about two weeks before his death, and shortly afterward completed on wood two bird plates from Audubon, the last two for the book. John Collins also aided him in the preparation of his work on the hummingbirds hereafter referred to.

The following minute made about three months before William's death is interesting in this connection: "At a meeting of the Executive Committee of the Association of Friends for the Diffusion of Religious and useful knowledge, held 1 Mo. 1, 1861. A communication was now received from our friend William L. Baily, offering us for publication a manuscript prepared by himself on the birds of America, accompanied with a subscription of one hundred dollars toward the cost of stereotype plates and engravings.

"This very liberal offer was accepted, and the Secretary was directed to send a copy of this minute to the author, with the thanks of the Committee.

"Taken from the Minutes.

Joseph Potts,
Secretary."

The book was published in 1863, two years after his death, by the Association above mentioned, and being written in a popular style had a wide circulation. In those days it could be found upon the shelves of most ornithologists and lovers of
birds. A second edition was published in 1869 by J. B. Lippincott & Co., a third edition appeared in 1879 and a fourth in 1885. His publication on "Trees, Plants and Flowers" was incorporated with the edition of 1879.

I have in my possession an undated manuscript book entitled "Wrens and Warbler Plates", with pictures drawn and colored presumably while yet in his teens, and although they are not nearly up to the standard of his later work, they show care, neatness and system.

His greatest achievement, however, was his hand-painted work on the "Trochilidae" (Humming Birds) which stands out boldly as an example of unusual skill and ability and imparts a clear knowledge of the subject in hand. In the fifty-three plates comprised in the four parts all but a few of the birds are his own poses, and although he never saw but one living species of hummingbird, the Rubythroat, his sketches of other birds must have aided him in bringing to life as it were, the dead skins before him. It is possible, too, that he made his drawings from his own mounted specimens, and from specimens at the Academy of Natural Sciences, which he mentions in at least one instance.

It must also be taken into account that these drawings are originals which were never reproduced and had not the advantage of the engraver's touch or corrections, upon which artists are often so much dependent. Particular comment has been made by experts who have examined this work on the life-like pose of the birds, the perfect balance of the body, whether in the air or at rest, and especially on the harmony of the color and selection of the flowers which appear with nearly every plate. The species represented, as the preface states, are birds of the far west, Central and South America, many of them rare varieties. The text is also all handwork and the title page of each part is especially well executed. The four bound volumes in which the work is arranged are quarto size and the plates are drawn on rough-surfaced, cream-tinted bristol board.

The first part was largely prepared in 1854, and with the second was completed in 1855; the third part was completed in 1857 and the fourth in 1858, although the last was never en-
tirely finished as to the text and a few of the plates, due no doubt to the author’s failing health.

The text gives the common and scientific name of each bird, dimensions, habitat and a short description of its habits, nesting, etc., and in the case of rare species the name of the collector. For instance the California Bluebeard, he described as having been discovered by a party under the command of Lt. Whipple on the Colorado River during the winter of 1853–54, from which specimens his drawing was made.

The introduction to Part 2 which he entitled “Haunts and Habits of Humming Birds”, is a very interesting description of the main characteristics of the family, which comprised three hundred and twenty species at the date of his writing. He makes particular mention of the fact that the recent discoveries of species was particularly “due to the energetic exertions of John Gould, whose collectors had distributed themselves throughout America in search of new varieties”. No doubt Baily’s correspondence with such collectors resulted in bringing to hand many specimens from which he prepared his plates.

William Baily was also interested in minerals as in indicated by the portion of a letter dated Millville, 8/10/1847, from one Theophilus, and when William was 19 years old: “The notice of thy visit to Concordville and of our friends the Trimbles was interesting, although I did not expect thee would get the mineral fever again, as years ago that gave way to the bird stuffing mania, and I thought it was a disease of which we need not fear a recurrence.”

Perhaps his most interesting accomplishment was his invention of portraying on paper the iridescence on the plumage of hummingbirds. Some letters, of which I possess the originals, illustrate several interesting facts concerning this unique and valuable process. These letters show that as early as 1854 William Baily had used the process and had shown and sent samples of his work to various ornithologists and friends. John Gould had already published six parts of his “Monograph of the Trochilidae”, when in reply to a letter from Wm. Baily he wrote as follows:
My dear Sir:

On my return to London after a seven weeks’ absence, I find your friendly letter of the 31st of August and beg you will accept my best thanks for the interest you are pleased to express in my work on the Trochilidae and the suggestion you have made for its improvement. I have not yet had time to ascertain its value, but will take an early opportunity of doing so; in the meantime, if you could carry into effect your kind offer to send me one or two of your plates for inspection, I would be obliged. As you will see by the enclosed, the value of Gelatine as a transparent medium has not escaped my notice, as I have printed on it, but I had not thought of employing it in the way you mention. Any hints therefore as to the mode of the application, etc., will be acceptable to me.

I regret to say I cannot let you have any particular part of the Trochilidae, as were I to do so, I could not replace it and thus a copy of the entire work would be spoiled. Most of the copies are already subscribed for, and I have little doubt that like some of my other publications, every copy will be sold by the time it is completed. You are probably aware that it appears at the rate of 2 parts a year, price three Guineas each. Six parts have appeared, and I should not object to receive a subscriber’s name who would take 3 parts a year until he has arrived at the current numbers for the year, when of course, he would only have to take two. Perhaps such an arrangement might suit you.

Reciprocating your good feelings,

I remain,

My dear Sir,

Yours very truly,

JOHN GOULD.

In March of the following year, 1855, another letter written to Gould was replied to on August 8, of the same year as follows:

My dear Sir:

Your friend Mr. Sharpe duly forwarded me your letter of the 3rd of March and the accompanying drawings, for which I beg you will accept my best thanks. I have examined them with much interest and certainly consider them to be very superior, the Bartail especially being very near to nature. I fear, however, I shall not be able to turn your kind attention to account, my own process being performed with greater rapidity, besides which the making of a single or a few drawings being one thing, the preparation of many thou-
sands another. In the account you have kindly sent me of your modus operandi, you say, "previous to taking my impression, I print the gold or silver foil in its proper place". This passage I do not quite understand; perhaps when you next write, you will be so good as to render your meaning a little more clear. With respect to sending you a list of the Hummingbirds inhabiting the North American Continent north of the Isthmus of Panama, I regret to say that it is not possible for me to do this, as at present a correct or satisfactory list cannot be made; still it may be ere long, as my work on the Trochilidae is now fast drawing to a close; the two parts for the present year are ready, and will soon be sent to Philadelphia. When you have an opportunity of examining them, I feel assured you will be much pleased with the numerous interesting species you will find therein.

As soon as I have a moment of leisure, I will select a few impressions from my duplicate plates I may have over, and beg you to accept them in return for those you have so kindly sent me. Perhaps you will say how they may best be forwarded to you? I presume as I have not seen Mr. Sharpe that he has returned ere this; if not, he would probably take charge of them. In the meantime, I remain,

My dear Sir,
Yours very truly,
JOHN GOULD.

A third letter from Mr. Gould is especially significant in showing that he was to some extent dependent upon his friend in America in procuring rare specimens of birds, offering however compensation to the collector of the specimens. Bailly had evidently offered to furnish the specimens referred to, and no doubt considered it a pleasure to supply them to his distinguished English acquaintance. Gould's proposed trip to America is an interesting item of the letter, which is here given in full:

LONDON, 20 BROAD STREET,
GOLDEN SQUARE,
JUNE 4, 1856.

My dear Sir:

I am in receipt of your little parcel containing a plate and description of Mellinuga albocoronata for which I am much obliged. I have been aware of the existence of this bird for some time, and have also had by me for some months a copy of the publication from which the above were taken, but the bird itself I do not possess, it being one of the new species not contained in my collection. You will therefore confer a very great favor by procuring me some specimens. I am willing to pay the collector any reasonable amount for 3 or 4 good males and a female. Of course, if so many cannot be procured, I
must of course be satisfied with what I can get. My reason for requiring 3 or 4 males is this: I mount my birds in groups and give a compartment in a case to each species. I will either remit money for these birds or an equivalent in species you do not possess, and I may have to spare, as may be most agreeable to you. Whether the remittance be in money or birds, it shall be made as soon as I receive the specimens. I say this because I must plead guilty of neglect in not sending you the plates I have so long promised you; that is not, however, altogether my fault, as I gave orders that they should be sent in Mr. Wilson’s parcel last year, which I find was not done. I am now, however, engaged in preparing plates 11 and 12, and will take care that you are thought of when they are forwarded. I had intended to have written out to Belan to obtain specimens of the Mellisuga albocoronata, but shall now avail myself of your obliging offer. Could you not at this moment procure me a male and a female? as I much wish to see them. Others might follow at your convenience. I am also very desirous of obtaining 2 or 3 specimens of the Hook-billed species Eutoseres aquila which flies in the same forest with the M. albocoronata where also will doubtless be found other fine species with which you are more likely to become acquainted in America than we are in London. If any novelties should come to hand, I should be very glad of a line saying what they are. It is just possible I may be in America next year, and have the pleasure of seeing you and your improvements in coloring in which I am very glad to hear of your success. In the meantime, hoping soon to have a few lines from you in reply to this troublesome communication, I remain

My dear Sir,

Yours very truly,

JOHN GOULD.

The following letter from Victor G. Audubon, son of John J. Audubon, indicated that William Baily had communicated his process of coloring to other publishers:

NEW YORK, Feb. 27, 1855.

Wm. L. Baily, Esq.,

Dear Sir:

Your esteemed favor of the 24th inst. came to hand yesterday, and received my attention.

I hope to be in Philadelphia next week and will then call and see you, and examine the new method by which you color the Hummingbirds, and talk with you on the subject of my new edition of the “Birds of America”.

Yours my dear Sir,

Very truly,

V. G. AUDUBON.

Under date of March 26, 1855, J. H. McIlvain of Philadel-
phia writes to Wm. L. Baily thanking him for the beautiful picture of the male and female Cape May Warbler which he "accepts with special favor". He adds: "Permit me to remark that they are beautiful and indicate artistic taste and quality of execution in a high degree, in which I am not fulsome. They are a spirited facsimile of Audubon, but in my opinion had thee had recourse to the natural subject, thee would have excelled him, in truthfulness and delineation."

On November 10, 1855, Geo. N. Lawrence says: "The remarkable drawing of Humming Birds is very beautiful and remarkably true to nature; the metallic coloring is very fine in effect and different from anything of the kind I have heretofore seen. If Gould has availed himself of your instructions in using these tints, he certainly should acknowledge it in his work."

Again on July 2, 1856, Mr. Lawrence writes: "I was much gratified to find the Humming Bird so favorably thought of by Mr. Gould."

In the preface of John Gould's superb "Monograph of the Trochilidae", Vol. 1, p. vii, is contained the following paragraph:

"Numerous attempts have been made at various times to give something like a representation of the glittering hues with which this group of birds is adorned; but all had ended in disappointment and the subject seemed so fraught with difficulty that I at first dispaired of its accomplishment. I determined, however, to make the trial, and, after a series of lengthened, troublesome, and costly experiments, I have, I trust, partially, if not completely succeeded. Similar attempts were simultaneously carried on in America by Wm. L. Baily, Esq., who with the utmost kindness and liberality explained his process to me and although I have not adopted it, I must in fairness admit that it is fully as successful as my own. I shall always entertain a lively remembrance of the pleasant day I spent with this gentleman in Philadelphia. It was in his company that I first saw a living Humming Bird, in a garden which has become classic ground to all true Americans, from the pleasing associations connected with its former possessor, the great and good Bartram, and from its having been one of the haunts of the celebrated Wilson, than whom no one has written more pleasingly on the only species of this family which inhabit that part of North America, the Trochilus Cotubris."

In Gould's account of the Rubythroat (Vol III, p. 131), he says:
"It was on the 21st of May, 1857, that my earnest day thoughts and not infrequent night-dreams of thirty years were realized by the sight of a Humming Bird. The period of my visit to America being somewhat early in the season my attempts to discover a living 'Hummer' in the neighborhood of New York during the second week of May were futile, and it was not until I arrived at the more southern city of Philadelphia that my wish was gratified by the sight of a single male in the celebrated Bartram's Gardens, whither I was conducted by my friend Mr. Wm. L. Baily, from whom I also received many other kind attentions.

"The almost total absence of Humming Birds around Philadelphia proved to me that I was still too early for them, the lateness of the season of 1857 having retarded their movement. I therefore, determined to proceed further south to Washington, where in the gardens of the Capitol, I had the pleasure of meeting with them in great numbers; in lieu of the single individual in Bartram's Gardens, I was now gratified by the sight of from fifty to sixty on a single tree."

It has always been represented by different members of the Baily family including his own brothers that William L. Baily was the first to obtain the iridescent effect on colored drawings of Hummingbirds, and also that John Gould made use of the process of which Baily had given him the exact details. The foregoing correspondence shows that Baily had as early as August 31, 1854, devised the process for obtaining iridescent effects and had so written under the above date a friendly letter to Gould gratuitously offering his method as an improvement upon Gould's. Gould acknowledges in his reply that he has up to that time not thought of employing gelatine in the way Baily mentioned, and asks Baily to carry into effect his kind offer to send him one or two plates for inspection. He also continues, "Any hints therefore as to the mode of application will be acceptable". It is also a fact that up to that time no goldleaf iridescent coloring had been used on Gould's plates of Hummingbirds of which six parts had already been published. I have been unable to find in the letters to William Baily any description of Gould's process or any evidence that Baily had knowledge of or had asked for Gould's method. Mr. Gould also acknowledges that Baily had given him the first idea of this remarkable improvement which Baily had already perfected, but when the preface of his book was written sometime later
his memory seems to have failed him when he mentioned his own and Baily's simultaneous attempts.

That a kindly feeling existed between Gould and Baily is evident not only in Gould's preface above quoted, but also in the preface of Baily's book which is herewith presented from his "Trochilidae," part 2, page 14, 1855, as follows:

"Linnaeus classified them (the Humming Birds) under the generic name of Trochilus to which in the present work I have preferred adhering, in order to avoid all errors into which subsequent naturalists may have fallen in their anxiety to explain more fully the distinguishing features of the separate species. Yet I cannot but admire the indefatigable zeal manifested by Gould in defining the limits, and arranging the species of each of the subgenera and adopting a nomenclature, suited to their peculiarities, and to whose zeal and deep research his beautiful work on the Trochilidae must ever stand as a monument."

Baily's admiration for Gould prompted him to adorn his third part of Trochilidae with a portrait of his friend as a frontispiece. There must have been also some reciprocal understanding between them in the preparation of their works, as the following quotation taken from the preface of Part I shows: "In preparing the following illustrations, in a few instances I have acted the part of a mere copyist, although I have mostly taken nature as the guide and have endeavored to follow it closely." As to the text he adds: "For the most reliable information relating to some obscure species I am indebted mostly to my friend John Gould of London, whose excellent work now in course of publication has proved a valuable assistant and from which I have borrowed largely."

Baily was not a collector in the usual sense of the word, as he was never known to have killed a bird. His sketching was largely done in the open from the natural bird, and his nephew, Dr. Alfred W. Baily, still remembers him very vividly making outdoor sketches of birds in their various attitudes, making at least twenty in one instance, of details and poses. He delighted in his work, especially in opportunities of this kind. Those who knew him have stated to me that he had a most kindly nature, was polite and considerate to those around him, always interesting, and was the soul of openheartedness and unselfish-
ness. If he knew anything or had anything that he thought would help someone else, it was his even without asking, and he never thought of reserving any credit to himself. He was so honest that he expected others to be honest. He apparently made no collection of eggs, and the skins obtained through others and which he so beautifully transformed into mounted specimens, attest his remarkable skill as a taxidermist. He was not only in the habit of sending bird pictures to his friends and relatives but of giving away mounted birds, some of them artistically grouped under glass cases, one of which the writer owns. The specimens in this case are in a remarkably good condition. They consist principally of foreign birds, the central one being an English Cuckoo, and all are mounted in wonderfully life-like postures.

His knowledge of trees, flowers, and even minerals was considerable, as his little book on "Trees, Plants and Flowers" shows. He lived at a time when the ornithologists of Philadelphia were most alive in the search of bird knowledge, and extended collecting trips to the West and to Central America were indulged in by those men whose fame has come down to us as the discoverers of many birds well known to us to-day.

He was an intimate correspondent of George N. Lawrence who supplied him to some extent with Hummingbirds from the tropics; also of J. G. Bell who made a large collection of Hummingbirds, J. H. McIlvain, John Cassin, Spencer F. Baird, V. G. Audubon and Asa Gray the botanist.

On account of declining health he was obliged to give up the business of dry goods which he carried on with his brothers, and to seek the country air. For several years, beginning in the spring of 1856, he spent much time with his brother Thomas, who had taken to farming at Rockton near West Chester. His winters were spent with his mother and aunts at 1309 Filbert St., where his niece Mrs. Joseph P. Remington, daughter of John Collins, well remembers his studious work on the Hummingbird books.

Records show that he visited Newport, R. I., June 13, 1856, where he went especially to attend the Yearly Meeting of the Friends. On July 23, 1856, he was at Kirkwood, Penna.,
where his brother had moved from Rockton, and was there again in June, 1857. He speaks of a visit to Haverford College, July 18, 1856, to see his brother-in-law Johnny Lang. May 13, 1857, he made a trip by sea to Charleston, S. C., and speaks of seeing a school of whales. From there he went to Aiken, S. C., evidently a health resort.

Ever since 1849 when he was 21 years old he has referred to his cough, and at Lenox, Mass., in 1851, he refers to the pain caused by leaning over to write. He visited Clearfield in the Allegheny Mountains, June 26, 1852, with his brother Thomas. On his way to Aiken five years later he speaks of his condition as discouraging, but as well satisfied with his lot.

He was at Cape May, N. J., in May, the year uncertain. These few localities which are about all I can find any mention of, indicate that his travels were very limited, and I regret to find in his letters almost no mention of birds except in the most general terms.

A number of bills for the purchase of horses and buggies and for horse hire are evidence that he was obliged to drive or ride a great deal of his time even as far back as 1852 and 1853, and no doubt his favorite haunts were reached by this method of conveyance.

Not the least of admiration is bestowed upon our modest ornithologist for his remarkable energy and patient persistence in the face of a wasting disease that kept tugging at his constitution during the entire twelve years of his maturity. Upon his death his body was interned in Friends' Burial Ground, Sixteenth and Race Sts., Philadelphia; but some years ago when it was proposed to use these grounds for school purposes, it was transferred to the Friends' Western Burial Grounds on Sixty-third St., where it now lies with the bodies of other members of the family.